United States Department of Agriculture

Grand Targhee Master Development Plan Projects

Final Environmental Impact Statement



Prepared for:
US Department of Agriculture – Forest Service
Caribou-Targhee National Forest

By:
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Abstract

Final Environmental Impact Statement for the Grand Targhee Master Development Plan Projects

Caribou-Targhee National Forest

Teton County, WY

May 2026

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Abstract: This Final Environmental Impact Statement (FEIS) has been prepared to analyze and disclose the estimated environmental effects of projects proposed in and adjacent to the existing Grand Targhee Resort (GTR) Special Use Permit (SUP) area on National Forest System (NFS) lands within the Caribou-Targhee National Forest (CTNF). Five alternatives are analyzed in detail in this FEIS: Alternative 1 (No Action Alternative), Alternative 2 (Proposed Action), Alternative 3 – No SUP Expansion, Alternative 4 – South Bowl, No Mono Trees, and Alternative 5 – Mono Trees, No South Bowl. Alternative 2 includes the following elements: development of a 266-acre SUP boundary expansion in South Bowl; development of a 600-acre SUP boundary expansion in Mono Trees; development of 157 acres of traditional terrain, including 60 acres within the South Bowl SUP and 97 acres within the Mono Trees SUP; construction of both the South Bowl lift and Mono Trees lift to provide lift access to terrain in the proposed SUP areas; a guest facility at the top and bottom terminal of the proposed South Bowl lift and a new Lightning Ridge guest facility at the top terminal of the proposed Mono Trees lift; two construction, access, and maintenance routes within the proposed SUP areas; implementation of two avalaunchers in the South Bowl SUP area; replacement of two lifts within the existing SUP; construction of four new lifts within the existing SUP; development of 214 acres of traditional terrain, including 550 acres of gladed terrain within the existing SUP; construction, reclamation, and improvements on administrative routes within the existing SUP; implementation of 57 acres of snowmaking within the existing SUP; construction of a snowmobile rescue catch within the existing SUP; construction of five new guest service facilities within

the existing SUP; construction of a snow tubing facility within the existing SUP; construction of Nordic, snowshoe, and fat biking trails within the existing SUP; construction of 29 miles of mountain bike trails within the existing SUP; and implementation of various summer activities within the summer activity zone, which could include a canopy tour, aerial adventure course, or zip line course. Alternative 3 includes only the expansions within the existing SUP area, Alternative 4 includes the expansions within the existing SUP area including within the South Bowl proposed SUP, and Alternative 5 includes the expansions within the existing SUP including the Mono Trees proposed SUP. Components of all five alternatives are included in **Chapter 2**.

The FEIS discusses the purpose and need for the project; alternatives considered in detail as well as alternatives dismissed from detailed analysis; potential direct, indirect, and cumulative impacts of each alternative; and best management practices and project design criteria.

Executive Summary

The proposed projects analyzed in this document constitute a federal action, which has the potential to affect the quality of the human environment on public lands administered by the United States Forest Service (Forest Service). Therefore, this project must be analyzed pursuant to the National Environmental Policy Act of 1969 (NEPA). Under NEPA, federal agencies must carefully consider environmental concerns in their decision-making processes and provide relevant information to the public for review and comment.

The Forest Service has prepared this Final EIS (FEIS) in compliance with NEPA and other relevant federal and state laws and regulations. This FEIS contains analyses consistent with NEPA and Forest Service policy. On July 3, 2025, the U.S. Department of Agriculture (USDA) released interim NEPA regulations at 7 CFR § 1b and rescinded the Forest Service NEPA regulations at 36 CFR § 220. The regulations provide agencies with discretion to use either the new regulations, or the previous agency-specific regulations (36 CFR § 220) and the 2020 version of the Council on Environmental Quality (CEQ) NEPA regulations (40 CFR § 1500 – 1508) for projects already underway. The FEIS was prepared in with reference to the 2020 version of the CEQ regulations to the extent permitted by the Department of Agriculture's transition instructions.

This FEIS discloses potential direct, indirect, and cumulative environmental effects on the human and biological environment anticipated to result with implementation of each alternative. This FEIS also contains Forest Plan amendments that are subject to 36 CFR § 219 as further explained in **Appendix C. Forest Plan Amendments**. Additionally, it is intended to ensure that planning considers the environmental and social values of the study area and that potential resource conflicts are minimized or avoided.

Purpose and Need for Action

The Forest Service is responding to an application submitted under the National Forest Ski Area Permit Act of 1986 and Ski Area Recreational Opportunity Enhancement Act of 2011 (SAROEA) by GTR to implement projects from their accepted 2*018 Grand Targhee Resort Master Development Plan* (2018 GTR MDP).

The purpose of, and need for, the Forest Service's action is to decide whether to grant a special use permit (SUP) for the project. The Caribou-Targhee National Forest (CTNF) will consider the application for use of NFS lands and determine if the project is in the public interest and is appropriate, based on the 1997 Revised Forest Plan for the Targhee National Forest (1997 Forest Plan).

In the 2018 GTR MDP, GTR identified a need to improve the recreational experience and address shortcomings in their terrain offerings and operations in order to remain viable in the competitive destination skier/rider market. Specifically, GTR has identified a need to:

- Provide additional undeveloped, minimally maintained lift-served terrain and additional traditionally cleared alpine trails to enhance terrain variety and skiing experiences at GTR.
- Enhance the skiing experience for various ability levels of guests, by providing an appropriate learning progression in an uncongested beginner area and increasing the quantity of beginner, intermediate, and advanced-intermediate terrain to meet current and anticipated public demand.
- Improve skier circulation across the mountain through improvements to the efficiency of the lift and trail network and by providing more reliable and consistent snow coverage in key areas.
- Improve base area, guest services, operational facilities, and on-mountain services to meet the ever-increasing expectations of the local, regional, and destination skier markets.
- Expand alternative and non-winter activities to provide a variety of recreational options to guests and to utilize existing infrastructure more effectively during non-winter months.
- Ensure that risks to public safety associated with resort operations are managed to an extent that is reasonable and appropriate.

Summary of the Alternatives Analyzed in this Environmental Impact Statement

In addition to Alternative 2 – Proposed Action and Alternative 1 – No Action, Alternative 3 – No SUP Expansion; Alternative 4 – South Bowl, No Mono Trees; and Alternative 5 – Mono Trees, No South Bowl are also analyzed in detail within the FEIS. Refer to **Chapter 2** for a full description of each alternative. A table comparing each of these alternatives is available in **Appendix D**.

Alternative 1 – No Action Alternative

The No Action Alternative provides a baseline for comparing the effects of the action alternatives. The No Action Alternative essentially reflects a continuation of existing management practices without changes, additions, or upgrades to existing conditions as a result of this NEPA analysis. Under the No Action Alternative, none of the projects as described under Alternative 2 – Proposed Action would be implemented. Existing conditions can be seen in **Figure 2**.

Alternative 2 – Proposed Action

These projects include an expansion of the existing GTR SUP boundary, several lift replacements, realignments, and additions, terrain improvements, and the addition of guest services facilities to improve the guest experience. All components of Alternative 2 are depicted in **Figure 3**, **Figure 4**, and **Figure 5**. In short, an 866-acre SUP would be authorized on NFS lands. The SUP area would be divided into two noncontiguous areas: a 266-acre expansion into the South Bowl area, southwest to the existing SUP area,

and a 600-acre expansion into the Mono Trees area, southeast to the existing SUP area. Ski terrain in the form of cleared slopes and lift infrastructure. Alternative 2 includes the following elements:

- 266-acre expansion of the SUP into South Bowl;
- 600-acre expansion of the SUP into Mono Trees;
- Development of 60 acres of traditional terrain in the South Bowl SUP;
- Development of 97 acres of traditional terrain in the Mono Trees SUP;
- Construction of both the South Bowl and Mono Trees Lifts;
- Construction of a guest facility at the top and bottom terminal of the South Bowl Lift;
- Construction of a guest facility at Lightning Ridge in the top terminal of the Mono Trees Lift;
- Implementation of two avalaunchers in the South Bowl SUP area;
- Construction of two construction, access, and maintenance administrative routes within the proposed SUP areas; and
- Various projects within the existing SUP including replacing two lifts; constructing four new lifts; developing 214 acres of traditional terrain; developing 550 acres of gladed terrain; implementation of 57 acres of snowmaking; construction, reclamation, and improvements of administrative routes; installation of a snowmobile rescue catch; cconstruction of four new guest service facilities including storage and vault toilets; construction of a snow tubing facility; construction of Nordic, snowshoes, and fat biking trails; construction of 29 miles of mountain bike trails; and implementation of a various summer activities in the summer activity zone.

Alternative 3 – No SUP Expansion

Alternative 3 was developed in response to a variety of resource concerns by the CTNF interdisciplinary team and the public, associated with the SUP expansion into South Bowl and Mono Trees including wildlife, recreation, socioeconomics, and scenery. Specifically, Alternative 3 excludes any proposed expansion of the SUP, and only includes projects within the existing SUP area. All components of Alternative 3 are depicted in **Figure 2**. Project components included in Alternative 3 include:

- Constructing the new Crazy Horse and North Boundary Lifts; upgrading the Dreamcatcher and Shoshone Lifts, and constructing the new Palmer Platter Surface Lift and Lights along with the new teaching carpet;
- Implementing 107 acres of new traditional terrain, 107 acres of terrain improvements, 204 acres of proposed glades, and 45 acres of groomable glades;
- Construction, reclamation, and improvements of administrative routes, including eliminating steep and no longer necessary on-mountain access administrative routes, and constructing new administrative routes to bypass steep grades and improve mountain circulation and maintenance;
- Installation of 57 acres of snowmaking to improve lower-mountain circulation routes;
- Construction of full-service on-mountain guest services facilities at the summit of Fred’s Mountain and at the top terminal of the Sacajawea Lift, a facility at the top of the Shoshone Lift, two on-mountain guest facilities at Rick’s Basin and at the top of Lightning Ridge, and two storage and vault toilet facilities at the base of the North Boundary and Blackfoot Lifts;

- Constructing 29 miles of downhill biking, hiking and multi-use trails;
- Constructing a canopy tour/fly line, zip line, aerial adventure course, and disc golf course in the summer activity zone near the Shoshone Lift; and
- Constructing snow tubing facilities, and expansion and improvement of Nordic, snowshoeing and fat biking offerings.

Alternative 4 – South Bowl, No Mono Trees

Alternative 4 was developed in response to resource concerns by the CTNF interdisciplinary team and the public, including scenery, socioeconomics, public safety, and wildlife. Alternative 4 includes all projects proposed within the existing SUP, along with all projects proposed in the South Bowl SUP expansion. This would result in a 266-acre SUP expansion into South Bowl. Project elements proposed under Alternative 4 include:

- 266-acre expansion of the SUP into South Bowl;
- Development of 60 acres of traditional terrain in the South Bowl SUP;
- Construction of the South Bowl Lift;
- Construction of a guest facility at the top and bottom terminal of the South Bowl Lift;
- Implementation of two avalaunchers in the South Bowl SUP area;
- Construction of two construction, access, and maintenance administrative routes within the proposed SUP areas; and
- Various projects within the existing SUP including replacing two lifts; constructing four new lifts; developing 214 acres of traditional terrain; developing 550 acres of gladed terrain; implementation of 57 acres of snowmaking; construction, reclamation, and improvements of administrative routes; installation of a snowmobile rescue catch; construction of four new guest service facilities including storage and vault toilets; construction of a snow tubing facility; construction of Nordic, snowshoes, and fat biking trails; construction of 29 miles of mountain bike trails; and implementation of a various summer activities in the summer activity zone.

Alternative 5 – Mono Trees, No South Bowl

Alternative 5 was developed in response to resource concerns by the CTNF interdisciplinary team as well as by the public through the scoping process. Resource concerns that were taken into account during the development of Alternative 5 include wildlife, recreation, socioeconomics, and scenery. Alternative 5 only includes the proposed Mono Trees SUP expansion. This would be a 600-acre SUP expansion. Specifically, the project elements included in Alternative are:

- 600-acre expansion of the SUP into Mono Trees;
- Development of 97 acres of traditional terrain in the Mono Trees SUP;
- Construction of the Mono Trees Lift;
- Construction of a guest facility at Lightning Ridge in the top terminal of the Mono Trees Lift;
- Construction of two construction, access, and maintenance administrative routes within the proposed SUP areas; and

- Various projects within the existing SUP including replacing two lifts; constructing four new lifts; developing 214 acres of traditional terrain; developing 550 acres of gladed terrain; implementation of 57 acres of snowmaking; construction, reclamation, and improvements of administrative routes; installation of a snowmobile rescue catch; construction of four new guest service facilities including storage and vault toilets; construction of a snow tubing facility; construction of Nordic, snowshoes, and fat biking trails; construction of 29 miles of mountain bike trails; and implementation of a various summer activities in the summer activity zone.

Public Involvement

An initial 30-day scoping period began on August 26, 2020, when the Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) was published in the Federal Register. The scoping period was subsequently extended to 45 days to account for difficulties associated with the COVID-19 pandemic and the large volume of project materials. A scoping package, including a scoping notice identifying the Proposed Action and the corresponding Purpose and Need, was also prepared, approved, and sent to a list of individuals, organizations, and agencies. A legal notice was also published in the CTNF newspaper of record, the Post Register. During the 45-day scoping period, there was targeted outreach to specific stakeholders to gather input and answer questions on the project. Two web-based public scoping meetings were held via Microsoft Live Events on September 8 and September 10, 2020, to further inform the public of the projects identified in the scoping notice (virtual public scoping meetings were conducted rather than in-person meetings due to the COVID-19 pandemic). In addition, the public had ample access to project details through an interactive ArcGIS Story Map and project specific website that was created in addition to the CTNF's project website.

Scoping comments were accepted through mail, fax, telephone, email, and through the CTNF's project website. In total, 387 comment letters were received. From these comments, 1,338 substantive comments were extracted and categorized into the major themes expressed by commenters. These themes were reviewed in subsequent ID Team meetings (on November 23 and December 11, 2020) and were used to inform additional alternatives to the Proposed Action. These alternatives, as well as alternatives considered by dismissed from detailed analysis, are detailed in **Chapter 2**. The resource issues are discussed further in **Chapter 3**.

A Notice of Availability (NOA) for the Draft EIS was published in the Federal Register and a legal notice was published in the Post Register on March 21, 2025. This initiated a comment period on the Draft EIS, providing the public with the opportunity to comment for 90 days following publication of the legal notice. Comments on the Draft EIS were received until June 20, 2025. During this 90-day comment period one, public open house meeting was held at the Driggs City Center on April 17, 2025, to further inform the public of the publication of the Draft EIS and the analyses that were completed. Additional information was available on the CTNF project website. Comments were accepted from the following sources: email, web submission, and mailed in letters. During this comment period, a total of 1,341 unique comment letters were received, which included 544 form letters. From these unique comments and form letters, a total of 2,167 substantive comments were extracted. These substantive comments were then responded to in **Appendix E. Response to Comments** and edits to the EIS or associated technical reports were completed based on the information the substantive comments presented. Please refer to **Appendix E. Response to Comments** for more information.

Summary Comparison of Direct and Indirect Environmental Consequences

Table D-1 in **Appendix D** includes a summary of resource issues, indicators associated with those issues, and a comparison of environmental consequences for the No Action Alternative, Alternative 2, Alternative 3, Alternative 4, and Alternative 5. Detailed information on affected environment and environmental consequences considered in this analysis can be found in **Chapter 3**.

Contents

Chapter 1. Purpose and Need 1
1.1 Introduction 1
1.2 Background 3
1.3 Purpose and Need for Action 3
1.4 Proposed Action 4
1.5 Public Involvement 5
1.5.1 Public Scoping 5
1.5.2 Public Comment 6
1.6 Relevant Changes to the Proposed Action Since Project Scoping 6
1.7 Issues and Indicators 7
1.7.1 The Human Environment 8
1.7.2 The Physical and Biological Environment 11
1.8 Scope of the Analysis 16
1.9 Consistency with Forest Service Policy 16
1.9.1 Targhee National Forest Revised Forest Plan 17
1.9.2 2011 Ski Area Recreational Opportunity Enhancement Act 19
1.9.3 Forest Service Manual 2343.14 20
1.10 Decision to be Made 21
1.11 Other Necessary Permits or Consultation 21
Chapter 2. Description of Alternatives 23
2.1 Introduction 23
2.2 Alternatives Considered in Detail 23
2.2.1 Alternative 1 – No Action 23
2.2.2 Alternative 2 – Proposed Action 23
2.2.3 Alternative 3 – No SUP Expansion 36
2.2.4 Alternative 4 – South Bowl, No Mono Trees 38
2.2.5 Alternative 5 – Mono Trees, No South Bowl 40
2.3 Construction Practices Common to All Alternatives 41
2.3.1 Tree Removal 42
2.3.2 Administrative Routes 42
2.3.3 Ski Trails 43
2.3.4 Lifts 43
2.3.5 On-Mountain Facilities 44
2.3.6 Multi-Season Recreational Activities 44
2.4 Project Design Criteria 44
2.5 Alternatives Considered but Eliminated from Detailed Analysis 57
2.5.1 SUP Expansion and South Bowl Configuration with Three Lifts 57
2.5.2 SUP Expansion and Incorporation of South Bowl as Hike-To Only Terrain 58
2.5.3 South Bowl Interim Cat-Skiing 58
2.5.4 Alternatives Responding to Community Drinking Water Quality Concerns Raised During Scoping 58
2.5.5 Alternatives Without On-Mountain Facilities 58
2.5.6 Other Alternatives or Modifications Considered but Eliminated 59
2.6 Summary Comparison of Direct and Indirect Environmental Consequences 59

Chapter 3. Affected Environment and Environmental Consequences 60
3.1 Recreation 60
3.1.1 Scope of the Analysis 60
3.1.2 Federal, State, and Local Policy and Guidance 60
3.1.3 Affected Environment 61
3.1.4 Direct and Indirect Environmental Consequences 68
3.1.5 Cumulative Effects 85
3.1.6 Irreversible and Irretrievable Commitments of Resources 86
3.2 Scenery 87
3.2.1 Scope of the Analysis 87
3.2.2 Federal, State, and Local Policy and Guidance 87
3.2.3 Affected Environment 89
3.2.4 Direct and Indirect Environmental Consequences 96
3.2.5 Cumulative Effects 109
3.2.6 Irreversible and Irretrievable Commitments of Resources 110
3.3 Noise 110
3.3.1 Scope of the Analysis 110
3.3.2 Affected Environment 110
3.3.3 Direct and Indirect Environmental Consequences 112
3.3.4 Cumulative Effects 116
3.3.5 Irreversible and Irretrievable Commitments of Resources 117
3.4 Socioeconomics 117
3.4.1 Scope of the Analysis 117
3.4.2 Federal, State, and Local Policy and Guidance 117
3.4.3 Affected Environment 118
3.4.4 Direct and Indirect Environmental Consequences 130
3.4.5 Cumulative Effects 141
3.4.6 Irreversible and Irretrievable Commitments of Resources 146
3.5 Traffic and Parking 146
3.5.1 Scope of the Analysis 146
3.5.2 Affected Environment 146
3.5.3 Direct and Indirect Environmental Consequences 152
3.5.4 Cumulative Effects 167
3.5.5 Irreversible and Irretrievable Commitments of Resources 175
3.6 Cultural Resources 175
3.6.1 Scope of the Analysis 175
3.6.2 Affected Environment 176
3.6.3 Direct and Indirect Environmental Consequences 180
3.6.4 Cumulative Effects 184
3.6.5 Irreversible And Irretrievable Commitments Of Resources 185
3.7 Public Safety 185
3.7.1 Scope of the Analysis 185
3.7.2 Affected Environment 185
3.7.3 Direct and Indirect Environmental Consequences 188
3.7.4 Cumulative Effects 193
3.7.5 Irreversible and Irretrievable Commitments of Resources 193
3.8 Livestock and Grazing 193

3.8.1 Scope of the Analysis 193
3.8.2 Federal, State, and Local Policy and Guidance 194
3.8.3 Affected Environment 195
3.8.4 Direct and Indirect Environmental Consequences 197
3.8.5 Cumulative Effects 200
3.8.6 Irreversible and Irretrievable Commitments of Resources 201
3.9 Wilderness 201
3.9.1 Scope of Analysis 201
3.9.2 Federal, State, and Local Policy and Guidance 201
3.9.3 Affected Environment 204
3.9.4 Direct and Indirect Environmental Consequences 208
3.9.5 Cumulative Effects 216
3.9.6 Irreversible and Irretrievable Commitments of Resources 216
3.10 Air Quality 217
3.10.1 Scope of the Analysis 217
3.10.2 Federal, State, and Local Policy and Guidance 217
3.10.3 Affected Environment 219
3.10.4 Direct and Indirect Environmental Consequences 224
3.10.5 Cumulative Effects 232
3.10.6 Irreversible and Irretrievable Commitments of Resources 233
3.11 Climate Change 233
3.11.1 Scope of the Analysis 233
3.11.2 State and Local Policy and Guidance 234
3.11.3 Affected Environment 234
3.11.4 Direct and Indirect Environmental Consequences 246
3.11.5 Cumulative Effects 251
3.11.6 Irreversible and Irretrievable Commitments of Resources 252
3.12 Vegetation 252
3.12.1 Scope of Analysis 252
3.12.2 Federal, State, and Local Policy and Guidance 252
3.12.3 Affected Environment 254
3.12.4 Direct and Indirect Environmental Consequences 261
3.12.5 Cumulative Effects 280
3.12.6 Irreversible and Irretrievable Commitments of Resources 282
3.13 Wildlife 282
3.13.1 Scope of Analysis 282
3.13.2 Federal, State, and Local Policy and Guidance 283
3.13.3 Affected Environment 284
3.13.4 Direct and Indirect Environmental Consequences 303
3.13.5 Cumulative Effects 331
3.13.6 Irreversible and Irretrievable Commitments of Resources 332
3.14 Geology and Soils 333
3.14.1 Scope of the Analysis 333
3.14.2 Federal, State, and Local Policy and Guidance 333
3.14.3 Affected Environment 334
3.14.4 Direct and Indirect Environmental Consequences 336
3.14.5 Cumulative Effects 345

3.14.6 Irreversible and Irretrievable Commitments of Resources 346
3.15 Hydrology 346
3.15.1 Scope of the Analysis 346
3.15.2 Federal, State, and Local Policy and Guidance 347
3.15.3 Affected Environment 350
3.15.4 Direct and Indirect Environmental Consequences 354
3.15.5 Cumulative Effects 366
3.15.6 Irreversible and Irretrievable Commitments of Resources 366
3.16 Wetlands and Riparian Areas 367
3.16.1 Scope of the Analysis 367
3.16.2 Federal, State, and Local Policy and Guidance 367
3.16.3 Affected Environment 368
3.16.4 Direct and Indirect Environmental Consequences 372
3.16.5 Cumulative Effects 375
3.16.6 Irreversible and Irretrievable Commitments of Resources 376
Chapter 4. Consultation and Coordination 377
4.1 Preparers 377
4.2 Governments, Agencies, and Organizations Contacted 378
4.2.1 Tribal Governments 378
4.2.2 Federal Agencies 378
4.2.3 State Agencies 379
4.2.4 Local Government & Agencies 379
4.3 Agencies and Organizations Who Commented During the NEPA Process 379
Chapter 5. References 381
Chapter 6. Figures 396
Chapter 7. Glossary 416
Chapter 8. Index 425

List of Appendices

Appendix A – Cumulative Effects Projects
Appendix B – Forest Plan Consistency Analysis
Appendix C – Forest Plan Amendments
Appendix D – Comparison Summary of Direct and Indirect Consequences
Appendix E – Response to Comments

List of Tables

Table 2.2-1. Projected Disturbance Under the Proposed Action 23
Table 2.2-2. Projected Disturbance Under the Alternative 3 37
Table 2.2-3. Projected Disturbance Under the Alternative 4 39
Table 2.2-4. Projected Disturbance Under the Alternative 5 40
Table 2.4-1. Project Design Criteria 44
Table 3.1-1. Developed Terrain Network Distribution by Ability Level – Existing Conditions 62
Table 3.1-2. Annual Visitation at GTR 63
Table 3.1-3. Visitation Projections – Alternative 1 69
Table 3.1-4. Developed Terrain Network Distribution by Ability Level – Alternative 2 71
Table 3.1-5. Visitation Projections – Alternative 2 72
Table 3.1-6. Developed Terrain Network Distribution by Ability Level – Alternative 3 77
Table 3.1-7. Visitation Projections – Alternative 3 78
Table 3.1-8. Developed Terrain Network Distribution by Ability Level – Alternative 4 80
Table 3.1-9. Visitation Projections – Alternative 4 81
Table 3.1-10. Developed Terrain Network Distribution by Ability Level – Alternative 5 82
Table 3.1-11. Visitation Projections – Alternative 5 83
Table 3.3-1. Noise Levels for Common Sources 110
Table 3.4-1: Study Area Counties Median Household Income and Percentage of Population below the Poverty Level, 2020 119
Table 3.4-2. Study Area Counties Average Labor Force, 2016–2020 120
Table 3.4-3. Wages and Employment of Study Area Counties, 2020 122
Table 3.4-4. Grand Targhee Resort Employment 123
Table 3.4-5. Federal Land Payments to State and Local Governments by Study Area County (FY 2019) 125
Table 3.4-6: Federal Land Payments to Study Area County (2021) 125
Table 3.4-7: Grand Targhee Special Use Permit Fees (2010-2020) 126
Table 3.4-8: FTEs by Alternative associated with Teton County, Idaho 131
Table 3.4-9. Summary of GTR Winter Visitation by Alternative 132
Table 3.4-10. 2020 Spending Profile (Day vs. Overnight; $2020) 133
Table 3.4-11. Skier Visit Spending Distribution Percentages - Idaho 134
Table 3.4-12. Estimated Summer Spending as a Percent of Winter Spending 134
Table 3.4-13. Summary of Cumulative Effects by Alternative 143
Table 3.5-1. Existing Traffic Counts at Key Locations (Two-way) 148
Table 3.5-2. Existing LOS at Key Locations 150
Table 3.5-3. Existing Parking Lots 151
Table 3.5-4. Forecasted Traffic Volumes – No Action Alternative 153
Table 3.5-5. 2032/33 LOS at Key Locations – No Action Alternative 153
Table 3.5-6. Forecasted Traffic Volumes – Proposed Action – Winter 155
Table 3.5-7. Forecasted Traffic Volumes – Proposed Action – Summer 156
Table 3.5-8. 2032/33 LOS at Key Locations – Proposed Action 156
Table 3.5-9. Forecasted Traffic Volumes – Alternative 3 – Winter 159

Table 3.5-10. 2032/33 LOS at Key Locations – Alternative 3 160
Table 3.5-11. Forecasted Traffic Volumes – Alternative 4 – Winter 162
Table 3.5-12. 2032/33 LOS at Key Locations – Alternative 4 162
Table 3.5-13. Forecasted Traffic Volumes – Alternative 5 – Winter 164
Table 3.5-14. 2032/33 LOS at Key Locations – Alternative 5 165
Table 3.6-1. Newly recorded sites and isolated find in the project area. 180
Table 3.8-1. 1997 Forest Plan Management Prescription Characterizations within the Study Area 195
Table 3.10-1. EPA NAAQS 217
Table 3.10-2. Air Quality Monitors near GTR 220
Table 3.10-3. Wyoming Highway Vehicle Emissions, 2020 222
Table 3.10-4. Existing Traffic and Construction Vehicle Emissions 223
Table 3.12-1. Estimated Density of Whitebark Pine Trees Throughout the Project Area 256
Table 3.12-2. Element Occurrences (EO) of Keeled Bladderpod Across the Project Area 257
Table 3.12-3. Estimated Percentage of Late Seral and Old Growth Within TPW19 and TPW 20 259
Table 3.12-4. Noxious Weeds Observed at GTR During 2019 Field Surveys 260
Table 3.12-5. Estimated Impacts to Areas of WBP Under the Proposed Action 263
Table 3.12-6. Estimated Impacts by Disturbance Type to WBP Individuals and Small Stands Under the Proposed Action 263
Table 3.12-7. Estimated Density of Impacted WBP Under the Proposed Action 264
Table 3.12-8. Estimated Impacts to Different Types of WBP Individuals and Small Stands Under the Proposed Action 265
Table 3.12-9. Impacts to Keeled Bladderpod Under the Proposed Action as a Result of Heavy Disturbance 267
Table 3.12-10. Impacts to Keeled Bladderpod Under the Proposed Action as a Result of Moderate Disturbance 268
Table 3.12-11. Impacts to Keeled Bladderpod Under the Proposed Action as a Result of Light Disturbance 269
Table 3.12-12. Estimated Percentage of Late Seral and Old Growth Within TPW19 and TPW 20 270
Table 3.12-13. Estimated Impacts to Areas of WBP Under the Proposed Action 272
Table 3.12-14. Estimated Impacts by Disturbance Type to WBP Individuals and Small Stands Under the Proposed Action 272
Table 3.12-15. Estimated Density of Impacted WBP Under the Proposed Action 272
Table 3.12-16. Estimated Impacts to Different Types of WBP Individuals and Small Stands Under the Proposed Action 273
Table 3.12-17. Estimated Percentage of Late Seral and Old Growth Within TPW19 and TPW 20 275
Table 3.12-18. Estimated Percentage of Late Seral and Old Growth Within TPW19 and TPW 20 277
Table 3.12-19. Estimated Percentage of Late Seral and Old Growth Within TPW19 and TPW 20 279
Table 3.13-1. Threatened, endangered, proposed, and candidate wildlife species identified by IPaC for the proposed project and consideration for the analysis. 285
Table 3.13-2. Region 4 Sensitive Species with Potential Habitat in Project Area 290
Table 3.13-3. Forest Habitat Converted to Grass/Forb (acres) 314
Table 3.14-1. Acreages of Map Units within the Analysis Area 335
Table 3.14-2. Acreages of Map Units and Disturbance – Proposed Action 337
Table 3.14-3. Acreages of Map Units and Disturbance – Alternative 3 339
Table 3.14-4. Acreages of Map Units and Disturbance – Alternative 4 341
Table 3.14-5. Acreages of Map Units and Disturbance – Alternative 5 343
Table 3.15-1. Functional Rating of Linear Surface Water and Seasonal Drainages by Project Area. 352
Table 3.15-2. Non-linear Surface Water by Project Area. 353
Table 3.15-3. Estimate of Existing HD in TPWs 353
Table 3.15-4. Estimate of Existing HD in HUC6 Subwatersheds 353
Table 3.15-5. Estimate of the Project Generated HD in the TPWs for Alternative 2 357
Table 3.15-6. Estimate of the Project Generated HD in the HUC6 Subwatersheds for Alternative 2 357

Table 3.15-7. Estimate of the Combined HD in the TPWs for Alternative 2 357
Table 3.15-8. Estimate of the Combined HD in the HUC6 Subwatersheds for Alternative 2 358
Table 3.15-9. Estimate of the Project Generated HD in the TPWs for Alternative 3 360
Table 3.15-10. Estimate of the Project Generated HD in the HUC6 Subwatersheds for Alternative 3 360
Table 3.15-11. Estimate of the Combined HD in the TPWs for Alternative 3 361
Table 3.15-12. Estimate of the Combined HD in the HUC6 Subwatersheds for Alternative 3 361
Table 3.15-13. Estimate of the Project Generated HD in the TPWs for Alternative 4 362
Table 3.15-14. Estimate of the Project Generated HD in the HUC6 Subwatersheds for Alternative 4 362
Table 3.15-15. Estimate of the Combined HD in the TPWs for Alternative 4 363
Table 3.15-16. Estimate of the Combined HD in the HUC6 Subwatersheds for Alternative 4 363
Table 3.15-17. Estimate of the Project Generated HD in the TPWs for Alternative 5 364
Table 3.15-18. Estimate of the Project Generated HD in the HUC6 Subwatersheds for Alternative 5 364
Table 3.15-19. Estimate of the Combined HD in the TPWs for Alternative 5 365
Table 3.15-20. Estimate of the Combined HD in the HUC6 Subwatersheds for Alternative 5 365
Table 3.16-1. Wetlands within the Project Area 369
Table 3.16-2 AIZ Boundary Widths (from high water mark) by Water Type 369
Table 3.16-3. Existing and Previously Approved Impacts to AIZs by Project Area and Impact Activity 370
Table 3.16-4. Montana Wetland Assessment Method Qualitative Rating of Wetland Functions and Values 371
Table 3.16-5. Proposed Impacts Within the AIZ. 373
Table 3.16-6. Cumulative Impacts to the AIZ Under the Proposed Action 374
Table 4.1-1. Forest Service Interdisciplinary Team 377
Table 4.1-2. Consultant Team 378
Table 5.1-1. In-text Citations and Full References 381
Table A. 522
Table B. 523
Table C. 524
Table D. Snag requirements for 100 percent biological potential for woodpecker populations 525
Table E. Snag requirements for maintaining various percentages of biological potential for woodpecker populations (refer to Table D for snag dbh, snag height, and individual species requirements) 526
Table F. 526
Table G. 527
Table H. 528
Table I. 528
Table J. 529
Table K. 529
Table L. 530
Table M. 531
Table N. 532
Table O. 533
Table P. 534
Table D-1. Comparison Summary of Direct and Indirect Environmental Consequences 547
Table E-1. Substantive Comments ID Numbers 1025

List of Exhibits

Exhibit 3.5-1. Traffic Counter Locations Near GTR
Exhibit 3.8-1. Grazing Allotments Near GTR

Exhibit 3.11-1: Graph of Average Daily Minimum Temperature Until the Year 2100.
Exhibit 3.11-2: Graph of the Average Daily Maximum Temperature Until the Year 2100
Exhibit 3.11-3: Total Annual Precipitation Until the Year 2100
Exhibit 3.11-4: The Average Date by Which a Resort Must Reach an Average of 450 Hours of Snowmaking in Order to Create Sufficient Snowpack.
Exhibit 3.11-5: SWE Within the Intermountain Region per RCP 8.5
Exhibit 3.11-6: Snow Residence Time (SRT) within the Intermountain Region per RCP 8.5

List of Figures

Figure 1. Proposed Boundary Expansion & Forest Plan Management Prescriptions
Figure 2. Proposed Winter Projects within Existing GTRSUP Area (All Action Alternatives)
Figure 3. Proposed Summer Projects (All Action Alternatives)
Figure 4: Proposed Projects in South Bowl (Alternatives 2 and 4)
Figure 5: Proposed Projects in Mono Trees Area (Alternatives 2 and 5)
Figure 6: Existing and Proposed Snowmaking (All Action Alternatives)
Figure 7: Viewshed Associated with South Bowl Top and Bottom Lift Terminals
Figure 8: Viewshed Associated with Fred's Mountain Top Guest Facility
Figure 9a: Coulter Building Rooftop (View 3) Existing Conditions
Figure 9b: Coulter Building Rooftop (View 3) Proposed Conditions Visual Simulation
Figure 10a: Grand Teton Summit (View 5) Existing Conditions
Figure 10b: Grand Teton Summit (View 5) Proposed Conditions Visual Simulation
Figure 11a: Table Mountain (View 17) Existing Conditions
Figure 11b: Table Mountain (View 17) Proposed Conditions Visual Simulation
Figure 12a: Teton Canyon Campground (View 23) Existing Conditions
Figure 12b: Teton Canyon Campground (View 23) Proposed Conditions Visual Simulation
Figure 13: Fred’s Mountain Top Restaurant Visual Simulation Backside View
Figure 14: Fred’s Mountain Top Restaurant Visual Simulation Oblique View
Figure 15: Fred’s Mountain Top Restaurant Visual Simulation Southwest view

Acronyms and Abbreviations

AADT	Annual Average Daily Traffic
ACHP	Advisory Council on Historic Preservation
AIZ	Aquatic Influence Zone
AOT	At-One-Time
APE	Area of Potential Effect
AQD	Air Quality Division
AQI	Air Quality Index
AVO	Average Vehicle Occupancy
BAU	Bear Analysis Unit
BCR 10	Northern Rockies Bird Conservation Region
BEIG	Built Environment Image Guide
BMP	Best Management Practices
BYU-I	Brigham Young University-Idaho
CAA	Clean Air Act
CCC	Comfortable Carrying Capacity
CCVA	Climate Change Vulnerability Assessment
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
COOP	Cooperative Observer Program
CTNF	Caribou-Targhee National Forest
CWA	Clean Water Act
DBH	Diameter at breast height
DEQ	Department of Environmental Quality
DMP	Drain Management Plan
EAOT	Employees At One Time
EDRR	Early Detection and Rapid Response
EIA	Energy Information Administration
EIS	Environmental Impact Statement
EO	Element Occurrence
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FRREC	Fall River Rural Electric Cooperative
FSH	Forest Service Handbooks
FSM	Forest Service Manual
FTE	Full-time Employees
GTNP	Grand Teton National Park
GTR	Grand Targhee Resort
GYA	Greater Yellowstone Area
GYE	Greater Yellowstone Ecosystem
HD	Hydrologic Disturbance
HUC	Hydrologic Unit Code
IAP	Intermountain Adaptation Partnership
JSW	Jedediah Smith Wilderness
LAU	Lynx Analysis Unit
LAUs	Lynx Analysis Units
LCAS	Lynx Conservation Assessment and Strategy
LHTAC	Local Highway Technical Assistance Council
LOS	Level of Service
MDP	Master Development Plan
MOU	Memorandum of Understanding
NAAQS	National Ambient Air Quality Standards
NAGPRA	The Native American Grave Protection and Repatriation Act
NEI	National Emissions Inventory
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
NFS	National Forest System
NHPA	National Historic Preservation Act
NHRHP	National Register of Historic Places
NOA	Notice of Availability
NOI	Notice of Intent
NPS	National Park Service
NRLMD	Northern Rockies Lynx Management Direction
NWPS	National Wilderness Preservation System
NWPs	Specific Nationwide Permits
PA	Programmatic Agreement
PDC	Project Design Criteria
PIF	Partners in Flight
POW	Protect our Winters
PUD-PR	Planned Unit Development for Planned Resort
PWS	Public Water System
RCP	Representative Concentration Pathways
ROD	Record of Decision
ROS	Recreation Opportunity Spectrum
SAROEA	Ski Area Permit Act of 1986 and Ski Area Recreational Opportunity Enhancement Act of 2011
SH	State Highway
SHPO	State Historic Preservation Officer
SHRED	Ski Hill Resources for Economic Development
SNOTEL	Snow Telemetry
SOLC	Species of Local Concern
SRT	Snow Rain Transition
SUP	Special Use Permit

SWE	Snow Water Equivalent
TCSAR	Teton County Search and Rescue
TCISAR	Teton County Idaho Search and Rescue
TEP	Threatened or Endangered Species
TNF	Targhee National Forest
TPA	Trees per acre
TPW	Targhee Principal Watershed
TRB	Transportation Research Board
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
UTVs	Utility Task Vehicles
VMS	Visual Management System
VQO	Visual Quality Objectives
WBP	Whitebark Pine
WAQSR	Wyoming Air Quality Standards and Regulations
WSP	wilderness stewardship performance
WY-22	Wyoming State Highway 22
WYNDD	Wyoming Natural Diversity Database
YNP	Yellowstone National Park

Chapter 1. Purpose and Need

1.1 Introduction

The proposed improvements analyzed in this document constitute a federal action, which has the potential to affect the quality of the human environment on public lands administered by the United States Forest Service (Forest Service). Therefore, these projects must be analyzed pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended. Under NEPA, federal agencies must carefully consider environmental effects in their decision-making processes and provide relevant information to the public for review and comment.

The Forest Service has prepared this Final Environmental Impact Statement (FEIS) in compliance with NEPA and other relevant federal and state laws and regulations. This FEIS contains analyses consistent with NEPA, and Forest Service policy. On July 3, 2025, the U.S. Department of Agriculture (USDA) released interim NEPA regulations at 7 CFR § 1b and rescinded the Forest Service NEPA regulations at 36 CFR § 220. These regulations were made final on April 3, 2026. The regulations provide agencies with discretion to use either the new regulations, or the previous agency-specific regulations (36 CFR § 220) and the 2020 version of the CEQ (Council on Environmental Quality) NEPA regulations (40 CFR § 1500 – 1508) for projects already underway. The FEIS was prepared in with reference to the 2020 version of the CEQ regulations to the extent permitted by the Department of Agriculture's transition instructions.[1]

On January 20, 2025, President Trump issued Executive Order (EO) 14154, *Unleashing American Energy*. Executive Order 14154 established and advanced the President's policies toward accelerated permitting and deemed previous guidance inconsistent with policies prioritizing energy. The CEQ withdrew its interim NEPA guidance for the consideration of greenhouse gas emissions and climate change (88 Fed. Reg. 1196; January 9, 2023) to better align with policy objectives established within EO 14154 (90 Fed. Reg. 22472; May 28, 2025). Executive Order 14154 directed that "all agencies shall adhere to only relevant legislated requirements for environmental considerations and any considerations beyond these requirements are eliminated (Section 6(a))." Executive Order 14154 rescinded executive orders which contained requirements to consider climate change in federal actions: EO 13990 Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis and EO 14008 Tackling the Climate Crisis at Home and Abroad (90 FR 8353; January 2025).

Additionally, on January 21, 2025, the President issued a Presidential Memorandum *Ending Illegal Discrimination and Restoring Merit-Based Opportunity* which revoked EOs 12898 of February 11, 1994, (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) to ensure Federal civil-rights laws "are enforced for the benefit of all Americans."

The USDA Forest Service has complied with NEPA requirements, including the Agency's regulations and procedures implementing NEPA at CFR 36 Part 220, effective November 19, 2020, consistent with the President's January 2025 EO and Memorandum. The Grand Targhee Resort Master Development Plan

[1] 91 Fed. Reg. 17,062, 17,092 (April 3, 2026)

Project is an activity implementing a land management plan. This activity is subject to pre-decisional administrative review under subparts A and B of 36 CFR Part 218 and 219.

This FEIS discloses potential direct, indirect, and cumulative environmental effects on the human and biological environment anticipated to result with implementation of the Proposed Action or another action alternative. Additionally, it is intended to ensure that planning considers the environmental and social values of the study area and that potential resource conflicts are minimized or avoided. The document is organized into eight chapters, plus five appendices:

- **Chapter 1 – Introduction:** includes information on the history of the project proposal, the purpose of and need for the project, and the proposal for achieving that Purpose and Need. **Chapter 1** details how the Forest Service informed the public of the proposal and how the public responded. **Chapter 1** also describes issues raised through the scoping process.
- **Chapter 2 – Description of Alternatives:** provides a detailed description of the No Action Alternative (Alternative 1), the Proposed Action (Alternative 2), and Alternatives 3, 4, and 5 that are analyzed in detail in this document. This discussion also includes alternatives considered but eliminated from further analysis and project design criteria (PDC). Finally, **Chapter 2** provides a summary table (**Table 2.6-1**) of the environmental consequences anticipated with each alternative.
- **Chapter 3 – Affected Environment and Environmental Consequences:** provides a description of the affected environment (i.e., existing conditions) by resource area, and describes the environmental effects of implementing the No Action Alternative, Proposed Action, and Alternatives 3, 4, and 5. **Chapter 3** is organized by resource topic.
- **Chapter 4 – Consultation and Coordination:** provides a list of preparers and agencies consulted during the development of this FEIS.
- **Chapter 5 – References:** provides complete references for documents cited within this FEIS.
- **Chapter 6 – Figures:** provides the maps, figures, and perspectives used throughout the analysis.
- **Chapter 7 – Glossary:** provides a definition of technical and non-technical terms used throughout this FEIS.
- **Chapter 8 – Index:** provides a list and page number of frequently used terms throughout this FEIS.
- **Appendix A – Cumulative Effects Projects:** provides a list of all projects with the potential to cumulatively affect resources in the study area.
- **Appendix B – Forest Plan Consistency Analysis:** presents standards and guidelines relevant to the Grand Targhee Master Development Plan (MDP) Projects FEIS from the 1997 Forest Plan.
- **Appendix C – Forest Plan Amendments:** provides a summary of amendments to the *1997 Forest Plan* to be consistent with *1997 Forest Plan* direction.
- **Appendix D – Summary Comparison Table:** provides a summary of Direct and Indirect Environmental Consequences
- **Appendix E – Response to Comments:** provides comments received during the Draft EIS comment period and responses to them.

SE Group, a third-party contractor, has been contracted by GTR in alignment with 40 CFR § 1506.5 to assist in the preparation of this FEIS. All content herein has been reviewed and approved by the Forest Service. The Forest Service holds responsibility for the information and analysis within.

Additional documentation, including more detailed analyses of study area resources, may be found in the project file located at the Teton Basin Ranger District office of the CTNF.

1.2 Background

Grand Targhee Resort (GTR) is located on the CTNF, approximately 8 miles east of Alta, Wyoming, on the west side of the Teton Mountain Range. The majority of GTR's lift and trail network is located on National Forest System (NFS) lands under a special use permit (SUP) administered by Teton Basin Ranger District of the CTNF in Teton County, Wyoming. All base area (Targhee Village) facilities, guest service facilities, portions of the beginner terrain, and a few other trails, are located on private lands owned by GTR. The 1997 Targhee Revised Forest Plan provides general standards and guidelines for the operation of GTR regarding its activities and operations on NFS lands. The ski area's SUP and associated summer and winter operating plans, as well as other resource management documents, provide more specific guidance for annual winter and summer ski area operations and projects.

According to the terms of its SUP, GTR is required to prepare a Master Development Plan (MDP) to identify management direction and opportunities for future four-season management of the resort on NFS lands. The current MDP—the *2018 Grand Targhee Resort Master Development Plan* (2018 GTR MDP)—was accepted by the Forest Service in February 2019. Forest Service acceptance of the 2018 GTR MDP does not constitute approval for individual projects. The implementation of individual projects identified in the 2018 GTR MDP is contingent upon subsequent site-specific analysis/approval in accordance with the NEPA process.

This FEIS analyzes a number of projects identified under the *Upgrade Plan* of the 2018 GTR MDP. Specifically, the Proposed Action includes expansion of the SUP boundary; development of additional skiing trails; upgrades to two existing chairlifts; installation of six new chairlifts; expansion of snowmaking; expansion of alternative winter activities, including fat bike and Nordic trails; grading adjustments; construction, reclamation, and improvements of administrative routes; development of guest services facilities; creation of a Summer Activity Zone under Shoshone lift; and additions to the existing hiking and biking trail networks. **Section 2.2** provides a full description of this project (refer to **Section 2.2.1**). Contingent upon the NEPA process, implementation of any projects, should they be approved, could potentially begin as early as 2026.

1.3 Purpose and Need for Action

The Forest Service is responding to an application submitted under the National Forest Ski Area Permit Act of 1986 and Ski Area Recreational Opportunity Enhancement Act of 2011 (SAROEA) by GTR to implement projects from their accepted 2018 GTR MDP. In the 2018 GTR MDP, Grand Targhee identified a need to improve the recreational experience and address shortcomings in their terrain offerings and operations in order to remain viable in the competitive destination skier/rider market.

With GTR's close proximity to Yellowstone and Grand Teton National Park (GTNP), GTR is expected to see increases in visitation from both winter and summer recreational enthusiasts. Several aspects of the facilities at GTR are in need of expansion and upgrading, including but not limited to its terrain variety, lift operations, on-mountain guest facilities, and summer activities. To address industry growth, maintain its market niche, and meet increasing guest expectations, GTR must continue to develop and improve its

on-mountain and base area offerings. These developments are needed in direct response to evolving consumer demands and the competitive regional and destination skier markets.

Further, there is an opportunity to increase public safety. With the installation of the Colter Lift[2], skiers are currently able to easily access the South Bowl area, which is currently outside the ski area SUP boundary. Without any additional management, South Bowl presents high avalanche risk. While it is not the ski area's responsibility to manage risk outside the SUP and skiers recreating outside the SUP assume the risk for recreating in avalanche terrain, convenient access to this terrain could plausibly result in additional incidents from use of this unmanaged area. Considering recent increases in backcountry usership, there is an opportunity for GTR to take measures to mitigate risk to guests and staff to support public safety while also providing a robust recreational experience.

The purpose of, and need for, the Forest Service's action is to decide whether to grant a special use permit (SUP) for the project. The Caribou-Targhee National Forest (CTNF) will consider the application for use of NFS lands and determine if the project is in the public interest and is appropriate, based on the 1997 Revised Forest Plan for the Targhee National Forest (1997 Forest Plan).

- In the 2018 GTR MDP, GTR identified a need to improve the recreational experience and address shortcomings in their terrain offerings and operations in order to remain viable in the competitive destination skier/rider market. Specifically, GTR has identified a need to: Provide additional undeveloped, minimally maintained lift-served terrain and additional traditionally cleared alpine trails to enhance terrain variety and skiing experiences at GTR
- Enhance the skiing experience for various ability levels of guests, by providing an appropriate learning progression in an uncongested beginner area and increasing the quantity of beginner, intermediate, and advanced-intermediate terrain to meet current and anticipated public demand
- Improve skier circulation across the mountain through improvements to the efficiency of the lift and trail network and by providing more reliable and consistent snow coverage in key areas
- Improve base area, guest services, operational facilities, and on-mountain services to meet the ever-increasing expectations of the local, regional, and destination skier markets
- Expand alternative and non-winter activities to provide a variety of recreational options to guests and to more effectively utilize existing infrastructure during non-winter months
- Ensure that risks to public safety associated with resort operations are managed to an extent that is reasonable and appropriate.

1.4 Proposed Action

The projects analyzed in this FEIS are designed to address the Purpose and Need described previously. This FEIS was assembled to enable the responsible official to determine whether all, portions of, or alternatives to the Proposed Action would be approved for implementation on NFS lands within and outside the existing GTR SUP area.

A summary of the Proposed Action is provided here, with a detailed description presented in **Chapter 2**.

[2]USDA Forest Service 2021a

The Proposed Action includes the addition of the following winter and multi-season recreation opportunities:

- Expansion of the SUP boundary by 866 acres to include lift-served skiing in the South Bowl and Mono Trees areas.
- Trail improvements and expansions including 107 acres of new traditional terrain, 107 acres of terrain improvements, 204 acres of proposed glades, and 45 acres of groomable glades within the existing SUP boundary and approximately 160 acres of new trails and gladed areas outside of the existing SUP boundary.
- Addition of three new lifts (Crazy Horse, North Boundary, and Palmer Platter), one new teaching carpet, and upgrades to two lifts (Shoshone and Dreamcatcher) within the existing SUP boundary and addition of two lifts (South Bowl and Mono Trees) in the proposed SUP boundary expansion areas.
- Construction of two on-mountain restaurants at the top of Sacajawea and Dreamcatcher Lifts, guest facilities at the top of the Shoshone Lift, in Rick's Basin, and on Lightning Ridge near the top terminal of the proposed Mono Trees Lift, storage and vault toilet facilities at the base of the North Boundary Lift, and improve the existing vault toilet at the bottom of the Blackfoot Lift to include a storage facility, a ski patrol facility at the top of the South Bowl Lift, and a vault toilet at the bottom of the South Bowl Lift.
- Construction of a permanent, dedicated snow tubing facility at the base of the existing Shoshone Lift.
- 57 acres of additional snowmaking coverage.
- 29 additional miles of hiking, biking, and multi-use summer recreation trails.
- Establishment of a Summer Activity Zone around the Shoshone Lift terminal to offer a hub for summer activities including a zipline, canopy tour/fly lines, an aerial adventure course, and the disc golf course.
- Construction of two construction, access, and maintenance administrative routes within the proposed SUP areas totaling approximately 2.5 miles.
- Construction of 4.3 miles of administrative routes, reclamation of 2.2 miles of administrative routes, and improvements to 7.0 miles of administrative routes within the existing SUP area.
- Expansion of Nordic, snowshoeing, and fat biking offerings.

1.5 Public Involvement

1.5.1 Public Scoping

An initial 30-day scoping period began on August 26, 2020 when the Notice of Intent (NOI) to prepare an EIS was published in the Federal Register. The scoping period was subsequently extended to 45 days to account for difficulties associated with the COVID-19 pandemic and the large volume of project materials. A scoping package, including a scoping notice identifying the Proposed Action and the corresponding Purpose and Need, was also prepared, approved, and sent to a list of individuals, organizations, and agencies. A legal notice was also published in the CTNF newspaper of record, the Post Register. During the 45-day scoping period, there was targeted outreach to specific stakeholders to gather input and answer questions on the project. Two web-based public scoping meetings were held via

Microsoft Live Events on September 8 and September 10, 2020 to further inform the public of the projects identified in the scoping notice (virtual public scoping meetings were conducted rather than in-person meetings due to the COVID-19 pandemic). In addition, the public had ample access to project details through an interactive ArcGIS Story Map and project specific website that was created in addition to the CTNF's project website.

Scoping comments were accepted through mail, fax, telephone, email, and through the CTNF's project website (https://www.fs.usda.gov/r04/caribou-targhee/projects/58258). In total, 387 comment letters were received. From these comments, 1,338 substantive comments were extracted and categorized into the major themes expressed by commenters. These themes were reviewed in subsequent ID Team meetings (on November 23 and December 11, 2020) and were used to inform additional alternatives to the Proposed Action.

1.5.2 Public Comment

A Notice of Availability (NOA) for the Draft EIS was published in the Federal Register and a legal notice was published in the Post Register on March 21, 2025. This initiated a comment period on the Draft EIS, providing the public with the opportunity to comment for 90 days following publication of the legal notice. Comments on the Draft EIS were received until June 20, 2025. During this comment period one public open house meeting was held at the Driggs City Center on April 17, 2025, to further inform the public of the publication of the Draft EIS and the analyses that were completed.

Additional information was available on the CTNF project website (https://www.fs.usda.gov/r04/caribou-targhee/projects/58258). Comments were accepted from the following sources: email, web submission, and mailed in letters.

During this comment period, a total of 1,341 unique comment letters were received, which included 544 form letters. From these unique comments and form letters, a total of 2,167 substantive comments were extracted. These substantive comments were then responded to in **Appendix E. Response to Comments** and edits to the Draft EIS or associated technical reports were completed based on the information the substantive comments presented. Please refer to **Appendix E. Response to Comments** for more information.

1.6 Relevant Changes to the Proposed Action Since Project Scoping

As stated previously, the project was originally scoped, internally and externally, in 2020. Since that time, several changes have occurred that are relevant to the planning process. These are disclosed below with a brief discussion on how the change has affected this FEIS and the analysis.

Modification to the Proposed Action: The Proposed Action described below differs from the CTNF's Proposed Action as identified in the Scoping Notice, dated August 26, 2020. Adjustments were made to the proposed projects in response to resource concerns raised internally by the CTNF and externally by the public, as well as additional planning that occurred based on new resource information obtained since the release of the scoping notice. During a holistic review of the proposal for the purpose of the analysis, it became evident that certain supporting project elements (e.g., avalanche mitigation devices, utility connections, and other upgrades) needed to be included in this proposal. Specifically, the following changes were made between scoping and public review of the DEIS:

- Reduce South Bowl SUP boundary expansion from 600 to approximately 266 acres.
- Remove South Bowl East and South Bowl Connector Lifts from the proposal.
- Shorten Shoshone Lift alignment and instead install a Lift upgrade. As a result, reduce the number of proposed carpets in the Shoshone area and move the snowtubing facility to not interfere with the lift upgrade or proposed carpet.
- Remove the guest support facility at the base of the formerly proposed South Bowl East Lift and instead install a vault toilet at the base of the South Bowl West Lift, now called the South Bowl Lift.
- Instead of the formerly proposed permanent road associated with the South Bowl East Lift, build a Cat/Construction Maintenance administrative route for a more primitive road with a smaller disturbance footprint.
- Remove cat skiing from all alternatives.
- Improve the existing vault toilet at the bottom of the Blackfoot Lift to include a storage facility.
- Add ski patrol facility to the top of the proposed South Bowl Lift.
- Replace the Dreamcatcher Lift with a chondola in the same configuration that would provide the same capacity as the existing lift. Bottom and top terminals would be slightly adjusted. Chair storage would be included at the bottom terminal. The top terminal would be built to interface with proposed Fred's restaurant for better accessibility. Communication site would be improved and sited with new lift and restaurant infrastructure.

Additional scoping of these project elements was not determined to be necessary, as the public had the opportunity to review and comment on these project components in the DEIS . These project modifications reduce the overall disturbance footprint associated with the proposal and are intended to ensure that project components are implementable and operational should they be approved. Further rationale for the changes made following scoping are included in **Section 2.5**. All changes to the project components were first reflected in the relevant action alternative analyses within this DEIS.

1.7 Issues and Indicators

Based on internal conversations between the ID Team, SE Group, and its subcontracting subject matter experts, and incorporating input from public scoping, specific areas of concern have been identified and classified as being either "*issues*" or "*resources dismissed from further documentation*." *Issues* may warrant the generation of an alternative, can be addressed by PDC or mitigation, or generally require in-depth analysis and disclosure. *Resources dismissed from further documentation* are beyond the scope of the project, are already decided by law, regulation or policy, or are not relevant to the decision. For this analysis, all typical Forest Service managed resources have been considered and none have been dismissed from analysis.

Each *issue* below includes a list of indicators which were identified as a means of measuring or quantifying the anticipated level of impact on a particular resource. While some indicators are necessarily qualitative in nature, every effort was made to utilize indicators that are quantitative, measurable, and predictable. A summary of projects included that may cumulatively affect these resources and indicators is included in **Appendix A**.

1.7.1 The Human Environment

RECREATION

The action alternatives have the potential to affect the existing recreational opportunities and experiences within GTR's existing and proposed operational area and nearby NFS lands during both the winter and summer seasons.

Study Area: GTR's existing and proposed operational area, as well as proximate areas in Teton Canyon, South Leigh Canyon and the Jedediah Smith Wilderness (JSW) beyond the operational boundary that may be affected by the action alternatives

Indicators:

- Quantification of existing and proposed terrain acreage by ability level compared to the existing condition and industry standards.
- Both quantitative and qualitative discussion of the change in skier density (how crowed the ski runs are) in relation to guest experiences as compared to existing conditions.
- Quantification of existing and proposed Comfortable Carrying Capacity (CCC) and skier visitation as compared to existing conditions.
- Quantitative and qualitative discussion of existing and proposed guest service space and other amenities as it relates to guest experience.
- Qualitative discussion of existing and proposed use of backcountry areas within the study area (Teton Canyon and South Leigh Canyon).
- Qualitative discussion of GTR guests leaving the resort via Teton Canyon.
- Qualitative analysis and discussion of existing and proposed guest experiences for winter and summer recreation activities at GTR, including the experience of non-skiing guests during the winter months.
- Qualitative analysis of existing and proposed user demand and access in the South Bowl and Mono Trees proposed expansion areas for winter and summer recreation activities occurring beyond GTR's existing operational boundary (e.g., snowmobiling, backcountry skiing, splitboarding, snowshoeing, mountain biking, hiking).
- Qualitative discussion of increasing developed recreation opportunities to concentrate recreation use and reduce the strain on other developed/dispersed recreation sites throughout the district as compared to existing conditions.
- Qualitative discussion of existing outfitters/guides operating in the area of the proposed SUP expansion and the potential change as the result of the Action Alternatives.
- Qualitative discussion of season of use for each activity and change in recreation opportunities both within the existing SUP and in the proposed expanded SUP under the Action Alternatives as compared to existing conditions.

SCENERY

Through the expansion of GTR's operational boundary into lands previously beyond GTR operations (including installation of new infrastructure and other terrain alterations), the action alternatives have the potential to affect the scenic integrity and dark skies of surrounding lands, including from GTNP, the

JSW, the Teton Scenic Byway, Teton Canyon and the identified critical viewpoints in the vicinity. In addition, the proposed expansion in the South Bowl and Mono Trees areas would change the Forest Plan Management Prescription from 2.1.2 – *Visual Quality Maintenance* to Management Prescription 4.2 – *Special Use Permit Recreation Sites*.

Study Area: GTR's existing and proposed operational area as visible from relevant viewpoints

Indicators:

- Identification of direction for scenery management as provided by the *1997 Forest Plan*, including relevant standards and guidelines, established Visual Quality Objectives (VQOs) and discussion of the necessary amendments to the *1997 Forest Plan* and qualitative discussion of potential changes under the Action Alternatives.
- Identification of direction for scenery management as provided by the *Built Environment Image Guide* (BEIG), including guidelines for materials, colors and reflectivity and adherence to under the Action Alternatives.
- Qualitative analysis of scenic impacts including changes in views from the foreground, middleground, and background distance zones as well as changes in form, line and color from existing conditions from the identified critical viewpoints (including identification of view duration and intensity from each): Ashton, Buck Mountain Pass, Colter Building top floor (Driggs; winter and summer), Grand Teton (summit), Hastings Lane (Driggs; winter and summer), Hurricane Pass, Lower Saddle (between the Middle and Grand Tetons), Middle Teton (summit), Mount Meek Pass, Paintbrush Divide, Teton Canyon Overview Observation Site, South Leigh Lakes, South Teton/Devil Stairs Trail, Static Peak, Table Mountain (JSW; winter and summer), Teewinot Mountain, Teton Scenic Byway, and Tetonia, ID (winter and summer).
- Visual simulations would be considered for all critical viewpoints within (or near) 6.9 miles of the project area. A qualitative discussion of existing conditions of GTR operations as compared to the Action Alternatives would be completed from the following viewpoints: (1) Table Mountain, (2) Teton Canyon valley floor, (3) Driggs, and (4) Middle Teton.
- Qualitative analysis of visual simulations completed from viewpoints outside the 6.9-mile buffer zone of changes in dark sky designations as the result of night lighting under the Action Alternatives.
- Quantification of the change in acreage of the existing condition meeting established VQOs from each visual simulation under each Action Alternative.
- Qualitative analysis of the existing visual quality of the study area as compared to proposed visual quality through review of visual simulations, including from the Teton Scenic Byway (SH 31 from Swan Valley to Victor; SH 33 from Victor to Tetonia; SH 32 from Tetonia to SH 47 at Ashton).

NOISE

Construction and operation of the proposed projects could affect noise levels in the study area.

Study Area: The extent of the existing and proposed GTR SUP area, as well as adjacent public and private lands.

Indicators:

- Qualitative discussion of major noise sources, both direct and indirect, and sensitive receptors in the study area and impacts associated to the Action Alternatives.
- Qualitative discussion of existing noise levels in the study area and changes incurred as a result of the Action Alternatives.
- Quantitative and qualitative description of potential noise-related impacts associated with construction and operation of the proposed projects (e.g., use of heavy equipment and helicopters for construction, potential use of avalanche mitigation equipment during operation, traffic-related noise, concert and restaurant noise), including to the adjacent JSW as compared to existing conditions.

SOCIOECONOMICS

Implementation of the proposed projects could potentially alter certain socioeconomic characteristics of Teton County, Idaho and Teton County, Wyoming due to additional visitation and employees and their impacts within the community.

Study Area: Teton County, Idaho; Teton County, Wyoming; Madison County, Idaho; Bonneville County, Idaho

Indicators:

- Quantitative analysis of potential effects to socioeconomics factors in the study area, including: population, employment (part-time seasonal employment vs. full-time equivalents), City/County tax revenue, housing, affordable housing, wages, schools, use of public/social services, public transportation and infrastructure, and visitor spending as compared to existing conditions.
- Qualitative and quantitative discussion of available housing and affordable housing in the study area during both the winter and summer seasons, including designated employee housing and short-term rentals and analysis of expected impacts as a result of the Action Alternatives.
- Qualitative and quantitative discussion of county funding and tax revenues in the study area and how they are expected to change or stay the same as a result of the Action Alternatives.
- Qualitative discussion of the values, beliefs and attitudes about the quality of life within the study area and how they are expected to change or stay the same as a result of the Action Alternatives.

TRAFFIC AND PARKING

The action alternatives may generate additional daily/seasonal visitation, thereby affecting traffic and parking within the study area.

Study Area: Teton Pass between Jackson, Wyoming and the Idaho border; SH 33 between the Idaho border and Tetonia; Alta Ski Hill Road from Driggs to GTR; feeder roads for State Line Road and Ski Hill Road (e.g., East 5000 North, East 2500 North, East 250 North, South 1000 East and East 2000 South); and parking at GTR.

Indicators:

- Quantification of baseline and estimated traffic volumes under the action alternatives in the study area as related to GTR's operations, during winter and summer months including estimated traffic generated by timber removal and construction activities

- Qualitative and quantitative discussion of existing parking as compared to the expected need of parking under the Action Alternatives to determine if existing available parking is sufficient to service parking needs associated with implementation of the action alternatives. Including discussion of the potential need for offsite parking and an expanded shuttle service to accommodate existing and proposed parking demand. The analysis would rely upon existing parking data collected/maintained by GTR

CULTURAL RESOURCES

Construction of the proposed projects and associated ground disturbance both within existing SUP area and the proposed SUP expansion area, may affect previously unidentified cultural and heritage resources in the Area of Potential Effect (APE).

Study Area: The APE is comprised of lands within GTR's existing SUP area on which projects causing ground disturbance are proposed, as well as lands within the proposed SUP expansion area

Indicators:

- Documentation of the presence (or absence) of identified cultural/heritage resources within the APE including a qualitative discussion of expected impacts as the result of the Action Alternatives
- Documentation of impacts to any eligible National Register of Historic Places (NRHP) sites including a qualitative discussion of expected impacts as the result of the Action Alternatives

PUBLIC SAFETY

Implementation of proposed projects could affect public safety in the study area by altering avalanche mitigation protocols.

Study Area: The extent of the existing and proposed GTR SUP area, and in particular South Bowl

Indicators:

- Description of the existing level of avalanche danger and avalanche mitigation protocols in the South Bowl area based on existing data, including discussion of the role of solar aspects in avalanche danger and comparison of changes to the level of avalanche danger and avalanche mitigation protocols under the Action Alternatives
- Discussion of potential changes in demand on emergency service providers resulting from potential expansion in South Bowl and Mono Trees (in response to concerns from the Sheriff's department about the displacement of users into new and more distant areas beyond the existing operational boundary)

1.7.2 The Physical and Biological Environment

AIR QUALITY

Construction and operation of the proposed projects (including short-term construction-related activity, burning, and transportation related to timber removal) could result in localized impacts to air quality.

Study Area: Teton County, Wyoming

Indicators:

- Narrative description of existing air quality in the study area, including population centers and Class I and Class II airsheds in the vicinity and associated impacts as a result of the Action Alternatives.
- Estimated daily increase in number of vehicles associated with the estimated increase in annual visitation.
- Narrative discussion of timber removal techniques (e.g., burning) and their potential effect on air quality in the region under existing conditions and as the result of the Action Alternatives.
- Quantitative analysis of short- and long-term emissions due to construction and operation of the projects.

CLIMATE CHANGE

Construction and operation of the proposed projects (including short-term construction-related activity, burning, and transportation related to timber removal) would result in greenhouse gas (GHG) emissions. In addition, climate change has the potential to impact the operation of the proposed projects.

Study Area: Teton County, Wyoming; Northern Rockies Region

Indicators:

- Quantitative analysis of the potential contributions to climate change of short- and long-term emissions associated with construction and operation of the project (to be captured in the Air Quality analysis and referenced as needed).
- Qualitative discussion of the impact of climate change on the operations of GTR and the proposed projects (in particular, the global warming trend could create operational difficulties for south-facing slopes and lower elevation ski terrain).

VEGETATION

Vegetation cover types and age class composition may be impacted under the proposed projects relative to the desired condition identified in the 1997 Forest Plan. Federally-listed plant species, rare plants (including Forest Service Region 4 sensitive species and species of local concern [SOLC]), other native plant communities (including overstory vegetation), and the presence of invasive species and noxious weeds may be impacted as a result of the proposed projects.

Study Area: GTR's existing and proposed operational area.

Indicators:

- Qualitative discussion of the presence/absence of federally listed plant species, rare plants, other native plant communities and invasive species and noxious weeds within the study area, including whitebark pine (WPB) and potential impacts/eradication of these species as the result of the Action Alternatives.
- Quantification (acreage) of proposed ground disturbance and resulting effects to vegetation (both understory and overstory) by vegetation type within each terrain pod.
- Quantification of the forested acres of lands designated as Management Prescription 2.8.3 – *Aquatic Influence Zone* that would be converted to Management Prescription 4.2 – *Special Use Permit Recreation Sites*.

- Quantification of existing old growth and late seral stage stands in the Teton Creek and Leigh Creek Watersheds including discussion of proposed impacts as the result of the Action Alternatives.
- Qualitative discussion of potential impacts to federally listed plant species, rare plants and other native plant communities, as well as the potential for an invasive species and noxious weeds to spread as a result of the action alternatives.

WILDLIFE AND FISH

Implementation of the action alternatives could affect individuals, populations, and/or habitat values for federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species, migratory birds, and SOLC.

Study Area: The study area varies by wildlife species and would be discussed on a species-by-species basis in the Affected Environment subsection of this resource analysis.

Indicators:

- Qualitative discussion of the presence/absence of federally listed and/or sensitive wildlife and fish species, migratory birds and SOLC in the study area, as well as species with the potential to occur in the study area and potential impacts on these species as the result of the Action Alternatives.
- Quantification (acreage) of existing habitat of federally listed and/or sensitive wildlife and fish species, migratory birds and SOLC in the study area, and proposed disturbance to that habitat by species as the result of the Action Alternatives.
- Quantification (acreage) of fragmentation of forest habitat that would result from the Action Alternatives and discussion of adherence to relevant standards from the *1997 Forest Plan* and the Northern Rockies Lynx Amendment.
- Analysis of direct and indirect impacts to lynx through percent change in denning, foraging, and overall suitable lynx habitat as well as existing and proposed administrative route density in the lynx analysis unit (LAU) as the result of the Action Alternatives.
- Analysis of direct and indirect impacts to grizzly bears within the Bear Analysis Unit, including quantification of percent change in secure and non-secure habitat, potential human/bear conflicts and displacement resulting from noise and human presence during construction and operation as the result of the Action Alternatives.
- Analysis of direct and indirect impacts to bighorn sheep, including percent change in suitable habitat, percent change of modeled high-quality habitat on the CTNF and range of the Teton Range herd of bighorn sheep, and displacement resulting from increased noise and human presence during construction and operation (including in backcountry areas) as the result of the Action Alternatives.
- Analysis of short term and long term direct, indirect, and cumulative impacts to avian species as a result of tree removal and amendments to the *1997 Forest Plan*, including the removal of trees for glade development as boreal owls, flammulated owls, three-toed woodpeckers and American goshawks are likely found in those areas.
- Analysis of short term and long term direct, indirect, and cumulative impacts to Columbia spotted frogs and western toads based on riparian habitat development impacts.

- Qualitative discussion of short term and long term direct, indirect, and cumulative impacts to migratory birds as a result of habitat removal from trail development and the increased number of structures with windows.

SOILS

Ground disturbance, including tree clearing and grading associated with construction and operation of the proposed projects, as well as proposed snowmaking, have the potential to increase erosion and soil compaction within the study area. In addition, bare mineral soil exposed on steep slopes as a result of the heavy equipment use could funnel through downhill channels and increase soil erosion.

Study Area: Areas within GTR's existing and proposed operational area where ground disturbance would occur.

Indicators:

- Qualitative discussion of the existing soil map units or land types present in the study area based on (USDA) Natural Resources Conservation Service soil mapping data and the Forest Service Terrestrial Ecological Unit Inventory, interpretive factors such as erosion potential and instability ratings, and the potential impacts to soils associated with the Action Alternatives.
- Summary of the increased erosion hazard resulting from temporary and permanent ground disturbance, as presented in the Hydrology Technical Report and corresponding EIS section.
- Qualitative discussion of applicability of and consistency with the standards and guidelines of the *1997 Forest Plan* as the result of the Action Alternatives.
- Quantification of disturbance type by soil map unit and loss of topsoil/organic layer/forest floor material as the result of the Action Alternatives and potential change from existing conditions including short and long term impacts.
- Qualitative discussion of short and long term impacts to soils in areas that are chipped and burned as the result of the Action Alternatives and potential change from existing conditions.

HYDROLOGY

The action alternatives could alter watershed conditions, stream and riparian health, and surface water and groundwater quality, quantity, and distribution in the study areas. In addition, the proposed SUP expansions would change several areas from *1997 Forest Plan* Management Prescription 2.8.3 – *Aquatic Influence Zone* to Management Prescription 4.2 – *Special Use Permit Recreation Sites*.

Study Area: Targhee Principal Watersheds (TPW) 019-Teton Creek and 020-Leigh Creeks, and the three sixth-level hydrologic unit codes (HUC) that intersect the existing & proposed SUP boundaries clipped to the Forest boundary: 170402040202-Teton Creek, 170402040205-Dry Creek, and 170402040402-South Leigh Creek. These areas were chosen to evaluate hydrologic disturbance as per the *1997 Forest Plan*. Additional areas may be added if determined necessary during the analysis.

Indicators:

- Discussion of existing and proposed Hydrologic Disturbance (HD), in response to the *1997 Forest Plan* guideline stating: "Not more than 30% of any of the principal watersheds and their subwatersheds should be in a hydrologically disturbed condition at any one time" (USDA Forest Service, 1997).

- Quantification (acreage of AIZ and miles of stream type) of the amount of Management Prescription 2.8.3 – *Aquatic Influence Zone* that would be converted to Management Prescription 4.2 – *Special Use Permit Recreation Sites* as the result of the Action Alternatives.
- Quantification of existing and proposed disturbance (acres and/or miles of streams affected) in AIZs by activity type as the result of the Action Alternatives.
- Qualitative identification of existing surface erosion, water quality, and stream and riparian health, as well as analysis of potential effects to these metrics and projected change as the result of the Action Alternatives.
- Identification of any Clean Water Act (CWA) impaired or threatened waterbody segments within the study area and discussion of potential impacts as the result of the Action Alternatives.
- Quantification of existing and proposed snowmaking operations, including anticipated changes in water quantity (e.g., water yield [acre-feet], peak flows [cubic feet per second]) and water quality which may result from tree removal and new snowmaking withdrawals and runoff.
- Sufficiency of water determination for resort operation under existing and proposed conditions.
- Analysis of potential impacts to downstream water quality resulting from runoff at GTR being transported through subsurface channels as the result of the Action Alternatives, including a discussion of changes from existing conditions.

WETLANDS

Identified wetlands and other waters of the U.S. throughout the study area could be temporarily and/or permanently affected by construction and implementation of proposed projects.

Study Area: GTR's existing and proposed operational area.

Indicators:

- Qualitative discussion of area of wetlands and other Waters of the U.S. within the study area (acres/linear feet) that would be impacted by the Action Alternatives.
- Disclosure of wetland functions and values within the study area and discussion of potential impacts as the result of the Action Alternatives.
- Narrative description of wetland communities, classifications and disclosure of anticipated temporary and/or permanent impacts (acres/linear feet) as the result of the Action Alternatives.
- Quantification of existing and proposed disturbance in AIZs by activity type.
- Description of compliance with Executive Order 11988 & 11990 (Floodplain Management & Protection of Wetlands, respectively) under all Action Alternatives.
- Discussion of consistency with standards identified in the *1997 Forest Plan* under all Action Alternatives.

WILDERNESS

Implementation of the proposed projects could impact the JSW.

Study Area: JSW area lands within approximately five miles of GTR (and in particular any areas with line of sight and/or within earshot of resort operations).

Indicators:

- Qualitative analysis of potential impacts of the proposed projects on the wilderness character and wilderness characteristics (untrammeled; natural; undeveloped; outstanding opportunities for solitude or a primitive and unconfined type of recreation) of the JSW. Discuss particularly visual impacts, increased access and use, construction (including increased noise) and avalanche mitigation.

LIVESTOCK AND GRAZING

The proposed projects could potentially alter grazing allotment units within the area of the proposed SUP expansion.

Study Area: GTR's proposed operational area.

Indicators:

- Identification of the relevant grazing allotment units in the study area: Leigh Creek and Mill/Teton allotments; Fred's Mountain and Mill Creek pastures.
- Narrative description of existing grazing patterns within and around GTR's proposed SUP area.
- Qualitative analysis of potential changes to grazing patterns in the area of the proposed SUP expansion, and identification of potential conflict between permit holders in the study area.

1.8 Scope of the Analysis

Scope consists of the range of actions, alternatives, and impacts to be considered within this FEIS. Furthermore, it includes the spatial and temporal boundaries associated with the actions, alternatives, and impacts as the scope of the analysis relates to the Purpose and Need. A detailed scope of this environmental analysis is presented at the beginning of each resource section in **Chapter 3**. The study area is determined by individual resource analyses presented in **Chapter 3** (e.g., the Watershed analysis area is spatially different from the Wildlife analysis area). The project area is specific to each project location and is related to the area of direct impacts caused by the project. Contingent upon approval, implementation of proposed projects could begin as early as 2025. It is important to note that implementation of the projects could occur jointly, individually, and/or at different points in time.

1.9 Consistency with Forest Service Policy

Because GTR's operations are primarily carried out on NFS lands, projects must comply with relevant Forest Service policy. The *1997 Forest Plan* guides the management of NFS lands on the Targhee management unit of the CTNF, including those that the ski area operates on under its SUP. Effectively, this serves as the primary guiding document for the management of lands within the GTR SUP boundary. Additionally, the 2011 SAROEA and Forest Service Manual 2343.14 provide guidance on multi-season activities at ski areas operating on NFS lands. As multi-season activities are also included in this proposal, these policies are further described in the following paragraphs. Please also refer to **Appendix A. Cumulative Effects Projects,** which explains past projects on the CTNF that have resulted in amendments to the 1997 Forest Plan.

1.9.1 Targhee National Forest Revised Forest Plan

GTR's operations carried out on NFS lands must comply with management direction provided in the *1997 Forest Plan*. The Targhee Forest Plan includes 33 separate Management Prescriptions for different portions of the Forest based on ecological conditions, historic development and anticipated future conditions.

Components of the action alternatives fall primarily within the Management Prescription 4.2 – *Special Use Permit Recreation Sites.* However, the proposed SUP expansion areas are located outside of GTR's existing SUP boundary on land that is currently designated as Management Prescription 2.1.2 – *Visual Quality Maintenance* with an overlay of Management Prescription 2.8.3 – *Aquatic Influence Zone*.[3] A programmatic amendment to the *1997 Forest Plan* would be required to incorporate the proposed expansion areas into the GTR SUP area and designate them as Management Prescription 4.2 – *Special Use Permit Recreation Sites*.

Under the amendment to the *1997 Forest Plan*, 866 acres of Management Prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 - *Aquatic Influence Zone* would be changed to Management Prescription 4.2 – *Special Use Permit Recreation Sites* under action alternatives that would incorporate proposed SUP expansion areas into the existing GTR SUP boundary.

The *1997 Forest Plan*'s Management Prescription 4.2 – *Special Use Permit Recreation Sites* directs:

> *"The emphasis is on providing privately operated types of recreation on National Forest land for large concentrated groups of people. Overall, you find many signs of people. You see little or no evidence of resource development except for recreation. Cabins and buildings used by permittees are visible but blend into the surroundings. Roads are generally graveled, but may be paved in higher use areas. OHV use is limited to entry and departure routes and for administrative purposes. In some areas you may see extensive development associated with ski areas or resorts-for example, buildings, ski lifts, maintenance equipment, etc. Many pedestrians and cars may be seen in these areas.*
>
> *You generally would not find livestock within these areas, but they may be visible nearby. Signs and sounds of logging may also be apparent from time to time.*
>
> *Wildlife, in the form of chipmunks, squirrels, birds, and occasional big game may be seen.*
>
> *Generally you would find a variety of vegetation conditions from sagebrush to forested land within these areas. The forest cover would vary from mature trees to young seedling and sapling trees. The forest would generally be in a healthy, vigorous condition to provide for safety and provide for a friendly, relaxed outdoor experience. The area around the special use facility would generally exhibit a variety of visual conditions, depending on past insect, disease, and fire activity and management's response to those disturbances."*

The 1997 Forest Plan's Management Prescription 2.1.2 – *Visual Quality Maintenance* directs:

[3] USDA Forest Service 1997

"Overall you may notice signs of people camping by the roadside. The main road system is paved or gravel-surfaced and well maintained, with gentle grades well suited for sedan travel. Vistas of the surrounding areas provide a variety of high quality views.

The roadside area is dominated by a wide variety of vegetation and landscape forms (e g mountain -- peaks, valleys, meadows, streams, etc.) that are easily observed from natural vistas and natural openings along the road. Occasionally, a few older cut areas show tree seedlings, saplings and poles up to 35 feet tall and have a less-disturbed appearing forest floor. Scattered dead trees are seen throughout the forest, but generally it appears healthy and vigorous.

If you watch for wildlife, you may occasionally see an elk, deer, or moose in a natural opening or alongside the road, but generally these are hidden from view by the trees. During the summer and fall, you may encounter cattle or sheep grazing in openings. Signs of intensive management practices, such as burning, spraying, seeding, fences, water developments and gates are normally visually compatible.

Nonmotorized activities, such as hiking, biking or horseback riding may originate from trail or road points along the main road. Some roads and nearby areas are available for year-around snowmobile, motorcycle, and 4 wheel-drive vehicle use."

The 1997 Forest Plan's Management Prescription 2.8.3 – *Aquatic Influence Zone* directs:

"This prescription applies to the aquatic influence zone associated with lakes, reservoirs, ponds, perennial and intermittent streams, and wetlands (such as wet meadows, springs, seeps, and bogs). These areas control the hydrologic, geomorphic, and ecological processes that shape the various water types mentioned above and directly affect aquatic life. They also provide unique habitat characteristics which are important to those plant and animal species which rely on aquatic, wetland, or riparian ecosystems for all or a portion of their life cycle. Many such habitats are locally rare or are sensitive to disturbance (such as fens and thermal springs). Overall, these areas serve as important reservoirs of biodiversity, critical linkages for the interchange of plant and animal genetic material, specialized areas of nutrient cycling and freshwater filtration, storage, and transport, and are important to water quality.

Management emphasis is directed at the application of ecological knowledge to restore and maintain the health of these areas in ways that also produce desired resource values, products, protection, restoration. enhancement, interpretation, and appreciation of these areas.

These aquatic influence zones provide a high level of aquatic protection and maintain ecological functions (e.g., sediment transport, microclimate control, nutrient regulation, and connectivity within the watershed) and processes (e.g., stream channel formation, plant community development, recruitment of organic material including large wood, and hydrologic cycles) necessary for the restoration and maintenance of habitat for aquatic and riparian dependent organisms. They also maintain future management options.

> *This management prescription is defined on the ground using boundary widths which may vary by water type, and geographic characteristics. The actual boundaries of the aquatic influence zone, as determined by a person having current knowledge of fluvial geomorphology, of stream-riparian ecology, or both, could be narrower or wider than the prescribed boundary widths."*

As part of this analysis, the alternatives and purpose and need were reviewed to determine consistency with the Forest-wide goals and objectives as well as the specific standards and guidelines for Management Prescription 2.1.2 – *Visual Quality Maintenance*, Management Prescription 2.8.3 – *Aquatic Influence Zone*, and Management Prescription 4.2 – *Special Use Permit Recreation Sites*. The Action Alternatives were compared against pertinent Forest-wide and Management Prescription standards and guidelines. Additional project specific amendments, driven by resource impacts associated with the action alternatives, are described in detail in **Chapter 2**, as well as **Section 3.12** and **Section 3.13**. **Appendix B** contains a full *1997 Forest Plan* consistency analysis. **Appendix C** describes the amendments to the *1997 Forest Plan* themselves.

1.9.2 2011 Ski Area Recreational Opportunity Enhancement Act

Most of the 122 ski areas operating on NFS lands in the U.S. are authorized under special use permits per the National Forest Ski Area Permit Act of 1986 (the 1986 Act).[4] As originally enacted, the 1986 Act authorized Nordic and alpine skiing at ski areas on NFS lands. In November 2011 Congress enacted SAROEA, which amended the 1986 Act to clarify the authority of the Secretary of Agriculture regarding additional recreational uses of NFS lands subject to ski area permits, and for other purposes.

The purpose of SAROEA was to amend the 1986 Act in two ways:

1. To enable snow sports (other than Nordic and alpine skiing) to be permitted on NFS lands subject to ski area permits issued by the Secretary of Agriculture under section 3 of the 1986 Act; and
2. To clarify the authority of the Secretary of Agriculture to permit appropriate additional seasonal or year-round recreational activities and facilities on NFS lands subject to ski area permits issued by the Secretary of Agriculture under section 3 of the 1986 Act.

The SAROEA amended the 1986 Act by *striking* specific references to "Nordic and alpine" ski areas, facilities, operations, and purposes and *inserting* more general language regarding "ski areas and associated facilities" and "skiing and other snow sports and recreational uses authorized by this Act." However, for the purposes of this analysis, the most important amendment to the 1986 Act is an insertion to section 3 regarding "Other Recreational Uses."

Per SAROEA, subject to the terms of a ski area permit, the Secretary may authorize a ski area permittee to provide such other seasonal or year-round natural resource-based recreational activities and associated facilities (in addition to skiing and other snow sports) on NFS lands subject to a ski area permit as the Secretary determines to be appropriate.

Importantly, each activity and facility authorized by the Secretary shall:

- Encourage outdoor recreation and enjoyment of nature;

[4] 16 USC 497

- To the extent practicable:
  - Harmonize with the natural environment of the NFS lands on which the activity or facility is located; and
  - Be located within the developed portions of the ski area;
- Be subject to such terms and conditions as the Secretary determines to be appropriate; and
- Be authorized in accordance with:
  - The applicable land and resource management plan; and
  - Applicable laws (including regulations).

Inclusions identified in SAROEA:
Activities and facilities that may, in appropriate circumstances, be authorized include:

- Zip lines;
- Mountain biking terrain parks and trails;
- Frisbee golf courses; and
- Ropes courses.

Exclusions identified in SAROEA:
Activities and facilities that are prohibited include:

- Tennis courts;
- Water slides and water parks;
- Swimming pools;
- Golf courses; and
- Amusement parks.

The Secretary may not authorize any activity or facility if the Secretary determines that the authorization would result in the primary recreational purpose of the ski area permit to be a purpose other than skiing and other snow sports.

1.9.3 Forest Service Manual 2343.14

On April 17, 2014, the Forest Service released its Final Directives for Additional Seasonal and Year-Round Recreation Activities at Ski Areas. Forest Service Manual (FSM) 2343.14 includes this final direction and criteria to help authorized officers determine whether proposals for these activities are consistent with SAROEA. FSM 2343.14(1) includes criteria for evaluating additional seasonal and year-round recreation activities and associated facilities that may be authorized at ski areas. These activities and associated facilities must:

- Not change the primary purpose of the ski area to other than snow sports;
- Encourage outdoor recreation and enjoyment of nature and provide natural resource-based recreation opportunities;
- To the extent practicable, be located within the portions of the ski area that are developed or that would be developed pursuant to the master development plan;

- Not exceed the level of development for snow sports and be consistent with the zoning established in the applicable master development plan;
- To the extent practicable, harmonize with the natural environment of the site where they would be located by:
    - Being visually consistent with or subordinate to the ski area's existing facilities, vegetation and landscape; and
    - Not requiring significant modifications to topography to facilitate construction or operations;
- Not compromise snow sports operations or functions; and
- Increase utilization of snow sports facilities and not require extensive new support facilities, such as parking lots, restaurants, and chairlifts.

FSM 2343.14(2) identifies seasonal or year-round recreation activities and associated facilities that may meet these criteria. FSM 2343.14(3) identifies seasonal or year-round recreation activities and associated facilities that may not be authorized. Additional seasonal and year-round recreation activities and associated facilities that are not specifically precluded in FSM 2343.14(3) would be evaluated case-by-case based on applicable regulations and directives.

1.10 Decision to be Made

Based on Forest Service and external public scoping, and evaluation of the context and intensity factors contained in 40 Code of Federal Regulations (CFR) 1508.27, the Forest Service determined that an EIS would be necessary to review, analyze, and document the potential impacts to the human and biological environment anticipated to result from the implementation of the proposed projects. This FEIS is a disclosure rather than a decision document and its purpose is to provide sufficient environmental analysis to support a Record of Decision (ROD).

Based on the analysis documented within this FEIS and a future final EIS, the responsible official, the Forest Supervisor for the CTNF, would decide whether to select the Proposed Action (Alternative 2), Alternative 3 (No SUP Expansion), Alternative 4 (South Bowl, No Mono Trees), Alternative 5 (Mono Trees, No South Bowl), or the No Action Alternative. The Forest Supervisor is not required to choose either an action alternative or the No Action Alternative described herein, but may select components of an action alternative or develop an entirely new alternative created from components of each. In addition to determining which alternative to select, the Forest Supervisor would also determine any required Project Design Criteria (PDC) and Best Management Practices (BMPs). The Forest Supervisor may also require additional PDC and/or BMPs not discussed within this document. The Forest Supervisor may also require monitoring of PDC.

In compliance with FSH 1909.15 Chapter 18, the Forest Service would continually review the relevancy of the analysis and subsequent decision for new and changed conditions as any approved projects are advanced for implementation.

1.11 Other Necessary Permits or Consultation

Decisions by jurisdictions to issue or not issue approvals related to this proposal may be aided by the analyses presented in this EIS (per 40 CFR § 1502.25(b)). While Teton County Wyoming's Land

Development Regulations govern development on the private land at the GTR base area, the proposed on-mountain facilities located on NFS lands are subject to Forest Service jurisdiction under the Forest Plan, applicable federal laws including SAROEA, and Forest Service directives. This FEIS requires GTR to obtain all required federal, county, town, and state reviews, approvals, and/or permits prior to construction, ensuring that applicable standards are implemented in coordination with relevant jurisdictions. Where county oversight applies to private lands and Forest Service oversight applies to NFS lands within GTR's SUP, the applicable standards of each jurisdiction govern their respective areas of authority. The Forest Service assumes no responsibility for enforcing laws, regulations, or ordinances under the jurisdiction of other governmental agencies, Forest Service regulations require permittees to abide by applicable laws and conditions imposed by other jurisdictions. In addition to requisite Forest Service approvals, the following permits or approvals may be required to implement the Proposed Action:

- United States Fish and Wildlife Service, Endangered Species Act Formal Section 7 Consultation
- Wyoming Department of Environmental Quality, Clean Water Act Section 401 Water Quality Certification
- Army Corps of Engineers, Clean Water Act, Section 404 Permit
- State Historic Preservation Office, National Historic Preservation Act, Section 106 Consultation
- Wyoming Department of Environmental Quality Large Construction General Permit for stormwater discharges
- Wyoming Department of Environmental Quality, Wyoming Water Quality Rules, Chapter 3 Permit to Construct
- Any applicable state or other permits required by local governments

Chapter 2. Description of Alternatives

2.1 Introduction

This chapter describes the alternatives considered within this environmental analysis. PDC intended to lessen or avoid potential impacts resulting from implementation of the Proposed Action are outlined in **Table 2.4-1. Project Design Criteria**. For an understanding of differences between Action Alternatives, please refer to **Appendix D**. For more information on specific programmatic and project specific amendments that need to be made in conjunction with each Action Alternative please refer to **Appendix C**.

2.2 Alternatives Considered in Detail

The range of alternatives that the Forest Service ID Team considered for this analysis was bound by the Purpose and Need underlying the Proposed Action, as well as by the issues that arose from internal and external scoping (refer to **Section 1.7**). NEPA requires that an environmental analysis examine a range of alternatives, which would address and potentially resolve conflicts about the proposal. Furthermore, Forest Service Handbook 1909.15 directs the ID Team to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources" (USDA Forest Service 2012).

2.2.1 Alternative 1 – No Action

The No Action Alternative provides a baseline for comparing the effects of the action alternatives. The No Action Alternative essentially reflects a continuation of existing management practices without changes, additions, or upgrades. Under the No Action Alternative, none of the projects described below would be implemented.

2.2.2 Alternative 2 – Proposed Action

Alternative 2 – Proposed Action includes an expansion of the existing GTR SUP boundary, several lift replacements, realignments, and additions, terrain improvements, and the addition of guest services facilities to improve the guest experience. The projects in the Proposed Action would result in disturbance from tree clearing, grading, glading, and selective tree clearing. Activities relevant to each project component that would result in disturbance are described in subsequent sections and a breakdown of disturbance areas by project component is provided in **Table 2.2-1**.

Table 2.2-1. Projected Disturbance Under the Proposed Action

Project Component	Type of Disturbance	Acres
Alternative Winter Activities	Grading	1.9
	Grading and Tree Clearing	3.7
Guest Service Facilities	Grading	2.1
	Grading and Tree Clearing	0.6

Lifts	Grading	19.5
	Grading and Tree Clearing	13.7
Administrative Route Construction, Reclamation, and Improvement	Grading	36.8
	Grading and Tree Clearing	23.9
Snowmaking	Grading	15.7
	Grading and Tree Clearing	5.8
Summer Activities	Grading	63.9
	Grading and Tree Clearing	56.6
Terrain Development, Glading, Grading	Glading*	475.2
	Grading	25.3
	Grading and Tree Clearing	32.1
	Groomable Glades	40.7
	Tree Clearing	118.2
Avalanche Mitigation Infrastructure	Grading	< 0.1
	Grading and Tree Clearing	< 0.1

*Glading consists of the partial removal of trees (specifically between 10 and 40 percent of a stand), to increase spacing providing the opportunity to ski or ride through the forest. Unlike traditional trail construction, this activity does not involve clear-cutting or ground grading, meaning the underlying soil remains largely undisturbed and the area retains its forested character. Specific volumes of cut timer would be dependent on the standing timber present during implementation. Although specific volumes of cut timber cannot be specified, glading projects typically consist of the removal of smaller diameter trees (under 8 inches in diameter) as well as hazard trees which ski areas operating under a SUP FS-2700-5B are authorized to cut.

SPECIAL USE PERMIT/OPERATIONAL BOUNDARY EXPANSIONS

South Bowl Area

Terrain

GTR proposes to expand its existing SUP boundary into the “South Bowl” area adjacent to Peaked Mountain, which would add 266 acres to the resort’s permitted area (refer to **Figure 4**). In addition to naturally occurring undeveloped terrain that would become part of the SUP area under this proposal, GTR proposes to construct developed ski runs in the South Bowl area (see SB-01 to SB-8 in **Figure 4**). In total, developed ski runs would account for approximately 60 acres of the 266-acre South Bowl area that GTR proposes to incorporate into its SUP boundary. The proposed developed trails in the South Bowl area would all be constructed to provide well-defined and smooth skiable surfaces through a combination of grading and tree clearing practices. As such, heavy machinery would be required in certain circumstances to achieve the desired surface. The South Bowl itself is an open, steep bowl on the southside of Peaked

Mountain, and GTR intends to maintain its open bowl feel as much as possible. These natural conditions in the South Bowl area would provide unique terrain variety for higher ability level guests within undeveloped portions of the 266-acre expansion area without additional modification.

South Bowl Lift

To serve the terrain in the South Bowl area, GTR proposes the construction of the South Bowl Lift. This lift would be 3,211 feet long and have a capacity of approximately 1,800 persons per hour. It would provide lift service skiing and riding to the South Bowl area and serve as the connection for guests to return to Peaked Mountain and the base area. The lift is planned as a top drive lift, which would reduce the construction and maintenance access needs of the bottom terminal. To accommodate the lift towers, some grading and tree clearing would be required along the lift line, and grading and tree clearing would be required to create space for the lift terminals and skier egress. Fiber and electricity lines to the top lift terminal of this lift would be provided via an extension of the Colter lines, and communications and fiber lines would be buried along the lift line.

Facilities

GTR proposes facilities at the top and bottom of the South Bowl Lift. The facility at the top terminal would be a ski patrol facility to provide patrol access into the South Bowl area to ensure timely responses to potential accidents in the area and facilitate operations in this proposed area. There is an existing ski patrol facility at the top of the existing Colter Lift; however, given the location of this facility down ridge from the top terminal of the South Bowl Lift and the terrain it serves, there is a need for an additional ski patrol facility to provide for timely ski patrol response, operations, and ultimately public safety. The existing Peaked Mountain administrative route and its proposed extension would provide construction and maintenance access to this facility. The facility at the bottom terminal would be a vault toilet restroom as there are no other restroom facilities between the South Bowl and Sacajawea Lifts. This facility would be accessed by the proposed cat/construction maintenance access route to the base of South Bowl, which would be capable of accommodating a pick-up truck with pumping/maintenance capabilities in the summer months.

Access

Construction and maintenance access to the South Bowl area and to the top of the South Bowl Lift would be provided via an upgraded administrative route to the top of the Colter Lift. GTR also proposes a cat/construction and maintenance route that would provide access to the base of the South Bowl Lift. The route would be approximately 1.5 miles long. This route would provide snowcat access to the bottom terminal in winter months, serving as an option in emergency or lift closure scenarios. In the summer months, this route would be capable of accommodating maintenance vehicles such as UTVs and/or pick-up trucks.

Public Safety

In an effort to mitigate avalanche risk and address public safety in the South Bowl area, GTR proposes to construct a ski patrol facility and install two avalaunchers, a bomb cache, and two permanent avalanche

rescue caches[5] in South Bowl, depicted in **Figure 4**. Operational measures like ropelines, backcountry access points, etc., would be documented in an Operational and Boundary Management Plan (refer to **Table 2.4-1. Project Design Criteria** for more information). The ski patrol facility is described under the *Terrain* and *On-Mountain Infrastructure* header. Both avalaunchers would be located to the east of the bottom lift terminal. One avalanche rescue cache would be located at the base of South Bowl, near the avalaunchers, and the other would be located on NFS lands on the peak west of Mary's Nipple. The avalanche rescue caches would contain rescue equipment for ski patrol use. Installation would involve grading and tree clearing to accommodate the equipment.

Additional details regarding changes that occurred to the South Bowl project component following the public scoping period are detailed in the following **Section 2.5**.

Mono Trees Area

Terrain

In addition to the proposed South Bowl area, GTR proposes to expand its existing SUP boundary to the west to include the Mono Trees area, adding approximately 600 acres to the resort's permitted area (refer to **Figure 5**). Within this area, GTR proposes to construct approximately 97 acres of intermediate and advanced-intermediate trails to provide developed skiing opportunities in the Mono Trees area. Similar to South Bowl, inclusion of Mono Trees into the SUP expansion area would also result in the incorporation of undeveloped, skiable terrain, into the overall GTR terrain network. The undeveloped terrain that would become accessible in the proposed Mono Trees area is primarily characterized by glades and open meadows. Since the Mono Trees area is currently forested, terrain projects would require tree clearing to accommodate trails and glading to accommodate gladed areas. Grading would also be required to provide favorable ski slope angles.

Mono Trees Lift

To serve the terrain in the Mono Trees area, GTR also proposes the construction of the Mono Trees Lift, a chairlift 4,222 feet long with a capacity of 1,800 persons per hour. This lift would provide a quality skiing experience on the slopes of Lightning Peak during periods when the upper mountain experiences poor visibility, high winds, or other weather factors. A similar lift in the Lightning Ridge area was approved for construction in the 1994 ROD with a north-south alignment.

Electricity to the proposed lift would be provided to the bottom terminal from the bottom of the Sacajawea Lift in a catwalk and to the top terminal from the proposed line supplying electricity to the bottom of the Colter Lift, buried in the proposed administrative route connecting the two lifts. Communications and fiber lines would be buried along the lift line and fiber would be routed from the Dreamweaver trail along a proposed administrative route. A chair storage facility is proposed at the top of the lift. Grading and tree clearing would be required to accommodate new lift towers and terminals. An Operations and Boundary Plan would be created prior to lift operations within the Mono Trees pod (refer to **Table 2.4-1. Project Design Criteria** for more information).

[5] Avalanche rescue caches are small permanently constructed facilities that store equipment for avalanche rescue like shovels, probes, flashlights, first aid kits, etc. These two caches would be located outside the existing and proposed SUP expansion areas but would cause less than 0.05 acres of disturbance.

Lightning Ridge Guest Facility

To accompany the Mono Trees Lift and associated terrain, GTR proposes to construct a guest facility on Lightning Ridge, at the top of the Mono Trees Lift. The facility would offer limited food service (i.e., outdoor grill and cold sandwiches, snacks, beverages, etc.), a wood stove, and a vault toilet. Its primary purpose would be to provide a warm area for guests coming off the mountain. It would be approximately 1,500 square feet. This facility would only be constructed if the associated Mono Trees projects are approved. This facility may also provide support ski patrol operations (e.g., storage) but that would not be its primary function.

Access

To provide access into the Mono Trees area, two administrative routes totaling approximately 0.9 mile would be constructed (refer to **Figure 5**). One would provide access from the bottom of the Sacajawea Lift, within the existing SUP boundary, to the bottom of the Mono Trees Lift, outside of the existing SUP boundary. The other administrative route would provide access from the Lightning Ridge guest facility to the top of the Mono Trees Lift. This administrative route would be entirely within the existing SUP area but would only be constructed if the Mono Trees area were approved. In total, 2.5 miles of administrative routes would be constructed to provide access to the two SUP expansion areas. Grading and tree clearing would be required for construction of the access administrative routes into Mono Trees.

1997 Forest Plan Amendments

A programmatic amendment to the *1997 Forest Plan* would be required to accommodate the proposed South Bowl and Mono Trees areas located outside of GTR's existing SUP boundary on land that is currently designated as Management Prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 – *Aquatic Influence Zone*. As previously mentioned, the proposed development of this ski terrain would require that the *1997 Forest Plan* be amended to incorporate these two areas into the GTR SUP boundary and would result in the conversion of approximately 866 acres from Management Prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 – *Aquatic Influence Zone* to Management Prescription 4.2 – *Special Use Authorization Recreation Sites*. Per the 1997 Forest Plan, the Management Prescription 2.8.3 - *Aquatic Influence Zone* Management Prescription overlaps other Management Prescription areas, therefore the 125 acres are accounted for in the 866 acres of Management Prescription 2.1.2 - *Visual Quality Maintenance* being converted to Management Prescription 4.2 - *Special Use Permit Recreation Sites*. No portion of the proposed SUP expansion would occur in areas classified as designated wilderness (Management Prescriptions 1.1.6 – *Designated Wilderness – Opportunity Class I*, 1.1.7 – *Designated Wilderness – Opportunity Class II*, and 1.1.8 – *Designated Wilderness – Opportunity Class III*). Refer to **Figure 1** for a depiction of the proposed boundary expansion and *1997 Forest Plan* Management Prescriptions.

Additional amendments, driven by resource impacts associated with various project components of the action alternatives, are described in the corresponding resource sections within **Chapter 3**. These proposed amendments are project specific, and would amend the *1997 Forest Plan* to exempt the proposed projects from certain resource standards. The aforementioned project specific *1997 Forest Plan* amendments are related to wildlife habitat and are described in detail in **Sections 3.13**. **Appendix B** contains a full *1997 Forest Plan* consistency analysis. **Appendix C** and Section 1.9.1 – Targhee National Forest Revised Forest Plan describes the *1997 Forest Plan* amendments themselves.

LIFTS, LIFT REPLACEMENTS AND REALIGNMENTS (WITHIN THE EXISTING SUP AREA)

The lifts described in the following paragraphs are proposed in addition to the lifts included in South Bowl and Mono Tree areas (discussed in previous section) and are located within the existing SUP area (refer to **Figure 2** for a depiction of existing and proposed lifts within the SUP area).

All lifts would require grading or a combination of grading and tree clearing to accommodate lift towers, utility lines, the lift corridor, lift terminals, and adequate load/unload areas for guests. Each lift project is discussed in greater detail in the following paragraphs. Further, a description of utility lines that would be required for the installation of each lift is described under **Section 2.3**.

Dreamcatcher

The Dreamcatcher Lift is expected to meet its life expectancy shortly after the completion of this NEPA process. As such, GTR proposes to replace the lift with a detachable six-passenger chairlift and gondola configuration, referred to as a "chondola," with a gondola cabin approximately every 5 chairs. The upgraded lift would be realigned slightly to improve skier egress and accessibility. Specifically, the bottom terminal would be moved slightly to the south to accommodate the larger terminal associated with the chondola infrastructure. The top terminal would also be moved slightly to the south to create a better interface with the proposed Fred's Mountain top guest facility. This proposed interface between Fred's Mountain top guest facility and the top lift terminal would provide increased accessibility, particularly for ADA capabilities, and would enable non-skiers to dine on the mountain. Chair storage would be located adjacent to the bottom terminal.

The realignment would be approximately 100 feet longer than the existing lift, with a length of 6,050 feet, and would have a capacity of 2,280 pph. This upgrade would not only address aging infrastructure but would best serve the proposed Fred's Mountain top guest facility and provide improved out-of-base functions. The configuration was not included in the 2018 MDP; however, the lift capacity would remain the same as is currently depicted in the MDP.

Crazy Horse

GTR proposes a new detachable lift on Fred's Mountain called Crazy Horse. It would be 3,849 feet long and have a capacity of 1,800 pph. The bottom lift terminal would be located near the Powder Reserve Traverse and the top lift terminal would be located to the southeast of Dreamcatcher top terminal. This alignment would provide better access to trails on Fred's Mountain and allow skiers and riders to access Fred's Mountain terrain without having to return to the base area to ride Dreamcatcher Lift. In the event the Dreamcatcher Lift is inoperable, skiers would be able to access the terrain by riding Sacajawea and Crazy Horse Lifts in succession to reach the top of Fred's Mountain.

North Boundary

GTR is proposing to add a 2,845-foot-long North Boundary Lift to provide access to the terrain from the North Boundary Traverse down to Rick's Basin. This fixed-grip triple lift would have a capacity of 1,200 people per hour and is intended to provide better utilization of the terrain at the far north edge of the resort, as well as providing access to intermediate and advanced terrain that is currently not lift-accessed. Similar to Mono Trees Lift, the North Boundary Lift would help provide a quality ski experience on those days when the Dreamcatcher Lift cannot be operated due to fog, wind, or other weather factors.

Shoshone

GTR proposes to upgrade the existing Shoshone Lift to a detachable lift. This lift may require realignment to provide better skier circulation, and in which case there would be additional grading needed for the new top and bottom terminal locations. This replacement and possible realignment are accounted for in the disturbance associated with the summer activity zone (refer to the Other Summer Activities discussion below for more information). The upgrade would improve access to surrounding ski trails for lower-ability level guests from ski school using this terrain.

Palmer Platter Surface Lift and Lights

A surface lift is proposed to be installed on *Palmer's Raceway* trail in the Shoshone area called the Palmer Platter. The lift would be aligned along the southside of the tree island between *Big Horn* and *Palmer's Raceway* trails and would be 881 feet long. Lighting is proposed on *Palmer's Raceway* as well. The lift would provide a quick turnaround for athletes training on *Palmer's Raceway* and the lights would allow for longer training sessions during the winter months. The lights would operate seven days a week and would be turned off by 9 p.m. Light towers would be installed on each side of the run, each one approximately 150 feet apart, for a total of 10 permanent light towers (5 on each side) proposed in the area (refer to **Table 2.4-1. Project Design Criteria** for more information on lighting related design criteria). The permanent light towers would be installed with concrete foundations approximately 3 feet x 3 feet and would require grading and some combination of grading and tree clearing for installation.

Teaching Carpet

GTR is proposing one new teaching carpet near the base of the Shoshone Lift in the Shoshone beginner area. The carpet would be approximately 430 feet in length. The proposed carpet would supplement the existing carpet in the area by providing additional lift service for first time skiers/riders next to Targhee Village. It would also support a more gradual beginner progression by providing additional, needed beginner terrain for new skiers before graduating to the Shoshone Lift.

TERRAIN AND ON-MOUNTAIN INFRASTRUCTURE (WITHIN THE EXISTING SUP AREA)

Terrain Development, Glading and Grading

Approximately 214 acres of traditional terrain developments and improvements are proposed within the existing GTR SUP area (refer to **Figure 2**). Additionally, improvements to existing glades, combined with additional gladed areas would result in approximately 550 acres of gladed areas across the resort (a portion of this glading extends into the proposed Mono Trees area). Proposed terrain development, glading and grading within the existing SUP area includes:

- New teaching terrain around the new teaching carpet;
- New trails and realignment of key circulation trails (*Teton Vista Traverse*, *Powder Reserve Traverse*, and *Mill Creek Traverse*);
- Two new trails, widening or extending seven trails, and glading in the areas served by the existing Dreamcatcher Lift and proposed Crazy Horse Lift;
- One new trail, lengthen and realign Wild Turkey, and improve tree skiing by *The Good, The Bad, The Ugly*, and *The East Woods* through glading in the Blackfoot area;
- Two new trails and glading in the Sacajawea area;

- Trail widening and grading along Papoose Creek upon the skiway which would connect the existing Sacajawea Lift and the Colter Lift. Due to this project's proximity to Papoose Creek, it is assumed that coordination with the United States Army Corps of Engineers would be necessary;
- Construction of the trails within the North Boundary area, including six new runs, one new access route/collector trail for the North Boundary area, and two new short access routes to gain entry and exit the area; and

Approximately 25 acres of grading to accommodate the trail construction and improve the skiability of existing trails. In addition to the proposed new trails and glading, a portion of the existing *Peaked* trail network would require select tree removal to accommodate additional skier capacity following the recent installation of the Colter Lift. Among the proposed terrain is groomable glade-style skiing areas. Groomable glades are interconnected ski spaces that consist of a braided network of interwoven ski runs that are cleared to a width of about 50 to 80 feet and separated by small tree islands. This style of ski terrain provides a glade-like skiing experience for lower-level intermediate skiers, as it can be groomed as necessary to maintain or improve the snow surface quality.

Administrative Routes

GTR proposes construction, reclamation, and improvements for GTR managed administrative routes within the existing and proposed SUP area. These existing non-Forest Service system administrative routes are used exclusively for resort and Forest Service access to GTR and are not open to the public for motor vehicle travel. The administrative route construction, reclamation, and improvements would eliminate steep and no longer necessary access administrative routes, as well as construct new administrative routes to bypass steep grades and improve mountain circulation and maintenance (refer to **Figure 3**). The overhaul of the administrative route network would allow GTR to reduce erosion and sedimentation and better maintain on-mountain infrastructure. Key features of this program include realign and reconstruct the *Teton Vista Traverse (TVT)*, *Powder Reserve Traverse (PRT)*, Rick's Basin Access Administrative Route, spur administrative route connecting the switchback on Peaked Mountain to the proposed South Bowl administrative route, and *Mill Creek Traverse (MCT)*. Three separate administrative route actions are proposed: 7.0 miles of administrative routes would be improved, 4.3 miles of administrative routes would be constructed, and 2.2 miles of administrative routes would be reclaimed. Grading and a combination of grading and tree clearing would be required for administrative route reclamation, improvement, and construction.

In addition to administrative routes within the SUP area, GTR proposes the construction of access administrative routes into South Bowl and Mono Trees areas. These routes are described in detail under the South Bowl and Mono Trees sections previously.

Snowmaking

GTR proposes 57 acres of snowmaking to improve lower-mountain circulation routes and high use trails (refer to **Figure 6**). By expanding their snowmaking infrastructure, GTR would be able to provide better snow surface and early season conditions. Snowmaking would be installed on the following trails:

- Lower portion of *Chief Joseph Bowl* (4.3 acres)
- *The Funnel* (3.5 acres)
- *Big Thunder* (7.5 acres)

- *Sitting Bull Ridge* (11.6 acres)
- *Headwall Traverse* (2.1 acres)
- *Big Scout* (4.6 acres)
- *Little Beaver Traverse* (4.9 acres)
- *Mill Creek Traverse* (3.4 acres)
- *Tubing Hill* (0.9 acres)
- *Blackfoot Access Route* (1.5 acres)
- *Teaching Carpets* (1.9 acres)
- *Teton Vista Traverse* (10.8 acres)

Necessary water for this increased coverage would come from additional groundwater wells. Prior to snowmaking infrastructure development, additional groundwater wells would be developed on private land in GTR's base area. As required by GTR's SUP, water sufficiency for existing and proposed operations is documented in a water sufficiency letter that is on file with the CTNF.[6] This analysis of water supply has determined that GTR's infrastructure can produce sufficient water to operate the currently permitted portion of the ski area and provide for the activities authorized in its operating plan. The proposed 57 acres of additional snowmaking could also be accommodated by the existing water supply systems at GTR; however, as GTR continues to develop their base area infrastructure on private lands (as approved under the 2019 First Amended Master Plan – Planned Unit Development for Planned Resort), their groundwater infrastructure would have to be expanded. Accordingly, GTR would apply for a new well permit with the Wyoming State Engineer's Office and then develop up to two additional wells on private land to meet the future water supply demands associated with the proposed snowmaking coverage. The timing for new wells is subject to the pace of development of the resort.

Snowmobile Rescue Cache

In coordination with the Forest Service and Teton County Search and Rescue, GTR proposes to install a snowmobile rescue cache to the south of the South Bowl area, in Teton Canyon. It would be located adjacent to the existing winter trails in Teton Canyon in order to provide additional safety equipment in case of emergencies. This rescue cache would be a small facility potentially placed on a 4x4 above ground with proper signage for emergency personnel to find. It currently has a disturbance of 0.005 acres, so is very small. This project component would be relevant with or without the inclusion of the South Bowl boundary expansion as backcountry usership of this area is anticipated regardless of South Bowl projects.

Guest Services Facilities

All proposed facilities are intended to improve the guest experience by offering services such as food and beverage, improved customer service through additional staff resources, and areas to escape the weather on the mountain. Constructing the facilities would require either grading or grading and tree clearing to accommodate building foundations and entry and egress around facilities.

[6] Jorgensen Engineering 2024

Fred's Mountain Top Guest Facility

GTR proposes to construct a full-service on-mountain guest service facility at the summit of Fred's Mountain, south of the existing Dreamcatcher Lift top terminal. This facility would serve many functions. It would serve as a central on-mountain location for skiers and riders within the Dreamcatcher and Crazy Horse areas, which would eliminate the need to descend to Targhee Village for basic services, but also be a destination restaurant offering year-round views of the Tetons. This facility would include a restaurant, bar, restrooms and ski patrol facility. Electricity would be installed from the base area via power lines trenched into existing disturbed areas or areas proposed for ground disturbance which pass the site of the restaurant. Preliminary engineering review determined that sewer would be a sanitary sewer line either placed in an existing disturbed corridor or corridor proposed for ground disturbance based on final engineering review and recommendations.[7] Water would be supplied from pumping water from the base area through a water line either placed in an existing disturbed corridor or corridor proposed for ground disturbance based on final engineering review and recommendations. Water supply would be provided by an additional well located on GTR's private land.[8] This well would need to be permitted by the Wyoming State Engineer's Office.[9] Additionally, the proposed Dreamcatcher Lift corridor, proposed snowmaking line, or proposed administrative route (refer to **Figure 2**, **Figure 3**, and **Figure 6**) could accommodate additional utilities, potable water, and sewer[10] as these areas would be disturbed during the project construction process and trenching would already need to occur for other proposed infrastructure or utilities. Siting of the guest facility as well as potable water and sewer systems shall be reviewed by certified engineering, architectural, geotechnical, and hydrological specialists prior to construction. The building would have simple, linear forms and utilize low-reflective materials to blend with the surrounding environment in sensitivity to viewsheds from GTNP and would comply with the Forest Service's Built Environment Image Guide (BEIG). The facility is proposed for daytime use only. Closure of this facility would be no later than an hour past the National Oceanic and Atmospheric Administration's (NOAA) published sunset time for each day of the year. There would be no major night lighting associated with the proposed project; however, subtle low-lying light fixtures may be installed outside the facility for maintenance and to prepare for daily operations which would primarily occur in the early morning. Outdoor lights would use full cutoff or shielded fixtures that minimize skyglow, glare, and light trespass in order to preserve dark sky values. It would be approximately 7,000 square feet of interior space and approximately 4,000 square feet of outdoor space. The realigned *Teton Vista Traverse* administrative route would provide construction access to the restaurant location. The existing communication site would be improved and sited with the proposed Dreamcatcher Lift and Fred's Mountain Top Guest Facility infrastructure.

Sacajawea Restaurant and Guest Facility

In addition to the Fred's Mountain top guest facility, GTR proposes to construct a full-service on-mountain guest service facility at the top terminal of the Sacajawea Lift, to serve the southern side of the resort, including the existing Sacajawea and Colter areas along with the proposed Mono Trees area. This

[7] Jorgensen Engineering 2026
[8] Jorgensen Engineering 2024
[9] The proposed onsite well is anticipated to be limited to a diversion of less than 3 acre-feet per year for consumptive and sanitary uses at the proposed facility and would be subject to permitting from the Wyoming State Engineer's Office.
[10] Proper offsetting distances between the potable water line and sewer line would be able to be accommodated in the identified disturbance corridors.

facility would include a restaurant, bar, and restrooms. Electricity would be buried from the top of Sacajawea Lift. Restrooms would be vault toilets, an onsite septic system or a sanitary sewer line, depending on corresponding engineering recommendations. All disturbance associated with septic would be located within previously disturbed corridors or disturbance corridors associated with other proposed projects. Water would be supplied from an onsite well, which would be within the disturbance footprint of the proposed facility. The well would need to be permitted by the Wyoming State Engineer's Office.[11] The facility is proposed for daytime use only. Closure of this facility would be no later than an hour past NOAA's published sunset time for each day of the year. There would be no major night lighting associated with the proposed project; however, subtle low-lying light fixtures may be installed outside the facility for maintenance and to prepare for daily operations which would primarily occur in the early morning. Outdoor light would use full cutoff or shielded fixtures that minimize skyglow, glare, and light trespass in order to preserve dark sky values. The facility is proposed to offer approximately 6,500 square feet of interior space. Additionally, approximately 2,000 square feet of deck space is proposed for outdoor seating. The upgraded administrative route off the *Powder Reserve Traverse* would provide construction access to the proposed facility location.

Shoshone Guest Facility

To accommodate guests using beginner terrain and the Summer Activity Zone, GTR proposes to construct a guest facility at the top of the Shoshone Lift. The facility would be approximately 1,500 square feet of indoor space and approximately 2,000 square feet of deck or outdoor space. The facility would provide a simple, rustic environment. It would offer services to guests during the day, and also the potential as a dinner destination with access by evening winter sleigh rides or summer horseback rides; access to this location in the summer and winter could be provided via the existing administrative route to be upgraded culminating at the top of the Shoshone Lift (refer to **Figure 3**). This facility would include restaurant seating, a simple kitchen, and restrooms. Electricity would be spired from an existing electricity line supplying Shoshone Lift. A vault toilet would be constructed at the top of the lift. Water would be supplied from an onsite well within the disturbance footprint of the proposed facility or would be transported to the facility. The well would need to be permitted by the Wyoming State Engineer's Office.[12] The upgraded administrative route to the top of the Shoshone Lift would provide construction access to the facility.

Rick's Basin Guest Facility

GTR proposes to construct an on-mountain guest facility in Rick's Basin, within the Nordic trail system to support the Nordic trail network. The facility would be outfitted with limited food service (i.e., outdoor grill and cold sandwiches, snacks, beverages, etc.), a wood stove, and a vault toilet. Its primary purpose would be to provide a warm area for guests coming off the mountain. The structure would be approximately 1,500 square feet.

[11] The proposed onsite well is anticipated to be limited to a diversion of less than 1 acre-foot per year for consumptive and sanitary uses at the proposed facility and would be subject to permitting from the Wyoming State Engineer's Office.

[12] The proposed onsite well is anticipated to be limited to a diversion of less than 1 acre-foot per year for consumptive and sanitary uses at the proposed facility and would be subject to permitting from the Wyoming State Engineer's Office.

Storage and Vault Toilet Facilities

At the base of the proposed North Boundary storage and vault toilet facilities are proposed. Improving the existing vault toilet at the bottom of the Blackfoot Lift to include a storage facility is also proposed. These would provide additional on-mountain storage space for staff to improve guest services and address staffing needs. The North Boundary storage facility would also include a vault toilet; whereas a separate vault toilet already exists at the Blackfoot Lift. The disturbance for these facilities is included in each lift's bottom terminal disturbance footprints.

NON-WINTER AND ALTERNATIVE ACTIVITIES

Summer Recreation Trails

To provide additional summer activities, GTR proposes to construct approximately 29 additional miles of trail to enhance the existing network (refer to **Figure 3**). This includes 6 miles of downhill biking trails, 2 miles of hiking trails, and 21 miles of multi-use trails.

Downhill biking trails would include 9 new trails totaling 6 miles, including:

- Three trails descending from the *Grand Traverse* trail, adjacent to the existing *Tall Cool One* trail,
- A trail descending adjacent to the *Blondie* trail.
- A trail starting at the administrative route just east of the Sidewinder trail and ending at the Bullwinkle trail,
- A connector trail between the existing Rock Garden trail to the proposed Summer Activity Zone,
- A connector trail between Crazy Horse and Sticks and Stones trails to provide an easier alternative to the existing Grand Traverse,
- A re-route around the Summer Activity Zone, and
- A connector between *Rick's* and *Otterslide* trails.

Hiking trails would include 1 new trail totaling 2 miles, including:

- A trail from *Mary's Saddle* to the base area.

Multi-use trails would include 17 new trails totaling 21 miles, including:

- A *Tall Cool One* cutoff trail,
- An extension for the existing *North Woods* loop, starting at the base of the *North Woods* trail and connecting with the *Quakie Ridge* trail,
- A connector trail between the proposed *North Woods-Quakie Ridge* connector and the bottom of the *Quakie Ridge* trail,
- A *Quakie Ridge* extension trail,
- A loop with a variety of switchbacks starting and ending along *Rick's Basin* trail,
- A beginner loop in between the *Rick's Basin* and *Snowdrift* trails,
- An outer loop on the western edge of the SUP boundary, extending from the *Roundabout* trail and terminating at *Greenhorn Access*,
- A shorter, beginner loop inside the existing *Jolly Green Giants* trail,

- A trail from *Colter's* to *Peaked* trails,
- A new trail from *Ain't Life Grand* to *Peaked* trails, with a segment extending west past the *Peaked* trail,
- A trail extending from *Action Jackson*, intersecting with *Andy's* and *Trail 3*, and connecting with the proposed *Ain't Lift Grand-Peaked* trail,
- A trail descending from the top of the Colter Lift to the northern tip of the *Ain't Life Grand* trail,
- A loop extending from Ski Hill Road and the base area, intersecting with the base of the Sacajawea Lift and the *Action Jackson* trail,
- An outer trail around the *Buffalo Soldier* trail, connecting *Buffalo Soldier* and *Rocky Mountain Wa*y,
- A loop extending from the *38 Special* trail,
- A trail connecting the existing *38 Special* and *Peaked* trails,
- A connector trail between the northernmost proposed downhill mountain biking trail to the existing *Bring it On Home* trail in the Summer Activity Zone.

Trail construction would occur primarily on NFS lands, although some construction would occur on GTR's private parcels. Construction would involve grading to create an appropriate surface for the intended trail experience as well as some grading and tree clearing in forested areas. With the construction of these new trails, demand for additional trail infrastructure could be satisfied, and trail-based recreational opportunities would be augmented in the area. The proposed trails offer an ideal opportunity for GTR to assist the CTNF in stewarding the land.

Other Summer Activities

GTR proposes to focus their multi-season recreation opportunities in and around Shoshone Lift area (refer to **Figure 3**). This area was called the Summer Activity Zone in the 2018 MDP and was allocated for high density of activities and concentrated use. This is an ideal location for GTR's summer activity hub because it is an accessible location for a wide range of guests. The moderate terrain allows for guests to experience the natural environment in a structured area. Activities in this area could include a canopy tour/fly line, zip line, and aerial adventure course. These activities would be located on Forest Service lands.

While the Summer Activity Zone was designated to allow for flexibility in locating activities and accommodate new activities as summer recreation evolves at ski areas, preliminary sites have been identified as being capable of accommodating certain experiences. The canopy tour or fly line would start west of the Shoshone Lift top terminal. It would be a multi-station tour where guests would travel on an elevated tour through the tree canopy. A canopy tour is a more traditional activity where guests wear harnesses and use short zip lines to travel from station to station, while a fly line is a hybrid mountain coaster/zip line where guests wear harnesses but travel along a track from station to station.

The zip line would start south of the Shoshone Lift top terminal. It would consist of a multi-segment zip line; a shorter segment to get guests familiar to the zip line harness and equipment and a second zip line of more than 2,000 feet over the event area.

The aerial adventure course would start northeast of the Shoshone Lift bottom terminal or uphill of the event area. This elevated challenge course includes a series of elements of varying length and difficulty for both adults and children.

The disc golf course would also be re-located within the Summer Activity Zone to the north of the proposed canopy tour/fly line.

It is assumed that the entirety of the Summer Activity Zone would be disturbed through construction of the activities within, and this is reflected in its disturbance footprint that is carried through this analysis.

Alternative Winter Activities

GTR also proposes a permanent, dedicated snow tubing facility located to the west of the Sioux Lodge on NFS lands (refer to **Figure 2**). The facility includes lighting for night operation and snowmaking infrastructure sufficient to ensure quality construction and maintenance of tubing lanes (refer to **Section 3.2 – Scenery** for more information). Electricity to this location would likely be provided by a power line connecting to the base terminal of the Shoshone Lift. The proposed snowtubing facility would be located in a previously disturbed area within the GTR base area and snow would be used to construct the tubing lanes. No tree clearing or grading would be required. Proposed snowmaking coverage for the tubing facility totals approximately 2 acres.

GTR also proposes to expand the Nordic, snowshoeing and fat biking offerings. To improve access to Rick's Basin, GTR proposes to realign and re-grade the existing, steep trail segment from the base terminal of Blackfoot Lift into Rick's Basin eliminating the existing steep grade. Additionally, the existing Nordic trail and alpine ski-out trail connecting the bottom terminal of the Blackfoot Lift with *Little Beaver Traverse* would be graded to make the slope more consistent and to increase the width of trail for dual-use by alpine and Nordic skiers. A total of approximately 1.4 miles of Nordic trails would be constructed to improve connectivity with the Rick's Basin trails. A portion of these new Nordic trails would be established on private lands and near the tubing center to tie Nordic skiing into the Targhee Village and introduce additional trail variety. As discussed previously, an approximately 1,500 square foot Rick's Basin Guest Facility with vault toilets and potable water would also be located within the Rick's Basin trail network.

2.2.3 Alternative 3 – No SUP Expansion

Alternative 3 is intended to respond to a variety of resource concerns associated with the SUP expansion into South Bowl and Mono Trees, including:

- Wildlife (bighorn sheep and Canada lynx in particular);
- Recreation (impacts to backcountry skiers and SUP holders);
- Socioeconomics concerns associated with increased capacity causing a commensurate increase in visitation, including impacts to affordable housing; and
- Scenery.

Alternative 3 excludes any proposed expansion of the SUP area, but includes all projects proposed within the existing SUP area. More specifically, under Alternative 3, there would be no expansion of the SUP into the South Bowl or Mono Trees area, meaning no programmatic amendment of the *1997 Forest Plan* Management Prescriptions would be needed under this alternative. Project specific amendments to the *1997 Forest Plan* would still be needed under this alternative and are described within the discussion of

environmental consequences contained in **Sections 3.12** and **3.13**. **Appendix B** contains a full *1997 Forest Plan* consistency analysis. **Appendix C** describes the *1997 Forest Plan* amendments themselves.

A breakdown of disturbance areas by project component is provided in **Table 2.2-2**.

Table 2.2-2. Projected Disturbance Under the Alternative 3

Project Component	Type of Disturbance	Acres
Alternative Winter Activities	Grading	1.9
	Grading and Tree Clearing	3.7
Guest Service Facilities	Grading	1.7
	Grading and Tree Clearing	0.4
Lifts	Grading	17.5
	Grading and Tree Clearing	5.8
Administrative Route Construction, Reclamation, and Improvement	Grading	31.8
	Grading and Tree Clearing	16.9
Snowmaking	Grading	15.7
	Grading and Tree Clearing	5.8
Summer Activities	Grading	63.9
	Grading and Tree Clearing	56.6
Terrain Development, Glading, Grading	Glading	294.9
	Grading	20.7
	Grading and Tree Clearing	18.2
	Groomable Glades	40.7
	Tree Clearing	28.4
Avalanche Mitigation Infrastructure	Grading	< 0.1
	Grading and Tree Clearing	< 0.1

The following project components within the existing SUP area are proposed under Alternative 3 (full descriptions of which can be found under the Alternative 2 – Proposed Action header):

- Lifts, lift replacements and realignments within the existing SUP area, including the new Crazy Horse and North Boundary Lifts, the Dreamcatcher upgrade, the Shoshone upgrade and realignment, the new Palmer Platter Surface Lift and Lights, the new teaching carpet (refer to **Figure 2**);
- Trail improvements and expansions including 107 acres of new traditional terrain, 107 acres of terrain improvements, 204 acres of proposed glades, and 45 acres of groomable glades within the existing SUP boundary (refer to **Figure 2**);
- Construction, reclamation, and improvements of existing GTR managed administrative routes (not open to motorized public access), including eliminating steep and no longer necessary administrative routes, and constructing new administrative routes to bypass steep grades and improvement mountain circulation and maintenance (refer to **Figure 3**);
- 57 acres of snowmaking to improve lower-mountain circulation routes and high use trails, including the development of additional groundwater wells on private lands to facilitate increased snowmaking coverage (refer to **Figure 6**);
- Construction of two on-mountain restaurants at the top of Sacajawea and Dreamcatcher Lifts, guest facilities at the top of the Shoshone Lift, in Rick's Basin, storage and vault toilet facilities at the base of the North Boundary Lift, and improvement of the existing vault toilet at the bottom of the Blackfoot Lift to include a storage facility (refer to **Figure 2**);
- Non-winter and alternative activities, including 29 miles of downhill biking, hiking and multi-use trails (refer to **Figure 3**);
- Other summer activities around the Shoshone Lift area, including a canopy tour/fly line, zip line, aerial adventure course and disc golf course (refer to **Figure 3**); and
- Alternative winter activities, including a snow tubing facility and expansion and improvement of Nordic, snowshoeing and fat biking offerings (refer to **Figure 2**).

2.2.4 Alternative 4 – South Bowl, No Mono Trees

Alternative 4 is intended to respond to resource concerns associated with the SUP expansion into Mono Trees, including:

- Scenery concerns associated with tree removal, chairlift and ski terrain construction;
- Socioeconomics concerns associated with increased capacity at full buildout causing a commensurate increase in visitation, including impacts to affordable housing;
- Public safety concerns associated with increasing usership in South Bowl from Colter Lift (as out-of-bounds/sidecountry terrain) without the option to perform avalanche mitigation in this area (i.e., with South Bowl included in the SUP, GTR would be able to perform avalanche mitigation there to minimize public safety concerns resulting from increased access); and
- Wildlife (Canada lynx in particular).

Alternative 4 includes all projects proposed within the existing SUP area (summarized previously for Alternative 3 and described in full under the Alternative 2 – Proposed Action header), and the proposed SUP expansion into South Bowl (described in full under the Alternative 2 – Proposed Action header), but excludes the proposed SUP expansion into Mono Trees. Alternative 4 would result in 266 acres in South Bowl being added to GTR's SUP area; due to the proposed SUP expansion into South Bowl, Alternative 4

would include a programmatic Forest Plan Amendment to convert approximately 266 acres from Management Prescription 2.1.2 – *Visual Quality Maintenance* to Management Prescription 4.2 – *Special Use Permit Recreation Sites* (refer to **Figure 1**). Project specific amendments to the*1997 Forest Plan* would still be needed under this alternative and are described within the discussion of environmental consequences contained in **Sections 3.12** and **3.13**. **Appendix B** contains a full *1997 Forest Plan* consistency analysis. **Appendix C** describes the *1997 Forest Plan* amendments themselves. Refer to **Figures 2**, **3** and **6** for proposed winter, summer, and snowmaking projects within the existing SUP area, and **Figure 4** for the proposed expansion into South Bowl. A breakdown of disturbance areas by project component is provided in **Table 2.2-3**.

Table 2.2-3. Projected Disturbance Under the Alternative 4

Project Component	Type of Disturbance	Acres
Alternative Winter Activities	Grading	1.9
	Grading and Tree Clearing	3.7
Guest Service Facilities	Grading	2.1
	Grading and Tree Clearing	0.6
Lifts	Grading	19.5
	Grading and Tree Clearing	8.1
Administrative Routes Construction, Reclamation, and Improvement	Grading	35.1
	Grading and Tree Clearing	22.1
Snowmaking	Grading	15.7
	Grading and Tree Clearing	5.8
Summer Activities	Grading	63.9
	Grading and Tree Clearing	56.6
Terrain Development, Glading, Grading	Glading	294.9
	Grading	20.7
	Grading and Tree Clearing	18.6
	Groomable Glades	40.7
	Tree Clearing	57.1
Avalanche Mitigation Infrastructure	Grading	< 0.1

	Grading and Tree Clearing	< 0.1

2.2.5 Alternative 5 – Mono Trees, No South Bowl

Alternative 5 is intended to respond to resource concerns associated with the SUP expansion into South Bowl, including:

- Wildlife (bighorn sheep in particular);
- Recreation (impacts to backcountry skiers and SUP holders);
- Socioeconomics concerns associated with increased capacity at full buildout causing a commensurate increase in visitation, including impacts to affordable housing; and
- Scenery (including for the JSW and GTNP).

Alternative 5 includes all projects proposed within the existing SUP area (summarized previously for Alternative 3 and described in full under the Alternative 2 – Proposed Action header), and the proposed SUP expansion into Mono Trees (described in full under the Alternative 2 – Proposed Action header), but excludes the proposed SUP expansion into South Bowl. Alternative 5 would result in 600 acres in Mono Trees being added to GTR's SUP area; due to the proposed SUP expansion into Mono Trees, Alternative 5 would require a programmatic amendment to the *1997 Forest Plan* to convert approximately 600 acres from Management Prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 – *Aquatic Influence Zone* to Management Prescription 4.2 – *Special Use Permit Recreation Sites* (refer to **Figure 1**). Per the 1997 Forest Plan, the Management Prescription 2.8.3 - *Aquatic Influence Zone* Management Prescription overlaps other Management Prescription areas, therefore the 125 acres are accounted for in the 866 acres of Management Prescription 2.1.2 - *Visual Quality Maintenance* being converted to Management Prescription 4.2 - *Special Use Permit Recreation Sites*. Project specific amendments to the *1997 Forest Plan* would still be needed under this alternative and are described within the discussion of environmental consequences contained in **Sections 3.12** and **3.13**. **Appendix B** contains a full *1997 Forest Plan* consistency analysis. **Appendix C** describes the *1997 Forest Plan* amendments themselves. Refer to **Figures 2**, **3**, and **6** for proposed winter and summer and snowmaking projects within the existing SUP area, and **Figure 5** for the proposed expansion into Mono Trees. A breakdown of disturbance areas by project component is provided in **Table 2.2-4**.

Table 2.2-4. Projected Disturbance Under the Alternative 5

Project Component	Type of Disturbance	Acres
Alternative Winter Activities	Grading	1.9
	Grading and Tree Clearing	3.7
Guest Service Facilities	Grading	1.7
	Grading and Tree Clearing	0.4
Lifts	Grading	17.5
	Grading and Tree Clearing	11.4

Administrative Routes Construction, Reclamation, and Improvement	Grading	33.4
	Grading and Tree Clearing	18.7
Snowmaking	Grading	15.7
	Grading and Tree Clearing	5.8
Summer Activities	Grading	63.9
	Grading and Tree Clearing	56.6
Terrain Development, Glading, Grading	Glading	475.2
	Grading	25.3
	Grading and Tree Clearing	31.7
	Groomable Glades	40.7
	Tree Clearing	89.5
Avalanche Mitigation Infrastructure	Grading	< 0.1
	Grading and Tree Clearing	< 0.1

2.3 Construction Practices Common to All Alternatives

For the purpose of the analysis, it is assumed that project construction would generally occur during the snow-free months and would be confined to daylight hours (e.g., within the hours of 7am-7pm). There may be exceptions to this where resource conditions dictate. For example, if over the snow tree removal were determined appropriate from a nesting bird or soil disturbance perspective then construction could extend to months where snow is present.

Further, should the projects included in the Proposed Action occur, implementation would occur over an approximately 10-year period from the time of approval. Project implementation would be subject to capital availability and may be expedited or delayed based on economic conditions that are beyond the scope of this analysis.

During construction of any Action Alternative, some or all of the permitted area would be closed to public access. Closures would apply to both permitted and dispersed use. These closures would be exercised to protect members of the public from potentially harmful conditions due to construction activities.

The existing administrative route network at GTR provides access to existing lifts and trails and would be available for preliminary phases of construction for all alternatives. All alternatives include upgrades to existing administrative routes and the construction of additional administrative routes which would provide sufficient access to areas with proposed projects. Administrative route improvement projects, including new administrative routes, are depicted in **Figure 3**. Prior to starting construction activities,

GTR shall develop a Construction Implementation Plan for Forest Service Review and Authorization (see **Table 2.4-1** for more details). Equipment and vehicles would be transported for construction and maintenance purposes via these administrative routes. Low-impact machinery (e.g., a spider hoe) can be used on steep terrain to assist with chairlift and trail construction. Helicopters would assist with tree removal and transporting heavy machinery and infrastructure.

2.3.1 Tree Removal

Tree removal methods are subject to change based on conditions discovered in the field during project implementation and those contracted to complete the tree removal work. What is described in this section is the range of potential methods that could be used for tree removal, which are analyzed in **Chapter 3** based on what is most impactful to a given resource (unless otherwise specified). For example, helicopter use is analyzed in **Section 3.3**, as this is the most impactful tree removal option from a noise standpoint.

Tree removal methods, including in gladed areas, would primarily be accomplished over-the-snow and utilizing the on-mountain administrative route network. No skid roads would be constructed as timber would either be removed over the snow via snowcat, transported over the snow to a deck location accessible from the administrative route network, piled and burned, or removed via helicopter. Low-impact machinery (e.g. a spider hoe or helicopter) may be necessary in areas such as South Bowl with steep terrain to assist with tree removal. In some cases, tree removal in gladed ski areas would require burning. Trees would be hand cut and the vegetation would be burned in smaller piles along the trails within openings cleared for skiing. Pile burning of cleared timber must adhere to the State of Wyoming Burn Permit regulations and would depend on the time of year (i.e. to avoid fire season). Prior to burning timber, GTR must consult with the CTNF on size of slash piles in order to prevent soil sterilization and timing of burning. Hazard trees identified throughout the SUP area during construction would be removed to facilitate safe operation of the proposed terrain for an increased number of guests.

2.3.2 Administrative Routes

GTR proposes construction, reclamation, and improvements on administrative routes within and adjacent to the existing SUP area. Refer to **Section 2.2.2** for a detailed description of the project. For existing administrative routes to be upgraded, this would primarily occur through additional grading and resurfacing in key areas. These areas have been identified as those that already experience challenges in accommodating existing on-mountain travel or would not be capable of accommodating vehicles and infrastructure associated with proposed projects. Construction equipment and supplies would be transported via existing administrative routes. For administrative route construction, existing administrative routes would be used to transport heavy machinery and explosives where rock blasting is necessary for sufficient administrative route conditions. Gravel and other surface materials would be supplied as necessary via existing and newly constructed administrative routes. For administrative route reclamation, gravel would be removed and the slope and other characteristics of the surrounding landscape would be restored for the entirety of the reclaimed administrative route sections. To the extent possible, materials from administrative route reclamations would be used for administrative route building and upgrading projects, and materials such as timber from building and upgrading projects would be used to assist the reclamation process.

Portions of specific projects (e.g., towers on a lift line) would utilize temporary construction routes to facilitate their construction. The temporary construction routes would typically be located within the disturbance footprint of other project components and would not require earthwork. Low impact

machinery such as spider hoes, light duty trucks, and utility task vehicles (UTVs) would be the only vehicles that would travel on these routes. These routes would be restored and revegetated following construction.

2.3.3 Ski Trails

Most proposed ski trails would require tree removal according to the practices described in **Section 2.3.1**. Select trails might also require grading. This would primarily be done using low-impact machinery such as a spider hoe. Due to the nature of terrain in the South Bowl area, proposed trails in South Bowl would require heavy machinery to create well-defined and smooth skiable surfaces. Rock blasting would also be employed as necessary within certain proposed project areas to remove rock outcroppings.

To expand snowmaking, GTR would dig trenches in trails with proposed snowmaking to install water lines. Equipment and access would be provided via administrative routes or on snow cats via groomable trails. In general, disturbance corridors for proposed snowmaking would be approximately 40 feet wide. This disturbance could be reduced in areas where sensitive resources are determined to be present. Following implementation, these corridors would be revegetated.

2.3.4 Lifts

Lifts proposed within the SUP area would require power lines to be buried. GTR proposes to build trenches in administrative routes and other disturbed areas. GTR plans to co-locate utilities in disturbed areas (existing or as proposed for projects in this analysis) to the greatest extent practicable. GTR would use heavy machinery such as an excavator in the summer to dig these trenches as administrative routes are constructed. Utility lines and their locations for each lift project are described below:

- **Dreamcatcher** – Communications and fiber optic lines would be buried in a new trench along the proposed lift line, and electricity would be supplied via an existing line.
- **Crazy Horse** – Electricity would be supplied to the top of the lift in the catwalk from the Dreamcatcher top terminal and to the bottom of the lift from the Dreamcatcher junction box and buried in the PRT. Communication and fiber lines would be buried along the proposed lift line.
- **North Boundary** – Fiber and electrical would be provided to the North Boundary Lift via a line trenched into the proposed administrative route providing access to the bottom terminal. Electrical would also be provided from the top of the Blackfoot Lift to the top terminal of North Boundary, in the proposed administrative route along Blackfoot Traverse. Fiber and communications lines would be buried along the lift line.
- **Shoshone** – Electricity supplied to top and bottom terminals in existing administrative routes to be upgraded.
- **Palmer Platter** – Electricity supplied to top station in existing administrative route to be upgraded.
- **Teaching Carpet** – Electricity supplied via an extension of Dreamcatcher power line.

Since they are not common to all alternatives, a discussion of the Mono Trees and South Bowl proposed utility line plans can be found under **Section 2.2.2**.

Before lift installation, tree removal would be necessary along the proposed lift lines and would follow the practices described in **Section 2.3.1**. To install the lifts, parts would be transported via administrative routes or helicopter where necessary. Construction would occur on-site and would include a spider hoe to

dig tower foundations and grade terminal locations. Heavy machinery and blasting would also be utilized for terminals.

2.3.5 On-Mountain Facilities

Proposed on-mountain facilities are located adjacent to existing and proposed administrative routes. Construction materials and machinery would be provided to each facility site via administrative routes. Vegetation removal would not be required in any of the proposed sites. Disturbed areas where permanent infrastructure would not be located would be revegetated to the greatest extent possible. Following NEPA review and approval of proposed projects, design plans for all above ground structures and improvements including infrastructure, facilities, and buildings would be reviewed by the Forest Service responsible official. Structures would follow color and reflectivity guidelines as described in the Built Environment Image Guide.

2.3.6 Multi-Season Recreational Activities

The proposed Summer Activity Zone is located adjacent to Targhee village and is easily accessible via existing administrative routes. Timber removal would be necessary for zip line and fly line activities. Towers for the proposed canopy tours would be accessible via existing administrative routes and construction would most likely be completed over the snow to minimize resource impacts.

2.4 Project Design Criteria

In order to minimize potential resource impacts from construction and implementation of the proposed project, the PDC detailed in **Table 2.4-1** have been incorporated into the Proposed Action. The environmental analysis throughout **Chapter 3** of this FEIS assumes that relevant PDC from **Table 2.4-1**, as well as applicable Forest Plan amendments described in **Appendix C** would be applied under all action alternatives (Alternatives 2, 3, 4, and 5) as applicable. The effects disclosed for each alternative are further described in **Chapter 3**, in which possible amendments associated with Alternatives 2, 3, 4 and 5 are disclosed, as well as applicable PDC to mitigate resource impacts.

PDC were devised by subject matter experts and Forest Service specialists in the pre-analysis and analysis phases to reduce potential environmental impacts associated with project elements and ensure compliance with laws and regulations. PDC come from federal, state, and local laws, regulations, and policies; forest management plans; scientific recommendations; or from experience in implementing similar projects. Specific sources include the *1997 Forest Plan*, the National BMPs for Water Quality Management on NFS Land, and USDA FS Ski Area BMPs, among others. The majority of the PDC provided in **Table 2.4-1** are considered common practices that have been historically used in similar environments, including those that exist at ski areas, to prevent or decrease potential resource impacts.

Table 2.4-1. Project Design Criteria

Resource	Project Design Criteria
General	Prior to initiating construction activities on NFS lands, GTR shall develop a comprehensive Construction Implementation Plan (CIP) for projects they intend to construct (as included in this EIS each construction season. The CIP shall detail how the project(s) planned for construction are consistent with, and will comply with, the Record of Decision. The CIP shall detail planned construction/implementation methodologies sufficient to demonstrate compliance with, and fulfillment of, all applicable Project Design Criteria. If, during

Resource	Project Design Criteria

	the course of implementation, GTR fails to adhere to the CIP, the Forest Service has the authority to suspend construction or operations. The CIP(s) shall be submitted for Forest Service construction authorization prior to initiation of any specific project and include the following information as appropriate for the project(s) being undertaken:
	
	• Construction Management: Project timelines, project contracts, disturbance boundaries, grading and site plans, staging and parking areas, construction/site access, and any required survey information.
	• PDCs: a checklist of all relevant PDCs which are understood and agreed to apply to each individual project.
	• Timber management: Defined logging deck areas and skid paths, and protocol for timber removal.
	• Erosion Control and Drainage Management: Erosion control and drainage management protocols and plans that include the following components:
	  o Identification of BMPs such as silt fences, straw bales/wattles, ground cover or mulching measures, or sediment control protocols to contain sediment on-site.
	  o Appropriate erosion-control matting on steep fill slopes (areas with a slope angle of 35 percent or greater) to protect soils and enhance vegetation re-establishment.
	  o Strategies to minimize hillslope runoff to extent practicable.
	  o Identification of areas where topsoil and organic matter would be used and reclaimed after disturbances.
	  o Defined grading limits and physical barriers along the perimeter of graded areas.
	• Post-Construction Revegetation and Restoration plan: Methodology, locations, vegetative mixes, and soil amendments including:
	  o A list of materials to be used for site stabilization and revegetation (i.e., soil amendments, seed mixes, erosion control products). Seed mixtures and mulches shall be certified to be free of noxious weeds and must be approved by the Forest Service botanist or other Forest Service qualified personnel prior to purchase. Seed test results for each seed lot shall be made available to the Forest Service prior to purchase. To prevent soil erosion, non-persistent, non-native perennials or sterile perennials may be used while native perennials become established.
	  o Revegetation techniques including the proposed timing and method of application for seed, mulches, and erosion control products.
	  o Protocols for managing disturbed areas to maintain sufficient ground cover to prevent increased runoff and erosion. Ground cover, as a combination of revegetation, woody debris, fine organic matter, surface rocks, and mulch, shall be 70 percent of natural background cover following reclamation activities to minimize erosion. Revegetation success and ground cover effectiveness shall be determined in consultation with the Forest Service resource specialists.
	• Noxious Weed Management: Weed control methodologies including equipment cleaning, pretreatment, and post-construction monitoring and treatment. This can tier to the Grand Targhee Resort Weed Prevention and Management Program as specified in the Vegetation PDC below.
	• Best Management Practices (BMPs): BMP list to be employed and adhered to during project implementation.

General	GTR shall obtain all required federal, county, town, and state reviews, approvals, and/or permits prior to the start of construction.
	Due to specific concerns regarding the Hominy Peak and Darby Formations, within two years following completion of projects in Rick's Basin and South Bowl, GTR shall complete an assessment of the effectiveness of the erosion control and drainage management actions for review and acceptance by the Forest Service which addresses the potential for increased erosion and soil movement in these two areas that may have resulted from ground disturbance associated with the proposed action. The assessment plan shall identify and prioritize problematic locations needing remediation. Potential measures include improvement of existing drainage infrastructure such as road-side ditches and culverts, construction of new drainage features, and enhanced revegetation. The assessment plan shall be updated within two years following implementation and once five years thereafter to address completed remediation projects and to include newly identified issues.

Resource	Project Design Criteria
Recreation	All improvement projects, as well as signage and trail signs shall follow Forest Service accessibility guidelines as outlined by the Forest Service Outdoor Recreation Accessibility Guidelines, Forest Service Accessibility Guidelines for Ski Resorts, and Forest Service Trail Accessibility Guidelines.
	Where appropriate, GTR shall implement fencing, flagging, signage and other safety mechanisms to alert winter and summer visitors to the location of activities and infrastructure during construction.
	GTR shall decommission and reclaim unauthorized biking and hiking trails developed by third parties as they are discovered within the SUP boundary.
	GTR shall implement appropriate signage to direct uphill and downhill traffic and prevent user conflict on all mountain biking and hiking trails which shall be specified in future operating plans.
	GTR shall develop an Operation and Boundary Management Plan to guide users exiting the permit boundary to the adjacent backcountry terrain through established and maintained exit points. This plan should describe both physical closures and operational measures to be taken. Prior to construction activities authorized by this decision, this plan shall be reviewed by the Forest Service. This plan shall be finalized and incorporated into the operating plan prior to the operation of lift served terrain in South Bowl and Mono Trees. Boundary post and rope line installation shall utilize the same technique which has been developed for use elsewhere within GTR's existing SUP boundary.
Scenery	All lighting within the SUP boundary and proposed SUP boundary expansion shall comply with Teton County, Wyoming Dark Skies Land Development Regulation unless specifically exempted by a Forest Service Authorizing Official.
	Windows on facilities shall have anti-reflective treatment, coating, or integral windows. Lift terminals shall have natural/neutral colors with anti-reflective materials. All facilities shall have design review by CTNF authorized representative.
	Avoid straight edges where removing trees. The edges of lift-lines, ski trails, glades, and structures, where the vegetation is removed, need to use a variable density cutting (feathering) technique applied to create a more natural edge that blends into the existing vegetation. Edges shall be non-linear, and changes in tree heights along the edges of openings should be gradual rather than abrupt. Larger inter-trail tree islands shall be maintained to minimize the impact of cleared trails. Trees shall be retained, where possible, to provide species and size diversity, maintain forest cover, and screen facilities.
	Cut stumps as low as possible to the ground or grind in place instead of grubbing when clearing trees from ski runs wherever practicable, to avoid safety hazard and to meet scenery objectives.
	Regrade disturbed areas to restore a natural terrain appearance, as feasible. Blend site grading disturbance into the existing topography to achieve a natural appearance and minimize cuts and fills at the transition with proposed grading and existing terrain. Side casting of administrative routes should be limited. Cut material should be filled in on the downslope side of the administrative route consistent with Soils PDC, to provide a more natural appearing surface.
	Bright rock areas, newly exposed through excavation or side casting, should be treated with Natina or an equivalent weathering/coloring agent to reduce the contrast of newly exposed rocks.
	To meet solar reflectivity standards and minimize visual impacts associated with reflectivity from installed infrastructure, all facilities shall be built with design elements that break up form, line, and texture to minimize reflectivity in accordance with FSM 2380. This includes any reflective surfaces (metal, glass, plastics, or other materials with smooth surfaces), that do not blend with the natural environment. They shall be covered, painted, stained, chemically treated, etched, sandblasted, corrugated, or otherwise treated to meet the solar reflectivity standards to the extent practicable. The colors shall be muted, subdued colors because they blend well with the natural color scheme. Surface textures shall be increased or made coarser and recessed

Resource	Project Design Criteria
Scenery	windows shall be used to reduce exposure to the sun and limit reflectivity. The specific requirements for reflectivity are as follows: reflective surfaces on the proposed facilities shall be painted with earth tones and natural colors or with dark non-reflective colors that blend with the forest background to meet an average neutral value of 4.5 or less as measured on the Munsell neutral scale.
	Utilities shall be buried to reduce visual effects and disturbance minimized by use of the smallest machinery possible (stinger or smallest excavator bucket width).
	Nighttime use of Fred's Mountain Top Guest Facility or the Sacajawea Restaurant and Guest Facility is not included in the Action Alternatives. Closure of these facilities shall be required no later than an hour past NOAA's published sunset time for each day of the year. Nighttime use of these facilities shall be subject to additional NEPA review and cannot be permitted via changes in the operating plan.
Cultural Resources	Site-specific cultural resource surveys have been conducted. If undocumented historic and/or prehistoric properties are located during ground disturbing activities or planning activities associated with approved construction activities, address as specified in 36 CFR § 800.11 concerning Properties Discovered During Implementation of an Undertaking.
	If there are resources determined eligible to the NRHP, the CTNF shall consult with the State Historic Preservation Officer (SHPO) and Tribal entities regarding mitigation of adverse effects to historic properties as outlined in 36 CFR 800.4 and 36 CFR 800.5.
	Prior to implementation of the Mill Creek access administrative route and ski way, test cultural site 48TE2171, a prehistoric chipped stone scatter near Mill Creek to better assess the depositional context and whether there are additional buried cultural materials in the area. If testing reveals additional cultural materials consultation with a Forest Archaeologist shall occur prior to construction. Location of cultural sites is resource sensitive and GTR shall coordinate with the Forest Service to determine specific testing needed for this site.
Air Quality	To prevent construction related fugitive dust, water (as necessary and practicable) all grading areas, including lift terminal areas and busy construction routes. In the absence of natural precipitation, watering of these areas should occur as frequently as necessary to subdue dust.
Vegetation	Before implementing any approved project construction not included in the botanical survey area, the specific project areas shall be surveyed using established protocol. Surveys shall be conducted for threatened, endangered, proposed and candidate species, Forest Service sensitive species, Species of Local Concern (SOLC), and species of viability concern (SVC). These survey results should be included in the Construction Implementation Plan. Flag sensitive plant locations and erect visual barriers to aid construction personnel in avoidance.
	If any previously undocumented or unknown occurrences of threatened, endangered, proposed, or sensitive plants are encountered within the project area prior to or during project implementation, the CTNF shall be notified. CTNF shall develop suitable mitigation measures to ensure there is no loss of viability of the species within the planning area.
	Construction practices and operations should avoid impacting native plant communities through designation of formal access paths in heavy use areas and other appropriate means.
	Project components requiring selective tree clearing and glading would encourage the retention of aspen in any age or size class.
	For projects that involve logging operations, ground skidding shall be avoided on slopes steeper than 40 percent.
	If slash disposal is conducted by pile and burn, implement the following PDC to minimize impacts:

Resource	Project Design Criteria
Vegetation	• If possible, conduct pile burning over a protective layer of packed snow and/or frozen ground. • Construct slash piles to minimize soil impacts by leaving the bottom two lifts of logs open. • If snow/frozen ground is not present at the time of pile burning, soil organic matter and topsoil should be scraped and stockpiled prior to pile construction and re-spread after pile burning; and till/scarify after burning to promote recovery by breaking up water repellent layers, increasing water infiltration, and mixing in organic material.
	If chipping or mastication is determined to be used for slash disposal, implement the following PDC to minimize impacts: • Spread wood chips to a depth not to exceed 3 inches. • Distribute chips in discontinuous patches that do not result in a continuous chip mat (<40 percent of surface covered by 3 inches of chips).
	If slash is to be lopped and scattered, depth shall not exceed 24 inches.
	Locate staging areas, stockpiles, and logging decks and burn piles away from weed infested areas. Monitor and control new weeds in staging areas and stockpiles.
	Use only gravel, fill, sand, and rock that are judged to be weed free by the State, North American Weed Free Program, or Forest weed specialists.
	Prior to construction, establish a Grand Targhee Resort Weed Prevention and Management Program that applies to the entire SUP area, existing and expanded. The plan must be reviewed by the Forest Service. Ensure the plan includes sections on: 1. Prevention: Proactive approaches to reduce the spread of weeds, including: conduct ground-disturbing activities only if previously approved by the Forest Service and necessary for public safety or Resort function, minimize ground disturbance when conducting such activities, design public-use facilities to reduce accidental spread of invasive species, and educate and raise awareness with internal and external audiences about the threat of invasive weeds. 2. Early Detection and Rapid Response (EDRR): Carry out regular detection surveys and record the locations of weeds throughout the Resort. Require at least one annual survey of all wetlands, administrative routes, buildings, revegetated areas, chairlift terminals, and base area. Survey all trails once every three years. The intent is to quickly detect invasive species infestations, and subsequently implement immediate and specific actions to eradicate those infestations before they become established and/or spread. Ensure plan is consistent with guidance from the National Invasive Species Council, such as the 'Guidelines for Early Detection and Rapid Response'. 3. Control & Management: Conduct integrated weed management activities to contain, reduce, and remove established weed infestations. Consider high-use summer recreation and maintenance areas such as the base area, administrative routes, summer-operating chairlift terminals, and trails as high priority for weed control. Follow all design criteria listed in **Section 2.4** and BMPs in Appendix E-F from the Caribou-Targhee Forest-wide 2021 Integrated Weed Management Plan FEIS, and follow all relevant BMPs from the 2012 National Best Management Practices for Water Quality Management on National Forest System Lands. 4. Restoration: Where necessary, implement restoration, rehabilitation, and/or revegetation activities following invasive species treatments to prevent or reduce the likelihood of the reoccurrence or spread. Use native species in revegetation efforts.
	When applying chemical herbicide near wetlands or streams, follow label restrictions and all relevant BMPs from the National Best Management Practices for Water Quality Management on National Forest System Lands (USDA Forest Service 2012).
	Prior to project implementation, WBP management guidelines shall be included in an updated Vegetation Plan as required to be part of the Special Use Permit for Grand Targhee Resort.

Resource	Project Design Criteria
Vegetation	
	During tree removal for new disturbances (e.g., runs and trails), selectively retain 5-needle pine (whitebark pine and limber pine) and instead remove alternate tree species. Retain tree islands of WBP and limber pine in proposed ski runs, particularly at higher elevations to increase visibility during low visibility weather conditions and help minimize loss of WBP. If not practicable, mature 5-needle pine (whitebark pine and limber pine) removal shall be approved by the Forest Service after site-specific review. Maintenance of existing runs (mowing) is allowed to continue as it has in the past. Any grading maintenance shall select for species other than WBP and limber pine.
	When marking is deemed appropriate by Forest Service or construction personnel, WBP trees shall be marked in a manner that does not cause damage to the tree or introduce disease.
	Limit motorized travel (including using over snow vehicles in thin snowpack) in WBP habitat to designated administrative routes, cat tracks, and groomed trails.
	Presently known WBP Plus Trees shall be preserved and protected from project impacts. • Coordinates for the two known Plus Trees that are present in the project area shall be used to locate the trees and trees shall be sufficiently flagged/marked to ensure preservation. Labels shall be maintained by Forest Service personnel to ensure ground disturbance from the use of mechanical equipment shall not occur within 10 meters. • Erosion control and revegetation around known Plus Trees shall be implemented following disturbance to ensure the viability of each tree. • Damage or removal of known plus trees shall only occur in natural situations or where human health and safety are at risk and shall be approved by the Forest Service after a site-specific visit. Pruning may only occur for the purpose of restoration and under Forest Service direction.
	Educate resort employees about WBP ecology, importance, protection, and recovery prior to implementing projects in WBP habitat. Train Grand Targhee Resort maintenance personnel annually to identify 5-needle pines and to avoid impacting adult 5-needle pines during trail maintenance activities.
	Prior to development in areas with known or suspected WBP cover, pre-construction surveys shall be conducted to map the approximate areas and densities of WBP trees to be impacted. Information from pre-construction surveys shall be used to help avoid impacting or removing WBP trees when practicable and ensure impacts are accurately quantified. These surveys shall be included in the Construction Implementation Plan.
	Trail and other infrastructure maintenance activities should avoid removing mature WBP trees and focus on pruning trees to acceptable heights to maintain cone bearing branches and allow for continued seed production.
	Do not use live WBP trees as trail markers.
	Obtain “Whitebark Pine Friendly Ski Area” Certification from the Whitebark Pine Ecosystem Foundation prior to project implementation. Certification requirements include implementation of a WBP education program, developing a conservation plan that includes mitigation for impacted WBP, and implementing a monitoring program to assess population status and conservation success.
Wildlife and Fish	To reduce the potential of human/bear conflicts, food products; containers; and bear attractants shall be disposed of in self-locking, certified bear resistant containers or dumpsters approved by the Interagency Grizzly Bear Committee (general timeline is from March 1 to December 1). Trash receptacles at construction sites that include food related waste or bear attractants shall be bear-resistant. Food and drink shall be stored in construction vehicles or bearproof containers. All vehicular windows shall be kept closed and doors locked

Resource	Project Design Criteria
Wildlife and Fish	to prevent bear entry. Resort BMPs employed upon implementation shall ensure proper storage/disposal of bear attractants including attractants associated with food and drink services which shall be stored inside bear-resistant buildings. (In accordance with Order Number 04-15-23-117)
	Contractors, construction workers, and resort employees shall be annually trained in bear safety including use of bear spray. Training in grizzly bear identification shall also be provided and a system for documenting grizzly bear observations and conflicts should be implemented. Project personnel shall keep bear spray accessible when they are working in the Project Area from April 1 to November 15.
	Appropriate signage and informational materials shall be posted to reduce the risk of human/wildlife conflicts (e.g., bear-proof food storage).
	If a grizzly bear den is found within the current GTR boundary or proposed expansion area, either during construction or implementation, coordination with the Forest Service wildlife biologist shall occur to ensure that activities shall not impact the survival of the denning bear.
	To minimize impacts to mule deer winter range and modeled bighorn sheep habitat, GTR shall establish and maintain a double-rope boundary around the Mono Trees and South Bowl SUP boundary expansions prior to construction in such areas and place backcountry access points in locations that minimize human encroachment on identified habitat. Placement of backcountry access points shall be done in coordination with the Forest Service Wildlife Biologist and shall be specified in GTR's Operation and Boundary Management Plan.
	Artificial lighting shall be minimized. All artificial lighting shall be shielded and angled downward to minimize impacts to nocturnal species.
	To the extent possible markers or flagging shall be installed and maintained on zip line infrastructure to reduce the likelihood of bird strikes.
	GTR shall place decals or other deterrents on new facility or infrastructure windows to reduce the likelihood of bird strikes. Decals and deterrents shall be present year-round.
	Riparian areas that experience any loss of vegetation (resulting from construction activities) shall be re-vegetated immediately after construction with native vegetation, willow cuttings, and/or native, certified, weed free seed.
	If construction/vegetation clearing activities must occur during the golden eagle nesting period, which is considered from March 1 to August 15, U.S. Forest Service personnel (or individuals deemed qualified by the Forest Service) shall conduct nest searches in appropriate habitats prior to the commencement of the construction/vegetation clearing activities. The exact area to be surveyed shall be based on the scope of the disturbance activities and the habitat to be disturbed. If nesting golden eagles occur, the Forest Service shall delineate appropriate buffers and halt construction within the buffers until the nesting is complete.
	If golden eagle nesting occurs within or proximate to the project area during the life of the permit, coordination shall occur with Forest Service and U.S. Fish and Wildlife biologists to ensure that ongoing recreation activities directly associated with the Resort would not result in harm, harassment, or take of the species.
	If any threatened, endangered, and Forest Service sensitive species and/or their habitats, including nests, not analyzed in this EIS, are identified during project implementation or project operations, actions in the immediate vicinity shall be suspended until the Forest Service Wildlife or Fish Biologist or Botanist are contacted. Project implementation may be adjusted, and timing restrictions may be applied, as determined by the Forest Service, to reduce those impacts.

Resource	Project Design Criteria
Wildlife and Fish	Vegetation clearing activities are generally planned to occur outside of the migratory bird nesting period, which is typically from May 15 to July 15. If vegetation clearing activities must occur during the nesting period, U.S. Forest Service personnel (or contractor deemed qualified by the Forest Service) shall conduct nest searches in appropriate habitats prior to the commencement of the vegetation clearing activities. The exact area to be surveyed shall be based on the scope of the surface disturbance activities, the habitat to be disturbed, and the potential species to be impacted. If nesting migratory birds occur, the Forest Service shall delineate appropriate buffers and halt construction within the buffers until the nesting is complete.
	To reduce the likelihood of disturbance to/fatalities of individual American goshawks, no vegetation clearing/construction activities associated with the action alternatives shall occur within the American goshawk designated 200-acre nest area from April 1 to August 15.
	To prevent disturbance to/fatalities of individual boreal owls, no vegetation clearing/construction activities associated with the action alternatives shall occur within the boreal owl designated 30-acre territories from March 1 to August 15.
	Tree clearing for construction of a proposed segment of summer trail along the western extent of the existing SUP area within the designated American goshawk post fledging area shall only occur between October and February.
	To prevent disturbance to/fatalities of individual flammulated owls, no vegetation clearing/construction activities associated with the action alternatives shall occur within the flammulated owl designated 30-acre territories from May 1 to August 15.
	Where practicable and deemed safe, snags shall be left in place to preserve existing biological potential and habitat for woodpeckers, American goshawks, and other species.
	Where practicable and deemed safe, woody debris shall be left in place to preserve existing logs in size classes 1, 2 and 3. If logs are to be left consult with forest timber personnel to ensure material isn't left in a manner that shall encourage harmful insect infestation.
	If an active wolverine den is found within the project area (either during construction or operations), coordination with the Forest Service biologist shall occur to ensure that appropriate protections (e.g., buffers) are put in place.
	Construction workers shall not have dogs on site to prevent potential harassment of wildlife.
Soils, Geohydrology, Hydrology, and Wetlands	A site visit and field-fitting of planned projects, paths and administrative routes shall occur by forest personnel before construction may begin.
	All wetlands within the vicinity of any ground disturbing activities or tree felling should be clearly delineated and flagged by a qualified individual prior to construction so they can be avoided by construction activity to mitigate impacts.
	As required, GTR shall obtain all federal, state, and local permits when installing stream and wetland crossings and ensure they meet permit requirements. This includes, but is not limited to, Clean Water Act 404 permitting.
	Wastewater systems for on-mountain guest service facilities shall be designed by a qualified engineer to meet or exceed all Wyoming Department of Environmental Quality (WDEQ) and EPA standards and regulations. Where necessary, systems shall incorporate treatment technologies to minimize nutrient loading in Karst topography or waterways. Final design selection (e.g., septic vs. sanitary sewer line to base) shall be based

Resource	Project Design Criteria
	on a site-specific geotechnical and engineering analysis to ensure the feasibility, protection of groundwater resources, and protection of downstream Public Water Systems.
	To mitigate impacts to proposed facilities from unknown sinkholes or karst formations, final civil geo-technical engineering review of proposed facility sites and ground around the sites shall occur. GTR shall coordinate with Forest Service Engineering specialists to confirm final engineering design.
	Prior to construction of projects in Rick's Basin, South Bowl, and in the Papoose Creek Watershed a dye tracer test shall be completed to determine connection to Public Water Systems, in order to determine BMPs that should be implemented to minimize erosion, sedimentation, and potential impacts from septic systems. Refer to the **Impacts to Groundwater Report** for dye tracer testing considerations.
	Vehicle and equipment staging areas shall be located outside of the AIZ and away from wetlands, streams, and drainages to the extent practicable. Petroleum products, hazardous materials, and chemicals shall be stored in designated areas with secondary containment, at least 150 feet from streams, wetlands, and other water bodies. Refueling operations shall occur in designated areas with spill containment measures in place.
	In areas where foundations, lift tower footings or other constructed features are no longer needed, constructed material (i.e. concrete footings, tower pads, etc.) shall be removed to below ground surface to either a minimum of 12 inches or if the surrounding areas has shallower soil a depth that is consistent with the areas immediately adjacent to the structure. These sites shall then be backfilled and graded to match the surrounding topography, striving to meet a 50% ground cover over disturbed areas.
Soils, Geohydrology, Hydrology, and Wetlands	Locate and design administrative routes to avoid or minimize adverse effects to soil, water quality, and riparian resources. Locate administrative routes to fit the terrain and limit the need for excavation. Locate administrative routes on stable geology with well-drained soils. Avoid hydric soils, inner gorges, overly steep slopes, and unstable landforms to the extent practicable. Avoid sensitive areas such as riparian areas, wetlands, meadows, bogs, and fens, to the extent practicable. Locate administrative routes as far from waterbodies as practicable, with a minimum number of crossings and connections between the administrative route and the waterbody. Examples of crossings include culverts, bridges, arched pipes, low-water crossings, vented fords, and permeable fills. Crossing materials and construction shall vary based on the type of access required, duration of need, and volume of use expected. Crossings should be designed and installed to provide for flow of water, bedload, and large woody debris, desired aquatic organism passage, and to minimize disturbance to the surface and shallow groundwater resources. Design the administrative route surface drainage system to intercept, collect, and remove water from the administrative route surface and surrounding slopes in a manner that minimizes concentrated flow in ditches, culverts, and over fill slopes and administrative route surfaces. As necessary reference National BMPs for NFS lands. Specifically, Road-2. Road Location and Design, Road-3. Road Construction and Reconstruction, Road-4. Road Operations and Maintenance, Road-7. Stream Crossings, and Road-8. Snow Removal and Storage (https://www.fs.usda.gov/naturalresources/watershed/pubs/FS_National_Core_BMPs_April2012.pdf
	Avoid or minimize adverse effects to soil, water quality, and riparian resources during the construction, operation, and maintenance of ski runs and lifts. Locate ski runs and lifts on stable geology and soils to minimize risk of slope failures. Avoid wetlands and riparian areas when locating ski runs and lifts wherever practicable. Incorporate suitable measures in the design and construction of ski runs, including consideration of runoff of additional water from snowmaking, to avoid or minimize undesirable increases in runoff. Maintain desired ground cover. Site specific plans shall be approved by forest personnel prior to implementation and the Forest Service Soils and/or Hydrologist should be consulted where projects overlap these resources as identified in the Construction Implementation Plan. Revegetation success shall be monitored in the seasons following implementation, with adjustments being made as necessary. As necessary reference National BMPs for NFS lands. Specifically Rec-10. Ski Runs and Lifts:https://www.fs.usda.gov/naturalresources/watershed/pubs/FS_National_Core_BMPs_April2012.pdf

Resource	Project Design Criteria
Soils, Geohydrology, Hydrology, and Wetlands	Avoid or minimize adverse effects to soil, water quality, and riparian resources at all stages of the snowmaking process. Manage snowmaking and snow farming to avoid or minimize slope failures and gully erosion on the hillslopes and excessive bank erosion and sediment in receiving streams. Limit snowmaking on graded terrain to the extent practicable to minimize surface runoff and subsequent erosion from reduced infiltration capacity. Transport water to the forested slopes in the least disruptive manner. Design snowmaking systems to return runoff water to the source from which it was removed, as practicable. Avoid inter-basin transfer of waters, where practicable, to maintain original duration, magnitude, and patterns of runoff in affected watersheds. Avoid contaminating return water with chemicals or other pollutants. Monitor all aspects of the process and correct problems as they occur to avoid or minimize long-term effects. Regularly inspect snowmaking lines and equipment to prevent accidental discharges and erosion due to equipment failure.
	During construction and maintenance, stockpile topsoil and organic matter separate from subsoil to the extent possible for redistribution, stabilization, and rehabilitation of the site after construction.
	Prior to construction, soil surveys and measurements of thicknesses of A or organic horizons shall be completed within the disturbance area to ensure no net loss of soil organic matter. GTR shall hire a qualified soil scientist to complete soil surveys and measurements. Reports shall be submitted as specified in the Construction Implementation Plan.
	Employ a BMP program to protect public water systems (PWSs) that have source water areas located within the permit area. The first BMP approach is to avoid sensitive areas or highly erosive soils to the extent practicable; Next, proven hillslope/land BMPs shall be applied to minimize runoff, erosion, and sediment delivery to streams. Lastly, Sediment detention and water settling ponds shall be constructed to minimize runoff and sediment delivery off site towards downstream resources. Sensitive areas include the Aquatic Influence Zone (AIZ) near streams or other water features. Consult with the PWS managers in the planning and project design.
	Administrative routes, trails, or other disturbed areas should not be located on slopes that show signs of instability, such as slope failure, mass movement, or slumps. 1997 Targhee Forest Plan Soil & Water guidelines for Management Prescription 4.2 – *Special Use Permit Recreation Sites*: Avoid new construction on unstable or highly erosive soils
	For projects that increase road/administrative route traffic or require administrative route use by heavy construction equipment, administrative route surfacing should be applied near stream/drainage crossings as needed to harden the administrative route surface and minimize sediment delivery.
	Soil-disturbing activities shall be avoided during periods of rain or wet soils. Heavy equipment may be operated within unit boundaries only when soil moisture is below the plastic limit, or protected by at least 1 foot of packed snow or 6 inches of frozen soil. Rutting caused by equipment operation should not exceed six to eight inches in depth (wet condition) over more than ten percent of the operating area. No equipment operations should take place when ground conditions are wet enough that there is a risk of such rutting (for logging operations – reference the1997 Forest Plan as necessary (page III-33).
	If logging over the snow, snow depth should be a minimum of 1 foot, continuously packed (i.e., not patchy) and sufficient enough to prevent vehicles from breaking through. If logging over frozen ground, a minimum of 6 inches of continuous frozen ground should be present to prevent/minimize soil disturbance.
	During site preparation treatments, avoid disturbing concentrated areas of soil wood to the greatest degree feasible.
	Runoff from administrative routes should drain through a filter such as a vegetated buffer strip, slash windrow, silt fence, or detention basin. If a filter is not present, one shall be installed. Cross drains shall be installed on administrative routes to disperse runoff into filter strips.

Resource	Project Design Criteria
Soils, Geohydrology, Hydrology, and Wetlands	Decommission unnecessary administrative route and trail segments when no longer in use or impractical, implement suitable measures to re-establish stable slope contours and surface and subsurface hydrologic pathways where necessary to the extent practicable to avoid or minimize adverse effects to soil, water quality, and riparian resources. These measures include: • Removing drainage structures. • Recontouring and stabilizing cut slopes and fill material. • Reshaping the channel and streambanks at crossing sites to pass expected flows without scouring or ponding, minimize potential for undercutting or slumping of streambanks, and maintain continuation of channel dimensions and longitudinal profile through the crossing site. • Restoring or replacing streambed materials to a particle size distribution suitable for the site. • Restoring floodplain function. As necessary, reference the AIZ direction contained within the 1997 Forest Plan (Page III-110).
	Use suitable measures to avoid or minimize scour and erosion of stream channels, and crossing structures and foundations, to maintain the stability of the channel and banks.
	Minimize grading or recontouring of hill slopes to maintain intact soil horizons and infiltrative properties.
	To protect hydrologic resources, locate burn piles outside the AIZ.
	Use suitable measures to direct overland flow on slopes into areas with intact soil horizons and sufficient vegetation to encourage infiltration and disconnect overland flow from waterbodies.
	Tree removal, excavation and grading should be minimized in the AIZ. Excavated material should not be stored in the AIZ.
	Locate and construct log landings in such a way to minimize the amount of excavation needed and to reduce the potential for soil erosion. Design landings to have proper drainage. After use, treat landings to disperse runoff and prevent surface erosion and encourage revegetation.
	For ground-disturbing activities near perennial and intermittent streams and ephemeral draws, connected disturbed areas (CDA) should be minimized by draining administrative routes, administrative route ditches, and other disturbed areas to undisturbed soils or vegetation rather than directly to streams and ephemeral draws. Drainage from disturbed areas should be modified as necessary using natural topography, rolling dips, waterbars, ditch-relief culverts, etc., to disconnect disturbed areas from streams.
	Vegetative buffers should be maintained adjacent to intermittent or perennial drainages and wetlands as well as within the AIZ. Where avoidance of the vegetative buffer is not possible, disturbance should be minimized.
	Culverts should not be installed and ground-disturbing activities should not be conducted near streams during spring runoff, or during periods of heavy precipitation.
	Rocks, wood, or other material should not be added or moved in streams or lakes except if these actions maintain or improve stream health. Stream bed and banks should not be altered.
	Hiking and biking trails should not be routed directly down the fall line or routed down the bottom of an ephemeral draw or other low spot. Install and maintain suitable drainage measures to collect and disperse runoff and avoid or minimize erosion of trail surface and adjacent areas. Install drain dips or grade reversals, especially near stream/drainage crossings. Steep areas should have a higher frequency of drainage features.

Resource	Project Design Criteria
	• Avoid sensitive areas, such as riparian areas, wetlands, fens, stream crossings, inner gorges, and unstable areas to the extent practicable. • Use suitable measures to mitigate trail impacts to the extent practicable where sensitive areas are unavoidable. • Use suitable measures to hydrologically disconnect trails from waterbodies to the extent practicable. • Design, construct, and maintain trail width, grades, curves, and switchbacks suitable to the terrain and designated use. • Assess trail condition at regular intervals to identify drainage and trail surface maintenance needs to avoid, minimize, or mitigate adverse effects to soil, water quality, and riparian resources. • To protect slope stability in the vicinity of intermediate and advanced-level trails, trails shall be constructed so that the distance between drainage diversion outfalls (such as rolling dips or culverts), does not become longer than 50 to 100 feet.
Wilderness	GTR shall continue to maintain access gates and closures that prohibit guests from accessing the JSW through non-designated access points in accordance with the Operation and Boundary Management Plan.
	GTR shall continue to prohibit overnight backpackers on lifts that provide access to the JSW in accordance with the Operation and Boundary Management Plan.
	The boundary of the JSW shall be flagged and marked, specifically near Fred's Mountain Top Guest Facility, so as to not allow material from higher elevations enter the lower elevation JSW. If needed, sediment fences and erosion mitigation systems shall be put in place to limit material movement into the JSW.
Livestock and Grazing	Should issues arise between the operations of existing livestock, specifically cattle, and grazing permit holders and GTR, GTR shall cooperate with the Forest Service and livestock and grazing permittee and take measures, including but not limited to, the installation of vegetative buffers and fencing to protect the interests of both permit holders as directed by the Forest Service. Any reasonable installation costs of vegetative buffers or fencing construction and maintenance shall be borne by GTR.
	GTR shall coordinate with the Forest Service and grazing permittee to sequence construction activities to avoid, to the extent practicable, eliminating all viable summer grazing forage within the Mill Creek Teton Allotment during any given grazing season. GTR shall provide advance notice to the Forest Service and grazing permittee regarding the timing and location of proposed summer construction activities within areas overlapping the allotment, including expected duration and intensity of activities. Where feasible, GTR shall schedule intensive ground-disturbing activities to occur outside of peak grazing periods or in areas not actively grazed during a particular rotation cycle.
Fire and Fuels	Following implementation, GTR must comply with the following Fuels Mitigation Standards for proposed structures to the extent feasible or appropriate: <u>Immediate Zone – 0 – 5':</u> The structure and the area 0-5' from the furthest attached exterior point of the structure; defined as a non-combustible area. This is the most important zone to take immediate action on as it is the most vulnerable to embers. Start with the structure itself then move into the landscaping section of the Immediate Zone. • Clean roofs and gutters of dead leaves, debris and pine needles that could catch embers. • Replace or repair any loose or missing shingles or roof tiles to prevent ember penetration. • Reduce embers that could pass through vents in the eaves by installing 1/8 -inch metal mesh screening. • Move any flammable material away from wall exteriors – mulch, flammable plants, leaves and needles, firewood piles – anything that can burn. <u>Immediate Zone – 5 – 30':</u> 5-30' from the furthest exterior point of the home. Landscaping/hardscaping-employing careful landscaping or creating breaks that can help influence and decrease fire behavior • Clear vegetation from under large stationary propane tanks. • Create fuel breaks with driveways, walkways/paths, patios, and decks.

Resource	Project Design Criteria
	• Keep lawns and native grasses mowed to a height of four inches. • Remove ladder fuels (vegetation under trees) so a surface fire cannot reach the crowns. Prune trees up to six to ten feet from the ground; for shorter trees do not exceed 1/3 of the overall tree height. • Space trees to have a minimum of eighteen feet between crowns with the distance increasing with the percentage of slope. • Tree placement should be planned to ensure the mature canopy is no closer than ten feet to the edge of the structure. • Tree and shrubs in this zone should be limited to small clusters of a few each to break up the continuity of the vegetation across the landscape. Extended Zone – 30 – 100', out to 200': Landscaping – the goal here is not to eliminate fire but to interrupt fire's path and keep flames smaller and on the ground. • Dispose of heavy accumulations of ground litter/debris. • Remove dead plant and tree material. • Remove small conifers growing between mature trees. • Trees 30 to 60 feet from the home should have at least 12 feet between canopy tops* • Trees 60 to 100 feet from the home should have at least 6 feet between the canopy tops* *The crown spacing needed to reduce/prevent crown fire potential could be substantially greater due to slope, the species of trees involved and other site-specific conditions.

2.5 Alternatives Considered but Eliminated from Detailed Analysis

The range of alternatives considered by the responsible official include the Proposed Action, as well as other alternatives eliminated from detailed analysis. The Forest Service Handbook 1909.15 states, "Alternatives not considered in detail may include, but are not limited to, those that fail to meet the Purpose and Need, are technologically infeasible or illegal, or would result in unreasonable environmental harm" (USDA Forest Service 2012).

The following design options were identified through internal and external scoping and considered by the ID Team, but ultimately eliminated from further analysis:

- South Bowl SUP expansion with three chairlifts;
- South Bowl SUP expansion without chairlifts;
- South Bowl interim cat-skiing;
- Alternatives responding to community drinking water quality concerns raised during scoping; and
- Alternatives without on-mountain facilities.

2.5.1 SUP Expansion and South Bowl Configuration with Three Lifts

The initial proposal for South Bowl included a 600-acre area bordering the existing GTR permit boundary that would have included three lifts: South Bowl West, South Both East, and South Bowl Connector. This design extended the SUP boundary East to meet the Wilderness boundary and further South, providing guest access to a considerable area of expert terrain. These slopes are familiar to locals and backcountry skiers, who posed concerns regarding avalanche safety and risk mitigation.

A preliminary avalanche study revealed that the South Bowl area contains high avalanche risk. The area under South Bowl West could be managed with boot packing and explosives risk reduction, and while it would require aggressive management in order to provide guests with a safe experience, it is possible to create a controlled environment. The South Bowl West Lift would also be located outside of predicted avalanche paths, reducing the risk of infrastructural damage. The other areas; however, would require abundant explosives risk reductions and additional expenses for a very limited ability level of skiers. Due to the nature of the terrain, avalanche risk mitigation would be more difficult and dangerous and less cost-effective in these areas. Therefore, these lifts and their areas of skiable terrain were eliminated from the South Bowl SUP expansion plan. The currently proposed SUP expansion described in under the Proposed Action would allow GTR to perform avalanche mitigation in this area in a way that would both provide increased opportunities for lift served skiing and mitigate potential risks associated with improved access to this area from the construction of the Colter Lift.

In addition to public safety concerns, the removal of the South Bowl East and South Bowl Connector Lifts and reduced SUP expansion area would also address the following resource concerns that were identified during public scoping:

- Scenery concerns associated with tree removal, chairlift and ski terrain construction;
- Socioeconomics concerns associated with increased capacity associated with a three-lift configuration that could cause a commensurate increase in visitation, including impacts to affordable housing; and

- Wildlife (Bighorn Sheep in particular).

2.5.2 SUP Expansion and Incorporation of South Bowl as Hike-To Only Terrain

This design option was explored as a means of providing access to South Bowl ski terrain for GTR guests while responding to the resource concerns associated with chairlift construction and long-term lift-served access to this terrain. In this scenario, a cat-track would have been constructed near the bottom of South Bowl as a catchment trail for all guests accessing this terrain, which guests would have then used to skate back to the resort.

However, upon detailed investigation, it was learned that the skate back to the resort along the cat-track would be well over a mile, meaning that this would be an unappealing experience for visitors, especially snowboarders who have a particularly difficult time crossing flat (low-grade) terrain. This type of experience is not desirable for an area to be included within GTR's terrain network; however, this alternative eliminated does not preclude GTR's management of this area in a different capacity.

2.5.3 South Bowl Interim Cat-Skiing

After the scoping period, the project proponent determined that there was insufficient demand for this project component to warrant the necessary financial expenditure or resource impacts (the interim cat-skiing operation would require the creation of a cat-track in South Bowl) that would result from implementation. In short, this project component lacked financial viability, and thus was dropped from the proposal following scoping.

2.5.4 Alternatives Responding to Community Drinking Water Quality Concerns Raised During Scoping

During the scoping period, issues were raised by members of the public about the potential deterioration of water quality in the communities downstream of GTR (e.g., Alta, Driggs, Victor and surrounding farms) resulting from ski area projects there, although no specific element of GTR's operation was identified as the cause behind water quality deterioration. As such, potential alternatives were discussed but ultimately eliminated from inclusion in the proposal because it was not clear that any particular alternative would respond directly to the issues that were raised. If any particular project component associated with the action alternatives is found to generate downstream/slope water quality issues, in a way that could not be managed or mitigated, that project component would not be approved. This would be determined following detailed hydrology and geohydrology analyses that would be prepared specifically for this project.

2.5.5 Alternatives Without On-Mountain Facilities

During the scoping period, commenters expressed concern about resource impacts resulting from the on-mountain facilities. These comments primarily centered around the following resources: visuals, (including night lighting), socioeconomics, water resources, and wildlife. These alternatives were ultimately eliminated from detailed analysis in the EIS because any/all of the on-mountain facilities can be removed by the decisionmaker in the decision document, meaning that there is no need for a dedicated alternative without on-mountain facilities to be analyzed in full. If any resource impacts associated with the on-mountain facilities are identified in the EIS, the decisionmaker may respond by simply dropping the on-mountain facilities in question from any alternative that may potentially be approved. An analysis

of not proceeding with any of these components would be contained in review of the No Action Alternative.

2.5.6 Other Alternatives or Modifications Considered but Eliminated

Other alternatives and design configurations were suggested by the public during scoping and the Draft EIS comment periods. While some of these project configurations could meet the purpose and need, these "alternatives" were ultimately dismissed from detailed analysis because they would achieve substantially similar objectives and result in environmental effects that are not meaningfully different from those disclosed for the Proposed Action. These alternatives would not substantially lessen environmental impacts, resolve identified resource conflicts, or provide a substantially different decision framework for the Responsible Official. In some cases, the suggested configurations represent a modification in design layout rather than a fundamentally different alternative. When technically feasible, it was determined that the suggested configurations would not adequately meet the operational objectives identified by the project proponent and adopted by the agency in the Purpose and Need. Therefore, detailed analysis of the following alternatives and configurations was not warranted. These include:

- A T-Bar or short lift between Dreamcatcher and Sacajawea to access additional terrain and substitute the proposed Crazy Horse Lift.
- The construction of a mid-station for Dreamcatcher Lift near the top of *Wandering Moose* trail.
- Placing an on-mountain restaurant at the intersection of the cat track to the Blackfoot Lift and the top terminal of the Shoshone Lift.
- A separate alternative that includes no new terrain or no capacity increase.
- Replacement of Sacajawea Lift with a six-pack gondola and making it go to the top of Peaked Mountain.
- Constructing a lift to connect the base area plaza to the existing Sacajawea Lift.
- A lift to the top of *Wandering Moose* trail.

2.6 Summary Comparison of Direct and Indirect Environmental Consequences

A summary of direct and indirect environmental consequences are provided in the Summary Comparison Table in **Appendix D**.

Chapter 3. Affected Environment and Environmental Consequences

This chapter describes the existing environment for resources across the human and biological environments that have the potential to be affected by implementing the Proposed Action. Resource concerns are discussed throughout this Chapter which is supported by various technical reports produced for this project. These technical reports rely on site-specific detail, including review and incorporation of scientific literature, resource surveys, and geospatial data. Additionally, the technical reports and technical appendices provide granular data, analysis methodologies, disturbance acreages, equipment types, etc. Please refer to the associated technical reports when identified for more information.

Each Affected Environment description is followed by an Environmental Consequences discussion that provides an analysis of the potential effects of implementing the Proposed Action. *Direct effects* are caused by the action and occur at the same time and place. *Indirect effects* are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable (i.e., likely to occur within the duration of the project). *Cumulative effects* are the result of the incremental direct and indirect effects of any action when added to other past, present, and reasonably foreseeable future actions, and can result from individually minor but collectively significant actions taking place over a period of time. This chapter is based on the issues identified in **Section 1.7**.

3.1 Recreation

3.1.1 Scope of the Analysis

This analysis is a summarization of the **Recreation Technical Report**, which can be found in the project website.[13] The scope of this analysis of recreational opportunities extends to winter and summer uses at GTR on NFS lands within the existing SUP area and on adjacent NFS lands in the South Bowl, Mono Trees, Teton Canyon, South Leigh Canyon, and JSW areas. With the exception of private lands in the base area, the entirety of GTR's existing lift, trail, and infrastructural network operates on public lands administered under a SUP from the CTNF. This analysis defines the existing recreational opportunities within the GTR SUP area and provides an analysis of potential changes to the recreational resources anticipated with proposed projects. Specifically, this analysis discusses the proposed expansion of the existing SUP boundary into the South Bowl and Mono Trees areas, existing and proposed ski terrain, skier density, multi-season recreation opportunities, and user experiences both within and adjacent to the existing SUP area during the summer and winter seasons.

3.1.2 Federal, State, and Local Policy and Guidance

Management of the recreation resources on NFS lands is directed the *1997 Forest Plan* and informed by the Recreation Opportunity Spectrum (ROS), a recreation classification system used in the 1997 Forest Plan.

[13] SE Group 2023a

RECREATION OPPORTUNITY SPECTRUM

The ROS is a tool used by Forest Service managers to zone for different recreation opportunities across the forest based on zone size, distance from roads, and degree of development.[14] The ROS is used to guide planning of existing and potential recreation activities on NFS lands and provides a baseline against which future conditions and management actions can be prepared. The ROS classifies NFS lands into six management class categories defined by setting and the recreation experiences allowed therein, including: urban, rural, roaded natural, semi-primitive motorized, semi-primitive non-motorized, and primitive. ROS for the GTR SUP area is classified as roaded natural to urban.[15] The ROS for the South Bowl and Mono Trees areas is classified as a combination of semi-primitive nonmotorized and roaded natural opportunities.[16] Refer to the Recreation Technical Report for a more detailed description of ROS management class settings and definitions.

1997 FOREST PLAN FOR THE TARGHEE NATIONAL FOREST

As identified within the *1997 Forest Plan*, the study area is composed of three different Management Prescriptions: Management Prescription 4.2 – *Special Use Permit Recreation Sites*, located within GTR's existing SUP area; Management Prescription 2.1.2 – *Visual Quality Maintenance*, located adjacent the GTR SUP area and overlapping the proposed South Bowl and Mono Trees areas; and Management Prescription 2.8.3 – *Aquatic Influence Zone*, located within and adjacent to the GTR SUP area and overlapping the proposed Mono Trees area. Refer to **Figure 1** for a depiction of the existing *1997 Forest Plan* Management Prescriptions.

The CTNF has Forest-wide and Management Prescription-specific goals, objectives, standards, and guidelines relating to recreation. Specifically, Forest-wide goals include providing a quality winter recreation experience, and Management Prescription 4.2 – *Special Use Permit Recreation Sites* primarily focuses on recreation. The management emphasis for prescription 4.2 – *Special Use Permit Recreation Sites* is on *providing privately operated types of recreation on National Forest land for large concentrated groups of people*. All Management Prescriptions within the study area are relevant to this analysis of recreation as the Proposed Action would use a programmatic amendment to convert approximately 866 acres of NFS lands, currently within Management Prescriptions 2.1.2 – *Visual Quality Maintenance* and 2.8.3 – *Aquatic Influence Zone*, to Management Prescription 4.2 – *Special Use Permit Recreation Sites*. Refer to **Appendix C** for more details on this programmatic amendment Refer to the **Recreation Technical Report** for a full description of Forest-wide and Management Prescription-specific goals, objectives, standards, and guidelines relating to recreation and relevant to this analysis.

3.1.3 Affected Environment

RECREATION IN THE GTR SUP AREA

GTR is a destination resort that attracts local and out-of-state visitors of all ability levels. Since its inception as a ski area in the 1960s, GTR has gained recognition for its abundant, quality snow, diverse terrain, and uncrowded slopes; however, the current terrain distribution, including the undeveloped terrain network, at GTR disproportionately caters to upper ability level guests (e.g., advanced-intermediate and

[14]USDA Forest Service 1986
[15]USDA Forest Service 1997
[16] Ibid

expert ability levels). GTR generally lacks an adequate amount of beginner and intermediate terrain to provide an appropriate learning progression. As a result, GTR's ability to meet public demand for certain terrain types and attract new visitors to the CTNF is limited. Without additional developed terrain that suits a greater range of ability levels, GTR would continue to be challenged to provide the type of recreation experience consistent with guest expectations. In addition to winter operations, growing numbers of summer visitors to Teton County, Wyoming have resulted in increased interest in multi-season recreation opportunities at GTR. Improvements to ski area infrastructure, facilities, activity offerings, and other components are needed to address ever-changing guest expectations.

Terrain Network

GTR has unique terrain distribution of both developed and undeveloped terrain. The developed, or formalized, terrain network at GTR consists of the named, defined, lift-serviced, maintained runs at the resort. GTR's developed ski trail network accommodates beginner- through expert-level guests on lift-served trails spanning approximately 680 acres.[17] **Table 3.1-1** displays the distribution of terrain by skier ability level for the developed trail network, as well as the distribution of the active skier population at GTR. The terrain distribution is compared to the industry market norm.

Table 3.1-1. Developed Terrain Network Distribution by Ability Level – Existing Conditions

Skier/Rider Ability Level	Trail Area (acres)	Skier/Rider Capacity (guests)	Skier/Rider Distribution (%)	Skier Market (%)
Beginner	0.7	20.3	1	5
Novice	24.1	289.4	10	15
Low-Intermediate	27.9	223.4	7	25
Intermediate	202.0	1212.2	40	35
Advanced-Intermediate	202.5	810.1	27	15
Expert	226.5	452.9	15	5
Total	**683.7**	**3,008**	**100**	**100**

Source: SE Group 2022

Table 3.1-1 illustrates a relatively close match between GTR's existing terrain distribution and the market demand for the intermediate ability level. The deficiency of beginner terrain reflects the small amount of terrain served by the Papoose carpet. Novice and intermediate terrain are both very closely matched to the market. There is a deficiency of low-intermediate terrain, which indicates that it can be difficult for skiers to progress from novice-level to intermediate-level runs. The surplus of advanced- and expert-level terrain reflects the market niche of GTR, which is well-known for having high quality and diverse upper-ability

[17] SE Group 2018

level terrain. Given that reputation, this surplus is not seen as a constraint, as long as other ability levels are well balanced.

Additionally, GTR is deficient in its total amount of developed terrain available within its SUP area, and this is partially due to its abundance of undeveloped terrain. The undeveloped terrain at GTR is highly desirable and provides terrain variety that is sought by many skiers; however, in this way, it is also a limiting factor. The current terrain variety and distribution at GTR for both developed and undeveloped terrain serves a niche for challenging and extreme terrain, however, users of this ability level also desire a variety of terrain types and challenges that are not available at GTR in its current state.

For more information on terrain calculations and analysis information, please refer to the **Recreation Technical Report**.

Visitation and Resort Capacity

Local population growth has been steadily increasing since 1990. As described in **Section 3.4**, Teton County, Wyoming has experienced steady growth between 1990 and 2020; however, at reducing rates. This is also true of the broader region, including Teton, Bonneville, and Madison counties in Idaho.

Similarly, annual skier visitation to GTR during the winter season has been steadily increasing over the past ten years, ranging from 166,884 skier visits during the 2013/14 season to 226,745 skier visits during the 2022/23 season.[18] During this 10-year period GTR experienced annual growth rates from -12 to 30 percent. Further, additional visitation data from the 2023/24 and 2024/25 ski seasons, at 247,857 visits (9 percent growth rate) and 238,906 visits (-3 percent growth rate), respectively, is in alignment with the growth rates GTR experienced over the previous 10 years. As is evident in **Table 3.1-2**, annual visitation has been steadily increasing in the last 10 years.

Table 3.1-2. Annual Visitation at GTR

Season		Annual Visitation
2022/23		226,745
2021/22		206,630
2020/21		231,309
2019/20		177,576
2018/19		193,188
2017/18		197,113
2016/17		164,122
2015/16		178,682

[18] GTR 2022a

Season		Annual Visitation
2014/15		175,630
2013/14		166,884
5-yr Average (19/20 – 22/23)		207,090

The daily carrying capacity of a resort is described as the Comfortable Carrying Capacity (CCC). CCC does not indicate a maximum level of visitation but is rather a planning tool defined as the number of daily visitors a resort can comfortably or efficiently accommodate at one time without overburdening the resort's infrastructure. The CCC is derived from the resort's supply of vertical transport (the combined uphill hourly capacities of the lifts) and demand for vertical transport (the aggregate number of runs demanded multiplied by the vertical rise associated with those runs). The CCC is calculated by dividing vertical supply (vertical transport feet/day) by vertical demand. In addition to chairlift and terrain capacity, all other related skier service facilities can be evaluated and planned based on the proper identification of CCC. An important consideration of a resort's CCC is a balance of services to support the capacity. For example, there needs to be sufficient guest facilities to accommodate and service visitors and their distribution across the resort. As a resort expands in terms of terrain and lift capacity, guest service capacity needs to likewise expand. The goal with balancing service facilities and terrain in terms of the CCC is to avoid pinch points and congestion, resulting in a desirable user experience. Under existing conditions, GTR's current CCC is calculated at 3,720 guests per day. It is not uncommon for ski areas to experience peak days during which skier visitation exceeds the CCC by as much as 25 percent; however, from a planning perspective, it is not recommended to consistently exceed the CCC due to the resulting decrease in the quality of the recreational experience, and thus the resort's market appeal.

Annual summer visitation at GTR remains much lower than annual winter visitation, reaching its peak in recent years (2021) with an estimated 33,375 visits.[19] CCC is not calculated for summer operations as winter infrastructure and facilities provide surplus of accommodations for visitation that occurs in the summer months.

Facilities and Guest Services

Sufficient guest service space should be provided to accommodate the existing CCC of 3,720 guests per day. The CCC should be distributed between each guest service facility location according to the number of guests that would be utilizing the lifts and terrain associated with each facility.

Based upon a CCC of 3,720 skiers, GTR is deficient in overall guest service space when considering the low end of the recommended range. The areas with considerable space deficiencies compared with the industry standard include rentals/repair, kid's ski school, restaurant/bar seating, and kitchen/scramble. All

[19] Estimate is based on data provided by GTR (GTR 2022a). Total summer lift scans in 2021 were estimated at 25,673 and total assumed non-lift riders were 7,702. It is assumed that the number of non-lift riders equals approximately 30% of lift riders at GTR.

four of these functions have substantial revenue-generation potential, so the shortages could be adversely affecting the resort's effective yield per skier. The shortage of restaurant seating is particularly noteworthy, since restaurant seating is typically in very high demand at destination resorts, as well as being an important profit center. In addition to these deficiencies, ticketing, lockers, adult ski school space, and restrooms space all show deficiencies. Refer to the **Recreation Technical Report** for more information on industry standards and space use categories.

Multi-Season Recreation

Alternate Winter Activities

For guests who seek activities other than skiing at GTR, there are a number of alternate activities to try. There are 5 miles of snowshoe trails available on two dedicated loops—one beginner and one advanced trail. The Nordic trail system at GTR consists of approximately 7 miles of groomed classic cross-country trails and skate skiing lanes. These trails are available in Rick's Basin, in the northern portion of the SUP area, and in the village meadow below the parking lots. Winter fat bikes share the Nordic trail system, as well as the advanced snowshoe trail; thus, fat bike enthusiasts have access to approximately 11 miles of trails. Lastly, GTR also operates snow tubing on the terrain served by the Papoose carpet from 4:00 p.m. to 7:00 p.m., Wednesday through Sunday.

Summer Activities

GTR offers a variety of summer recreational experiences including scenic chairlift rides on the Dreamcatcher Lift; hiking, biking, and equestrian trails within the SUP boundary, some of which are lift-served; a Summer Activity Zone for practicing cross-country and downhill mountain biking skills and abilities; special events and programs; and an 18-hole disc golf course. Both the Summer Activity Zone and the disc golf course are located partially on private lands in the GTR base area; however, all other summer activities occur within the GTR SUP area.

GTR is a well-known destination for mountain biking and bikers make up the majority of visits in the summer. The GTR Bike Park has been consistently listed in the top 5 Best Bike Parks in the Northwest.[20] It offers cooler temperatures for riders to enjoy in the summers, which is part of its appeal along with scenic vistas and its variety of trails.[21] The park has 17 miles of downhill biking trails as well as trails for hiking and horseback riding.[22]

RECREATION ON SURROUNDING NFS LANDS

The location and setting of GTR draws tourists to the area in the winter and summer. Its proximity to GTNP is an attraction as places within the GTR SUP area and along Ski Hill Road offer scenic views of the Tetons. Many visitors to Teton County, Wyoming and Teton County, Idaho are there to see major attractions such as Grand Teton and Yellowstone National Parks. Additionally, the Town of Jackson, Wyoming has a variety of summer events and attracts a large tourist population. Closer to GTR, there are regional summer recreational activities such as horseback riding, rafting, tennis, golf, fishing, mountain

[20] GTR 2022b
[21] Ibid
[22] Ibid

biking, wildlife viewing, and hiking. Visitors can also go participate in guided snowmobiling, skiing, backpacking, rafting or horseback riding trips around GTR.

In areas surrounding GTR, there are opportunities for winter activities such as cross-country skiing, snowshoeing, snowmobiling, mushing and skijoring, fat biking, and backcountry skiing. Backcountry skiing has become increasingly popular in the last decade as a result of various technological advances in equipment, including safety equipment, and a growing interest in the unique experience. The backcountry offers a sense of adventure, solitude, and self-awareness that simply cannot be experienced when skiing inbounds at a developed ski area and is particularly attractive to the type of skier that visits GTR (namely advanced and expert skiers who enjoy a natural experience).

GTR has a closed boundary/open exit point backcountry access policy, where skiers are permitted to leave the SUP boundary only through designated areas. There is a backcountry gate located between Fred's Mountain and Mary's Nipple. Additionally, there is a backcountry access point near the summit of Peaked Mountain referred to as the Noodle Ridge Gate (above the top terminal of the Colter Lift) and another further down the ridge referred to as El Dente Gate (below the top terminal of the Colter Lift).[23]

The following paragraphs describe specific areas of NFS lands that are either of interest to recreationists or overlapped by the proposed SUP expansion project areas.

Mono Trees

Directly west of the Colter Lift and outside of the GTR SUP boundary is an area referred to as Mono Trees for the purposes of this environmental review. Its terrain descends south of GTR and into Teton Canyon. The area may have limited dispersed recreation but is not considered a destination for backcountry skiing or hiking. There is an existing backcountry access point, the Thunder Trees Gate, near the base of the existing Colter Lift that provides access into the area.

The Mill Creek Trail is a popular hiking and mountain biking trail that starts within Teton Canyon and passes through the proposed Mono Trees expansion area. This trail follows the proposed southern boundary of the proposed SUP expansion area. A less popular hiking and mountain biking trail, the Cold Springs Trail, also passes through the proposed Mono Trees SUP expansion area. The Cold Springs Trail can be accessed from Ski Hill Road and connects to the Mill Creek Trail. It crosses the proposed ski runs and gladded terrain from southwest to northeast within the proposed Mono Trees SUP expansion area. Both of these trails are managed by the CTNF.

Mono Trees is consistent with the assigned ROS range of semi-primitive nonmotorized to roaded natural opportunities for Management Prescription 2.1.2 – *Visual Quality Maintenance*.[24] It exists as a natural appearing environment with a high probability of experiencing solitude and a low interaction between users. There are some existing recreation trails in the area but no roads or facilities.

Teton Canyon

Teton Canyon extends east of Alta, Wyoming and is located south of GTR. It is located partially within the JSW. Within Teton Canyon, there are a variety of both winter and summer activities. In the winter,

[23] Communication with GTR and USFS, January 2023
[24] USDA Forest Service 1997

there are popular multipurpose snowmobile/cross-country trails at the base of Teton Canyon that offer views of the Teton mountains. Backcountry skiers entering this area often ski into the Canyon and either hike or are towed by a snowmobile on the groomed trails to exit the terrain. In the summer, a majority of visitors to Teton Canyon are hikers and campers. It is possible that hikers ride GTR's lifts to access hiking trails in Teton Canyon, outside of the SUP area. Other hikers access the area using trail access points along Teton Canyon Road. Popular trails in the area include the Mill Creek Trail, the North Teton Trail, and the South Teton Trail.

There are several outfitter and guide organizations that take users into the Teton Canyon area for guided backcountry experiences, such as Yostmark Mountain Equipment, Teton Backcountry Guides, and NOLS Teton Valley.

South Bowl

On the southern border of GTR's SUP area is a backcountry destination within Teton Canyon commonly referred to as South Bowl. Its terrain is characterized by steep slopes, open bowls, and rock bands. It has a south-facing aspect and the slope ranges from approximately 30 to over 60 degrees. The Noodle Ridge Gate above the top terminal of the Colter Lift provides access into South Bowl and can only be accessed by hiking up and over Mary's Nipple and up to Peaked Mountain. It is a minimum of one mile from the top of the Dreamcatcher Lift to Noodle Ridge Gate, there is no direct uphill access from the Colter Lift to the Noodle Ridge Gate. The El Dente Gate can be accessed from skiing downhill from the Colter Lift; however, it provides limited access to the South Bowl backcountry terrain. The backcountry terrain accessed by El Dente is a small shoulder of the South Bowl terrain.

This terrain is popular among advanced and expert-level skiers and experiences consistent use throughout the season. The accessibility of South Bowl is particularly attractive to many backcountry skiers as they can leave the SUP boundary, ski backcountry terrain, and return to in-bounds terrain with limited effort. Specifically, skiers accessing the backcountry via the Noodle Ridge and El Dente points can return to the ski area on the south side of the Colter terrain pod where there is an opening in the rope line. This results in the majority of the backcountry skiers recreating in this area coming back the ski area boundary rather than descending into the bottom of Teton Canyon. This characteristic, along with the scenery and quality of terrain, contribute to its heavy use. A wildlife camera study performed for this analysis found that backcountry skier use was high, ranging from an estimated 5-10 skiers/month to 20+ skiers per month in the northern part of South Bowl. These are likely very conservative estimates due to accuracy limitations with game cameras.[25]

Since the time of backcountry use monitoring, the Colter Lift has been constructed and is now open to the public. Primary access to the South Bowl area is unchanged from conditions prior to Colter Lift construction, with the exception of the El Dente Gate which did not exist prior to the lift construction. As previously mentioned, the El Dente Gate only accesses a limited area of the South Bowl backcountry terrain. Although use within this specific area has increased, it is confined to a limited spatial area. During the 2023 season (first season Colter Lift operations) a marginal increase in use patterns was observed within the South Bowl area.[26]

[25] Alder Environmental 2021
[26] Communication with USFS and GTR, January 2023

Since South Bowl is outside of GTR's operational boundary, avalanche safety procedures are not enforced. Therefore, the high level of use in this area creates a safety concern. The hike from the Dreamcatcher Lift to the backcountry access point prevents most inexperienced skiers who lack avalanche knowledge from entering the terrain. Although South Bowl is located outside of the GTR SUP boundary, GTR ski patrol does respond to occasional backcountry demands when necessary (refer to **Section 3.7**).

The South Bowl area in its existing state is consistent with the assigned ROS range of semi-primitive nonmotorized to roaded natural opportunities for Management Prescription 2.1.2 – *Visual Quality Maintenance.*[27] It exists as a natural appearing environment with a high probability of experiencing solitude and a low interaction between users. There are some existing recreation trails in the area but no roads or facilities.

South Leigh Canyon

South Leigh Canyon is located north of GTR and can also be accessed from Alta, Wyoming. The canyon is partially within the JSW. It is a popular backcountry skiing area in the winter and can be accessed from GTR through Scotty's Gate on the backside of Mary's Nipple. This portion of backcountry terrain is almost entirely within the JSW.

In the summer, a majority of visitors to South Leigh Canyon are hikers and campers. It is possible for hikers to ride GTR's lifts to access hiking trails for day-use in South Leigh Canyon, outside of the SUP area. Other hikers access the area using the trail access point on South Leigh Canyon Road. The South Leigh Lakes are a popular destination for visitors as well, along the South Leigh Creek, Granite Basin, Green Lakes Loop. From here, visitors are able to see the top of Fred's Mountain (refer to **Section 3.2**)

3.1.4 Direct and Indirect Environmental Consequences

ALTERNATIVE 1 – NO ACTION

Under the No Action Alternative, nearly all components of the GTR recreational experience would remain the same as existing conditions.

Recreation in the GTR SUP Area

Terrain Network

Under the No Action Alternative, GTR's terrain network would include a total of approximately 680 acres of developed terrain, as well as undeveloped and characteristically challenging terrain contained in glades and bowls. The deficit of developed beginner and low-intermediate terrain and the surplus of advanced-intermediate and expert terrain compared with market characteristics and described under **Section 3.1.3**, would persist (refer to **Table 3.1-1**).

Visitation and Resort Capacity

Visitation projections utilized a five-year baseline average (2016/17 through 2020/21) that incorporates multiple pre-pandemic seasons to ensure estimates reflect long-term trends rather than temporary anomalies associated with the COVID-19 pandemic. This methodology aligns with the GTR's consistent

[27] USDA Forest Service 1997

ten-year growth trajectory documented in the **Recreation Technical Report,** confirming that projected increases are driven by sustained regional demand and infrastructure utilization rather than short-term pandemic spikes. Visitation to GTR would continue to reflect baseline trends, with an average annual growth rate of approximately 1.0 percent between the 2022/23 and year 10 following the NEPA decision. Refer to **Table 3.1-3** below for projected visitation as a result of the No Action Alternative.

Table 3.1-3. Visitation Projections – Alternative 1

Season	Projects	Annual Visitation
2022/23	Colter Pod Opens with Lift Service	226,745
Year 1 Following NEPA Decision	-	249,330
Year 2 Following NEPA Decision	-	244,063
Year 3 Following NEPA Decision	-	249,383
Year 4 Following NEPA Decision	-	254,702
Year 5 Following NEPA Decision	-	260,022
Year 6 Following NEPA Decision	-	265,342
Year 7 Following NEPA Decision	-	260,022
Year 8 Following NEPA Decision	-	254,702
Year 9 Following NEPA Decision	-	254,702
Year 10 Following NEPA Decision	-	249,349

Source: SE Group 2021

Under the No Action Alternative, annual growth is anticipated to increase approximately 10 percent between the 2022/23 and year 1 following the NEPA decision to nearly 250,000 visitors with the recent construction of the Colter Lift. Peak visitation in the projections for this alternative would be in year 6 following the NEPA decision at 265,342 visitors total, an increase of 38,597 from the 2022/23 season.

Under the No Action Alternative, ongoing expected impacts of climate change may affect the timing of visitation and the numbers of visitors during the winter season compared to summer, as well as the spring and fall “shoulder” seasons. Changes in the onset and duration of natural snowfall and the ability of GTR

to make snow may alter the spectrum and seasonality of recreational opportunities at the resort. Refer to **Section 3.11** prepared for this analysis for more information.

Multi-Season Recreation

Under the No Action Alternative, current summer and alternate winter activities would still be provided. Demand for multi-season recreation opportunities would be expected to continue to grow, consistent with the trends of recent years and the industry as a whole.

Recreation in Surrounding NFS Lands

Participation in backcountry recreation is anticipated to increase with current trends and could be exacerbated in South Bowl by the presence of the Colter Lift. The 2023 season indicated that the Colter Lift has resulted in marginal increases in use within the South Bowl area. Implementation of the Colter Lift has not changed access points to South Bowl from those that were available to the public under existing conditions, but rather has created a more consistent but higher use pattern within portions of the South Bowl area. Under the No Action Alternative, this is expected to continue into the future. Increased backcountry use in this area may result in increased avalanche accidents and injuries (refer to **Section 3.7**).

Other recreation in surrounding NFS lands would not change from existing conditions.

ALTERNATIVE 2 – PROPOSED ACTION

Recreation in the GTR SUP Area

Terrain Network

Under the Proposed Action lift-served ski terrain in the South Bowl area of Teton Canyon and in Mono Trees area would be made accessible through SUP boundary expansions totaling 866 acres (refer to **Figure 2**). The expanded SUP would be served by the proposed South Bowl and Mono Trees chairlifts, and in total would provide access to nearly 930 acres of developed ski terrain across ski trails of various difficulties. These ski trails would increase both terrain distribution and variety for a range of ability levels. Beginner and novice skiers would have access to more terrain as compared to the No Action Alternative. The density of skiers would be similar to the No Action Alternative; however, there would be a larger variety of terrain which would provide a more ideal guest experience.

In addition to the South Bowl and Mono Trees areas, the Proposed Action would include approximately 214 acres of traditional terrain developments and improvements within the existing GTR SUP boundary. This includes additional beginner terrain around the Papoose Carpet, Palmer Platter, and Shoshone Lifts; new intermediate and expert terrain under the proposed North Boundary Lift; additional expert terrain under the proposed Crazy Horse Lift; and improvements to key circulation trails such as the Teton Vista Traverse. Terrain enhancements within the SUP boundary would accommodate the anticipated increase in visitation, provide more variety of terrain in different areas on the mountain, and improve skier circulation.

Terrain variety would also be enhanced through the creation of “groomable glades” in the Colter Lift area, meaning that vegetation would not be cleared entirely from edge-to-edge and some natural features would be maintained on trails. This would provide a more natural, backcountry experience while still being appropriate for intermediate and advanced level guests and expanding upon the developed terrain

available to expert ability level guests. Providing an experience that replicates the natural and backcountry style of skiing available elsewhere in the GTR SUP area also supports a learning progression as guests become more comfortable with the extensive undeveloped terrain network. Providing variety within the developed terrain network is important to holding the interest of intermediate, advanced-intermediate, and expert ability level skiers. The more skiing opportunities presented at the resort for a skier of a given ski level, the more likely they will be to either stay longer or return in the future. This increased interest correlates to increased length of stay as the guest experience is enhanced through greater opportunities within their ability level.

Table 3.1-4 describes the impact the proposed trails within the GTR SUP area and proposed SUP expansion areas would have on terrain distribution throughout the terrain network.

Table 3.1-4. Developed Terrain Network Distribution by Ability Level – Alternative 2

Skier/Rider Ability Level	Trail Area (acres)	Skier/Rider Capacity (guests)	Skier/Rider Distribution (%)	Skier Market (%)
Beginner	1.7	49.5	1	5
Novice	12.0	143.9	4	15
Low-Intermediate	36.5	291.8	7	25
Intermediate	287.3	1723.9	44	35
Advanced-Intermediate	283.6	1134.5	29	15
Expert	304.9	609.9	15	5
Total	**926.0**	**3,953**	**100**	**100**

Source: SE Group 2022

As detailed in **Table 3.1-4**, the distribution of intermediate terrain would increase to 44 percent, and advanced-intermediate and expert terrain would remain well above the skier market standards. These changes better reflect the skier market particularly at GTR, which caters to primarily advanced and expert ability level skiers. Also included in **Table 3.1-4** is a decrease in the distribution of Novice and Low-Intermediate terrain. This is explained by some trail projects, such as the realignment of the Teton Vista Traverse, which would change its difficulty from Novice to Intermediate. However, the decrease in distribution is also explained by an increase in beginner, intermediate, advanced-intermediate, and expert terrain acreage as a result of the proposed projects. Since skier and rider distribution for each ability level is a proportion of the total, the distribution of an ability level can decrease even when the trail area of that ability level increases. While the distribution of these ability levels still represents a deficit in relation to market standards, the increases in other terrain ability levels align with GTR's purpose and need of increasing the quantity of beginner, intermediate, advanced-intermediate terrain to meet current and anticipated public demand.

In addition to developed ski trails, additional undeveloped terrain and gladed areas would become available in the existing terrain network as well as in the South Bowl and Mono Trees areas, adding variety for upper ability level skiers. Although there are currently opportunities for expert ability level glade skiing within the existing terrain network, the additional terrain would better meet guest expectations for increased diverse terrain offerings. Adding variety in the form of undeveloped terrain for guests of these ability levels is important, as terrain diversity is what keeps upper ability level guests interested. The installation of two chairlifts in the Mono Trees and South Bowl areas would increase the variety of terrain to over 800 acres of developed and undeveloped terrain. The expanded terrain would address the Purpose and Need of providing additional undeveloped, minimally maintained lift-served terrain and additional traditionally cleared alpine trails to enhance terrain variety and skiing experiences at GTR.

Visitation and Resort Capacity

Population growth in the county and region is expected to continue with current trends described under the No Action Alternative. Refer to **Section 3.4** for more information.

It is anticipated that upon implementation of projects included in the Proposed Action, annual winter visitation and growth rates at GTR would increase from baseline conditions (**Table 3.1-5**).

Table 3.1-5. Visitation Projections – Alternative 2

Season	Projects	Annual Visitation
2022/23	Colter Pod Opens with Lift Service	226,745
Year 1 Following NEPA Decision	-	249,330
Year 2 Following NEPA Decision	Mono Trees Pod and Lift Constructed	273,063
Year 3 Following NEPA Decision	-	279,369
Year 4 Following NEPA Decision	Shoshone Lift Upgraded/Papoose/Platter	276,060
Year 5 Following NEPA Decision	-	276,060
Year 6 Following NEPA Decision	Lift Installed in South Bowl	303,886
Year 7 Following NEPA Decision	-	311,164
Year 8 Following NEPA Decision	Crazy Horse Lift Installed	322,621
Year 9 Following NEPA Decision	-	322,621

Year 10 Following NEPA Decision	North Boundary Lift Installed	330,866

Source: SE Group 2021

Under the Proposed Action, annual growth is anticipated to increase to approximately 10 percent between year 2 and 3 following the NEPA decision once the Mono Trees Lift becomes accessible, and an additional 10 percent between year 6 and 7 following the NEPA decision once the South Bowl Lift is installed. Average annual growth in visitation between 2022/23 and year 10 following the NEPA decision would be approximately 3.9 percent, steadily increasing through periods of implementation. Peak growth in projected visitation for this alternative would be reached in year 10 following the NEPA decision at 330,866 visitors total, an increase of 65,525 from peak seasons in No Action alternative.

The installation of the South Bowl and Mono Trees Lifts outside of the existing SUP boundary, as well as the installation of the Crazy Horse and North Boundary Lifts and the Shoshone Lift and Papoose carpet upgrades, would result in an increased CCC under the Proposed Action. Under the Proposed Action, the CCC at GTR would increase from 3,720 guests per day to 6,170 guests per day. Although annual visitation and CCC would increase with the Proposed Action, it is anticipated that the proposed upgrades and additions to terrain and facilities would accommodate these changes.

Summer visitation is also anticipated to increase under the Proposed Action; however, due to limited summer visitation data, it is undetermined how much visitation would increase. Even in a highest impact scenario, it is clear that summer visitation would remain fractional when compared to winter visitation at GTR. GTR would be capable of providing a similar recreation experience for any increase in summer visitation that would be attributable to implementation of the Proposed Action. However, climate change may have an impact on the timing and amount of summer visitors, especially those who chose recreational opportunities during the summer as well as the spring and fall “shoulder” seasons. These seasons may be extended due to changes in the timing of precipitation, the onset and length of the snow season, and warmer temperatures in the shoulder seasons (refer to **Section 3.11** for more information on climate change).

Facilities and Guest Services

Under the Proposed Action, GTR would expand its ski patrol operations to account for the expanded SUP boundary and incorporation of the South Bowl and Mono Trees areas into the developed lift and trail network. While the extent of ski patrol operations would extend into both areas, particular attention would be placed on South Bowl given the management of avalanche risks associated with this terrain. A ski patrol/skier services outpost would be constructed at the top of the proposed South Bowl chairlift, avalanche mitigation infrastructure would be installed in the South Bowl area (two avalaunchers and two avalanche rescue caches), and snow safety activities would be expanded to accommodate new terrain in the South Bowl area. As previously described, there is a need for this additional ski patrol facility as the existing ski patrol facility at the top of Colter Lift is down ridge from the top terminal of the South Bowl Lift and much of the terrain it serves. Constructing a ski patrol facility at the top of the South Bowl Lift would provide patrol access to the newly developed South Bowl area and would ensure timely responses to potential accidents in the area. To serve the guests in South Bowl, a vault toilet restroom would be constructed at the base of the proposed South Bowl Lift as well.

Several other guest services facilities are proposed within the GTR SUP boundary under the Proposed Action, including: two on-mountain restaurants at the top of Sacajawea and Dreamcatcher Lifts, guest facilities at the top of the Shoshone Lift, in Rick's Basin, and on Lightning Ridge near the top terminal of the proposed Mono Trees Lift, a storage and vault toilet facility at the base of the North Boundary Lift, and improving the existing vault toilet at the bottom of the Blackfoot Lift to include a storage facility. All facilities are intended to improve the guest experience by offering services such as food and beverage, improved customer service through additional staff resources, and areas to escape the weather on the mountain. These facilities would accommodate the anticipated increase in CCC and would provide a balanced amount of space under proposed conditions.

Multi-Season Recreation

Upon implementation of the Proposed Action, GTR would expand their multi-season and summer activities in the Summer Activity Zone around the Shoshone Lift. Proposed activities include a canopy tour/fly line, zip line, and aerial adventure course. All activities would be located on NFS lands within the Summer Activity Zone (refer to **Figure 3**). The disc golf course would also be re-located within the Summer Activity Zone to the north of the proposed canopy tour/fly line. The canopy tour would travel through the tree canopy and guests would wear harnesses and use short zip lines to travel from station to station, and the fly line would be a hybrid mountain coaster/zip line where guests wear harnesses but travel along a track from station to station. The zip line would have multiple segments so that guests can first get familiar with the harness and equipment and then go on a longer zip line of over 2,000 feet. The aerial adventure course would be an elevated challenge course that includes a series of elements of varying length and difficulty for both adults and children. Each of these proposed project components would broaden the diversity of users able to participate in activity-based interaction with a forested, mountain environment on NFS lands by providing opportunities that require little specialized knowledge, skills, equipment or familiarity with a high alpine environment. By supplementing the existing dispersed recreation opportunities at GTR with more structured and developed recreational offerings, user groups such as families, the elderly/aging, or those with disabilities are provided an opportunity to interact with the CTNF in a meaningful way that is currently lacking within the GTR SUP area.

Additionally, approximately 29 miles of hiking, biking, and multi-use trails are proposed within the GTR SUP boundary (refer to **Figure 3**). The Proposed Action would support all ability levels and all types of mountain biking, also continuing to expand cross-country opportunities in the SUP area through the inclusion of multi-use trails. Since GTR already has a robust bike park, additions to biking trails are primarily to enhance the existing network and fill in gaps rather than re-create the experience. It is anticipated that some of the proposed mountain biking trails would include jumps, rolls, wood bridging, and other terrain features that provide a fluid and flowing ride that is currently demanded by many mountain bikers. All terrain features would be constructed consistent with the ability level of a specific trail and would be designed to provide users with opportunities for learning progression within the terrain network as a whole.

It is anticipated that when added to the existing trail network available on GTR and adjacent NFS lands, the proposed mountain biking, hiking, and multi-use trails would more adequately address the needs of a variety of user groups than is done by the No Action Alternative by increasing terrain variety and connectivity for a range of ability levels. With the construction of these new trails, GTR could also potentially minimize the development of unsanctioned/unplanned trails on other CTNF managed lands and provide quality recreation in a managed fashion. The Proposed Action would expand Nordic skiing,

snowshoeing, and fat bike offerings and GTR would construct a dedicated snow tubing facility. The development of additional and improved trails in the Nordic skiing and fat biking network would improve access into Rick's Basin and would provide a more desirable winter experience for guests who seek alternate activities. Further, while GTR's snow tubing operation provides an amenity to guests who stay overnight at the resort. It currently utilizes the Papoose carpet and wide-open teaching terrain for snow tubing, limiting GTR's ability to meet guest expectations for alternate forms of recreation. A designated snow tubing facility (with permanent lanes and a dedicated lift) would allow GTR to offer an experience consistent with its goals.

Recreation in Surrounding NFS Lands

The Proposed Action would expand the developed recreational offerings within GTR's SUP boundary, and it is anticipated that overall recreational use patterns in the area (i.e., within the SUP boundary and surrounding NFS lands) would change. The Proposed Action may attract additional visitors, particularly those seeking a more developed recreational experience in the summer. These users (likely mountain bikers) may choose to recreate within the GTR SUP boundary rather than on surrounding NFS lands. However, some user groups may also be displaced by additional development and increased use of trails within the GTR SUP boundary (e.g., equine users on multi-use trails). Other users also may use trails within the GTR SUP boundary to access trails in the surrounding areas, such as the Mill Creek multiuse trail. Additionally, the Proposed Action may redistribute trail users on NFS lands surrounding GTR to trails or other proposed activities within the GTR SUP boundary. Because multi-season recreation opportunities already exist at GTR and on surrounding NFS lands it is anticipated that this would be a minor shift and users will continue to recreate in areas outside the SUP boundary, especially when considered in the context of growing population and the local community. The Proposed Action would likely increase the use of overnight facilities such as campgrounds and dispersed camping areas near GTR, particularly in Teton Canyon as they have the potential to draw more users to the area overall.

While recreationists on other NFS lands may not be displaced under this alternative, use patterns, particularly those related to adjacent JSW lands could be impacted (refer to **Section 3.9** for more information).

Mono Trees

The Proposed Action proposes to expand the GTR SUP boundary so that it includes an additional 600 acres in the Mono Trees area. During construction of the proposed projects, users of the Mill Creek and Cold Spring Trails may be impacted by additional noise or trail delays/closures. These impacts are expected to be short term in nature, and users are not expected to be displaced as short term trail delays/closures may occur as the projects are implemented. Users are not expected to experience long-term impacts as use of these two trails is primarily in the summer season, and no ski area activities are proposed to occur in the proposed Mono Trees expansion area during the summer season. Users recreating on the Cold Springs Trail through the proposed ski runs and gladed areas of the proposed Mono Trees expansion may experience few trees and vegetation cover, but these impacts are not expected to cause adverse impacts to the recreation experience of users. The CTNF would continue to manage these two trails under their existing conditions beyond the GTR SUP area, while GTR would manage these trails within the SUP area.

Further, incorporating the Mono Trees area into the GTR SUP boundary would benefit the GTR guest experience. As described previously, the area would provide additional developed and undeveloped

terrain for intermediate and advanced intermediate skiers, including gladed skiing opportunities, which would support a skills progression from intermediate to advanced ability levels.

Under the Proposed Action, the GTR SUP Boundary would be amended to incorporate Mono Trees expansion and would be managed according to Management Prescription 4.2 – *Special Use Permit Recreation Sites*.[28] The ROS for this prescription ranges from roaded natural to urban. With the proposed development in Mono Trees, it would become a mostly natural appearing environment with some visible trails, roads, and ski area infrastructure, similar to the existing SUP area.

Teton Canyon

South Bowl

Under the Proposed Action, terrain in the South Bowl would be incorporated into GTR's SUP boundary and would no longer exist as an opportunity for backcountry recreation during the winter months. The installation of the South Bowl Lift, development of ski trails, and creation of gladed skiing areas would result in increased skier use of this terrain and a more developed recreational experience in South Bowl. Backcountry skiing within the portion of South Bowl that would be incorporated into GTR's SUP boundary under the Proposed Action would not be permissible.

The incorporation of the South Bowl into the SUP boundary would allow for avalanche control and other safety procedures in this area, which would greatly reduce safety hazards. As discussed previously, the South Bowl is currently a highly used backcountry area because of its visibility and accessibility from GTR's SUP area; however, the dangers posed by avalanches create a serious risk. By incorporating this area into the operational boundary, improved safety measures and accident response capabilities would address this concern.

By removing approximately 266 acres of backcountry terrain adjacent to GTR, it is anticipated that backcountry use of other areas adjacent to GTR, such as Teton Canyon, South Leigh Canyon, and potentially other areas throughout CTNF could increase. This would include a potential increase in snowmobile use in Teton Canyon to shuttle skiers accessing backcountry terrain from the SUP back to their cars. Because only a portion of the South Bowl area would be within the SUP boundary, and because surrounding terrain would remain in its existing state, some users seeking a backcountry experience may exit the SUP boundary just below Mary's Nipple and ski backcountry terrain to the extent possible for them to return to the South Bowl Lift. Additional backcountry points may be incorporated into the GTR SUP boundary in this area to control ingress/egress routes (refer to **Section 3.7** for more information).

The incorporation of backcountry terrain into the GTR SUP boundary may impact outfitter and guiding companies such as those mentioned in the affected environment. These outfitters may need to have their operational areas relocated to other areas of the CTNF if negatively affected by the incorporation of South Bowl into the GTR SUP area. Given the majority of the South Bowl and broader Teton Canyon area would continue to exist as backcountry ski terrain, relocation would be dependent on a specific outfitter's needs and desired guest experience.

Under the Proposed Action, the GTR SUP boundary would be amended to incorporate the South Bowl expansion and would be managed according to Management Prescription 4.2 – *Special Use Permit*

[28] USDA Forest Service 1997

Recreation Sites.[29] The ROS for this prescription ranges from roaded natural to urban. With the proposed development in South Bowl, it would become a mostly natural appearing environment with some visible trails, roads, and ski area infrastructure, similar to the existing SUP area.

South Leigh Canyon

As described previously, the Proposed Action, and specifically inclusion of the South Bowl in the GTR SUP area, would displace some backcountry users. This may increase the use of South Leigh Canyon as a backcountry destination in the winter.

Summer recreation in South Leigh Canyon is not expected to experience measurable changes as a result of the Proposed Action.

ALTERNATIVE 3 – NO SPECIAL USE PERMIT BOUNDARY EXPANSION

Under Alternative 3, all projects within the SUP area are proposed, however, there would be no expansions to the GTR SUP boundary. Specifically, the South Bowl and Mono Trees areas would remain in their existing states.

Recreation in the GTR SUP Area

Terrain Network

Under Alternative 3, guests would have access to approximately 765 acres of developed ski terrain across various ability levels. **Table 3.1-6** describes the impact the proposed trails within the GTR SUP area would have on terrain distribution throughout the terrain network.

Table 3.1-6. Developed Terrain Network Distribution by Ability Level – Alternative 3

Skier/Rider Ability Level	Trail Area (acres)	Skier/Rider Capacity (guests)	Skier/Rider Distribution (%)	Skier Market (%)
Beginner	1.7	49.5	1	5
Novice	12.0	143.9	4	15
Low-Intermediate	36.5	291.8	9	25
Intermediate	247.3	1484.1	44	35
Advanced-Intermediate	219.9	879.7	26	15
Expert	247.7	495.4	15	5
Total	**765.1**	**3,344**	**100**	**100**

Source: SE Group 2022

[29] USDA Forest Service 1997

Without the South Bowl and Mono Trees terrain that is included under the Proposed Action, Alternative 3 would result in a lower acreage of intermediate, advanced-intermediate, and expert terrain than the Proposed Action. When considering skier/rider distribution, Alternative 3 would maintain the abundance of advanced intermediate and expert terrain, and increase the acreage and distribution of beginner and intermediate terrain, aligning with GTR's markets and a portion of the Purpose and Need. A variety of advanced terrain is important in meeting the expectations of advanced and expert skiers. Alternative 3 would not address shortcomings in terrain variety without the Mono Trees and South Bowl areas relative to the Proposed Action for both developed and undeveloped terrain. While it would offer a greater selection of trails and difficulties within the SUP boundary, it would lack some of the the terrain challenges associated with gladed skiing in Mono Trees and the chutes, bowls, and gladed areas in South Bowl.

Visitation and Resort Capacity

Population growth in the county and region is expected to continue with current trends described under the No Action Alternative (refer to **Section 3.4**).

It is anticipated that upon implementation of projects included in the Alternative 3, annual winter visitation growth rates at GTR would increase from baseline conditions. Refer to **Table 3.1-7** below for projected visitation as a result of Alternative 3.

Table 3.1-7. Visitation Projections – Alternative 3

Season	Projects	Annual Visitation
2022/23	Colter Pod Opens with Lift Service	226,745
Year 1 Following NEPA Decision	-	249,330
Year 2 Following NEPA Decision	Shoshone Lift Upgraded/Papoose/Platter	247,342
Year 3 Following NEPA Decision	-	252,704
Year 4 Following NEPA Decision	Crazy Horse Lift Installed	263,729
Year 5 Following NEPA Decision	-	263,729
Year 6 Following NEPA Decision	North Boundary Lift Installed	271,584
Year 7 Following NEPA Decision	-	278,605
Year 8 Following NEPA Decision	-	278,605

Year 9 Following NEPA Decision	-	278,605
Year 10 Following NEPA Decision	-	271,600

Source: SE Group 2021

Under Alternative 3, annual growth is anticipated to increase to approximately 1.9 percent on average between the 2022/23 and year 10 following the NEPA decision once the proposed projects are implemented. Annual growth would remain higher than the normal trend following the installation of the Crazy Horse and North Boundary Lifts, at 4 percent and 3 percent growth respectively. Growth in visitation is expected to peak in year 7 following the NEPA decision at 278,605 and then slow in the following seasons. In total, it is anticipated that Alternative 3 would result in an additional 13,264 skier visits in its peak season compared to the No Action Alternative.

The installation of the Crazy Horse and North Boundary Lifts and the Shoshone Lift and Papoose carpet upgrade would result in an increased CCC. Under Alternative 3, the CCC at GTR would increase from 3,720 guests per day in the No Action alternative to 4,910 guests per day. Although annual visitation and CCC would increase with Alternative 3, it is anticipated that the proposed upgrades and additions to terrain and facilities would accommodate these changes.

All summer projects proposed in Alternative 3 are the same as the projects included in the Proposed Action. Similar to the Proposed Action, summer visitation is anticipated to increase under Alternative 3. GTR would be capable of providing a similar recreation experience for any increase in summer visitation that would be attributable to implementation of Alternative 3. The impacts of climate change in visitation may also be a factor once Alternative 3 is implemented (refer to **Section 3.11**).

Facilities and Guest Services

Several guest services facilities are proposed within the GTR SUP boundary under Alternative 3, including: two on-mountain restaurants at the top of Sacajawea and Dreamcatcher Lifts, guest facilities at the top of the Shoshone Lift and in Rick's Basin, a storage and vault toilet facility at the base of the North Boundary, and improving the existing vault toilet at the bottom of the Blackfoot Lift to include a storage facility. All facilities are intended to improve the guest experience by offering services such as food and beverage, improved customer service through additional staff resources, and areas to escape the weather on the mountain. These facilities would accommodate the anticipated increase in CCC and would provide a balanced resort experience under Alternative 3.

Multi-Season Recreation

All multi-season recreation projects included in the Proposed Action are also included in Alternative 3. The recreation impacts and guest experience as a result of Alternative 3 would be consistent with those of the Proposed Action.

Recreation in Surrounding NFS Lands

Because Alternative 3 does not include an expansion to the GTR SUP boundary, it is not expected to have measurable impacts on recreational uses of surrounding NFS lands. Similar to the Proposed Action,

Development of summer projects would result in trends similar to those described under the Proposed Action.

While recreationists on other NFS lands may not be displaced under this alternative, use patterns, particularly those related adjacent JSW lands could be impacted (refer to **Section 3.9**).

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

Under Alternative 4, all projects in the SUP boundary are proposed as well as a SUP boundary expansion into the South Bowl area. The Mono Trees area would remain in its existing state.

Recreation in the GTR SUP Area

Terrain Network

Under Alternative 4, guests would have access to approximately 830 acres of developed ski terrain across a variety of ability levels. **Table 3.1-8** describes the impact the proposed trails within the GTR SUP area and proposed SUP expansion area would have on terrain distribution throughout the terrain network.

Table 3.1-8. Developed Terrain Network Distribution by Ability Level – Alternative 4

Skier/Rider Ability Level	Trail Area (acres)	Skier/Rider Capacity (guests)	Skier/Rider Distribution (%)	Skier Market (%)
Beginner	1.7	49.5	1	5
Novice	12.0	143.9	4	15
Low-Intermediate	36.5	291.8	8	25
Intermediate	247.3	1484.1	43	35
Advanced-Intermediate	227.0	908.2	26	15
Expert	304.9	609.9	17	5
Total	**829.4**	**3,487**	**100**	**100**

Source: SE Group 2022

With the additional South Bowl terrain, Alternative 4 would result in a higher distribution of expert terrain and a lower distribution of advanced-intermediate and novice terrain than the Proposed Action. Intermediate, advanced-intermediate, and expert terrain distribution would remain well above the skier market. Alternative 4 would support the purpose and need of increasing the quantity of beginner, intermediate, advanced-intermediate terrain to meet current and anticipated public demand.

Alternative 4 would also increase the variety of undeveloped terrain by incorporating the South Bowl area into GTR's terrain network. Although to a lesser extent than the Proposed Action, the variety of expert terrain in South Bowl would better meet the expectations of guests and would support the purpose and need of providing additional undeveloped, minimally maintained lift-served terrain and additional traditionally cleared alpine trails to enhance terrain variety and skiing experiences at GTR.

Visitation and Resort Capacity

Population growth in the county and region is expected to continue with current trends described under the No Action Alternative.

It is anticipated that upon implementation of projects included in Alternative 4, annual winter visitation growth rates at GTR would increase from baseline conditions (**Table 3.1-9**).

Table 3.1-9. Visitation Projections – Alternative 4

Season	Projects	Annual Visitation
2022/23	Colter Pod Opens with Lift Service	226,745
Year 1 Following NEPA Decision	-	249,330
Year 2 Following NEPA Decision2024/25	Shoshone Lift Upgraded/Papoose/Platter	247,342
Year 3 Following NEPA Decision2025/26	-	252,704
Year 4 Following NEPA Decision2026/27	Lift Installed in South Bowl	278,610
Year 5 Following NEPA Decision2027/28	-	284,839
Year 6 Following NEPA Decision2028/29	Crazy Horse Lift Installed	294,897
Year 7 Following NEPA Decision2029/30	-	294,897
Year 8 Following NEPA Decision2030/31	North Boundary Lift Installed	303,389
Year 9 Following NEPA Decision2031/32	-	303,389
2032/33Year 10 Following NEPA Decision	-	303,389

Source: SE Group 2021

Under Alternative 4, annual growth is anticipated to increase to approximately 3.0 percent on average between the 2022/23 and year 10 following the NEPA decision once the proposed projects are implemented. Annual growth is expected to peak at 10 percent following the installation of the South Bowl Lift and steadily increase in following years. Visitation is expected to peak in year 10 following the NEPA decision at 303,389 visitors, an additional 38,047 visitors compared to peak visitation in the No Action alternative.

The installation of the proposed Lifts and upgrades under Alternative 4 would result in an increased CCC. Under Alternative 4, the CCC at GTR would increase from 3,720 guests per day to 5,480 guests per day. Although annual visitation and CCC would increase with Alternative 4, it is anticipated that the proposed upgrades and additions to terrain and facilities would accommodate these changes.

All summer projects proposed in Alternative 4 are the same as the projects included in the Proposed Action and Alternative 3 (refer to the Proposed Action discussion previously).

Facilities and Guest Services

All guest services proposed in the Proposed Action are also proposed in Alternative 4 except for the guest facility on Lightning Ridge. All facilities would accommodate the anticipated increase in CCC as a result of the projects proposed under Alternative 4.

Multi-Season Recreation

All multi-season recreation projects included in the Proposed Action are also included in Alternative 4. The recreation impacts and guest experience as a result of Alternative 4 would be consistent with those described under the Proposed Action.

Recreation in Surrounding NFS Lands

The recreation impacts as a result of the incorporation of South Bowl into the GTR SUP boundary would be consistent with the discussion under Proposed Action. The Mono Trees area would remain in its existing state with occasional dispersed recreation. Development of summer projects would result in trends similar to those described under the Proposed Action.

While recreationists on other NFS lands may not be displaced under this alternative, use patterns, particularly those related adjacent JSW lands could be impacted (refer to **Section 3.9**).

ALTERNATIVE 5 – MONO TREES, NO SOUTH BOWL

Under Alternative 5, all projects within the SUP area as well as the SUP boundary expansion into Mono Trees are proposed. South Bowl would remain in its existing state.

Recreation in the GTR SUP Area

Terrain Network

Under Alternative 5, guests would have access to approximately 860 acres of developed ski terrain across a variety of ability levels. **Table 3.1-10** describes the impact the proposed trails within the GTR SUP area and proposed SUP expansion area would have on terrain distribution throughout the terrain network.

Table 3.1-10. Developed Terrain Network Distribution by Ability Level – Alternative 5

Skier/Rider Ability Level	Trail Area (acres)	Skier/Rider Capacity (guests)	Skier/Rider Distribution (%)	Skier Market (%)
Beginner	1.7	49.5	1	5
Novice	12.0	143.9	4	15

Low-Intermediate	36.5	291.8	8	25
Intermediate	287.3	1723.9	45	35
Advanced-Intermediate	276.5	1106.1	29	15
Expert	247.7	495.4	13	5
Total	**861.7**	**3,811**	**100**	**100**

Source: SE Group 2022

With the additional Mono Trees terrain, Alternative 5 would result in an increase in the distribution of intermediate trails. The proposed projects would maintain the surplus of advanced-intermediate and expert terrain distribution. Beginner, novice, and low-intermediate terrain distribution would continue to be below the skier market, however, similar to the Proposed Action, Alternative 5 would still support the Purpose and Need by increasing intermediate and advanced-intermediate offerings as well as increasing beginner terrain acreage through improvement projects.

Including Mono Trees gladed terrain in GTR's undeveloped terrain network would also support the Purpose and Need of providing additional undeveloped, minimally maintained lift-served terrain and additional traditionally cleared alpine trails to enhance terrain variety and skiing experiences at GTR. However, without the chutes and steep bowls offered in South Bowl, Alternative 5 does not provide the same variety of terrain as offered by the Proposed Action and Alternative 4.

Visitation and Resort Capacity

Population growth in the county and region is expected to continue with current trends described under the No Action Alternative.

It is anticipated that upon implementation of projects included in the Alternative 5, annual winter visitation growth rates at GTR would increase from baseline conditions. Refer to **Table 3.1-11** below for projected visitation as a result of Alternative 5.

Table 3.1-11. Visitation Projections – Alternative 5

Season	Projects	Annual Visitation
2022/23	Colter Pod Opens with Lift Service	226,745
Year 1 Following NEPA Decision	-	249,330
Year 2 Following NEPA Decision2024/25	Mono Trees Pod and Lift Constructed	273,063
Year 3 Following NEPA Decision2025/26	-	279,369

Year 4 Following NEPA Decision2026/27	Shoshone Lift Upgraded/Papoose/Platter	279,228
Year 5 Following NEPA Decision2027/28	-	282,459
Year 6 Following NEPA Decision2028/29	Crazy Horse Lift Installed	293,689
Year 7 Following NEPA Decision2029/30	-	290,043
Year 8 Following NEPA Decision2030/31	North Boundary Lift Installed	296,296
Year 9 Following NEPA Decision2031/32	-	304,304
2032/33Year 10 Following NEPA Decision	-	296,296

Source: SE Group 2021

Under Alternative 5, annual growth is anticipated to increase to approximately 2.8 percent on average between the 2022/23 and year 10 following the NEPA decision once the proposed projects are implemented. Annual growth would remain higher than the normal trend following the installation of the Mono Trees, Crazy Horse, and North Boundary Lifts. Growth in visitation is expected to peak in year 9 following the NEPA decision at 304,304, an additional 38,962 skier visits compared to peak visitation in the No Action alternative.

The installation of the proposed lifts and upgrades would result in an increased CCC under Alternative 5 Under Alternative 5, the CCC at GTR would increase from 3,720 guests per day to 5,600 guests per day. Annual visitation and CCC would increase with Alternative 5 and it is anticipated that the proposed upgrades and additions to terrain and facilities would accommodate these changes.

All summer projects proposed in Alternative 5 are the same as the projects proposed in the Proposed Action. Refer to the discussion previously for recreation impacts to summer visitation.

Facilities and Guest Services

All guest services proposed in the Proposed Action are also proposed in Alternative 5 except for the ski patrol facility at the top of the South Bowl Lift, the vault toilet at the bottom of the South Bowl Lift, and associated avalanche mitigation infrastructure. The proposed facilities included in this alternative would accommodate the anticipated increase in CCC and provide a balanced resort experience.

Multi-Season Recreation

All multi-season recreation projects included in the Proposed Action are also included in Alternative 5. The recreation impacts and guest experience as a result of multi-season recreation in Alternative 5 would be consistent with those of the Proposed Action.

RECREATION IN SURROUNDING NFS LANDS

Alternative 5 is expected to have negligible impacts on recreation within the Mono Trees area due to its existing level of use. The South Bowl area would remain in its existing state as backcountry terrain and would continue to serve as a backcountry skiing destination. Development of summer projects would result in trends similar to those described under the Proposed Action.

While recreationists on other NFS lands may not be displaced under this alternative, use patterns, particularly those related adjacent JSW lands could be impacted (refer to **Section 3.9**).

3.1.5 Cumulative Effects

SCOPE OF THIS ANALYSIS

The effects analyzed in this discussion apply to all action alternatives. The following projects are expected to cumulatively have short- and long-term effects on overall recreational opportunities in the GTR SUP area and on adjacent NFS and private lands, as well as throughout Teton County, Wyoming and Teton County, Idaho.

Temporal Bounds

The temporal bounds for this cumulative effects analysis of recreation resources extend from 1969 when GTR first opened as a ski area through the foreseeable future in which GTR can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis of recreation primarily focuses on NFS lands within, and adjacent to, GTR's existing and proposed SUP area. However, the cumulative effects study area extends to include recreation opportunities within Teton County, Wyoming and Teton County, Idaho, some of which are on private lands.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects study area, the reader is referred to **Appendix A** in the document. Past ski area and county development projects have been incorporated and analyzed in this document as part of the Affected Environment.

Recreation at GTR

This cumulative effects analysis analyzes the potential impacts of all projects in the 2018 MDP, including those that are not included in the Proposed Action. As these projects are accepted in the 2018 MDP but not approved under environmental review, they are considered here as reasonably foreseeable future projects. Included in the 2018 MDP but not in the Proposed Action are various lift upgrades and installments, additional guest services and ski area operations facilities, and additional snowmaking. Additionally, the Teton County, Wyoming GTR 2019 First Amended Master Plan – Planned Unit Development for Planned Resort (PUD-PR) was approved in 2019 and included private lands projects in the resort's base area. Approved but unimplemented projects from the First Amended Master Plan include construction of 450 units and 12,300 square feet of commercial and resort services.

On-mountain development and base area development combined are anticipated to make GTR more appealing as a destination resort. It is anticipated that if these projects are constructed, a greater number of

guests would stay at the resort and their length of stays could also increase. These changes would allow GTR to remain competitive in the regional destination skier market, help retain existing guests, and attract new visitors.

In combination with previously accepted and approved projects that are reasonably foreseeable and past projects that have been implemented at GTR, the proposed projects in this EIS would supplement existing winter recreation opportunities by providing additional ski terrain and infrastructure. These additions would improve the existing terrain distribution and further the progression of summer recreation that has occurred in recent years by expanding summer offerings including developed activities within the Summer Activity Zone. It is anticipated that when combined with the recreation opportunities provided by past projects, the Proposed Action would have a combined beneficial impact on the recreation resource.

Recreation Opportunities beyond the GTR SUP Area

Beyond GTR and in the broader context of Teton County, Wyoming, opportunities for recreational activities are abundant on both private and public lands, including NFS, Teton County, and other municipal lands. Although summer is a short season in the mountain environment, summer recreational opportunities for different types of users outnumber winter recreational opportunities. These are primarily dispersed activities that depend on an individual's skills, fitness, and experience. They include, but are not limited to hiking, road/mountain biking, off-highway vehicle riding, sightseeing, fishing, camping, horseback riding, rock climbing, kayaking, and rafting. In addition to the hiking, biking, and multi-use trails that are available at GTR, hundreds of miles of trails can be found on NFS lands throughout the CTNF. Visitors of NFS lands outside of the GTR SUP area are also increasing due to population growth, the natural resources present, and array of dispersed activities that exist in the area.

Ongoing projects and visitor management show that this trend is occurring independent of additional recreation being provided at GTR. While ongoing recreation improvement projects, such as the Packsaddle Lake Recreation Improvement Project, work to mitigate the impacts that fall disproportionately on high use destinations, it is anticipated that additional visitors to the area could create future challenges for management and mitigation of impacts to high use destinations. In some cases, the additional recreation opportunities within the GTR SUP area may alleviate pressure on high use destinations by providing alternative opportunities for recreation in a location that is easier to manage due to its developed nature and existing infrastructure. However, when considered cumulatively with the growing population and visitation in the greater GTR area, it is anticipated that pressure on high use destinations would increase.

Cumulatively, the proposed projects at GTR could lead to an increase in use of recreation opportunities on NFS lands and municipally owned lands within Teton County, as enhanced recreational opportunities available within the GTR SUP would accommodate additional winter and summer visitors to the broader area. As such, it is likely that the Forest Service and local governments and organizations would continue to allocate resources to expand recreational offerings and address the management of exiting recreation opportunities in the foreseeable future.

3.1.6 Irreversible and Irretrievable Commitments of Resources

Development of additional lift-served terrain in the South Bowl and Mono Trees areas would represent irretrievable effects to backcountry recreation resources in these areas. However, the vegetation and ground disturbance required to provide lift-served skiing for the Proposed Action could be reclaimed and

revegetated, thus restoring its backcountry characteristics during the winter season. Therefore, this commitment of the recreation resource is not considered irreversible in nature.

3.2 Scenery

This scenery analysis summarizes the **Scenery Technical Report** for the *Grand Targhee Resort Master Development Plan Environmental Impact Statemen*t (Scenery Technical Report).[30] Refer to the **Scenery Technical Report** for additional information, including a description of the methodology used for this analysis.

3.2.1 Scope of the Analysis

The spatial scope of this scenery analysis includes GTR's existing SUP area, as well as the proposed SUP area expansion onto adjacent CTNF lands, and critical viewpoint locations within 32 miles of the project area. 32 miles was chosen as project components would not be distinguishable from viewpoints at greater distances. The temporal scope of this scenery analysis extends from GTR's inception as a ski area in the 1960s, through the foreseeable future in which GTR can be expected to operate, allowing for analysis of existing and proposed conditions, as well as cumulative effects. This temporal scope was chosen as it covers the life of the ski resort, as well as the foreseeable future.

3.2.2 Federal, State, and Local Policy and Guidance

Management of the scenic environment on NFS lands within the analysis area is directed by the *1997 Forest Plan*, the Visual Management System (VMS), and the BEIG.

1997 FOREST PLAN FOR THE TARGHEE NATIONAL FOREST

The *1997 Forest Plan* contains Forest-wide standards and guidelines which apply to resources across the CTNF, as well as standards and guidelines which apply to specific Management Prescriptions.[31] Refer to the *1997 Forest Plan* or the Scenery Technical Report for a description of relevant management direction from the *1997 Forest Plan*.

VISUAL MANAGEMENT SYSTEM

Since the mid-1970s, the Forest Service has utilized the VMS to measure the inherent visual quality of NFS lands.[32] The Scenery Management System was published in 1995 and is the most recent Forest Service system for managing scenery resources; however, the *1997 Forest Plan* utilizes the VMS to measure and manage inherent visual quality. Existing visual quality and changes to this condition are measured and assessed through a number of indicators related to the characteristic landscape, distance zones, and viewer sensitivity levels. Refer to the Visual Management System National Landscape, Volume 2 and the Scenery Technical Report for additional information.

[30] SE Group 2023b
[31] A *standard* is a course of action which must be followed; adherence is mandatory. A *guideline* is a preferred course of action designed to achieve a goal, respond to variable site conditions, or respond to an overall condition.
[32] U.S. Forest Service. 1974 (April). Chapter 1, "The Visual Management System." In National Forest Landscape Management, Volume 2. https://www.nrc.gov/docs/ML1224/ML12241A372.pdf

Visual Quality Objectives

Visual Quality Objectives (VQOs), as defined in the VMS, are based on the physical characteristics of the land and the sensitivity of the landscape setting as viewed by humans. VQOs define how the landscape will be managed, the level of acceptable alteration of the natural landscape in the area, and under what circumstance the alteration may occur under. VQOs range from *Preservation* (ecological changes only) to *Maximum Modification* (dominance of management activities). VQOs guide management of visual resources only on NFS lands.

The *1997 Forest Plan* assigns the GTR SUP area (Management Prescription 4.2 – *Special Use Permit Recreation Sites*) VQOs of *Partial Retention* to *Maximum Modification*.[33] In addition, the proposed SUP area expansions on adjacent CTNF lands in the South Bowl and Mono Trees areas (Management Prescription 2.1.2 –*Visual Quality Maintenance*) are currently assigned VQOs of *Retention* to *Partial Retention*. The *1997 Forest Plan* designates riparian areas within the AIZ (Management Prescription 2.8.3 – *Aquatic Influence Zone*) VQOs of *Retention* to *Modification*. Management Prescription 2.8.3 – *Aquatic Influence Zone* overlaps portions of the GTR SUP area (Management Prescription 4.2 – *Special Use Permit Recreation Sites*) and the Mono Trees area (Management Prescription 2.1.2 – *Visual Quality Maintenance*). Areas of overlap within the GTR SUP area (Management Prescription 4.2 – *Special Use Permit Recreation Sites*) assume the VQO of Management Prescription 4.2 – *Special Use Permit Recreation Sites*, which is *Partial Retention* to *Maximum Modification.* Areas of overlap within the Mono Trees area (Management Prescription 2.1.2 – *Visual Quality Maintenance*) assume the VQO of the Management Prescription 2.8.3 – *Aquatic Influence Zone*, which is *Retention* to *Modification.* For the purpose of this analysis, Mono Trees and South Bowl would assume the more conservative VQOs of the surrounding Management Prescription 2.1.2 – *Visual Quality Maintenance*, which are *Retention* to *Partial Retention*. Overall, much of the GTR SUP area would assume the VQOs of *Retention* to *Maximum Modification*, with portions of the GTR SUP area, Mono Trees area, and South Bowl area continuing to assume the more conservative VQOs of *Retention* to *Partial Retention.*

Refer to the *1997* Forest Plan, VMS, and the Scenery Technical Report for definitions for these VQOs. [34]

BUILT ENVIRONMENT IMAGE GUIDE

The BEIG has been designed to ensure thoughtful design and management of the built environment, which includes above ground facilities: administrative and recreation structures, landscape structures, site furnishing, structures on roads and trails, and signs installed or operated by the Forest Service, its cooperators, and its permittees.[35] It focuses on the image, appearance, and structural character of facilities. Three core contexts are stressed throughout the BEIG: (1) environmental; (2) cultural; and (3) economic. Ecological, cultural, and economic contexts occur at various scales. In terms of context for the built environment, the Forest Service considers national, province, and site scales. GTR is located within

[33] USDA Forest Service. 1997. 1997 Revised Forest Plan for the Targhee National Forest. United States Department of Agriculture. Forest Service. Rocky Mountain Region. Caribou Targhee National Forest. Available online: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5395138.pdf
[34] U.S. Forest Service. 1974 (April). Chapter 1, "The Visual Management System." In National Forest Landscape Management, Volume 2. https://www.nrc.gov/docs/ML1224/ML12241A372.pdf
[35] USDA Forest Service. 2001. The Built Environment Image Guide for the National Forests and Grasslands. United States Department of Agriculture. Forest Service. September 2001. Available online: https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/TheBuiltEnvironmentImageGuide-2001-09.pdf

the Rocky Mountain Province, which includes the northern Rockies, the Black Hills, and the Wasatch Range.

The BEIG provides general guidance regarding the image, aesthetics, and overall quality of recreational and administrative structures on NFS lands, but it does not contain enforceable "standards" pertaining to aesthetic quality as would be found in a typical Forest Plan. As indicated on pages 250–252 of the BEIG, specific direction for the design of administrative and recreational facilities is found in the FSM and Forest Service Handbooks (FSH).[36] Refer to the BEIG and the **Scenery Technical Report** for additional information.

3.2.3 Affected Environment

REGIONAL CHARACTERISTIC LANDSCAPE

GTR is located on the west side of the Teton Mountain Range within the CTNF, outside Alta, Wyoming. The CTNF occupies over 3 million acres of NFS lands stretching across southeastern Idaho, from the Montana, Utah, and Wyoming borders. Elevations in the CTNF range from approximately 5,000 feet in the Curlew National Grassland to over 12,000 feet on the Forest's western reaches in the Lemhi Range. Two designated wilderness areas, the JSW and the Winegar Hole Wilderness, are located in the easternmost portions of the Forest, which border Yellowstone and GTNP. The Grand Teton, an important scenic resource located within GTNP, is approximately 8 miles southeast of the ski area.

Jedediah Smith Wilderness

The JSW, a federally designated wilderness area that is managed by the Forest Service, borders the GTR SUP boundary to the north (refer to **Figures 7 and 8**). The topography found within the JSW is very similar to the topography found at GTR; the landscape is characterized by steep, granite cliffs separated by heavily vegetated valleys. The JSW represents an undeveloped area and is particularly valued for its unrefined, scenic characteristics. No development associated with the project would occur on JSW land; however, portions of the project would be visible from these lands. The JSW offers excellent opportunities for backcountry skiing in the winter, but experiences much lighter use compared to the warmer months because of its remote location and the fact that the area is not immediately lift-served, but rather requires hiking to access.

Grand Teton National Park

GTNP is a federally designated national park, managed by the National Park Service (NPS) in northwestern Wyoming. GTNP borders the CTNF to the east and is approximately 8 miles east of GTR. GTNP contains the major peaks of the Teton Range, including the Grand, Middle, and South Tetons, Teewinot Mountain, Mount Moran, and Buck Mountain. Portions of GTNP on the west side of the Teton Range are visible from GTR (refer to **Figures 7 and 8**). Likewise, GTR is visible from within GTNP from some summits and trail viewpoints. The topography found on the west side of the Teton Range within the GTNP is similar to the topography found within the JSW. The area also contains jagged peaks and ridgelines, as well as glacial valleys and alpine meadows. Lands within GTNP on the west side of the Teton Range are largely undeveloped, especially when compared to areas within the park on the eastern side of the range, which contain most of the park's visitor facilities, as well as the Jackson Hole Airport.

[36] Ibid.

Lands within GTNP on the west side of the Teton Range are largely undeveloped and are particularly valued for their unrefined, scenic characteristics. The area is mostly void of infrastructure and human disturbance, except for hiking trails. Most viewers from GTNP are hikers that generally have a high sensitivity toward a natural appearing and undeveloped landscape.

GTNP was established as a unit of the National Park System to protect the scenic and geological values of the Teton Range and Jackson Hole, and to perpetuate the park's indigenous plant and animal life.[37] Scenic quality is a high priority in all management decisions made by the NPS for GTNP. GTNP is also managed to maintain its dark sky values, as dark skies are important to provide refuge for wildlife and to provide clarity for visitors engaging in stargazing, night walks, full moon hikes, and other nighttime activities. Western views from GTNP are largely unimpacted dark sky.

Driggs, Idaho

The City of Driggs is located in Teton County, Idaho, approximately 14 miles southwest of GTR. Driggs is situated in the Teton Valley between the western front of the Teton Range and the Big Hole Mountains. Views of the Teton Range, including the Grand, Middle, and South Tetons, and GTR, exist to the east. While the base area of GTR is masked by topography, both Fred's Mountain and Peaked Mountain are visible from Driggs, as well as the ski run on these mountains. Views of the Big Hole Mountains exist to the southwest.

In 2012, Driggs adopted community zoning standards to designate the city as an International Dark Sky Community.[38] The intent of the initiative was to provide for the nighttime use and enjoyment of property while serving the greater public interest; to benefit public health, safety, and security; to foster natural-resource protection; and to promote community aesthetics.

PROJECT AREA CHARACTERISTIC LANDSCAPE

Existing Grand Targhee Resort Special Use Permit Area

The summit elevation of GTR is approximately 9,920 feet at the top of Mary's Nipple. GTR has a base elevation of approximately 7,860 feet. The topography and vegetation of the ski areas are composed of steep mountain slopes and basins at higher elevations, and valleys of conifer forests intersected by base area developments at lower elevations. Ski area development, including ski runs, lifts, and other infrastructure, is highly apparent from within the ski area and from surrounding NFS lands. This type of development is particularly visible when viewed from the foreground distance zone; however, it is also visible in the middleground, and background distance zones (when not obstructed by existing vegetation or topography). Ski runs are much more visible from the middleground and background distance zones than ski lift infrastructure because ski runs require the wholesale clearing of vegetation, which creates considerable contrast with the adjacent and undisturbed natural landscapes. This contrast is particularly apparent during the winter when white snow-covered runs are surrounded by darker-colored trees and forest stands. Ski lift infrastructure is minimally visible from the middleground distance zone and is generally not noticeable from the background distance zone, because at these distances, installed

[37] USDI National Park Service 1976. Grand Teton National Park Master Plan.
[38] City of Driggs. 2022. Zoning Ordinance. Land Development Code of Driggs, Idaho. Chapter 11 Site Development. Art. 11.4. Outdoor Lighting. 11.4.1 Purpose. Available online: https://codelibrary.amlegal.com/codes/driggsid/latest/driggszoning_id/0-0-0-3155

infrastructure does not create substantial contrast with the surrounding and undisturbed landscape, and as a result is hardly discernable.

While the line and form of existing ski trails and installed infrastructure with the SUP area both contrast noticeably with natural landscape characteristics, they are not inconsistent with the Partial Retention VQO because they do not dominate the characteristic landscape and are therefore visually subordinate to it.

South Bowl

South Bowl is located on NFS lands south of the GTR SUP area (refer to **Figures 7 and 8**). As an undeveloped area outside GTR's existing SUP area and adjacent to the JSW, South Bowl exists in a near natural state. The area is broadly defined by above-treeline bowls, cliff bands, chutes, and ridgelines, which transition into forest below approximately 9,000 feet. Defined avalanche paths cut into treeline below many of the chutes in this area, creating repeated, asymmetrical lines of variable thickness in forested areas below treeline. These areas are particularly apparent during the winter when white snow-covered slide paths are surrounded by darker-colored trees and forest stands. Forested areas in the southwestern portion of South Bowl are low density with numerous down trees lining the understory. The area is void of infrastructure and human disturbance except for a short trail segment extending approximately 300 feet into South Bowl from the western edge of the GTR SUP boundary. While the trail is located in an open area above treeline, management activities associated with the trail are hardly noticeable compared to the natural features that make up the greater landscape.

South Bowl is currently consistent with the assigned VQOs of Retention to Partial Retention, as management activities are not visually evident.

Mono Trees

The Mono Trees area is located on NFS lands downslope and to the west of the GTR SUP area (refer to Figures 7 and 8). Mono Trees exists in a near natural state, characterized by below treeline forest stands of varying density, interspersed with subalpine meadows. Mono Trees is primarily west-facing with more gentle slopes when compared to the terrain in South Bowl. Forests within the Mono Trees area are primarily mixed conifer, with some aspen at lower elevations. The area is mostly void of infrastructure and human disturbance, except for an approximately 1,300-foot segment of Ski Hill Road in the area's northern corner and an approximately 5,000-foot mountain road that cuts through forest along the area's southern edge.

Mono Trees is consistent with the assigned VQOs of Retention to Partial Retention. Management activities are not visually evident within Mono Trees, except for Ski Hill Road and the existing mountain road which are subordinate to the visual strength of the characteristic landscape.

VIEWPOINT ANALYSIS

For this analysis, nineteen critical viewpoint locations and 23 views (some occurring during the day and night) have been considered to provide a representative sampling of the views within the study area (refer to **Figures 7 and 8**). Four of these (including the Coulter Building top floor and Hastings Lane in Driggs, Idaho; Table Mountain in the JSW; and one site in Tetonia, Idaho) experience widely varying conditions between the winter and summer months. As a result, these four viewpoint locations were considered during both summer and winter conditions, which resulted in a total of 23 views being considered for

detailed viewpoint analysis (i.e., 4 of the 19 viewpoints have both a summer view and a winter view provided from the same location).

The viewpoints were overlayed with the Zone of Potential Visibility defined in the viewshed analysis (refer to **Section 1.3.1** of the **Scenery Technical Report**) to determine whether the proposed projects would be visible or discernable from each location. Viewpoints screened by topography were dismissed from additional analysis as visual impacts associated with the proposed projects would not be visible. The viewshed analysis accurately accounts for topographic features but does not incorporate potentially obscuring features such as vegetation or existing structures. It is expected that existing vegetative screening would reduce the overall potential visibility of the project, dependent upon the specific location and vantage of the viewer. This analysis employed a 30-meter resolution data rather than higher resolution datasets in order to accommodate a larger spatial scope for this viewshed analysis. Additionally, because this analysis does not incorporate the effects of vegetation, a 30-meter resolution dataset was sufficient for the level of detail included in this effects analysis.

Existing and proposed ski area infrastructure would not be discernable from viewpoints outside the 6.9-mile buffer area from the proposed top and bottom terminals of South Bowl Lift and the proposed Fred's Mountain Top Guest Facility; however, cleared ski trails would be visible in many instances. The 6.9-mile buffer area was chosen as the buffer distance as the limit a person with 20/20 vision could not recognize a lift terminal or building on the landscape. This 6.9 mile buffer is characterized as the Zone of Potential Visibility. The existing condition for each discernable view is described in the following paragraphs. Views where visual impacts would not be visible (views 1 – Ashton, Idaho, 2 – Buck mountain Pass, and 12 – Paintbrush Divide) have been omitted from this section, but are discussed in **Section 1.4.3** of the **Scenery Technical Report**. Numeric viewpoint locations are presented in **Figures 7 and 8**.

Views 3 and 4 – Coulter Building Rooftop, Driggs, Idaho (Summer and Winter)

The Coulter Building is a three-story structure with a rooftop restaurant in Driggs, Idaho. The building is located approximately 10 miles southwest of the GTR SUP. The viewpoint looks to the northeast and provides views of the Teton Range and GTR in the background distance zone (refer to **Figures 7 and 8**). Existing ski trails at GTR are visible from this viewpoint; however, ski area infrastructure is not discernable due to distance. During the summer, the ski trails exhibit little contrast with the surrounding vegetation and are hardly discernable compared to winter, when snow-covered ski trails contrast with the surrounding green vegetation. Most of the viewers at this location would be guests of the Coulter Building restaurant, and the duration of their view would likely range from minutes to hours, depending on guests' activities.

View 5 – Grand Teton Summit

The Grand Teton is located within GTNP, approximately 6.5 miles southeast of the GTR SUP area. The Grand Teton Summit viewpoint looks northwest towards Fred's Mountain and South Bowl (refer to **Figures 7 and 8**). In the background, viewers can see the top of Fred's Mountain as well as avalanche paths and scattered vegetation in South Bowl. Ski Hill Road and Teton Canyon Road are the only development visible from this viewpoint. Technical rock-climbing gear and skills are required to access the Grand Teton Summit; therefore, all viewers at this location would be rock climbers. The duration of their view would likely last several minutes, depending on climbers' ascent speed; these climbers generally have a high sensitivity toward the natural appearing and undeveloped landscape visible from this viewpoint.

Views 6 and 7 – Hastings Lane, Driggs, Idaho (Summer and Winter)

Hastings Lane is located in Driggs, Idaho, approximately 8.4 miles west of the GTR SUP area. The Hastings Lane viewpoint faces east towards the Teton Range and GTR, and has clear views of the Grand, Middle, and South Tetons in the background distance zone. Existing ski trails at GTR are visible from this viewpoint; however, ski area infrastructure is not discernable due to distance. During the summer, ski trails exhibit little contrast with the surrounding vegetation and are hardly discernable compared to winter, when snow-covered ski trails contrast with the surrounding green vegetation. Most of the viewers at this location would be driving or biking and would experience this view for only several seconds, depending on mode of travel.

View 8 – Hurricane Pass

The Hurricane Pass is located within GTNP, approximately 4.5 miles southeast of the GTR SUP area. The Hurricane Pass viewpoint looks northwest, down the Roaring Creek drainage into Teton Canyon. In the background, viewers can see the top of Fred's Mountain as well as avalanche paths and scattered vegetation in South Bowl. Ski Hill Road and Teton Canyon Road are the only development visible from this viewpoint. Hurricane Pass is accessed via the Teton Crest Trail and South Fork Cascade Creek Trail, therefore, most viewers at this location are hikers. The duration of their view would likely last several minutes, depending on hikers' ascent speed; these hikers generally have a high sensitivity toward the natural appearing and undeveloped landscape visible from this viewpoint.

View 9 – Lower Saddle Between the Middle and Grand Tetons

The lower saddle between the Middle and Grand Tetons is located within GTNP, approximately 6 miles southeast of the GTR SUP area. The Lower Saddle viewpoint looks northwest towards Table Mountain, Fred's Mountain, and South Bowl. In the background, viewers can see exposed granite peaks, avalanche paths, and scattered vegetation above treeline. Teton Canyon Road is the only development visible from this viewpoint. The Lower Saddle viewpoint is accessed via the Garnet Canyon to The Lower Saddle Trail, therefore, most viewers at this location are hikers. The duration of their view would likely last several minutes, depending on hikers' ascent speed; these hikers generally have a high sensitivity toward the natural appearing and undeveloped landscape visible from this viewpoint.

View 10 – Middle Teton Summit

The Middle Teton is located within GTNP, approximately 6 miles southeast of the GTR SUP area. The Middle Teton viewpoint looks northwest towards Table Mountain, Fred's Mountain, and South Bowl. In the background, viewers can see the top of Fred's Mountain as well as avalanche paths and scattered vegetation in South Bowl. Teton Canyon Road is the only development visible from this viewpoint. The Middle Teton viewpoint is accessed via the Garnet Canyon trail, therefore, most viewers at this location are hikers. The duration of their view would likely last several minutes, depending on hikers' ascent speed; these hikers generally have a high sensitivity toward the natural appearing and undeveloped landscape visible from this viewpoint.

View 11 – Mount Meek Pass

The Mount Meek Pass is located within GTNP, approximately 6 miles southeast of the GTR SUP area. The Mount Meek Pass viewpoint is located southeast of the Mount Meek summit and looks northwest towards Fred's Mountain, and South Bowl. In the background, viewers can see the top of Fred's Mountain as well as avalanche paths and scattered vegetation in South Bowl. No development whatsoever is visible

from this viewpoint. The Mount Meek Pass viewpoint is accessed via the Teton Crest trail, therefore, most viewers at this location are hikers. The duration of their view would likely last several minutes, depending on hikers' ascent speed; these hikers generally have a high sensitivity toward the natural appearing and undeveloped landscape visible from this viewpoint.

View 13 – Teton Canyon Overview Observation Site

The Teton Canyon Overview Observation Site is located on Ski Hill Road, approximately 3.5 miles southwest of the GTR SUP area and is a popular viewpoint and photography area. The Teton Canyon Overview Observation Site viewpoint looks east towards the Teton Range and provides views of Peaked Mountain and the Mono Trees area in the middleground, as well as the Grand, Middle, and South Tetons in the background. The Teton Canyon Overview Observation Site is located in a forested area and views of Peaked Mountain and the GTR SUP area are largely obstructed by vegetation in the foreground and middleground. Ski Hill Road is the primary development visible from this viewpoint and ski area infrastructure is not entirely visible. Most of the viewers at this location would be on foot and the duration of their view would likely last several minutes; these viewers generally have a high sensitivity toward the natural appearing and undeveloped landscape visible from this viewpoint. Other viewers at this location would be driving or biking and would experience this view for only several seconds, depending on the mode of travel.

View 14 – South Leigh Lakes

The South Leigh Lakes are located within the JSW, approximately 2.5 miles east of the GTR SUP area. The South Leigh Lakes viewpoint is located south of the uppermost lake and looks west towards the ridge extending from Peaked Mountain to Fred's Mountain. In the middleground, viewers can see the top of Fred's Mountain. No development whatsoever is visible from this viewpoint. The South Leigh Lakes viewpoint is accessed via the South Leigh Creek, Granite Basin, Green Lakes Loop, therefore, most viewers at this location are hikers. The duration of their view would likely last several minutes, depending on hikers' ascent speed; these hikers generally have a high sensitivity toward the natural appearing and undeveloped landscape visible from this viewpoint.

View 15 – South Teton/Devil Stairs Trails

The South Teton/Devil Stairs Trails are located within the JSW, approximately 3.5 miles east of the GTR SUP area. The South Teton/Devil Stairs Trails viewpoint is located at the intersection of South Teton and Devil Stairs Trails and looks northwest towards South Bowl. In the background, viewers can see avalanche paths and scattered vegetation in South Bowl. Most viewers at this location are hikers. The duration of their view would likely last several minutes, depending on hikers' ascent speed; these hikers generally have a high sensitivity toward the natural appearing and undeveloped landscape visible from this viewpoint.

View 16 – Static Peak

The Static Peak is located within GTNP, approximately 8 miles southeast of the GTR SUP area. The Static Peak viewpoint is located 1,000 feet east of Alaska Basin Trail on the summit of Static Peak and looks northwest towards Battleship Mountain, Peaked Mountain, and Fred's Mountain. In the background, viewers can see the top of Fred's Mountain and Peaked Mountain. Views of South Bowl are mostly obstructed by Battleship Mountain; however, some alpine areas at the top of the bowl are visible. No development whatsoever is visible from this viewpoint. Most viewers at this location are hikers. The duration of their view would likely last several minutes, depending on hikers' ascent speed; these hikers

generally have a high sensitivity toward the natural appearing and undeveloped landscape visible from this viewpoint.

Views 17 and 18 – Table Mountain, Jedediah Smith Wilderness (Summer and Winter)

Table Mountain is located within the JSW, approximately 3 miles east of the GTR SUP area. The Table Mountain viewpoint is located on the ridge that extends west from the Table Mountain summit. The viewpoint looks northwest towards Fred's Mountain and South Bowl (refer to **Figures 7 and 8**). In the middleground, viewers can see the top of Fred's Mountain as well as avalanche paths and scattered vegetation in South Bowl. Ski Hill Road and Teton Canyon Road are visible in the background distance zone. During the summer, cleared avalanche paths in South Bowl exhibit little contrast with the surrounding vegetation and are hardly discernable compared to winter, when snow-covered avalanche paths contrast with the surrounding green vegetation and are visible from the Table Mountain viewpoint. Most of the viewers at this location would be hiking in the summer or backcountry skiing in the winter and would experience this view for only several seconds, depending on the mode of travel.

View 19 – Teewinot Mountain

Teewinot Mountain is located within GTNP, approximately 7.5 miles east of the GTR SUP area. The Teewinot Mountain viewpoint is located on the summit of Teewinot Mountain and looks west, providing views of the tops of Fred's Mountain, Peaked Mountain, and Mary's Nipple in the background distance zone. Ski area infrastructure is not discernable in these areas due to distance. Views of South Bowl are mostly obstructed by Mt. Owen, which is located in the immediate foreground; however, some alpine areas at the top of the South Bowl are visible. Most viewers at this location are advanced hikers. The duration of their view would likely last several minutes, depending on hikers' ascent speed; these hikers generally have a high sensitivity toward the natural appearing and undeveloped landscape visible from this viewpoint.

View 20 – Teton Scenic Byway

Teton Scenic Byway viewpoint is located to the east of the intersection with Highway 32, outside of Tetonia, Idaho. The viewpoint is approximately 12.5 miles northwest of the GTR SUP area. The Teton Scenic Byway viewpoint faces southeast towards the Teton Range and GTR, and has clear views of the Grand, Middle, and South Tetons in the background distance zone. Existing ski trails at GTR are visible from this viewpoint; however, ski area infrastructure is not discernable due to distance. Most of the viewers at this location would be driving or biking and would experience this view for only several seconds, depending on the mode of travel.

Views 21 and 22– Tetonia, Idaho (Winter and Summer)

Tetonia, Idaho viewpoint is also located on the Teton Scenic Byway, approximately 0.5 mile southeast of Tetonia, Idaho. The viewpoint is approximately 11 miles west of the GTR SUP area. The viewpoint faces east towards the Teton Range and GTR, and has clear views of the Grand, Middle, and South Tetons in the background distance zone. Existing ski trails at GTR are visible from this viewpoint; however, ski area infrastructure is not discernable due to distance. During the summer, ski trails exhibit little contrast with the surrounding vegetation and are hardly discernable compared to winter, when snow-covered ski trails contrast with the surrounding green vegetation. Most of the viewers at this location would be driving or biking and would experience this view for only several seconds, depending on the mode of travel.

View 23 – Teton Canyon Campground

The Teton Canyon Campground viewpoint is located on NFS lands, approximately 1 mile east of the GTR SUP area. The viewpoint faces north towards South Bowl and the GTR SUP area; however, it is largely blocked by topography and vegetation. The Teton Canyon Campground is a popular camping destination in the area and requires a reservation. During the summer, campground reservations are often booked out several months in advance. Most viewers at this location are campers. The duration of their view would last several hours or days, depending on camper's length of stay. These campers generally have a high sensitivity toward the natural appearing and undeveloped landscape visible from this viewpoint.

Additionally, the Teton Canyon Campground is often used as a starting point for hikers embarking on trails in the surrounding area. Many of these hikers are likely to travel to other viewpoints included in this analysis such as South Teton/Devil Stairs Trails (view 15), and Table Mountain (views 17 and 18). Most of the viewers at this location would be hiking in the summer or backcountry skiing in the winter and would experience this view for only several seconds, depending on the mode of travel.

3.2.4 Direct and Indirect Environmental Consequences

ALTERNATIVE 1 – NO ACTION

Under the No Action Alternative, no projects would be implemented, meaning the existing landscape would remain unchanged. No changes or modifications potentially affecting the scenic quality of GTR's SUP area or adjacent CTNF lands would occur. The proposed SUP area expansions would continue to meet the established VQO of *Retention* to *Partial Retention*. Refer to the Viewpoint Analysis section for a description of the existing visual conditions from the critical viewpoints.

ALTERNATIVE 2 – PROPOSED ACTION

Existing Grand Targhee Resort Special Use Permit Area

The GTR SUP area is primarily visible from surrounding areas to the west including views 3, 4, 6, 7, 13, 20, 21, and 22. Collectively, the proposed Fred's Mountain Top Guest Facility, lifts, ski terrain, and other projects within the GTR SUP, would result in minor and incremental impacts to the existing developed landscape when viewed from the foreground, middleground (view 13), and background (views 3, 4, 6, 7, 20, 21, and 22) distance zones. Impacts from the proposed projects within the existing SUP area are described in detail in the following discussions.

Fred's Mountain Top Guest Facility

The proposed Fred's Mountain Top Guest Facility would be approximately 11,000 square feet in size and would be located on top of Fred's Mountain, south of the existing Dreamcatcher Lift top terminal. Fred's Mountain Top Guest Facility is proposed to have simple, linear forms, natural colors, and utilize low-reflective materials to blend with the surrounding environment. Upon site review prior to project implementation, the facility would comply with the BEIG guidelines. Final design of the facility would be reviewed and approved by a specialized BEIG Forest Service representative to minimize impacts to the scenery resource.

The top of Fred's Mountain is visible from surrounding areas to the east and west of the GTR, including views 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, and 22 (refer to **Figure 8**). However, the proposed Fred's Mountain Top Guest Facility would be indiscernible from views 3, 4, 6, 7, 16, 19, 20, 21,

and 22 as they are outside the Zone of Potential Visibility due to distance. The facility would be visible from views 5, 8, 9, 10, 11, 12, 13, 14, 17, and 18. Visual simulations have been created from the Grand Teton Summit (view 5) and Table Mountain (view 17) to approximate visual impacts associated with implementation of Fred's Mountain Top Guest Facility (refer to the **Scenery Technical Report**).

The proposed facility would result in an incremental addition to a largely developed landscape when viewed from foreground, and middleground (view 13), and background distance zones to the west of GTR. The proposed restaurant may be visible from the Teton Canyon Overview Observation Site (view 13); however, given the popularity of GTR as a destination ski area, it can be reasonably assumed that most visitors expect to encounter developed recreation infrastructure within the viewshed. Most viewers from this location would be driving or on foot and the duration of their view would likely last several seconds to several minutes.

The proposed facility would result in an incremental addition to a largely undeveloped landscape when viewed from middleground (views 14, 17, and 18) and background distance zones within the JSW. Scenic impacts would be greatest from South Leigh Lakes (view 14), which is approximately 2.5 miles east of the top of Fred's Mountain. As illustrated in the visual simulation from Table Mountain (view 17), which is approximately 3.5 miles from the top of Fred's Mountain, the proposed projects are hardly visible (refer to **Figures 11a** and **11b**), altering approximately 1.3 percent of the overall view. Impacts would be similar, but even less noticeable from background (views 5, 8, 9, 10, 11, and 12) distance zones within GTNP, as illustrated in the visual simulation from the Grand Teton Summit (view 5). The proposed projects would alter approximately 0.1 percent of the overall view from this viewpoint. Most viewers from these locations would be hikers and the duration of their view would likely last several minutes. While impacts would be minor from the aforementioned views, with adherence to PDC identified in **Table 2.4-1**, ski area activities would remain visually subordinate to the visual strength of the characteristic landscape. The Fred's Mountain Top Guest Facility would result in minor decreases in the scenic integrity of surrounding lands within the JSW and negligible decreases within GTNP.

Three additional renderings were developed to understand the siting and massing of Fred's Mountain Top Guest Facility. These renderings are located from the backside of GTR within the JSW (**Figure 13**), from an oblique view (**Figure 14**), and from a ridgeline southwest of Peaked Mountain (**Figure 15**). As shown in **Figure 13**, the siting of Fred's Mountain Top Guest Facility would be below the ridgeline and would be located to provide connection to the proposed Dreamcatcher and Crazy Horse Lifts (**Figure 14**). Additionally, as shown in **Figure 15**, the proposed facility would introduce additional forms and lines in the far foreground and middleground views. As shown in **Figures 13** and **14** the proposed facility is expected to have simple, linear forms, natural colors, and utilize low-reflective materials to blend with the surrounding environment. Similar to other visual simulations (**Figures 11a** and **11b**) and viewshed analyses that were done, Fred's Mountain Top Guest Facility would result in an incremental additional to a largely undeveloped landscape. However, with adherence to PDC as outlined in **Table 2.4-1**, ski area activities and infrastructure would remain visually subordinate to the visual strength of the characteristic landscape and the VQO of *Partial Retention* to *Maximum Modification* would be maintained.

Collectively, the proposed facility is not expected to increase visual resource impacts such that the area would not meet its VQO designation of *Partial Retention* to *Maximum Modification*. Therefore, maintenance of the VQOs would be achieved. Please refer to the **Scenery Technical Report** for more information.

Night Lighting and Glare

Fred's Mountain Top Guest Facility is proposed for daytime use only and there would be no nighttime use in the future. Closure of this facility would be no later than an hour past NOAA's published sunset time. Through the implementation of specific PDC, future nighttime use of this facility would be subject to additional NEPA review and cannot be permitted via changes in the operating plan. There would be no major night lighting associated with the proposed project; however, subtle low-lying light fixtures may be installed outside the facility for maintenance and to prepare for daily operations, which would primarily occur in the early morning. Implementation of the proposed lighting is not anticipated to be visible from surrounding views beyond the foreground.

Construction of the proposed Fred's Mountain Top Guest Facility would result in a limited amount of glare during certain times of day, depending on angle of the sun, amount of cloud cover, and position of the viewer. These ephemeral impacts may be visible from views 5, 8, 9, 10, 11, 12, 13, 14, 17, and 18. Due to the angle of sun, glare would be most evident in the evening when viewed from the west and in the morning when viewed from the east for Forest visitors that are below the building. Impacts would be greatest when the sun is directly aligned with smooth materials and windows on the proposed facility. This would result in temporary scenic impacts when viewed from locations within the angle of reflectivity. The implementation of PDC would ensure that the facility meets solar reflectivity standards and minimizes visual impacts associated with reflectivity from installed infrastructure; the facility would be built with design elements that break up form, line, and texture to minimize reflectivity. Through the use of PDC, the ephemeral impact of reflective surfaces would be nominal and would not be noticeable to the casual observer.

Lifts and Lift Replacement within the Existing Special Use Permit Area

The Proposed Action includes numerous lift projects within the existing SUP area such as the construction of the Crazy Horse Lift, North Boundary Lift, Palmer's Platter, the Papoose carpet upgrade, and the Shoshone Lift replacement. The GTR SUP area is most visible from views to the west, including views 3, 4, 6, 7, 13, 20, 21, and 22. The proposed lifts would be indiscernible from views 3, 4, 6, 7, 20, 21, and 22, as they are outside the Zone of Potential Visibility due to distance (refer to **Figure 8**); however, tree clearing for proposed lift corridors would be visible. This is illustrated in the visual simulation from the Coulter Building Rooftop (**Figures 9a and 9b**).

The proposed lifts may be visible from foreground, middleground (view 13), and background views within and adjacent to GTR. Lift infrastructure and associated tree clearing and grading would contribute additional form, line, color, and/or texture to the landscape, which is currently dominated by ski area management activities. Although several of the proposed lifts are located in locations proximate to the JSW, and may be visible from extents of the wilderness area, they would not be visible from views 17 and 18, the viewpoints analyzed within the JSW, and incorporation of PDC would minimize impacts. Through the implementation of specific PDC, the proposed chairlift terminals and towers would be colored to maximize blending with the surrounding summer landscape. Construction of the chairlifts would require corridors of variable width to be created through the forest canopy; however, much of the corridors would be located in existing ski trails and unvegetated areas. The proposed lift corridors would be visible from foreground, middleground (view 13), and background (views 3, 4, 6, 7, 20, 21, and 22) distance zones west of the GTR SUP area. PDC for the lift lines would minimize the negative scenic effect of linear chairlift corridors by creating larger openings in key locations to better blend into the surrounding landscape when viewed in winter. A complete list of PDC for scenery resources is identified in **Table 2.4-1**. Collectively, the proposed lift projects, coupled with the proposed guest facilities, ski terrain, and other

projects within the GTR SUP, would result in minor and incremental impacts to the existing developed landscape when viewed from the foreground, middleground (view 13), and background (views 3, 4, 6, 7, 20, 21, and 22) distance zones. The proposed lifts are not expected to increase visual resource impacts to the character of the GTR SUP area, such that it would not meet the VQO of *Partial Retention* to *Maximum Modification*. Please refer to the **Scenery Technical Report** for more information.

Night Lighting and Glare

Lights are proposed on *Palmer's Raceway* in conjunction with the proposed Palmer's Platter surface lift. The lights would enable nighttime training sessions for athletes during the winter months. Lighting fixtures may be visible from foreground, middleground (view 13), and background (views 3, 4, 6, 7, 20, 21, and 22) views to the west of the SUP area. Visibility of night lighting fixtures would not constitute a considerable change from current settings, including Dark Sky conditions in Driggs, as *Palmer's Raceway* is located adjacent to the GTR base area, which is already heavily developed and well lit. Night lighting on Palmer's Raceway would not be visible from GTNP.

Construction of the proposed lift terminals and operator buildings would result in a limited amount of glare in the evenings when viewed from the west. These ephemeral impacts may be visible from views 3, 4, 6, 7, 13, 20, 21, and 22. Impacts would be greatest when the sun is directly aligned with smooth materials and windows (lift operator buildings for some lift terminals depending on view angle and gondola cabins on Dreamcatcher Lift) on the proposed infrastructure. This would result in temporary scenic impacts when viewed from locations within the angle of reflectivity. The implementation of PDC would ensure that the infrastructure meets solar reflectivity standards and minimizes visual impacts associated with reflectivity from installed infrastructure; the lifts would be built with certain materials and given certain colors that minimize reflectivity. Through the use of PDC, the ephemeral impact of reflective surfaces would be nominal and would not be noticeable to the casual observer.

Ski Terrain

The Proposed Action includes the construction of new ski trails, terrain improvements, and glading throughout the existing SUP boundary. The proposed ski terrain would be most visible from foreground, middleground (view 13), and background (views 3, 4, 6, 7, 20, 21, and 22) distance zones to the west of the GTR SUP area.

Developed ski trails have been designed with consideration for aesthetic resources. Where ski trails would be fully cleared of vegetation, trail edges would be feathered or scalloped to provide a variable line, thereby minimizing linear cuts in overstory vegetation. Larger inter-trail tree islands would be maintained to minimize the impact of cleared trails. Cleared ski trails would create contrast with the adjacent and undisturbed natural landscapes; however, they would be located within the existing developed trail network or otherwise near existing ski area infrastructure. As the existing developed trail network is most visible from the west and northwest, the proposed ski trails would likely be viewed as in an incremental addition to the existing trail network when seen from foreground, middleground (view 13), and background views (views 6, 7, 20, 21, and 22) in this direction. This would not result in a major change to the aesthetic character of the landscape. Conversely, when viewed from the southwest near the City of Driggs (views 3 and 4), the existing trail network is much less visible except for the upper portions of existing ski trails on Peaked Mountain. As illustrated in the visual simulation for the Coulter Building Rooftop (**Figures 9a and 9b**), the proposed ski trails would introduce form, line, and texture which is found infrequently in the characteristic landscape. The proposed ski trails would alter approximately 0.4 percent of the overall view from this viewpoint. This would change the aesthetic of this portion of the ski

area when viewed from this direction; however, the trails would remain subordinate to the visual strength of the characteristic landscape. The trails would be more apparent during the winter when white snow-covered runs are surrounded by darker-colored trees and forest stands. These impacts would be noticeable from views 4, 7, and 22 where snow-covered ski trails are currently visible from background views of the GTR SUP area and the Teton Range during the winter. PDC have been incorporated into the Proposed Action to reduce the scenic impacts associated with the proposed ski trails (refer to **Table 2.4-1**).

Grading would be required to accommodate the trail construction and improve the skiability of existing trails. Vegetation and soils disturbed by grading would be stockpiled and revegetated immediately after construction; however, due to soil types and harsh growing conditions at altitude, these soils would likely appear lighter than surrounding sediments even following revegetation, which would add a permanent contrasting color to the existing landscape character. Scenic impacts associated with the proposed grading would be most evident in the summer from foreground, middleground (view 13), and background (views 3, 6, 20, and 21) distance zones to the west of the GTR SUP area. PDC have been incorporated into the Proposed Action to minimize scenic impacts associated with the proposed grading to the greatest extent feasible (refer to **Table 2.4-1**).

Lastly, the proposed glades would have some impact on scenic resources, as approximately 40 percent of trees would be removed. This tree removal would modify the color and texture composition of forested areas within this terrain; however, this clearing would not be homogenous and linear cuts in overstory vegetation would be minimized. Scenic impacts associated with the proposed glading would be most evident from foreground, and middleground (view 13) distance zones to the west of the GTR SUP area; however, PDC have been incorporated into the Proposed Action to reduce the degree of scenic impacts associated with the proposed glading (refer to **Table 2.4-1**).

The proposed ski terrain, coupled with the proposed guest facilities, lifts, and other projects within the GTR SUP area, would result in incremental additions to the existing developed landscape when viewed from foreground, middleground (view 13), and background (views 6, 7, 20, 21, and 22) distance zones to the west and northwest of the GTR SUP area. Scenic impacts of the proposed ski terrain would be more apparent when viewed from the southwest near the City of Driggs (views 3 and 4), as the existing trail network is less visible. Depending on the what the viewer is doing, the duration of their view would likely range from minutes to hours; however, given the popularity of GTR as a destination ski area, it can be reasonably assumed that most viewers expect to encounter developed recreation infrastructure within the viewshed. With adherence to PDC, identified in **Table 2.4-1**, the proposed ski terrain projects are not expected to increase visual resource impacts to the character of the existing SUP area, such that it would not meet the VQO of *Partial Retention* to *Maximum Modification*. Please refer to the **Scenery Technical Report** for more information.

Other Projects

Other projects within the existing SUP area, including the proposed access administrative routes and upgrades, summer recreation trails and activities, alternative winter activities, and small on-mountain facilities would contribute additional visual impacts; however, they would be less noticeable due to their size and locations. These projects may be visible from foreground, middleground (view 13), and background distance zones when viewed from the west of the GTR SUP area.

The proposed access administrative routes, hiking trails, mountain biking trails, fat bike trails, and Nordic trails would require vegetation removal and grading, which could result in impacts to scenic character

within the GTR SUP area. Disturbed areas surrounding the administrative route and trail treads would be revegetated. The most visible administrative routes and trails would be in existing ski trails, which lack natural screening provided by tree islands. Projects within existing ski trails would result in minor scenery impacts in the foreground, middleground (view 13), and background distance zones from portions of the GTR SUP area and adjacent NFS lands.

Proposed small on-mountain facilities include the Sacajawea Restaurant and Guest Facility, the Shoshone Guest Facility, the Rick's Basin Guest Facility, and the Lightning Ridge Guest Facility. The facilities would have simple, linear forms to blend with the surrounding environment and would comply with the BEIG. The Sacajawea Restaurant and Guest Facility and the Shoshone Guest Facility would be most notable, as they would be located at treeline; however, the structures would incorporate suitable massing and scale to relate to the surrounding landscape. The Rick's Basin and Lightning Ridge Guest Facilities would be located below treeline and would be screened by vegetation to reduce visual impacts.

The proposed facilities would be apparent at foreground, middleground (view 13), and background distance zones; however, they would be subordinate to natural landscape features, existing ski area infrastructure, and cleared ski trails. The facilities would be indiscernible from views 3, 4, 6, 7, 20, 21, and 22, as they are outside the Zone of Potential Visibility due to distance (refer to **Figure 8**). This is illustrated in the visual simulation prepared for The Coulter Building Rooftop (**Figures 9a and 9b**), in which none of the facilities and infrastructure are discernable.

Remaining projects within the existing SUP area that have potential visual impacts include summer activities such as the canopy tour/fly line, zipline, and aerial adventure course, as well as alternative winter activities such as the snowtubing facility. These projects would be located adjacent to the GTR base area and/or within the Summer Activity Zone allocated for concentrated activities in the accepted 2018 Master Development Plan. The proposed summer activities would be designed to integrate into the existing forest canopy and would require minimal overstory vegetation clearing. Structures would consist of wooden and/or natural-looking materials to the extent possible, with the exception of support cables and ziplines, which would have minimal visibility due to their small size. Additionally, the proposed snowtubing facility would be located in a previously disturbed area within the GTR base area, and would require grading and tree clearing, which could result in additional scenery impacts. All summer and alternative winter activities would be designed to blend with the environment and would meet the intent and relevant guidelines of the BEIG. These projects, coupled with the proposed guest facilities, lifts, and ski terrain, would increase the developed nature of the landscape via minor and incremental changes in the foreground, middleground (view 13), and background distance zones when viewed from the west.

Night Lighting and Glare

The proposed snowtubing facility includes lighting for nighttime use; however, the base area is presently lit for evening activities and ski area operations. Night lighting for snowtubing would not be visible from GTNP. Collectively, the project would incrementally add to the developed character of the area during the day and night but would not constitute a considerable departure from existing conditions.

Construction of the proposed facilities would result in a limited amount of glare in the evenings when viewed from the west. Impacts would be greatest when the sun is directly aligned with smooth materials and windows on the proposed infrastructure. This would result in temporary ephemeral impacts when viewed from locations within the angle of reflectivity. The implementation of PDC would ensure that the infrastructure meets solar reflectivity standards and minimizes visual impacts associated with reflectivity

from installed infrastructure; the facility would be built with design elements that break up form, line, and texture to minimize reflectivity. Through the use of PDC, the ephemeral impact of reflective surfaces would be nominal and would not be noticeable to the casual observer.

Special Use Permit Boundary Expansion Areas

Under the Proposed Action, GTR would expand its existing SUP boundary into the South Bowl and Mono Trees areas. The South Bowl boundary expansion would add approximately 266 acres to the resort's permitted area (refer to **Figure 4**), and the Mono Trees boundary expansion would add approximately 600 acres (refer to **Figure 5**). The proposed boundary expansions would change the management direction of the South Bowl and Mono Trees areas from Management Prescription 2.1.2 – *Visual Quality Maintenance* to Management Prescription 4.2 – *Special Use Permit Recreation Sites*, requiring a programmatic amendment to the *1997 Forest Plan*. The SUP boundary expansion areas would acquire the desired condition, general direction, standards, and guidelines of Management Prescription 4.2 – *Special Use Permit Recreation Sites*. In addition, the VQO designation of these areas would be changed from *Retention* to *Partial Retention* to *Partial Retention* to *Maximum Modification*.

South Bowl

The proposed South Bowl projects include the South Bowl Lift, proposed ski trails, the proposed ski patrol facility, the cat/construction and maintenance route, two proposed avalaunchers, avalanche and snowmobile rescue caches, and the bottom terminal restrooms. The proposed South Bowl projects may be visible from multiple locations within the adjusted SUP area and on adjacent NFS and NPS lands, including views 5, 8, 9, 10, 11, 15, 16, 17, 18, 19, and 23 (refer to **Figure 7**). Proposed infrastructure would be indiscernible from views 16 and 19, as they are outside the Zone of Potential Visibility due to distance; however, the proposed ski trails, lift corridor, and cat/construction and maintenance route would be visible. Visual simulations have been created from the Grand Teton Summit (view 5), Table Mountain (view 17), and Teton Canyon Campground (view 23) to approximate visual impacts associated with implementation of the South Bowl projects (refer to **Figures 10a, 10b, 11a, 11b, 12a and 12b**).

Scenic impacts associated with the South Bowl projects would be similar to those described for the existing SUP area; however, the projects would be located in an area that is currently void of ski area development and exists in a near natural state. Construction of the South Bowl Lift would require a corridor of uniform width through the forest canopy, below tree line. The lift corridor would be overlapped by ski trails designed to minimize sharp line contrasts between cut runs and adjacent forest. Tree clearing for the proposed lift corridor and ski trails would make use of existing avalanche paths to reduce the number of trees removed. The proposed South Bowl Lift would be designed to blend with the surrounding environment and would comply with the BEIG. Implementation of the proposed ski trails and cat/construction maintenance access route would create additional scenic impacts. Tree clearing and grading would result in unnatural breaks in vegetation as seen from foreground and middleground distance zones (refer to **Figures 11a, 11b, 12a and 12b**). This would be most apparent during the winter when white snow-covered clearings are surrounded by darker-colored trees and forest stands; however, implementation of PDC would minimize the sharp line contrasts between cleared areas and adjacent forest, visually blending them into the landscape to the greatest degree possible. The proposed ski patrol facility, avalaunchers, avalanche and snowmobile rescue caches, and restroom facility would result in additional impacts to scenery in South Bowl. These projects may be visible at foreground distance zones within the SUP expansion area and middleground distance zones on adjacent NFS lands. The structures would be designed with simple, linear forms to blend with the surrounding environment and would

comply with the BEIG. Vegetation would be retained to the greatest extent possible in order to screen the structures from adjacent views and reduce visual impacts.

Implementation of the proposed South Bowl projects would introduce developed ski area infrastructure and ski trails into an area that currently exists in a near natural state. The projects would result in modest additions to a largely undeveloped landscape when viewed from foreground, middleground (views 14, 15, 17, 18, and 23), and background distance zones within the JSW. While Teton Canyon Campground (view 23) is the viewpoint located closest to South Bowl (approximately 1 mile), views of the proposed projects would be largely blocked by topography and vegetation depending on where you are along the valley floor. This viewpoint was selected because it is likely the most frequented location in Teton Canyon. Visitors of the Teton Canyon Campground may spend several hours or days in this location depending on their activity. The campground also serves as a common starting point for hikers embarking on trails in the surrounding area. As illustrated in the visual simulation prepared for the Teton Canyon Campground, the cat/construction maintenance access route is the most visible project from this viewpoint (refer to **Figure 12b**); however, the project only alters approximately 0.6 percent of the total view. Visual impacts associated with the proposed South Bowl projects would likely become more apparent in some locations when hiking to and from Teton Canyon Campground and Table Mountain. When traveling from the campground to Table Mountain, views would probably last a few seconds given the orientation of hikers. When hiking from Table Mountain to the campground, views would probably last several minutes, as hikers would be oriented more directly towards South Bowl. Scenic impacts would be greatest from Table Mountain, which is approximately 3 miles from bottom of South Bowl. As illustrated in the visual simulation for Table Mountain, the proposed projects would introduce form (ski patrol facility), lines (lift line and ski terrain), and color (lift infrastructure and ski terrain) that are not presently common in South Bowl or the characteristic landscape (refer to **Figures 11a and 11b**). The proposed South Bowl projects alter approximately 1.3 percent of the view from this viewpoint. Impacts would be similar, but less noticeable from background (views 5, 8, 9, 10, and 11) distance zones within GTNP as illustrated in the visual simulation from the Grand Teton Summit (**Figures 10a and 10b**). The proposed South Bowl projects alter approximately 0.1 percent of the overall view from this viewpoint. Most viewers from these locations would be hikers and the duration of their view would likely last several minutes. While impacts would be modest and noticeable from the aforementioned views, with adherence to PDC identified in **Table 2.4-1**, ski area activities would remain visually subordinate to the visual strength of the characteristic landscape and would result in modest decreases in the scenic integrity of surrounding lands within the JSW and GTNP. Visual resource impacts to the South Bowl area as a result of the proposed projects are expected to be minimal. The area would continue to meet the VQO designation of *Partial Retention*. Therefore, the area would remain consistent with the existing VQO designation of *Retention to Partial Retention* as well as the proposed VQO designation of *Partial Retention to Maximum Modification*. Please refer to the **Scenery Technical Report** for more information.

Glare

Construction of the proposed South Bowl Lift, ski patrol facility, avalaunchers, avalanche and snowmobile rescue caches, and restroom facility would result in a limited amount of glare in the morning when viewed from the east. These ephemeral impacts may be visible from views 5, 8, 9, 10, 11, 15, 16, 17, 18, 19, and 23. Impacts would be greatest when the sun is directly aligned with smooth materials and windows (lift operator buildings for some lift terminals depending on view angle and gondola cabins on Dreamcatcher Lift) on the proposed infrastructure. This would result in temporary scenic impacts when viewed from locations within the angle of reflectivity. The implementation of PDC would ensure that the infrastructure meets solar reflectivity standards and minimizes visual impacts associated with reflectivity

from installed infrastructure; the facilities would be built with certain materials and given certain colors that minimize reflectivity. Through the use of PDC, the ephemeral impact of reflective surfaces would be nominal and would not be noticeable to the casual observer.

Mono Trees

The proposed Mono Trees projects include the Mono Trees Lift, proposed ski trails and glades, and the proposed bottom terminal access administrative route. The Mono Trees area is most visible from views to the west, including views 3, 4, 6, 7, 13, 20, 21, and 22. The proposed lift infrastructure would be indiscernible from views 3, 4, 6, 7, 20, 21, and 22, as it is outside the Zone of Potential Visibility due to distance (refer to **Section 1.3.1** from the **Scenery Technical Report**); however, the proposed ski trails may be visible. This is illustrated in the visual simulation prepared for The Coulter Building Rooftop (view 3), in which none of the proposed infrastructure is discernable (refer to **Figure 9b**).

Scenic impacts associated with the Mono Trees projects would be similar to those described for the existing SUP area. Construction of the Mono Trees Lift would require a corridor of uniform width through the forest canopy, below tree line. The lift corridor would be overlapped by ski trails designed to minimize sharp line contrasts between cut runs and adjacent forest. The proposed Mono Trees Lift would be designed to blend with the surrounding environment and would comply with the BEIG. Implementation of the proposed ski terrain would create additional scenic impacts. The development of the proposed ski trails and bottom terminal access administrative route would require tree clearing which would result in unnatural breaks in vegetation as seen from foreground and middleground distance zones; however, implementation of PDC would minimize the sharp line contrasts between cut runs and adjacent forest, visually blending them into the landscape. The proposed glades would have some impact on scenic resources, as approximately 40 percent of trees would be removed. This tree removal would modify the color and texture composition of forested areas within this terrain; however, it would not be homogenous and linear cuts in overstory vegetation would be minimized.

Implementation of the proposed Mono Trees projects would introduce developed ski area infrastructure and ski trails into an area that currently exists in a near natural state. As the existing developed trail network is most visible from the west and northwest, the proposed Mono Trees projects would likely be viewed as in an incremental addition to the existing trail network when seen from foreground, middleground (view 13), and background views (views 6, 7, 20, 21, and 22) in this direction. This would not result in a major change to the aesthetic character of the landscape. Conversely, when viewed from the southwest near the City of Driggs (views 3 and 4), the existing trail network is much less visible except for the upper portions of existing ski trails on Peaked Mountain. As illustrated in the visual simulation for the Coulter Building Rooftop (**Figures 9a and 9b**), the proposed Mono Trees projects would introduce color and line (ski terrain) which is found infrequently in the characteristic landscape. This would draw more attention to the ski area, when viewed from the City of Driggs. The proposed ski trails would alter approximately 0.4 percent of the overall view from this viewpoint. This would change the aesthetic of this portion of the ski area when viewed from this direction; however, the trails would remain subordinate to the visual strength of the characteristic landscape. Depending on the what the viewer is doing, the duration of their view would likely range from minutes to hours; however, given the popularity of GTR as a destination ski area, it can be reasonably assumed that most viewers expect to encounter developed recreation infrastructure within the viewshed. With adherence to PDC identified in **Table 2.4-1**, visual resource impacts to the Mono Trees area as a result of the proposed projects are expected to be minimal. The area would continue to meet the VQO designation of *Partial Retention*. Therefore, the area would

remain consistent with the existing VQO designation of *Retention to Partial Retention* as well as the proposed VQO designation of *Partial Retention to Maximum Modification*.

Glare

Construction of the proposed lift terminals and operator buildings would result in a limited amount of glare in the evenings when viewed from the west. These ephemeral impacts may be visible from views 3, 4, 6, 7, 13, 20, 21, and 22. Impacts would be greatest when the sun is directly aligned with smooth materials and windows on the proposed infrastructure. This would result in temporary scenic impacts when viewed from locations within the angle of reflectivity. The implementation of PDC would ensure that the infrastructure meets solar reflectivity standards and minimizes visual impacts associated with reflectivity from installed infrastructure; the lifts would be built with certain materials and given certain colors that minimize reflectivity. Through the use of PDC, the ephemeral impact of reflective surfaces would be nominal and would not be noticeable to the casual observer.

Consistency with 1997 Forest Plan Direction for Scenery Management

Proposed projects within the existing GTR SUP area and the Mono Trees SUP expansion would alter the appearance of the area and add incrementally to the developed character of the landscape when viewed from the west and northwest. Proposed projects within the GTR SUP, South Bowl, and Mono Trees areas would introduce form, line, color, and texture that is not presently common when viewed from the southwest, east, and southeast; however, ski area activities would remain visually subordinate to the visual strength of the characteristic landscapes. With the implementation of associated PDC, these areas would be consistent with the VQO of *Partial Retention* to *Maximum Modification*. In addition, the proposed SUP expansion areas would remain consistent with the existing VQO designation of *Retention* to *Partial Retention* (Management Prescription 2.1.2 – *Visual Quality Maintenance*) as well as the proposed VQO designation of *Partial Retention* to *Maximum Modification* (Management Prescription 4.2 – *Special Use Permit Recreation Sites*).

Consistency with Built Environment Image Guide

Prior to construction, all proposed infrastructure, including facilities and lifts, would undergo review by a Forest Service Landscape Architect to ensure consistency with the BEIG. This includes considering the landscape, cultural and ecological character, as well as the architectural guidelines for the Rocky Mountain Province which include descriptions of appropriate siting, massing, scale, structure, materials, color, and sustainability efforts. This review is part of the Forest Service Design Review Process for all new or remodeled structures built on the forest. The design review process would have an emphasis on reflectivity and glare impacts associated with the proposed projects.

ALTERNATIVE 3 – NO SPECIAL USE PERMIT BOUNDARY EXPANSIONS

Existing Grand Targhee Resort Special Use Permit Area

Under Alternative 3, impacts to scenic resources in the existing GTR SUP area would be identical to those discussed under the Proposed Action. For a discussion of these impacts, refer to the Existing Grand Targhee Resort Special Use Permit Area heading.

Adjacent NFS Lands

Under Alternative 3, no actions would occur in areas adjacent to the existing GTR SUP boundary. In this regard, this alternative is similar to the No Action Alternative. No visual impacts would occur in adjacent lands under this alternative.

South Bowl

Implementation of Alternative 3 would result in a continuation of existing conditions in South Bowl. The GTR SUP area would not be expanded into South Bowl and the associated ski area infrastructure and ski terrain proposed under Alternatives 2 and 4 would not be constructed. South Bowl would remain in its existing near natural state, as described under the South Bowl heading and as pictured in the existing conditions visual simulations for Teton Canyon and Table Mountain (refer to **Figures 11a and 12a**). Views from adjacent NFS and NPS lands, including views 5, 8, 9, 10, 11, 15, 16, 17, 18, 19, and 23, would not be impacted.

Mono Trees

Implementation of Alternative 3 would result in a continuation of existing conditions in the Mono Trees area. The GTR SUP area would not be expanded into Mono Trees and the associated ski area infrastructure and ski terrain proposed under Alternatives 2 and 5 would not be constructed. Mono Trees would remain in its near natural state, as described under the Mono Trees heading and as pictured in the existing conditions visual simulation for the Coulter Building Rooftop (refer to **Figure 9a)**. Views from adjacent NFS and private lands, including views 3, 4, 6, 7, 13, 20, 21, and 22, would not be impacted.

Consistency with 1997 Forest Plan Direction for Scenery Management

Proposed projects within the existing GTR SUP area would alter the appearance of the area and add incrementally to the developed character of the landscape when viewed from the west and northwest. When viewed from the southwest, these projects would introduce form, line, color, and texture that is not presently common; however, ski area activities would remain visually subordinate to the visual strength of the characteristic landscape. With the implementation of associated PDC, the GTR SUP area would be consistent with the VQO of *Partial Retention* to *Maximum Modification*.

Furthermore, under Alternative 3 there would be no proposed project-specific *1997 Forest Plan* amendments to change the Management Prescription of the South Bowl and Mono Trees areas from Management Prescription 2.1.2 – *Visual Quality Maintenance* to Management Prescription 4.2 – *Special Use Permit Recreation Sites* (refer to **Appendix D** for more information). As these areas would continue to be managed as Management Prescription 2.1.2 – *Visual Quality Maintenance*, they would maintain their existing desired condition, general direction, and standards, as well as the VQO designation of *Retention* to *Partial Retention*. Maintaining the existing VQO designation, rather than changing it to *Partial Retention* to *Maximum Modification* as proposed under Alternatives 2, 4, and 5, would support higher scenic integrity in the area.

Consistency with Built Environment Image Guide

Prior to construction, all proposed infrastructure, including facilities and lifts, would undergo Forest Service review to ensure consistency with the BEIG. This includes considering the landscape, cultural and ecological character, as well as the architectural guidelines for the Rocky Mountain Province which include descriptions of appropriate siting, massing, scale, structure, materials, color, and sustainability efforts. This review is part of the Forest Service Design Review Process for all new or remodeled

structures built on the forest. The design review process would have an emphasis on reflectivity and glare impacts associated with the proposed projects. Final design of the facility would be reviewed and approved by a specialized BEIG Forest Service representative to minimize impacts to the scenery resource.

ALTERNATIVE 4 – SOUTH BOWL SPECIAL USE PERMIT BOUNDARY EXPANSION ONLY

Existing Grand Targhee Resort Special Use Permit Area

Under Alternative 4, impacts to scenic resources in the existing GTR SUP area would be identical to those discussed for the Proposed Action. For a full discussion of these impacts, refer to the Existing Grand Targhee Resort Special Use Permit Area heading.

Adjacent NFS Lands

South Bowl

Under Alternative 4, impacts to scenic resources in South Bowl would be identical to those discussed under the Proposed Action. For a full discussion of these impacts, refer to the South Bowl heading under Alternative 2 – Proposed Action.

Mono Trees

Implementation of Alternative 4 would result in a continuation of existing conditions in the Mono Trees area. The GTR SUP area would not be expanded into Mono Trees and the associated ski area infrastructure and ski terrain proposed under Alternatives 2 and 5 would not be constructed. Mono Trees would remain in its near natural state, as described under the Mono Trees heading under Alternative 3 – No Special Use Permit Boundary Expansions and as pictured in the existing conditions visual simulation for the Coulter Building Rooftop (refer to **Figure 9a**). Views from adjacent NFS and private lands, including views 3, 4, 6, 7, 13, 20, 21, and 22, would not be impacted.

Consistency with 1997 Forest Plan Direction for Scenery Management

Proposed projects within the existing GTR SUP area would alter the appearance of the area and add incrementally to the developed character of the landscape when viewed from the west and northwest. Proposed projects within the GTR SUP and South Bowl would introduce form, line, color, and texture that is not presently common when viewed from the southwest, east, and southeast; however, ski area activities would remain visually subordinate to the visual strength of the characteristic landscapes. With the implementation of associated PDC, these areas would be consistent with the VQO of *Partial Retention* to *Maximum Modification*. In addition, the proposed South Bowl SUP expansion area would remain consistent with the existing VQO designation of *Retention* to *Partial Retention* as well as the proposed VQO designation of *Partial Retention* to *Maximum Modification*.

Consistency with Built Environment Image Guide

Prior to construction, all proposed infrastructure, including facilities and lifts, would undergo Forest Service review to ensure consistency with the BEIG. This includes considering the landscape, cultural and ecological character, as well as the architectural guidelines for the Rocky Mountain Province which include descriptions of appropriate siting, massing, scale, structure, materials, color, and sustainability efforts. This review is part of the Forest Service Design Review Process for all new or remodeled

structures built on the forest. The design review process would have an emphasis on reflectivity and glare impacts associated with the proposed projects.

ALTERNATIVE 5 – MONO TREES SPECIAL USE PERMIT BOUNDARY EXPANSION ONLY

Existing Grand Targhee Resort Special Use Permit Area

Under Alternative 5, impacts to scenic resources in the existing GTR SUP area would be identical to those discussed for the Proposed Action. For a discussion of these impacts, refer to the Existing Grand Targhee Resort Special Use Permit Area heading under Alternative 2 – Proposed Action.

Adjacent NFS Lands

South Bowl

Implementation of Alternative 5 would result in a continuation of existing conditions in South Bowl. The GTR SUP area would not be expanded into South Bowl and the associated ski area infrastructure and ski terrain proposed under Alternatives 2 and 4 would not be constructed. South Bowl would remain in its existing near natural state, as described under the South Bowl heading of Alternative 3 – No Special Use Permit Boundary Expansions and as pictured in the existing conditions visual simulations for Teton Canyon and Table Mountain (refer to **Figures 11a and 12a**). Views from adjacent NFS and NPS lands, including views 5, 8, 9, 10, 11, 15, 16, 17, 18, 19, and 23, would not be impacted.

Mono Trees

Under Alternative 5, impacts to scenic resources in the Mono Trees area would be identical to those discussed under the Proposed Action. For a discussion of these impacts, refer to the Mono Trees heading under Alternative 2 – Proposed Action.

Consistency with 1997 Forest Plan Direction for Scenery Management

Proposed projects within the existing GTR SUP area and the Mono Trees SUP expansion would alter the appearance of areas and add incrementally to the developed character of the landscape when viewed from the west and northwest. When viewed from the southwest, these projects would introduce form, line, color, and texture that is not presently common; however, ski area activities would remain visually subordinate to the visual strength of the characteristic landscape. With the implementation of associated PDC, these areas would be consistent with the VQO of *Partial Retention* to *Maximum Modification*.

Consistency with Built Environment Image Guide

Prior to construction, all proposed infrastructure, including facilities and lifts, would undergo Forest Service review to ensure consistency with the BEIG. This includes considering the landscape, cultural and ecological character, as well as the architectural guidelines for the Rocky Mountain Province which include descriptions of appropriate siting, massing, scale, structure, materials, color, and sustainability efforts. This review is part of the Forest Service Design Review Process for all new or remodeled structures built on the forest. The design review process would have an emphasis on reflectivity and glare impacts associated with the proposed projects.

3.2.5 Cumulative Effects

TEMPORAL BOUNDS

The temporal bounds for this cumulative effects analysis of visual resources extend from GTR's founding as a resort in 1966 through the foreseeable future in which GTR can be expected to operate.

SPATIAL BOUNDS

The spatial scope for this cumulative effects analysis of visual resources includes reasonably foreseeable future projects that would occur within the viewshed of the project area.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

The list of past, present, and reasonably foreseeable future projects considered in this cumulative analysis is provided in **Appendix A**. Any present or reasonably foreseeable future projects within the viewshed of the project area that have the potential to reduce the project area's visual quality are analyzed below.

This cumulative effects analysis considers all projects in the 2018 MDP, including those that are not included in the Proposed Action. As these unimplemented projects are accepted in the 2018 MDP but not approved under NEPA review, they are considered here as reasonably foreseeable future projects. Included in the 2018 MDP but not in the Proposed Action are various lift projects, trail improvements, and additions to the developed terrain network, as well as updates to guest services and associated facilities. The PUD-PR includes the development of various residential, commercial, and resort services on GTR private land at the base of the resort. Lastly, the Teton Canyon Hazardous Fuels Reduction Environmental Assessment and Decision Notices analyzed and approved the implementation of mechanical treatments, prescribed burning, and slashing treatments following by prescribed burning on approximately 1,900 acres of NFS lands adjacent to the ski area SUP boundary.

In combination with previously accepted and approved projects that are reasonably foreseeable, and past projects that have been implemented at GTR, the proposed projects would contribute incrementally to the modified nature of the area and would further detract from the natural character of visual resources as viewed from the JSW, GTNP, the City of Driggs, Idaho, and other areas within the project viewshed. These changes could take the form of additional built infrastructure, overstory vegetation clearing, prescribed burning, and tree stand thinning. Potential impacts associated with these projects include changes to landscape dominance elements (form, line, color, texture), degree of contrast that results from the presence of the project compared to the existing condition, inconsistencies with relevant VQOs, and general reductions in natural-appearing landscape of the project area. Changes may occur in areas where management activity is or is not evident and may be characterized by changes to the overall area or changes in scenic quality when viewed from specific viewpoints.

Ongoing projects show that changes to the visual attributes of the surrounding areas are occurring independently from additional projects implemented at GTR. As discussed above, the *1997 Forest Plan* includes mechanisms for the management of scenic resources Forest-wide. While the *1997 Forest Plan* includes numerous Management Prescriptions that could impact scenic resources across the CTNF, the application of standards and guidelines would ensure that scenic quality is managed as directed by the *1997 Forest Plan* and considered in the analysis of future projects.

3.2.6 Irreversible and Irretrievable Commitments of Resources

The implementation of additional winter and summer activities/infrastructure in the SUP area would represent irretrievable effects to scenic resources at GTR. However, this commitment of the scenic resource is not irreversible because facilities could be removed and, in time, areas could be reclaimed and revegetated, restoring their natural appearance.

3.3 Noise

3.3.1 Scope of the Analysis

The spatial bounds considered for this analysis of noise are the existing and proposed GTR SUP areas and the adjacent public and private lands. Additional noise and alterations to the existing soundscape have the potential to be generated by the operation and construction of the proposed projects, including timber removal. Existing noise levels in the study area were assessed to construct a set of baseline conditions that can be compared to noise impacts associated with the Proposed Action and Alternatives being analyzed in detail. Noise associated with the operation and construction of projects throughout the existing and proposed SUP areas are analyzed and disclosed within this section.

3.3.2 Affected Environment

Throughout this analysis, dBA is specifically used in order to compare the relative loudness of existing and proposed conditions at GTR. A-*weighted decibel* or *dBA* is a measurement of sound level expressed in decibels, filtered or weighted at various frequencies to approximate the loudness of a sound to the human ear. For comparison purposes, typical noise levels associated with a variety of common sources are outlined in **Table 3.3-1**. It is important to note that noise levels for common sources provided in Table 3.3-1 are non-linear and an expression of relative loudness that gives more value to frequencies in the middle of human hearing and less value to frequencies at the edges as compared to a flat audio decibel measurement.

Table 3.3-1. Noise Levels for Common Sources

Source/Type	Noise Level (dBA)
Lowest threshold of human hearing	0
Quiet rural area	25 to 30
Quiet residential area	40
Rainfall	50
Conversation, busy office	50 to 60
Heavy traffic	70
Diesel truck	80 to 90
Snowmobile at a distance of 25 feet	100

Thunder	120

Source: Center for Hearing and Communication 2016

In general, winter operations have higher noise levels than summer operations at GTR. With approximately 231,300 annual winter visitors in the 2020/21 season and 33,400 annual summer visitors in 2021, the overall activity in the project area is much higher during the winter months. Noise generated by guests and infrastructure occurs throughout the SUP area and base area. Existing noise levels within the SUP area and away from the base area can range from a level similar to a quiet rural area (25 to 30 dBA) in the undeveloped extents of the terrain network, to a level similar to a snowmobile at a distance of 25 feet (100 dBA) in areas where heavy equipment including snowmobiles, snowcats, and chairlifts may dominate the soundscape during operating hours. Characteristically, noise levels in the SUP area are closer to the low end of the 25 to 100 dBA range.

Existing noise levels during the summer months, within and adjacent to the GTR SUP area, would continue to be generated from a number of sources including mountain maintenance and operations, base area traffic and activity, and recreation-related noise. These noise levels would likely be observed during operation hours (mid-June to mid-September, 10:00am to 5:00pm). Summer mountain operations are located primarily at the base of the Shoshone and Dreamcatcher Lifts, in areas served by the Dreamcatcher and Shoshone Lifts, and on trails throughout the SUP area. Noise in these areas originates from recreational users participating in multi-season recreation opportunities such as mountain biking, hiking, scenic chairlift rides, and disc golf. Mountain biking and hiking activities typically generate noise levels comparable to a normal conversation (60 dBA). The operation of lifts and summer infrastructure that serve these activities can be heard in these areas when in close proximity and range from 60 to 80 dBA, depending on the type of activity and the listener's proximity. Similar to winter operations, there are portions of the SUP area where dispersed recreation occurs that more closely resembles the quiet rural areas (20 to 30 dBA) noise level.

Despite being located on private lands, noise levels in the base area are important because guests enter through this portal to NFS lands. Sounds heard in this area can affect the guest's overall experience. In the winter and summer operation seasons, guests of the resort and forest visitors in surrounding areas would expect to hear noises from people gathering, dining facilities, ticket offices, retail and rental shops, concerts or music, and nearby traffic. Noise levels in this area could range from a conversation (50 dBA) to an outdoor concert (120 dBA).

Mountain maintenance and on-going construction activities, which primarily occur during the summer months, can cause high decibel levels of noise. These noises can originate from trucks traveling up and down administrative routes, workers conducting lift and facility maintenance, construction of new infrastructure, and logging operations to remove dead trees or construct new trails. Typical noise levels from construction equipment and activity related to construction can range from those similar to heavy traffic (70 dBA) to diesel truck (90 dBA).

Additionally, the use of helicopters for the removal of trees and other construction related projects has occurred in the past during the spring and summer months. In 2007 the Forest Service conducted a noise measurement study of two heavy-lift helicopters (the Boeing Vertol 107 and the Kaman KMAX) taken in

the field during helicopter logging operations.[39] This study was used to determine auditory impact of helicopter logging operations on threatened species by recording the dBA of the aircraft at various distances. Sound data was gathered while the helicopters were in flight traveling to and from log landing sites to collect their loads; data was not gathered at the service (fueling) landing because the helicopter sound generated at this location is at its lowest noise level as the helicopter is not carrying a load.[40] The louder of the two helicopters, the Vertol 107, has a range of approximately 80 dBA at a horizontal distance of approximately 850 feet to 100 dBA at a horizontal distance of approximately 200 feet.[41] The regression associated with this range indicates that loudness would be greater within 200 feet and lower beyond 850 feet.

The typical noise levels from construction equipment, including helicopters and blasting, is on the higher end of relative loudness; however, these activities generally last for a short duration of time. Other events that feature live or amplified music and/or speakers also occur in the base area during both the summer and winter seasons, although not on a regular basis. Noises at these events are similar to that of a small outdoor concert, which can range from 110 to 120 dBA.[42]

As depicted in **Figure 1**, the GTR SUP boundary borders the JSW. GTR's winter and summer operations generate noise that can travel over this shared boundary. This is particularly true for operational equipment, such as snowmobiles or snowcats, traveling close to the shared boundary, or for construction activities during the summer months. However, operational equipment is not likely to generate enough noise to measurably alter the soundscape within JSW, and construction activities are only temporary and vary in their proximity to JSW. For a full discussion of wilderness and GTR's potential impacts on the JSW, refer to **Section 3.9**.

3.3.3 Direct and Indirect Environmental Consequences

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Under the No Action Alternative, noise impacts within the GTR SUP area would not change from those described under Affected Environment. Existing noise levels within the SUP area would continue to range from 25 to 30 dBA in the expansive undeveloped extents of the terrain network, to 100 dBA in areas where heavy equipment may dominate the soundscape for short periods of time.

ALTERNATIVE 2 – PROPOSED ACTION

Under the Proposed Action, noise within and adjacent to the proposed and expanded GTR SUP boundary would be generated from similar sources as described in the Affected Environment. The operation of the proposed projects are not anticipated to result in considerable increases to the existing noise levels within and adjacent to the existing GTR SUP area, however, the construction of the proposed projects would result in a temporary increase in noise levels within and adjacent to the GTR SUP area. With the exception of proposed projects in the South Bowl and Mono Trees areas, operational noise of additional recreational users would add to existing noise levels within the GTR SUP boundary. The additional noise in the SUP area is not anticipated to have an adverse effect; however, noise in the South Bowl and Mono

[39] Harrison 2008
[40] Harrison 2008
[41] Ibid.
[42] Center for Hearing and Communication 2016

Trees areas would be new rather than an incremental increase from the existing noise range. Both noise associated operations and construction are detailed in the following discussion.

Operations

Noise associated with the operation of proposed projects and activities would be long-term and would occur throughout the winter and summer seasons for the life of the project. As previously discussed, proposed projects occurring within GTR's current SUP boundary (prior to expansion) would have an incremental effect on the existing soundscape. The noises and noise levels of projects and activities that would be added to the SUP area are characteristic of noises and noise levels that are currently heard in the SUP area. Further, it is anticipated that the incremental increase in noise would be diluted as a majority of the proposed activities would disperse users throughout the SUP area and are not concentrated in areas already characterized by loudness like the base area. The Proposed Action includes a surface lift, Palmer Platter, as well as two magic carpets, which would cause an increase in the noise levels in the base area. However, as mentioned previously, other proposed projects including the installation of the Crazy Horse and North Boundary Lifts would distribute users and avoid concentration in these areas even with a visitation increase, diluting the increase in noise levels of the base area. Although the existing Dreamcatcher Lift would be replaced with newer and larger infrastructure, this equipment is not necessarily louder; the existing and proposed lifts are both detachable and thus use the same infrastructure to operate. Therefore, as new infrastructure would not measurably increase the existing noise conditions in the base area, the Proposed Action is not anticipated to change existing noise conditions in the base area.

In addition to the year-round noise levels, the Proposed Action includes a Summer Activity Zone in the base area and under the Shoshone Lift. This area would include activities infrastructure including a relocated disc golf course, zip lines, and large posts as part of fly line canopy tours. Increase in guests and infrastructure in this area would result in increased noise levels near the base area and through the top of the Shoshone Lift. Following construction of the Summer Activity Zone, guests would expect to hear noises from zip lines, lift operations, dining facilities, ticket offices, concerts or music, and nearby traffic. Noise levels in the base area would continue to range from a conversation (50 dBA) to heavy traffic (70 dBA), and noise levels in the Summer Activity Zone would range from a quiet rural area (25 to 30 dBA) to an outdoor concert (120 dBA).

The extension of the SUP boundary into the Mono Trees area and associated projects that would be constructed in this area would alter the existing soundscape of these NFS lands. As there are currently no ski area operations and minimal recreational use in this area, noise levels are estimated as that of a quiet rural area or a quiet residential area, ranging from 25 to 40 dBA. Noise from adjacent ski area operations is likely heard in this area during the winter season; however, they do not characterize the soundscape. Upon implementation of the Proposed Action and construction of lift-served skiing in this area it is anticipated that the soundscape would more closely resemble that which is currently associated with the existing SUP area. Noise would be generated by guests and infrastructure that would be constructed in the Mono Trees area. It is anticipated that noise would range from a level similar to a quiet rural area (25 to 30 dBA) in the less developed extents of this terrain to a level similar to a snowmobile at a distance of 25 feet (100 dBA) where heavy equipment, including snowmobiles, snowcats, and lifts may dominate the soundscape for short periods of time. It is likely that the noise in this area would be screened from Teton Canyon due to terrain and vegetation; however, noise in this area may be heard from Ski Hill Road. In the winter, this would create negligible impacts because there are few bikers on the road, most cars drive with

their windows closed given cold temperatures, and wildlife are used to noise being present in this area given existing ski area conditions. In the summer, the impacts to noise would also be negligible because there would be no operations in Mono Trees unless construction and maintenance need to occur, which would be for short periods of time.

The proposed projects in the South Bowl area and the extension of the SUP boundary into the South Bowl would create similar noise level increases as that of the Mono Trees area described previously; however, South Bowl operations would also require the installation and use of avalaunchers in order to mitigate user risk. Avalaunchers launch explosives into areas prone to avalanches and would create temporary disturbances to the soundscape similar to the noise levels of thunder. There are currently no avalaunchers within the existing SUP boundary. Upon implementation of the Proposed Action and construction of lift-served skiing in this area, the soundscape would resemble a range from noise levels of a quiet rural area (25 to 30 dBA) to thunder (120 dBA). Operations in South Bowl would likely be heard by recreators elsewhere in Teton Canyon and in other areas within the SUP boundary.

While activities within the GTR SUP boundary would not measurably alter the soundscape of the area, the use of avalanche mitigation infrastructure in South Bowl area would have a greater impact on the JSW soundscape than existing activities. The existing soundscape in the JSW ranges from a quiet rural area (25 to 30 dBA) to a snowmobile at a distance of 100 feet (100 dBA). Conditions under the Proposed Action would create a soundscape that ranges from a quiet rural area to thunder (120 dBA) as associated with South Bowl avalanche mitigation. Additionally, the construction of Fred's Mountain Top Guest facility would generate noise that could travel into the JSW. Therefore, it is likely that there would be impacts to the JSW soundscape in areas of the wilderness proximate to the existing and proposed GTR SUP boundary. Extents of the JSW further from GTR would not be impacted and the overall soundscape of the JSW would resemble existing conditions. Refer to **Section 3.9** for more information.

Construction

Construction-generated noise would generally be short-term, as it would cease upon completion of the project. Noise from construction-related activities would include construction equipment (i.e., diesel trucks, helicopters), construction of the proposed activities (e.g., falling logs and pouring concrete), and transporting materials for construction.

A variety of construction vehicles could be used for the proposed projects, and could include standard pickup trucks, diesel concrete trucks, and/or diesel flatbed semi-tractor trailers. The proposed activities are estimated to require several truckloads of materials and equipment over the proposed projects' implementation period. Construction activities would primarily occur in the summer. A typical summer day may experience up to 5 truck trips for timber removal and project staging/building, as well as an additional 5 vehicle trips for construction workers arriving and leaving the site. Noise levels from diesel trucks typically ranges from 80 to 90 dBA.[43]

Tree removal for all projects is proposed to be accomplished primarily over-the-snow and utilizing the administrative route network. No skid roads would be constructed as timber would either be removed over the snow via snowcat, transported over the snow to a deck location accessible from the administrative route network, piled and burned, or removed via helicopter. Low-impact machinery (e.g., a

[43] Center for Hearing and Communication 2016

spider hoe or helicopter) may be necessary in areas such as South Bowl with steep terrain to assist with tree removal. For lift terminal construction, heavy machinery and blasting may also be required. Noise levels from equipment used to fall trees (e.g., spider hoe with masticator), as well as concrete trucks and mixers, all range from 80 to 90 dBA. The use of heavy machinery (e.g., helicopter), chainsaws, or explosives would cause higher noise levels in the project area, ranging from 80 to 120 dBA.[44] As described previously, these noise impacts would generally be short-term and higher noise levels wouldn't typically occur during day-to-day operations as construction occurs intermittently.

As discussed in **Section 3.3.2**, helicopters associated with tree removal have a noise range of 80 dBA at a horizontal distance of approximately 850 feet to 100 dBA at a horizontal distance of approximately 200 feet.[45] Trees removed in the South Bowl area may be flown via helicopter to a landing zone and taken off-site via truck. It is anticipated that this location would likely experience the greatest noise impact from helicopter use as NFS users are most likely to be within audible range. As previously mentioned, the regression associated with noise generated by the helicopter continues to taper off beyond 850 feet, resulting in an incrementally less than 80 dBA loudness the further one gets from the helicopter.[46] The entirety of the flight path would be chosen to be well beyond 850 feet away from population centers and residential areas so that noise associated with the helicopter would be comparable to heavy traffic, and only isolated users of NFS lands in closest proximity to timber staging areas and the landing zone would experience loudness within the 80 dBA and 100 dBA range.[47]

ALTERNATIVE 3 – NO SUP EXPANSION

The noise levels of Alternative 3 would be identical to the noise levels within the SUP area as described in Alternative 2 – Proposed Action. More specifically, Alternative 3 would include an incremental increase in noise levels throughout the SUP area due to increased skier capacity and the addition of new lifts and facilities but would exclude the soundscape alterations of the areas currently outside of the SUP boundary. Alternative 3 does not include the expansion into the Mono Trees or South Bowl areas; therefore, while noise from the adjacent ski area operations would likely be heard from these areas, it would not characterize these soundscapes. Additionally, without the use of avalaunchers in the South Bowl area, the impacts of GTR's operations on the JSW soundscape would be lesser than those of the Proposed Action but would still alter the soundscape due to the construction and operation of the Fred's Mountain Top Guest facility. Refer to **Section 3.9** for a discussion of impacts to the JSW.

Construction activities for Alternative 3 would also be identical to those described under Alternative 2 – Proposed Action, however, would exclude construction activity in the Mono Trees and South Bowl area. This would exclude the potential use of a helicopter in the South Bowl area for tree removal, thus reducing the temporary noise increase in and around the SUP area.

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

Alternative 4 would have noise levels identical to those described in the Proposed Action except for the noise levels described in the Mono Trees area. More specifically, the projects within the SUP area would create an incremental increase in noise levels throughout the resort and the South Bowl project would

[44] Center for Hearing and Communication 2016
[45] Harrison 2008
[46] Ibid
[47] Ibid

alter the soundscape of the existing area, which currently has no ski operations. South Bowl avalanche mitigation activities would also increase sound levels in the JSW from GTR's operations, as described under the Proposed Action. This alternative would have little to no impact on the Mono Trees area soundscape.

ALTERNATIVE 5 – MONO TREES, NO SOUTH BOWL

Alternative 5 would have noise levels identical to those described in the Proposed Action except for the noise levels described in the South Bowl area. More specifically, the projects within the SUP area would create an incremental increase in noise levels throughout the resort and the Mono Trees project would alter the soundscape of the existing area, which currently has no ski operations. However, this alternative would not include the alteration of the South Bowl area soundscape. Therefore, the impacts of GTR's operations on the JSW soundscape would not measurably differ from existing conditions.

3.3.4 Cumulative Effects

SCOPE OF THE ANALYSIS

The effects analyzed in the Cumulative Effects discussion apply to all alternatives, including the No Action Alternative. The following projects are expected to cumulatively have short- and long-term effects on overall recreational opportunities in the existing and proposed GTR SUP areas and on adjacent NFS and private lands, as well as throughout Teton County, Wyoming and Idaho.

Temporal Bounds

The temporal bounds for this cumulative effects analysis for noise extend from GTR's inception as a resort in 1969 through the foreseeable future in which GTR can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis for noise are limited to public and private lands in the vicinity of the existing and proposed GTR SUP area.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects study area, the reader is referred to **Appendix A** in the document. Past ski area and county development projects have been incorporated and analyzed in this document as part of the Affected Environment. The projects that could have cumulative impacts on noise resources are analyzed below.

The expansion and development within and adjacent to the existing GTR SUP area has incrementally added to the level of noise in the area. Within the GTR SUP area, noise levels have been impacted by the development of additional ski terrain, construction of lifts such as the Colter Lift, construction of mountain biking and hiking trails, and similar activities included in the past analyses and documents listed previously. Additionally, future projects that have yet to be implemented and are included in these documents and analyses would be expected to further add to noise levels within the GTR SUP area. Adjacent to the GTR SUP area, residential construction, increased traffic, and additional construction within the GTR base area have added to the noise level in the study area.

The Proposed Action would incrementally add to noise levels within the GTR SUP area with construction of the activities in the short-term and with additional visitors and traffic in the long-term. These developments and future GTR development would gradually add to the level of noise within the SUP area, which could potentially be heard from adjacent public and private lands. Further, the expansion of GTR's SUP boundary and development of lift-served skiing opportunities in the South Bowl and Mono Trees areas would increase noise levels in areas not previously affected by ski area operations, further extending the reach of GTR's contribution to noise levels when considered cumulatively with other projects. Cumulatively, these potential impacts would not measurably alter the broader soundscape.

3.3.5 Irreversible and Irretrievable Commitments of Resources

Under the Proposed Action, ski area operations and infrastructure would extend into the South Bowl and Mono Trees areas not currently within GTR's SUP area. This would result in long-term alterations to the soundscape that represents an irretrievable commitment of resources. The implementation of lift-served skiing opportunities in the South Bowl and Mono Trees areas are not considered irreversible commitments of these resources because operations could be discontinued, returning the soundscape of these areas to their natural states. No additional irreversible and/or irretrievable commitment of resources have been identified that may impact noise levels in association with the alternatives analyzed in this document.

3.4 Socioeconomics

3.4.1 Scope of the Analysis

This analysis summarizes the *Socioeconomics Technical Report for the Grand Targhee Master Development Plan Environmental Impact Statement* (**Socioeconomics Technical Report**).[48] Refer to the **Socioeconomics Technical Report** for more information on methodology, definitions, *1997 Forest Plan* direction, and data outputs.

The economic impact analyses for existing and proposed conditions were conducted using IMPLAN (Economic Impact Analysis for Planning), a broadly accepted model used by the Forest Service for making projections regarding employment and economic impacts. Refer to the **Socioeconomics Technical Report** for more information on methodology and assumptions used for this analysis.

3.4.2 Federal, State, and Local Policy and Guidance

FEDERAL POLICY AND GUIDANCE

1997 Forest Plan Direction

The *1997 Forest Plan* does not provide management direction specific to social and economic resources. However, the CTNF recognizes the link between public use of NFS lands and the economies and societies of adjacent communities.

[48] SE Group 2023c

3.4.3 Affected Environment

GENERAL DESCRIPTION

The study area is comprised of four counties: three in Idaho and one in Wyoming. GTR is located in Teton County, Wyoming but given topography and the road network, most GTR guests and employees must travel through Teton County, Idaho to arrive at GTR. The unincorporated community of Alta, Wyoming, near the base of GTR, is relatively small in terms of both workforce and tourist services so the nearby Idaho communities of Driggs and Victor also have a strong relationship with the resort. In general, socioeconomics relationships are strongest closer to the WY-22 and ID-33 highway corridors, but the socioeconomics effects of GTR could spread throughout the four counties.

In addition to GTR, Teton County, Wyoming is also home to Jackson Hole Mountain Resort, Snow King Resort, and serves as a primary gateway to GTNP. While Teton County, Idaho also has socioeconomics relationships with these other recreational draws in the region, its relationships are generally strongest with GTR. As a result, GTR lies within the jurisdiction of Teton County, Wyoming and the State of Wyoming, but many of its strongest socioeconomics relationships are with Teton County, Idaho.

POPULATION

Population in all study area counties has seen steady growth in the past decade according to census data. For complete details of census details and growth by county, refer to the **Socioeconomics Technical Report**. It is important to note that while census data is the primary source for population numbers, there are certain limitations to the data. Population counts do not account for growth in second homeowners in these counties. Therefore, while the number of residential units may increase, the population may remain relatively constant. Further, the 2020 decennial census was conducted during the COVID-19 pandemic, which likely had an impact as well.

All study area counties have experienced steady growth between 1990 and 2020. Teton County, Idaho has experienced the highest growth rates of all study area counties in this time period, with a total growth of approximately 240 percent. The Teton County 2012-2030 Comprehensive Plan states that the county has attracted second homeowners related to the Wyoming tourist destinations of Jackson Hole and GTR, and that the City of Victor has seen high population growth, from which many Wyoming employees commute.[49] Teton County, Idaho also has the lowest total population of all study area counties, at nearly 12,000 in 2020.[50] On the other hand, Bonneville County, Idaho has the largest total population (nearly 124,000 in 2020), but experienced the slowest rates of growth between 1990 and 2020 with a net growth of approximately 72 percent in this period.[51] The other two study area counties, Teton County, Wyoming and Madison County, Idaho, experienced growth rates in the low 100s. Population projections predict that population would continue to grow in the study area counties, and some would experience slower growth than in previous years.

[49] Teton County Wyoming 2012
[50] U.S. Census Bureau 2022b
[51] Ibid

ECONOMY

Income and Poverty

Household income and the proportion of the population below the poverty level are important measures of the ability of households and individuals to achieve economic security. Teton and Bonneville counties in Idaho had higher average incomes and lower percentages of poverty in 2020 compared with the statewide averages for Idaho.[52] In 2020, Madison County, Idaho had the lowest average incomes and highest percentages of poverty compared with the other three study area counties, and Teton County, WY had the highest household incomes and lowest poverty rates of the study area counties.[53,54] Teton County, Wyoming is known to have substantial income disparity and was named the most unequal county in the United States in 2020.[55] It is important to note that these figures are based on total personal income, from both labor (e.g., wages) and non-labor (e.g., investment income) sources. Median household income, percentage of population below the poverty level, and percentage of households with income over $100,000 for the United States, Idaho, Wyoming, and the study area counties are presented in **Table 3.4-1**.

Table 3.4-1: Study Area Counties Median Household Income and Percentage of Population below the Poverty Level, 2020

Geographic Area	Median Household Income including Benefits	Percentage of Population Below the Poverty Level	Percentage of Households with Income over $100,000
United States	$62,843	11.4	31.0
Wyoming	$64,049	9.2	28.7
Idaho	$55,785	10.1	24.2
Teton County, ID	$74,216	7.4	39.3
Teton County, WY	$84,678	5.2	42.0
Bonneville County, ID	$60,615	9.7	25.8
Madison County, ID	$39,160	14.3	18.8

Source: U.S. Census Bureau 2022b

[52] U.S. Census Bureau 2022b
[53] Ibid.
[54] Ibid.
[55] Economic Policy Institute 2018a

Labor Force and Employment Status

An area's labor force is comprised of both employed and unemployed civilians. Unemployed civilians in the labor force are those who are actively searching for work; civilians not in the labor force are those who are not actively searching for work, such as a stay-at-home parent.[56]

The study area counties labor forces ranged from approximately 6,600 in Teton County, Idaho to 58,000 in Bonneville County, ID, as indicated in **Table 3.4-2**.[57] Madison, Bonneville, and Teton counties in Idaho experienced moderate growth in their labor forces between 2016 and 2020 ranging from two to 2.6 percent growth annually.[58] Conversely, Teton County, Wyoming experienced relatively no growth in the same period, with an average annual growth rate of -0.03 percent.[59]

Unemployment rates were highest in 2020 for all study area counties, likely as a result of the COVID-19 pandemic. Between 2016 and 2019, all study area counties experienced unemployment rates lower than or nearly equal to that of their respective states, with ranges from approximately 1.7 to 3.5 percent. The range increased to 2.7 to 6 percent in 2020.

Madison and Bonneville counties experienced relatively steady unemployment rates throughout the year; however, Teton County, Idaho and Teton County, Wyoming experience seasonal fluctuations. In both counties, unemployment rates were consistently higher in November and in the winters and are lowest between June and September between 2016 and 2020.[60]

Table 3.4-2. Study Area Counties Average Labor Force, 2016–2020

Area	Labor Force	Employed	Unemployed	Unemployment Rate (%)
Teton County, ID	6,349	6,149	200	3.1
Teton County, WY	15,513	14,951	563	3.6
Bonneville County, ID	55,223	53,623	1,599	2.9
Madison County, ID	21,523	21,077	446	2.1
State of Idaho	854,756	824,314	30,442	3.6
State of Wyoming	296,881	283,063	13,819	4.6

Source: U.S. Department of Labor 2021

[56] Economic Policy Institute 2018b
[57] U.S. Department of Labor 2021
[58] Ibid
[59] Ibid
[60] U.S. Department of Labor 2020

Travel and Tourism Economy

Basic industry economic drivers are defined by industries such as mining, manufacturing, agriculture, national and regional services, government and households, which draw money into the area from other regions. Within Teton County, Wyoming, travel and tourism is the largest base industry, generating approximately 45 percent of all employment in the county.[61] In comparison, travel and tourism accounts for about 15 percent of total employment nationally. Each of the Idaho counties in the study are much less reliant on travel and tourism, ranging from approximately 10 percent of all employment in Madison County to approximately 19 percent of all employment in Teton County, Idaho.[62]

All counties in the study area have demonstrated modest growth in the travel and tourism sector since 1998, but employment in the industries that include travel and tourism has been growing at a much faster rate in Madison and Teton counties in Idaho than in the other counties. There is an overall trend within the economies of the study area and nationally towards greater reliance on travel and tourism.[63] Madison and Teton counties in Idaho have experienced the highest rate of growth in these industries even though Teton County, Wyoming has the most tourism-related employment of counties in the study area, as discussed earlier.

Wages

Average Annual Wages (total annual pay divided by total employment) can provide a sense of how employment opportunities vary across the study area. Average Annual Wages are higher in Teton County, Wyoming than in each of the Idaho counties. Government wages are also higher than private sector wages in each of the counties in the study area which is typical of more rural locations but not for the United States as a whole. Industries that contain travel and tourism often pay relatively low wages, and this is also reflected in the study area data. When comparing wage levels, it is also useful to remember that many travel and tourism related jobs are seasonal and/or part-time. **Table 3.4-3** summarizes the wages and employment of the study area counties.

[61] U.S. Department of Commerce and U.S. Department of Labor 2021
[62] Ibid.
[63] Ibid.

Table 3.4-3. Wages and Employment of Study Area Counties, 2020

Area	Teton County, WY	Madison County, ID	Teton County, ID	Bonneville County, ID	Combined Area	United States
All Sectors	$62,738	$35,917	$42,282	$44,363	$46,636	$67,022
Private	$61,734	$34,798	$41,482	$43,997	$46,014	$67,257
Travel & Tourism	$40,473	$13,799	$28,087	$18,868	$27,777	$29,362
Non-Travel & Tourism	$77,194	$33,534	$44,109	$48,758	$51,109	$73,164
Government	$69,431	$42,542	$47,329	$46,978	$50,853	$65,713

Source: U.S. Department of Commerce and U.S. Department of Labor 2021

GRAND TARGHEE RESORT

Visitation

GTR is a four-season resort whose primary purpose is for winter recreation. Over the past ten years, GTR has experienced modest growth in winter and summer visitation, with stronger growth reported in the last several years. Annual winter visitation between the 2016/17 and 2020/21 winter seasons experienced a growth rate of approximately 6.4 percent per year. Visitation in the 2020/21 season was estimated at approximately 231,000 guests. Annual summer visitation remains much lower than annual winter visitation, reaching its peak in recent years (2021) with an estimated 33,000 visits. Between 2016 and 2021, summer visitation had an average annual growth rate of approximately 9 percent.

Employment

Based on information shared in 2022, GTR has employed an average of approximately 150 full-time employees (FTEs) in the winter and approximately 70 FTEs in the summer, as well as 62 year-round FTEs in the preceding years. These FTEs include both full-time employees as well as combined hours of part-time employees. In 2021/22, GTR had approximately 570 positions, ~90 percent of which are seasonal and/or part-time.[64] On weekends and holidays when more part-time employees are working, the number of employees at the resort exceeds the FTE count. These are direct resort jobs (i.e., employees of GTR) and are ongoing employment positions that are created each year as a result of visitation to GTR. **Table 3.4-4** summarizes the existing employment at GTR.

Table 3.4-4. Grand Targhee Resort Employment

Category	FTEs
Year-Round	62
Winter	150
Summer	70
Total	282

Source: GTR

Economic Impact of Grand Targhee Resort on the Study Area Economy

It was estimated that GTR's winter visitors have spent approximately $38.9 million and GTR's summer visitors spend approximately $4.5 million each year in the local economy related to their visit to Grand Targhee. These estimates are based on the existing visitation level (five-year average visitation 2016/17-2020/21), the breakdown between overnight visitors and day visitors, and the resulting spending patterns of each visitor type.

[64] Communication with Grand Targhee Resort, January 2022.

As derived through the IMPLAN model, the *direct* winter spending of approximately $38.9 million generates a total annual output of approximately $56.1 million, and *direct* summer spending of approximately $4.5 million generates a total of approximately $6.6 million within the study area economy. These numbers include *direct*, *indirect*, and *induced* impacts. Winter spending supports approximately 568 FTEs and $20.7 million in labor income and summer spending supports approximately 70 FTEs and $2.4 million in labor income.[65] This spending contributes to seasonally employed FTEs at GTR, as well as other FTEs supported by GTR's visitor spending at other businesses in the study area. Winter and summer economic impacts are also estimated to generate approximately $10.4 million and $1 million respectively in taxes each year from economic activity.

COUNTY TAX REVENUE

The Idaho State Tax Commission collects most Idaho taxes and distributes the revenue to counties and municipalities, but property taxes are collected by counties. The study area counties in Idaho (Teton, Bonneville, and Madison counties) had property tax revenues ranging from approximately $18 million in Teton County, ID to approximately $106 million in Bonneville County.[66,67] In Teton County, Wyoming, total tax revenue was approximately $40 million in 2020.[68] Sales and use tax was the primary contributor to this revenue, followed by property taxes.[69]

Taxes in nearly all study area counties (Bonneville, Teton, Idaho and Teton, Wyoming) were primarily distributed to schools. In Madison County, taxes were primarily spent on roads, the sheriff's department, and general operations.[70]

GTR pays property taxes for its operations on privately owned land and residential developments in Teton County, Wyoming. GTR has purchased and developed employee housing in Driggs, Idaho, and is paying property taxes on that land and improvements. Otherwise, GTR does not have operations or land in Idaho, and it does not pay taxes to the other study area counties. Additionally, based on projections from the IMPLAN model, the combined economic activity associated with winter and summer visitation at GTR generates approximately $11.4 million in total tax impacts (based on five-year average visitation levels 2016/17 – 2020/21). Refer to the **Socioeconomics Technical Report** for more information on how this number was generated.

FEDERAL LAND PAYMENTS

The study area counties received a range of approximately $201,000 to $2.8 million in federal land payments from the forest service and Payment in Lieu of Taxes (PILT). Teton County, Wyoming had the highest amount of federal land payments, which were approximately $1.1 million more than the next

[65] The Congressional Labor Office defines labor income as income that is derived from employment. This includes all compensation that is a return from work effort, and typically includes labor earnings (wages and salaries), employer-provided benefits (health insurance, life insurance, etc.) and taxes paid to the government on behalf of the employees. Employment created by the operation of and visitation to GTR produces labor income for employees and businesses in the study area counties.
[66] Idaho State Tax Commission 2021
[67] Bonneville County & State of Idaho 2020
[68] Teton County Wyoming 2020
[69] Ibid.
[70] City of Rexburg 2019

highest, which was Bonneville County. A summary of federal land payments by study area county is included in **Table 3.4-5** below.

Table 3.4-5. Federal Land Payments to State and Local Governments by Study Area County (FY 2019)

	Teton County, ID	Teton County, WY	Bonneville County, ID	Madison County, ID
PILT	$200,538	$2,046,045	$1,431,308	$111,209
Forest Service Payments	$82,065	$374,036	$299,476	$88,026
BLM Payments	$1,025	$411	$4,420	$1,927
USFWS Refuge Payments	$0	$400,605	$4,606	$0
Total Federal Land Payments	$283,628	$2,821,097	$1,739,810	$201,163

Source: U.S. Department of Interior et al. 2020

Forest Service Payments

Counties receive revenue sharing payments from commercial activities on NFS lands, such as oil and gas leasing, livestock grazing, timber harvesting, and special use permit fees such as those paid by GTR. These payments are commonly called “25 percent payments” as counties receive payments based on 25 percent of the 7-year rolling average annual receipts.

In 2000, the Secure Rural Schools and Community Self-Determination Act was passed which offered counties a source of payments that was not tied to annual commercial revenue on National Forests.

Most counties with NFS lands elected to receive the Secure Rural Schools Act Payment and opted not to receive the 25-percent payments. For many counties, 25 percent payments are substantially smaller than the Secure Rural Schools Act Payments. Within the study area, Teton County, Wyoming is the only county that elected to continue to receive the 25 percent payments. All three of the Idaho counties elected not to continue to receive the 25 percent payments.

Importantly, 25 percent payments and Secure Rural Schools payments from the Forest Service must be directed towards local schools and roads within the county they are received, but PILT may be used for any governmental purpose. **Table 3.4-6** summarizes federal land payments to the study area county in 2021.

Table 3.4-6: Federal Land Payments to Study Area County (2021)

County	Annual Secure Rural Schools Payments	Annual 25-percent payments
Teton County, WY	N/A	$391,452

Teton County, ID	$94,185	N/A
Madison County, ID	$87,476	N/A
Bonneville County, ID	$317,415	N/A

Source: USDA Forest Service 2021b

GTR Special Use Permit Fees

Use of NFS lands under a SUP are subject to fee payment to the United States Treasury. Permit fees for ski areas operating on NFS lands follow a standard formula that involves lift ticket and lesson sales as well as revenues from ancillary services such as rentals, food, lodging, and others. Higher revenues produce a higher fee.

Over the past 10 years, GTR has paid SUP fees to the United States Treasury in various amounts ranging between $99,111 and $258,250 (refer to **Table 3.4-7**). These SUP fees are included in the annual calculations for the 25 percent payments made to counties, but do not directly impact the annual Secure Rural Schools Act Payments.

Table 3.4-7: Grand Targhee Special Use Permit Fees (2010-2020)

Year	Fee
2010	$108,799.07
2011	$99,111.00
2012	$111,888.00
2013	$134,950.00
2014	$141,675.00
2015	$176,838.00
2016	$197,672.00
2017	$201,054.00
2018	$258,250.00
2019	$255,106.94
2020	$217,961.31

Source: Correspondence with USDA Forest Service, August 2021

Additionally, in February 2023, the Ski Hill Resources for Economic Development (SHRED) Act of 2023 was reintroduced as an effort to improve the outdoor recreation economy in mountain communities.[71] The act enables the Forest Service to retain a portion of the fees paid by ski areas operating on NFS lands. This includes SUP fees. The fees can be used to invest in ski area improvement projects, recreation and visitor services, and wildfire preparedness within the unit in which the ski area operates. Additional funds retained by the Forest Service can be used for other needs such as information and education activities, recreation management, and permit and lease administration elsewhere in the unit as well.

HOUSING

Housing Inventory and Assessment

In the study area counties, there is a general lack of housing availability and affordability for the average wage worker. One metric to consider when evaluating housing costs in an area is the percentage of income spent on housing. A household is *cost burdened* when it pays more than 30 percent of its household income in housing costs, which has the potential to make it vulnerable to evictions and foreclosures and can make some households unable to afford food, healthcare, or transportation. The percentage of cost-burdened households in the study area counties ranged from 15 percent of renters in Bonneville County to 70 percent of renters in Madison County from the most recent available data for each area. In all study area counties except for Bonneville County (where 37 percent of homeowners were cost burdened compared with only 15 percent of renters), renters experienced a higher cost burden than homeowners. The particularly high percentage of cost burdened renters in Madison County is influenced by students at Brigham Young University-Idaho (BYU-I), who often rely on loans, grants, and parental support as sources of income.[72]

There is also a notable relationship in workforce and housing between Teton County, Wyoming and Teton County, Idaho. Many workers living in Teton County, Idaho travel to Teton County, Wyoming for work.[73] Teton County, Wyoming has particularly high housing costs and Teton County, Idaho can provide less expensive ownership and rental options for workers in Teton County, Wyoming.[74] Employment opportunities in Teton County, Wyoming generally offer higher wages than the Teton County, Idaho job market and have higher average wages ($60,000 compared to $40,500 in Teton County, Idaho).[75] The rise of housing costs in the study area county in recent years, has pushed local workers to move out of the county. This causes cascading effects, as this trend between Teton County, ID and Teton County, Wyoming has been reflected between Teton County, Idaho and other surrounding counties with more affordable housing—as of 2021, approximately 23 percent of employees who worked in Teton County, Idaho (1,245 employees) commuted from outside the county.[76]

[71] Congress.gov 2023
[72] Eastern Idaho Public Health 2018
[73] WSW Consulting et al. 2022
[74] Ibid.
[75] Ibid.
[76] Ibid.

Other general housing trends within the study area show that even though there is a strong demand to buy homes, the supply is not meeting the demand and home prices are not affordable to the average worker. This is particularly prevalent in Teton County, Idaho and Teton County, Wyoming and threatens the quality of life for residents in all the study area counties. Refer to the **Socioeconomics Technical Report** for more information on housing inventory, trends, and availability for all study area counties.

Affordable Housing

As described previously, all study area counties experience challenges for affordable housing. Bonneville and Madison counties experience similar issues, where residents would need to work more than one job to afford to rent a two-bedroom apartment, and the percentage of households who are cost-burdened is high.

Teton County, Idaho and Teton County, Wyoming experience more severe housing shortages and affordability issues than Madison and Bonneville counties. In recent years, housing costs have outpaced wages. The number of residents workers in both counties is shrinking as population grows, a direct result of housing affordability as workers are being forced to seek affordable housing elsewhere. These challenges with housing are not only displacing residents in both counties but are impacting the local economy and services provided as well. In Teton County, Idaho, the School District, the Teton County Fire Protection District, and Teton Valley Health have seen workers turn down position offers due to concerns about housing costs and are struggling to fill vacant positions.[77]

Employee Housing

In 2021, GTR constructed 16 modular employee housing units with 96 bedrooms total in Driggs, Idaho. The modular houses accommodate a substantial portion of GTR's existing levels of seasonal employees. The Teton Valley Bus service stops at the employee housing complex.

GTR is required by Teton County, Wyoming Land Development Regulations to provide some level of employee housing associated with future development on private land GTR is required by a PUD-PR to build employee housing with certain housing ratios and unit types, effective at buildout of the proposed projects. The PUD-PR also states that employee housing can be constructed off-site in Victor, Idaho or Driggs, Idaho.

Short-Term Rentals

Converting full-time or seasonal homes to short-term rentals can decrease housing availability for residents. Short-term rentals have been reported to impact renters in both Teton County, Wyoming and Teton County, Idaho—in 2021 surveys, 10 to 18 percent of renters reported that they were forced to move because their unit was converted to a short-term rental in Teton County, Wyoming and Teton County, Idaho, respectively.[78] The difference in these rates is likely because Teton County, Wyoming has more regulations on short-term rentals than Teton County, Idaho, such as required permits and location restrictions.

While studies reporting on the number of short-term rentals in each county vary, they state that short-term rentals are impacting the availability of housing for residents. Additionally, the potential income of these rental properties in both counties is higher than the median rental prices and median monthly mortgage

[77] Barkdull, B. et al. 2019
[78] WSW Consulting et al. 2022

payments.[79] This short-term rental trend is likely to continue to drive up housing costs and property values, reduce available housing stock for locals, and create economic benefits for the property owners engaging in short-term rentals.

PUBLIC/SOCIAL SERVICES

Public and social services include schools, public safety, emergency response, public health services, family services, childcare, and other services provided by counties, cities, and local nonprofit organizations within the study area. Many social service programs and organizations aid individuals living in the community who cannot afford to maintain a healthy and comfortable lifestyle. It is important to note that the employees within these programs also struggle to find or afford local housing, an issue that is impacting the retention and attraction of staff. This in turn impacts the availability or efficiency of services and is an issue for all study area counties.

All study area counties provide similar services, from schools to emergency services such as fire departments and search and rescue. Additionally, the emergency management plans for each county identify hazards such as extreme cold/winter storms, flooding, and wildfires and provide an assessment of the risk for each hazard as well as their frequency and planning and management in case of emergency. Additionally, there are a variety of human services within the study area including hospitals, dentists, and public health programs, however, Teton County, Idaho, Madison County, Idaho, and Bonneville County, Idaho experience high population to provider ratios that range from to 1,530:1 to 2,340:1 which exacerbates the issue of access to healthcare. Conversely, Teton County, Wyoming has one of the best population to provider ratios in the country of 920:1.

PUBLIC TRANSPORTATION/INFRASTRUCTURE

Transportation funding varies by county. Teton County, Idaho is primarily funded by a road and bridge levy collected from property taxes but also requires funding from outside sources to cover operational and maintenance costs. Most infrastructure projects in Teton County, Wyoming are funded by the county's general fund and are within the county's Engineering Department budget.[80] In Bonneville and Madison counties, roadways are funded by a combination of federal, state, and local sources. Other county funds for roads and other transportation infrastructure are generated from highway user revenue, federal-aid incentive programs, bridge funds, county budgets, and general property tax revenue. Each county has a number of active road and transportation projects and all but Madison County have a transportation plan specific to county transportation and infrastructure. Teton County, Wyoming's 2020 Integrated Transportation Plan specifically focuses on public transit and active modes of transportation, which are identified as priorities.

Additionally, Teton County, Wyoming and GTR share a fiscal relationship to provide the community with public transportation and infrastructure services. In 2015, the Grand Targhee Resort Taxing District was established so that GTR could invoice the county for services such as trail maintenance, environmental

[79] Jablon 2020
[80] Teton County Wyoming 2020

education programming, and snow removal.[81] In 2018, the budget for these services was approximately $215,000.[82]

VALUES, BELIEFS, AND ATTITUDES

The public comments received during the scoping period for this project provided insight into the values, beliefs, and attitudes of the residents of the study area. Comments related to social-economics and quality of life centered around the following: increased demand for social services and other infrastructure, income disparity in the study area, limited affordable housing and increased demand for it, and real estate (some commenters stated a concern that a hidden purpose of the project is to make Grand Targhee's real estate development more valuable). These values, beliefs, and attitudes are further described in the **Socioeconomics Technical Report**.

3.4.4 Direct and Indirect Environmental Consequences

EFFECTS COMMON TO ALL ALTERNATIVES

The specific economic impacts of the No Action Alternative and each action alternative are disclosed in detail in this section below. Impacts to the overall Social and Economic trends in the study area are expected to remain relatively consistent across each alternative with the scale of impact commensurate with the scale of economic impact and new FTEs creation projected under each alternative. A discussion of the anticipated impacts to these overall social and economic trends (population growth, a travel and tourism-based economy, income and poverty, county tax revenues, federal land payments, housing, human and social services, and values, beliefs, and attitudes) is provided below.

Population

As described previously, population growth in each of the study area counties is predicted to continue through 2029 at rates close to 1 percent. This growth would add an estimated 21,500 new residents to the four study area counties by 2029 beyond 2020 levels. Population projections would vary based on the alternatives, and these variations are described under each Alternative below.

Based on the results of the IMPLAN modeling, the action alternatives would result in new FTEs in the study area as a result of increased winter and summer visitor spending, ranging from a high of approximately 614 new FTEs under the Proposed Action to a low of 234 new FTEs under Alternative 1. It is important to note that one FTE does not necessarily equate to one new person moving to the region. One FTE may represent several part-time or seasonal employment positions that could be filled and some new employees arrive with additional family members as well. While many of the new employment positions potentially created under the action alternatives could be expected to be filled by the existing workforce in the region, some new residents may be required given the presently low unemployment rates.

The majority of employees who relocate to work at GTR would likely move to Teton County, Idaho as that is where most GTR employees currently reside, is the closest commercial services/residential center to GTR, and where GTR's existing employee housing is located. If all new FTEs moved to Teton County, Idaho, even in the Proposed Action's higher scenario, they would be captured within baseline growth rates

[81] Teton County Wyoming 2018
[82] Ibid.

projected for the East Idaho region, and it is feasible that any new person who might move to the region to fill newly created FTEs from the alternatives may be within this projected baseline growth. However, as there has been a trend of population growth and a single FTE may equate to multiple new residents, slightly higher population growth may occur as well. To note, population growth does have implication for other effects discussed in this section (i.e., county tax revenues, housing, human and social services, public transportation/infrastructure). Therefore, should additional population growth occur, it may further exacerbate challenges listed under these effects.

Refer to **Table 3.4-8** for a summary of background growth rate, additional FTEs in each alternative, and the growth rate associated with the additional FTEs for Teton County Idaho, assuming that the FTEs equate to a single individual and that all are residents of Teton County, Idaho.

Table 3.4-8: FTEs by Alternative associated with Teton County, Idaho

Alternative	Teton County, ID Projected Annual Growth Rate	Projected Teton County, ID Additional Residents (2033)*	Additional FTEs Projected by Alternative	Annual Growth rate Associated with FTEs
Alternative 1 – No Action	1.1%	1,650	234	0.19%
Alternative 2 – Proposed Action	1.1%	1,650	614	.5%
Alternative 3 – No SUP Expansion	1.1%	1,650	379	.31%
Alternative 4 – South Bowl, No Mono Trees	1.1%	1,650	509	.41%
Alternative 5 – Mono Trees, No South Bowl	1.1%	1,650	481	.39%

Source: Socioeconomics Technical Report
*Population projects to 2033 due to construction timeline

Economy

The vast majority of economic activity and employment positions supported by GTR's visitation would fall within the travel and tourism sector. Because travel and tourism have long been a primary driver of the Teton County, Wyoming economy, the overall trends and economic conditions in Teton County, Wyoming are expected to remain under the employment growth projected for each alternative.

It is expected each of the alternatives would contribute to the ongoing trend towards a greater reliance on travel and tourism in each of the Idaho counties, and particularly in Teton County, Idaho because of its proximity to GTR, travel and commuting patterns, and its relatively small economy. This trend would likely increase economic effects common to more travel and tourism-oriented economies such as job opportunities with relatively low wages or an increased percentage of employment positions that are seasonal and/or part-time. The Proposed Action would generate the most FTEs (614 FTEs) and thus would have the largest contribution of all action alternatives to this trend. This is followed by Alternative 4 (509 FTEs), Alternative 5 (481 FTEs), and then Alternative 3 (379 FTEs).

Visitation

Visitation at GTR is expected to continue to increase in the next ten years under each alternative, including the No Action Alternative. While winter visitation is expected to vary for Alternatives 2 through 5 related to the proposed projects, summer visitation is expected to increase by the same amount for each action alternative as the proposed summer projects are identical under all action alternatives.

While the projected visitation increase is strong across the alternatives, it is not in line with that of the additional lift capacity (i.e., approximately doubling under the Proposed Action), given the competitiveness of the skier market, lower weekday utilization associated with Grand Targhee, existing pass/ticket structures across the industry, and historical visitation trends experienced across the industry following the installation of new infrastructure and capacity. Under Alternative 4, visitation is actually projected to be higher despite a lower Comfortable Carrying Capacity than under Alternative 5, given the relative appeal of South Bowl over Mono Trees skiing.

As total visitors increase, it is assumed the proportion of overnight visitors would also increase under for each alternative. The percentage of overnight visitors varies slightly by alternative, as overnight visitors are anticipated to increase and make up a larger percentage at the higher levels of visitation, while day visitors remain relatively constant across all alternatives. **Table 3.4-9** provides a summary of winter visitation levels by alternative. Additional details are available in **Appendix D**.

Table 3.4-9. Summary of GTR Winter Visitation by Alternative

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Build-out CCC	3,720	6,170	4,910	5,480	5,600
2032/33 Visitation (assumed projects completion)	249,000	331,000	272,000	303,000	296,000
Average Annual Visitation Growth	0.5%	3.4%	1.3%	2.5%	2.2%
Percent of Overnight Visitors	64%	70%	65%	69%	68%

Source: SE Group 2021

Summer visitation is anticipated to increase as well. Under Alternative 1, annual summer visitation is anticipated to increase beyond the approximately 35,000 visitors seen in 2021 to approximately 42,000 by 2033, 10 years after the ROD. Under all action alternatives (identical set of summer projects), visitation is anticipated to increase to 70,700 by 2033.

For a discussion of specific impacts to visitation under each alternative, refer to their respective sections below.

Visitor Accommodations

The location of the bed base and where guests choose to stay determines where visitor spending occurs. In data collected during the 2020/21 winter season, the largest percentage of overnight guests (66% of total) stayed in the Driggs, Idaho area (52%), followed by at the resort (17%), in Jackson (12%), 3% in Alta,

and elsewhere (16%). Elsewhere likely includes those staying in the Victor area, Rexburg, or Idaho Falls. This encompasses guests staying in rented condos/homes, hotels/motels, timeshares, bed and breakfasts, and with friends/family.

It is assumed that the proportion of guests staying overnight in Jackson, Wyoming would increase with increases in total visitation, and that the percentage staying in Driggs would remain constant. Given these assumptions, it is expected that an additional 100-150 units would be needed to accommodate Grand Targhee guests in the Driggs area. Jackson, Wyoming has an ample winter bed base to accommodate visitor increases, as the area sees higher visitation during the summer. Based on the data of where existing visitors stay, an estimated 300-350 such units may presently exist in the Driggs area. It is important to note that the number of units available in Driggs is likely already on the rise and may continue to rise to accommodate the increased in visitation expected to occur as a result of the recently constructed Colter Lift and in the No Action Alternative.

Visitor Spending

The following **Table 3.4-10** shows the estimated spending profiles developed per skier visit in 2020 dollars. These figures were developed based on data specific to Grand Targhee, where possible, and large data set profiles then correlated to Grand Targhee data. For more information on the data provided in this section and how it was derived, please refer to the **Socioeconomics Technical Report**.

Table 3.4-10. 2020 Spending Profile (Day vs. Overnight; $2020)

Category	Day Guest		Overnight Guest	
	In-Resort	Off-Resort	In-Resort	Off-Resort
Accommodation	$ -	$ -	$31.28	$88.50
Food & Beverage	$6.77	$7.83	$25.92	$29.45
Retail	$3.72	$2.62	$17.64	$12.69
Recreation Fees/Rentals	$35.96	$1.26	$68.50	$1.06
Entertainment		$3.34		$3.66
Transportation		$14.55		$19.75
Other	$0.63	$1.37	$3.41	$0.35
TOTAL	**$47.09**	**$30.98**	**$146.75**	**$155.47**

Source: Socioeconomics Technical Report

The following table shows the percent of spending that is estimated to occur in Idaho under the baseline conditions. With inflation (2.3% average annual), 2033 spending was estimated at 34% above 2020 levels listed in **Table 3.4-10**. As shown in **Table 3.4-11**, no in-resort spending occurs in the State of Idaho, but most off-resort spending does under all categories. The lowest categories for Idaho off-resort spending are

accommodation (given stays in Jackson, and Alta) and transportation (i.e., renting cars at the Jackson airport). Spending in Wyoming is the additive inverse of these figures (i.e., 25.6% of off-resort accommodation spending by overnight guests occurs in Wyoming).

Table 3.4-11. Skier Visit Spending Distribution Percentages - Idaho

Category	Day Guest		Overnight Guest	
	In-Resort	Off-Resort	In-Resort	Off-Resort
Accommodation			0%	74.4%
Food & Beverage	0%	97%	0%	93.0%
Retail	0%	97%	0%	93.0%
Recreation Fees/Rentals	0%	97%	0%	93.0%
Entertainment		97%		93.0%
Transportation		97%		70.6%
Other	0%	97%	0%	93.0%

Source: Socioeconomics Technical Report

The total visitor spending inputs into the IMPLAN model do vary by alternative based on the percentage of overnight guests and where those guests are assumed to staying. For example, with higher total visitation projected under the Proposed Action, leading to more overnight visitors, and as a result, a higher percentage of visitors needing to stay in Wyoming (given the bed base), the spending per visitor that would occur in Wyoming was anticipated to increase relative to Alternative 1.

Summer spending is typically less than winter spending given the lower price of activities at the resort and off-resort (i.e., hiking), the ability to camp or other lower-cost lodging options, and less gear required. The following **Table 3.4-12** shows the percentage of winter spending levels assumed for each spending category.

Table 3.4-12. Estimated Summer Spending as a Percent of Winter Spending

Category	Day Guest		Overnight Guest	
	In-Resort	Off-Resort	In-Resort	Off-Resort
Accommodation	N/A	N/A	70%	70%
Food & Beverage	90%	90%	90%	90%
Retail	80%	80%	80%	80%
Recreation	30%	30%	30%	30%

Entertainment	N/A	100%	N/A	100%
Transportation	N/A	100%	N/A	100%
Other	100%	100%	100%	100%

Source: Socioeconomics Technical Report

County Tax Revenues

While the specific amount of county tax revenue varies by alternative and is disclosed previously, the distribution of projected county tax revenues to Teton County, Wyoming and the three Idaho counties remains relatively consistent across the alternatives, with approximately 65 percent of the county tax revenues accruing to Teton County, Wyoming and the remaining 35 percent accruing to the three Idaho counties. IMPLAN modeling does not provide results by type of tax and assumptions were not made to understand the spending by Idaho county.

Federal Land Payments

Higher annual visitation at GTR would increase annual revenues from lift ticket and lesson sales as well as revenues from ancillary services such as rentals, food, lodging, and summer activities. As a result, annual permit fees for GTR's operation on NFS lands would also increase.

Federal land payments, including Forest Service payments, would not change for any of the three Idaho counties in the study area as they have elected to receive the Secure Rural Schools Act Payments which are not tied to changes in annual revenue.

Federal land payments would increase for Teton County, Wyoming under each alternative as the county has elected to receive the 25 percent payments.

Additionally, fees paid by GTR to the Forest Service would be subject to the SHRED Act of 2023, if passed, enabling the Forest Service to retain a portion of GTR's SUP fees for use elsewhere within the forest unit.

Housing

Housing availability and affordability is an ongoing issue in each county in the study area, but Teton County, Idaho and Teton County, Wyoming experience more severe housing shortages and affordability issues than Madison and Bonneville counties. The additional employee housing that would be required to house the FTEs projected under each alternative would contribute to the ongoing issue of the study area's lack of affordable housing. The impact would likely be greatest in Teton County, Idaho as that is where much of the regional workforce and many GTR employees presently reside. The potential for increased visitation is also likely to increase demand for short-term rentals and vacation homes, further straining housing availability and affordability. Seasonality of housing demand may also be exacerbated. Additionally, due to the lack of affordable housing available within the study area, GTR would need to continue to implement employee housing projects as its staffing needs to grow.

Human and Social Services

Similar to other social and economic resources, demands for human and social services such as schools, emergency services, and public transportation would increase commensurate with the increase in visitors and FTEs projected under each alternative. Impacts would likely be greatest in Teton County, Idaho as that is where much of the regional workforce related to GTR visitation currently reside.

Public Transportation/Infrastructure

The **Traffic and Parking Technical Report** includes further information on anticipated transportation impacts. This analysis examines the economic components of transportation and public infrastructure in terms of program funding and state and county tax revenues.

The road network, transportation system, and other public infrastructure throughout the study area would be utilized by both GTR's new visitors and new residents who move to the study area to fill the FTEs projected under each alternative. Increased transportation demand and the associated public infrastructure costs are expected to be commensurate with the level of increased visitor spending and FTEs projected under each alternative. Teton County, Idaho shared that recent funding levels have not been sufficient to address routine maintenance, deferred maintenance, and new investment in necessary road network connections and expansions.[83] As has been disclosed in previous sections, the State of Idaho and each county in the study is expected to receive increased tax revenues from each of the alternatives; however, the majority of state and county tax revenues from increased visitation to GTR, as well as any increases in federal land payments, are expected to accrue to Teton County, Wyoming and the State of Wyoming under each alternative.

Values, Beliefs, and Attitudes

Many of the comments related to quality-of-life mentioned issues and concerns present in other resort towns where affordable housing is often lacking and staff shortages can sometimes pose a challenge to operations and threaten quality of life in resort towns. These challenges often force local workers to find housing in other nearby and more affordable towns, exacerbating challenges there. Ambient population growth, especially in the study area, is a reality and would likely have similar impacts. Many scoping comments for this project expressed dislike and concern over this population growth and general trend towards greater reliance on travel and tourism.

Future population growth in the region, the continued trend of growing visitation, and the recently constructed Colter Lift are expected to result in an approximately 29 percent increase (from the five-year 2016/2017 – 2020/21 average) in GTR's winter visitation for the 2032/33 season under the No Action Alternative. The Proposed Action Alternative is a 25 percent annual visitation increase from the No Action Alternative, an increase of approximately 55,000 annual visitors. These projects and potential visitation growth may have both positive and detrimental effects to local quality of life, with additional recreation opportunities and new businesses or business types made viable, along with challenges around the elements listed previously. These impacts are expected to occur gradually over a period of ten years. Additionally, the proposed on-mountain infrastructure expansions and upgrades in alternatives 2 through

[83] Communication with Teton County, Idaho, March 2022.

5, like enhanced lifts, trails and guest services offerings, would play an important role in supporting this anticipated increase in visitation.

In addition to impacts to visitation, specific impacts to social service demands and county tax revenues that support these services, income, poverty, and affordable housing, and real estate development approved under the *Grand Targhee Resort Planned Unit Development for Planned Resort* (PUD-PR) are discussed in their respective sections previously.

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Visitation

Under the No Action Alternative, increases in visitation (from 2016/17 – 2020/21 levels) would be a result of the recent installation of the Colter Lift for the 2022/23 season, ambient population growth in the region, and overall trends in recreation. By the 2032/33 season, annual winter visitation is estimated at approximately 249,000 under the No Action Alternative, representing an average annual growth rate of approximately 0.5 percent. This represents an approximately 29 percent total increase from 2016/17 – 2020/21 levels. Resort projects located on private lands may still occur; however, increases or decreases to visitation related to these projects are not likely to drive visitation beyond this existing trend of modest growth. The No Action Alternative would not include the construction of additional summer activities. Increases in summer visitation would be due to ambient population growth and recreation trends in the region, which would result in a 20 percent increase in summer visitation, from 29,000 visitors on average from 2017 to 2021, to 42,000 visitors in 2033 season.

Economic Impact of Resort Operations on the Study Area Economy

Based on visitation increase from the 2016/17 – 2020/21 average numerated above, by 2033, new, additional winter visitors to the region are estimated to spend approximately $17 million each year. This *direct* spending would generate an additional annual output of approximately $24.4 million into the economy, which includes *direct, indirect, and induced impacts*. Approximately 203 FTEs and $8.9 million in labor income would be supported within the 4-county area each year as a result of increased winter visitation. The 203 FTEs are in addition to the 568 FTEs supported by GTR winter visitation under baseline conditions. Approximately $4.4 million in total tax impacts are estimated to be generated each year by this economic activity.

By 2033, the additional summer visitors to GTR (beyond average 2017 – 2021 levels) are expected to spend approximately $2.6 million each year in the 4-county area. This *direct* spending would generate a total annual output of approximately $3.6 million into the economy, which includes *direct, indirect, and induced impacts*. Approximately 31 FTEs and $1.4 million in labor income would be supported each year as a result of increased summer visitor spending. This is in addition to the baseline 70 FTEs supported by GTR summer visitation (average summer visitation from 2017-2021). Approximately $603,800 in additional tax impacts are estimated to be generated each year by this economic activity.

As these impacts would result from new visitation to the region, they would be created each year *in addition to* the baseline impact of GTR's existing levels of winter and summer visitors presented in the Affected Environment discussion (based on the 2016/17 – 2020/21 five-year winter visitation average).

ALTERNATIVE 2 – PROPOSED ACTION

Visitation

The Proposed Action is expected to create the greatest winter visitation increase of all the alternatives at approximately 331,000 skier visits in the 2032/33 season and an average annual growth rate of 3.4 percent, a 33 percent increase from projections under the No Action Alternative. The proposed summer and multi-season projects are also expected to result in an increase in summer visitation. This would result in 70,700 summer visitors in the 2033 season, an increase of approximately 102 percent from the 35,000 summer visitors in the summer of 2021 and 144% from the 5-year 2017-2021 summer average (29,000), and 68% from the 2033 estimate of the No Action Alternative (42,000). Impacts of this additional visitation on the visitor experience (e.g. recreation experience, lodging, parking, user conflict) are discussed above under the "Effects Common to All Alternatives" header and in **Section 3.1** and **Section 3.5**.

Economic Impact of Resort Operations on the Study Area Economy

It was estimated that new winter visitors to the region would spend approximately $44.5 million each year. As derived through the IMPLAN model, this *direct* spending would generate an additional annual output of approximately $63.5 million into the study area economy, which includes *direct, indirect, and induced impacts*. Approximately 519 FTEs and $23.3 million in labor income would be generated each year as a result of this spending (an increase of 41% from the existing and additional FTEs generated under the No Action Alternative). Approximately $11.4 million in total tax impacts are estimated to be generated each year by this economic activity.

It was estimated that new summer visitors to the region would spend approximately $8.06 million each year. As derived through the IMPLAN model, this *direct* spending would generate a total annual output of approximately $11.1 million into the economy, which includes *direct, indirect, and induced impacts*. Approximately 95 FTEs and $4.2 million in labor income would be supported each year as a result of increased summer resort spending. This is in addition to the 70 FTEs supported by GTR summer visitation on average from 2017-2021, and 64 beyond the number generated by additional visitation under the No Action Alternative. Approximately $1.8 million in total tax impacts are estimated to be generated each year by this economic activity.

As these impacts would result from new visitation to the region, they would be created each year *in addition to* the baseline impact of GTR's existing levels of winter and summer visitors presented in the Affected Environment discussion (based on the 2016/17 – 2020/21 five-year winter visitation average).

Construction Impacts

For the purpose of this analysis, construction of the Proposed Action is assumed to be evenly distributed across each construction season through 2033 in the IMPLAN model. 2028 dollars were used to represent the average annual economic impact over the 10 years, with inflation. Construction of the project components would generate a total output of approximately $14.7 million per year, which includes *direct, indirect, and induced* impacts. Approximately 79 FTEs and $4.7 million in labor income would be generated annually throughout construction. Approximately $1.4 million in total tax impacts are estimated to be generated each year by this economic activity. These impacts would be short-term, only affecting the economy during the years in which construction activity would occur.

ALTERNATIVE 3 – NO SUP EXPANSION

Visitation

Alternative 3 is expected to generate approximately 85 percent of the annual winter visitation projected for the Proposed Action, with an average annual growth rate of approximately 1.3 percent. Winter visitation by the 2032/33 season is expected to be approximately 272,000, a nine percent increase from the projected under the No Action Alternative. As the proposed summer projects are the same under each action alternative, summer visitation is expected to increase to 70,700 visitors by the 2033 season, the same as under the Proposed Action.

Economic Impact of Resort Operations on the Study Area Economy

It was estimated that additional winter visitors to the region would spend approximately $24 million each year under Alternative 3. As derived through the IMPLAN model, this *direct* spending would generate a total annual output of approximately $34.2 million into the study area economy, which includes *direct, indirect, and induced impacts*. Approximately 284 FTEs and $12.5 million in labor income would be generated each year as a result of this spending. Approximately $6.2 million in total tax impacts are estimated to be generated each year by this additional economic activity.

Summer visitation impacts would be same for Alternative 3 as the Proposed Action.

As these impacts would result from new visitation to the region, they would be created each year *in addition to* the baseline impact of GTR's existing levels of winter and summer visitors presented in the Affected Environment discussion (based on the 2016/17 – 2020/21 five-year winter visitation average).

Construction Impacts

For the purpose of this analysis, construction of Alternative 3 is assumed to be evenly distributed across each construction season through 2033 in the IMPLAN model. 2028 dollars were used to represent the average annual economic impact over the 10 years, with inflation. Construction of the project components would generate a total output of approximately $11 million per year, which includes *direct, indirect, and induced* impacts. Approximately 59 FTEs and $3.5 million in labor income would be generated annually throughout construction. Approximately $1 million in total tax impacts are estimated to be generated each year by this economic activity. These impacts would be short-term, only affecting the economy during the years in which construction activity would occur.

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

Visitation

Alternative 4 is expected to generate approximately 93 percent of the winter visitation projected for the Proposed Action, with an average annual growth rate of approximately 2.5 percent. Winter visitation by the 2032/33 season is expected to be approximately 303,000, a 22 percent increase from that projected under the No Action Alternative. As the proposed summer projects are the same under each alternative, summer visitation is expected to be the same as under the Proposed Action.

Economic Impact of Resort Operations on the Study Area Economy

It was estimated that new winter visitors to the region would spend approximately $35.4 million each year. As derived through the IMPLAN model, this *direct* spending would generate a total annual output of

approximately $50.5 million into the study area economy, which includes *direct, indirect, and induced impacts*. Approximately 414 FTEs and $18.5 million in labor income would be generated each year as a result of this additional visitation. Approximately $9.1 million in total tax impacts are estimated to be generated each year by this economic activity.

Summer visitation impacts would be same for Alternative 4 as the Proposed Action.

As these impacts would result from new visitation to the region, they would be created each year *in addition to* the baseline impact of GTR's existing levels of winter and summer visitors presented in the Affected Environment discussion (based on the 2016/17 – 2020/21 five-year winter visitation average).

Construction Impacts

For the purpose of this analysis, construction of Alternative 4 is assumed to be evenly distributed across each construction season through 2033 in the IMPLAN model. 2028 dollars were used to represent the average annual economic impact over the 10 years, with inflation. Construction of the project components would generate a total output of approximately $12.1 million per year, which includes *direct, indirect, and induced* impacts. Approximately 65 FTEs and $3.9 million in labor income would be generated annually throughout construction. Approximately $1.1 million per year in federal, state, county, and town taxes would be generated by the construction activity. These impacts would be short-term, only affecting the economy during the years in which construction activity would occur.

ALTERNATIVE 5 – MONO TREES, NO SOUTH BOWL

Visitation

Alternative 5 is expected to generate approximately 91 percent of the winter visitation projected for the Proposed Action, with an average annual growth rate of approximately 2.2 percent. Winter visitation by the 2032/33 season is expected to be approximately 296,000, a 19 percent increase from forecast conditions under the No Action Alternative. As the proposed summer projects are the same under each alternative, summer visitation is expected to be the same as under the Proposed Action.

Economic Impact of Resort Operations on the Study Area Economy

It was estimated that new winter visitors to the region would spend approximately $32.9 million each year. As derived through the IMPLAN model, this *direct* spending would generate a total annual output of approximately $47 million into the study area economy, which includes *direct, indirect, and induced impacts*. Approximately 386 FTEs and $17.2 million in labor income would be generated each year as a result of this additional spending. Approximately $8.5 million in total tax impacts are estimated to be generated each year by this economic activity.

Summer visitation impacts would be same for Alternative 5 as the Proposed Action.

As these impacts would result from new visitation to the region, they would be created each year *in addition to* the baseline impact of GTR's existing levels of winter and summer visitors presented in the Affected Environment discussion (based on the 2016/17 – 2020/21 five-year winter visitation average).

Construction Impacts

For the purpose of this analysis, construction of Alternative 5 is assumed to be evenly distributed across each construction season through 2033 in the IMPLAN model. 2028 dollars were used to represent the

average annual economic impact over the 10 years, with inflation. Construction of the project components would generate a total output of approximately $12.6 million per year, which includes *direct, indirect, and induced* impacts. Approximately 68 FTEs and $4 million in labor income would be generated annually throughout construction. Approximately $1.2 million per year in federal, state, county, and town taxes would be generated by the construction activity. These impacts would be short-term, only affecting the economy during the years in which construction activity would occur.

3.4.5 Cumulative Effects

SCOPE OF THE ANALYSIS

The effects analyzed in the Cumulative Effects discussion apply to all action alternatives and No Action Alternative. The following projects are expected to cumulatively have short- and long-term effects on overall recreational opportunities in the Grand Targhee SUP area and on adjacent NFS and private lands, as well as throughout the study area.

Temporal Bounds

The temporal bounds for this cumulative effects analysis for social and economic resources extend from GTR's inception in 1969 through the foreseeable future in which the resort can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis for social and economic resources are limited to public and private lands within the study area (Teton County, Wyoming; Teton County, Idaho; Madison County, Idaho; and Bonneville County, Idaho).

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the project area, the reader is referred to **Appendix A** in this EIS. Past ski area and county development projects have been incorporated and analyzed in this document as part of the *Affected Environment* discussion.

Forest Service decisions within the Grand Targhee SUP area, as well as the approval of private land development by Teton County, Wyoming, have contributed to economic growth trends within the county over the past few decades. As previously stated, travel and tourism is an important economic component of the study area, and GTR is an important part of this economic sector GTR attracts both visitors and employees. As GTR grows, they would hire more employees and attract new visitors, incrementally adding to the economic and social impacts to the region. As noted, the estimation of economic impacts is related to visitation, as expenditures by visitors generate industry sales and support new jobs.

The PUD-PR could have cumulative impacts on social and economic resources and is analyzed below.

Grand Targhee Resort 2019 First Amended Master Plan - Planned Unit Development for Planned Resort

About the PUD-PR

The *Grand Targhee Resort First Amended Master Plan* was adopted on February 12, 2019, and it would expire on February 12, 2024, if there is no sufficient application for physical development filed with the Teton County Planning Department. The Plan was established by Section 4.3.7 of the Teton County Land

Development Regulations (the "LDRs"). The plan approved a total of 450 residential/accommodation units and 12,300 sf for commercial and resort services for GTR.

The amendment was pursued for multiple reasons, including the following:

1. To better reflect the resort's "current economic operating conditions"
2. To reflect plans and regulations adopted since 2008 (the 2012 Jackson/Teton County Comprehensive Plan and the 2016 County LDRs, 2017 updated Caribou-Targhee NF MDP, update the resort's phasing plan
3. To revise and replace environmental mitigation conditions (included in this amended MP as a Community Services Element)

Cumulative Impact of the PUD-PR

No portion of the implementation of projects approved under the PUD-PR are dependent, reliant, or connected to approval of any of the action alternatives by the Forest Service. GTR has been advancing projects on private land from the PUD-PR since their approval and would implement these projects regardless of projects being approved under this analysis. Implementation of the projects in the PUD-PR is not expected to drive additional visitation beyond the visitation levels analyzed for each alternative in this section under Direct and Indirect Environmental Consequences. However, the development of these units could impact the spending patterns of GTR's visitors in terms of the location of the guests' lodging and associated visitor spending. The purpose of the approved projects in the PUD-PR is to provide for a mix of recreational, retail, and service-oriented activities, that provides economic and other benefits to the community.

Whether annual visitation figures would increase at Grand Targhee should the previously approved accommodation units be constructed is a question of a) whether that lodging would serve as an amenity or attraction; and b) whether such lodging would provide accommodation capacity to allow Grand Targhee to increase visitation levels from those projected in Direct and Indirect figures. These factors are discussed further in the **Socioeconomics Technical Report**.

In general, the development of additional residential, resort, and commercial development at the base of GTR allows a higher percentage of guests to lodge at the resort and shifts more of the economic impacts into Teton County, Wyoming where the resort is located. While this is true of the visitor spending, FTE creation, and tax revenues projected by the IMPLAN model, it is still likely that many of the employees supporting GTR would be located in Teton County, Idaho. This is where most GTR employees currently live and the PUD-PR allows for GTR's required employee housing to be constructed off-site in Victor or Driggs, Idaho.

The results of these anticipated shifts in spending patterns are displayed in the IMPLAN modeling for each alternative below. While visitation remains the same, winter economic impact in Wyoming is expected to be 2 percent to 31 percent higher (with a corresponding decrease in Idaho economic impact, dependent on alternative).

Summary of Cumulative Effects by Alternative

Table 3.4-13 summarizes the following sections, which describe the anticipated cumulative effects of the PUD-PR for each alternative.

Table 3.4-13. Summary of Cumulative Effects by Alternative

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Additional FTEs (compared to existing conditions)	232	621	377	515	487
2032/33 Visitation	Development of the PUD-PR is independent from implementation of alternatives and is not expected to drive additional visitation beyond the visitation levels described in Direct and Indirect Effects				
Wyoming Spending Proportions	56% (winter) 74% (summer)	68% (winter) 83% (summer)	67% (winter) 83% (summer)	68% (winter) 83% (summer)	68% (winter) 83% (summer)
Economic Impacts (total annual output)	$24.8 million (winter) $3.1 million (summer)	$67.3 million (winter) $9.1 million (summer)	$36.8 million (winter) $9.1 million (summer)	$54.1 million (winter) $9.1 million (summer)	$50.5 million (winter) $9.1 million (summer)

Alternative 1 – No Action (Cumulative Effect)

Visitation

While the development of residential units approved through the PUD-PR is not expected to drive additional visitation beyond the visitation levels analyzed for each alternative in this section under Direct and Indirect Environmental Consequences, the development of these units could have an effect on the spending patterns of GTR's visitors in terms of the location of the guests' lodging and associated visitor spending. This is true for all alternatives.

Economic Impact of Resort Operations on the Study Area Economy

Under the Cumulative conditions, where a greater proportion of spending has been shifted to Wyoming with additional lodging units, 56 percent of the additional winter economic output would occur in Wyoming. In comparison, 55 percent occurs in Wyoming as analyzed under Affected Environment. There would be a corresponding shift in FTEs created and taxes. Additionally, 74 percent of the additional summer economic output would occur in Wyoming. In comparison, 70 percent occurs in Wyoming as analyzed under Affected Environment.

Total economic output, jobs created, and taxes do not vary substantially when considering the study area as a whole. As these impacts would result from new visitation to the region, they would be created each year *in addition to* the baseline impact of GTR's existing levels of winter and summer visitors presented in the Affected Environment discussion (based on 2016/17 – 2020/21 five-year average visitation).

Alternative 2 – Proposed Action (Cumulative Effect)

Visitation

Refer to the discussion of visitation under Alternative 1 – No Action (Cumulative Effect).

Economic Impact of Resort Operations on the Study Area Economy

Under the Cumulative conditions, where a greater proportion of spending has been shifted to Wyoming with additional lodging units, 68 percent of the additional winter economic output would occur in Wyoming. In comparison, 55 percent occurs in Wyoming as analyzed under Affected Environment. There would be a corresponding shift in FTEs created and taxes. Additionally, 83 percent of the additional summer economic output would occur in Wyoming. In comparison, 76 percent occurs in Wyoming as analyzed under Affected Environment.

Total economic output, jobs created, and taxes do not vary substantially when considering the study area as a whole. As these impacts would result from new visitation to the region, they would be created each year *in addition to* the baseline impact of GTR's existing levels of winter and summer visitors presented in the Affected Environment discussion (based on 2016/17 – 2020/21 five-year average visitation).

Alternative 3 – No SUP Expansion (Cumulative Effect)

Visitation

Refer to the discussion of visitation under Alternative 1 – No Action (Cumulative Effect).

Economic Impact of Resort Operations on the Study Area Economy

Under the Cumulative conditions, where a greater proportion of spending has been shifted to Wyoming with additional lodging units, 67 percent of the additional winter economic output would occur in Wyoming. In comparison, 48 percent occurs in Wyoming as analyzed under Affected Environment. There would be a corresponding shift in FTEs created and taxes. Summer visitation impacts and the distribution would be same as the Proposed Action.

Total economic output, jobs created, and taxes do not vary substantially when considering the study area as a whole. As these impacts would result from new visitation to the region, they would be created each year *in addition to* the baseline impact of GTR's existing levels of winter and summer visitors presented in the Affected Environment discussion (based on 2016/17 – 2020/21 five-year average visitation).

Alternative 4 – South Bowl, No Mono Trees (Cumulative Effect)

Visitation

Refer to the discussion of visitation under Alternative 1 – No Action (Cumulative Effect).

Economic Impact of Resort Operations on the Study Area Economy

Under the Cumulative conditions, where a greater proportion of spending has been shifted to Wyoming with additional lodging units, 68 percent of the additional winter economic output would occur in Wyoming. In comparison, 55 percent occurs in Wyoming as analyzed under Affected Environment. There would be a corresponding shift in FTEs created and taxes. Summer visitation impacts and the distribution would be same as the Proposed Action.

Total economic output, jobs created, and taxes do not vary substantially when considering the study area as a whole. As these impacts would result from new visitation to the region, they would be created each year *in addition to* the baseline impact of GTR's existing levels of winter and summer visitors presented in the Affected Environment discussion (based on 2016/17 – 2020/21 five-year average visitation).

Alternative 5 – Mono Trees, No South Bowl (Cumulative Effect)

Visitation

Refer to the discussion of visitation under Alternative 1 – No Action (Cumulative Effect).

Economic Impact of Resort Operations on the Study Area Economy

Under the Cumulative conditions, where a greater proportion of spending has been shifted to Wyoming with additional lodging units, 68 percent of the additional winter economic output would occur in Wyoming. In comparison, 56 percent occurs in Wyoming as analyzed under Affected Environment. There would be a corresponding shift in FTEs created and taxes. Summer visitation impacts and the distribution would be same as the Proposed Action.

Total economic output, jobs created, and taxes do not vary substantially when considering the study area as a whole. As these impacts would result from new visitation to the region, they would be created each year *in addition to* the baseline impact of GTR's existing levels of winter and summer visitors presented in the Affected Environment discussion (based on 2016/17 – 2020/21 five-year average visitation).

3.4.6 Irreversible and Irretrievable Commitments of Resources

Under the action alternatives, there would be a commitment of social and economic resources in the form of construction labor, long-term employment, housing, and social services. These commitments are not considered irreversible and/or irretrievable as they would be either temporary (e.g., construction labor) or consistent with baseline trends (e.g., housing and social services); therefore, no irreversible and/or irretrievable commitment of economic resources have been identified in association with either of the alternatives analyzed in this document.

3.5 Traffic and Parking

3.5.1 Scope of the Analysis

This analysis summarizes the *Traffic and Parking Technical Report for the Grand Targhee Master Development Plan Projects Environmental Impact Statement*, referred to as the **Traffic and Parking Technical Report**.[84] This section includes an analysis of existing and anticipated future traffic volumes, a quantification of existing and proposed parking supply for day and destination visitors to GTR under existing and proposed conditions, and a discussion of potential impacts from construction traffic and access routes. Refer to the **Traffic and Parking Technical Report** for more information on methodology, data sources, definitions, *1997 Forest Plan* direction, and traffic data.

This analysis focuses on the primary roadways used to access GTR and the related parking and traffic issues at the resort. These roadways are Ski Hill Road, Idaho State Highway (SH) 33, Idaho SH 31, and Wyoming State Highway 22 (WY-22).

3.5.2 Affected Environment

This section of the report documents the existing traffic conditions within the roadway network used to access GTR. Information in this section serves as the baseline for the traffic impacts of the alternatives due to increased trips both during construction and after completion of the proposed projects.

RESORT ACCESS

GTR's visitor mix is a relatively even distribution of local users, regional destination visitors, and national destination visitors or those from across the United States. Local guests drive to the resort or make use of the Teton Valley Bus Service provided by GTR. Regional destination visitors drive and stay overnight. National destination visitors fly or drive long distances. Those flying into the region primarily fly through Jackson Hole Airport, Salt Lake City Airport, or Idaho Falls Airport.[85]

In recent years, overnight visitors to the region, encompassing both regional destination visitors and national destination visitors, have been more than 60 percent of GTR's skier visits.[86] Overnight visitors largely stay at the resort, in Alta, Wyoming, in Driggs or Victor, or in Jackson. Guests staying off-resort can drive to the resort using a personal or rented vehicle or take the Teton Valley Bus Service.

[84] SE Group 2023d
[85] RRC 2021
[86] Ibid

GTR is located at the end of Ski Hill Road. Ski Hill Road, or Forest Highway 76, is the only road that provides access to GTR. Many GTR guests access the resort and Ski Hill Road via SH 33, which turns into WY-22 at the Wyoming border. There is also an alternate route using US 26 to SH 31 to Swan Valley, intersecting with SH 33 in Victor, and then following SH 33 north through Driggs to Ski Hill Road. For more information on routes to GTR, refer to the **Traffic and Parking Technical Report**.

All of the GTR parking lots and lodging are accessed directly from Ski Hill Road at the base of the resort. There are no other roadways that are used to access the on-mountain recreational opportunities or lodging in the base area.

TRAFFIC

On weekends and holidays, the traffic leading up to GTR can create backups, which sometimes extends into Driggs. Snow and other weather conditions frequently impact traffic congestion as well, as roadways may close, or drivers may travel at a slower speed. Many of the roadways in the study area see higher traffic volumes in the summer, excluding Ski Hill Road, the access road to GTR.

Traffic Volumes

Table 3.5-1 lists annual average daily traffic (AADT) from various sources, average traffic counts from 6 days over the past 2 seasons when resort visitation was closest to the winter CCC, and the average count from all Saturdays in July and August from 2020 to 2022. These latter values provide traffic volumes which best approximate the use of a given highway section on a busy day during the winter and summer seasons. These CCC days reflect the busier days at GTR over the past three seasons. Refer to the **Traffic and Parking Technical Report** for more information on this data. Counter locations are shown in **Exhibit 3.5-1** below and represent all available, monthly counters in the study area.[87] All listed volumes are two-way.

[87] Several counters located on County Roads are seasonal and do not provide data for the winter season.

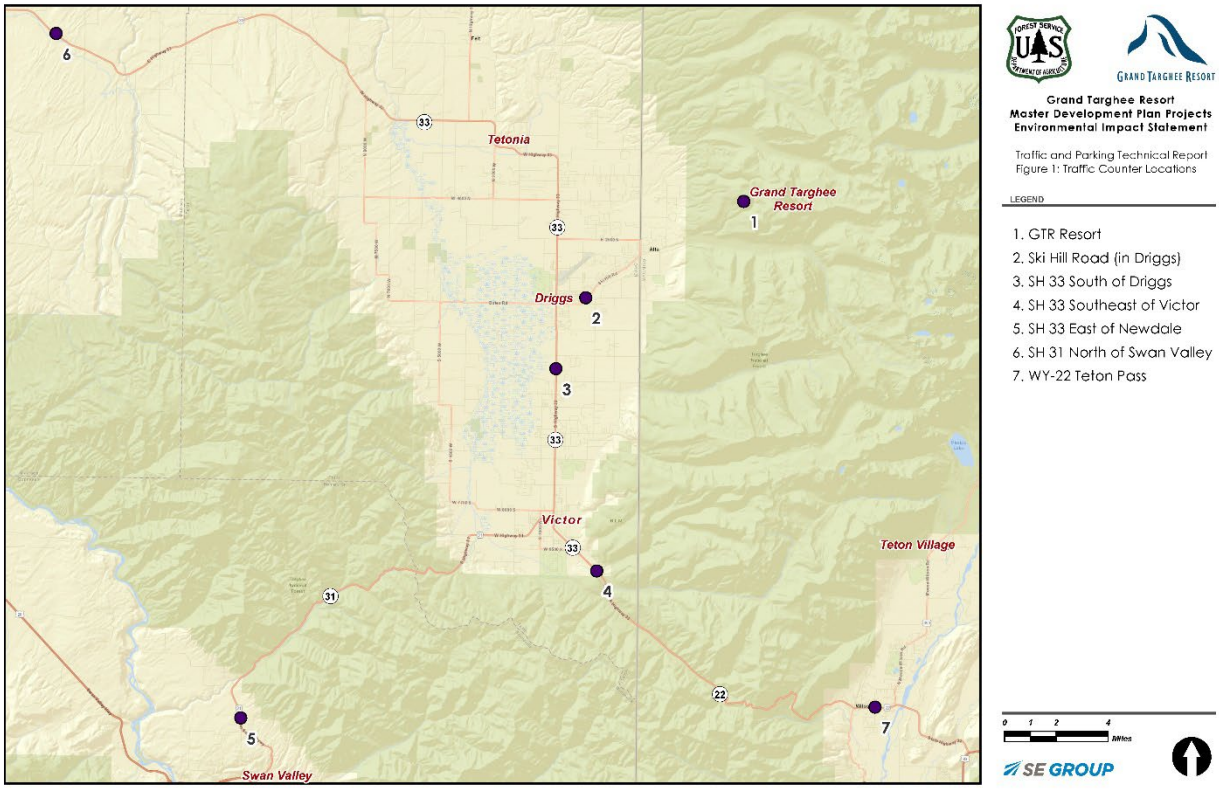


Exhibit 3.5-1. Traffic counter locations near GTR used in this analysis.

The existing CCC at GTR is 3,720 skier visits. CCC-based traffic counts reflect the average of the 6 days when visitation best approximated CCC from the 2021/22 and 2022/23 winter seasons. As indicated by **Table 3.5-1**, on a winter CCC day, there would be an estimated 1,660 vehicles seeking to access the resort, resulting in 3,320 total vehicle trips (two-way).

Average traffic counts from all Saturdays in July and August from 2020 to 2022 provide traffic volumes which best approximate the use of a given highway section on a busy summer day. As indicated by **Table 3.5-1**, on a busy summer day, there would be an estimated 540 vehicles seeking to access the resort, resulting in 1,080 vehicle trips (two-way).

Table 3.5-1. Existing Traffic Counts at Key Locations (Two-way)

Location (by Proximity to Resort)	2021 AADT	2021-2023 Winter CCC Day Adjusted Count	2020-2022 Summer Saturday Average Count
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	1,040 (2020/21)	3,320	1,080
2. Ski Hill Road (just east of the fork with Cemetery Road)	3,828	4,839	4,452
3. SH 33 (2.4 miles south of Driggs traffic light)	10,340	8,596	12,005

Location (by Proximity to Resort)	2021 AADT	2021-2023 Winter CCC Day Adjusted Count	2020-2022 Summer Saturday Average Count
4. SH 33 (2.8 miles southeast of Victor)	7,351	5,012	8,902
5. SH 33 (5.8 miles east of Newdale)	2,932	2,776	3,929
6. SH 31 (3.5 miles north of Swan Valley)	2,779	1,885	4,060
7. WY-22 (west of WY-390)2	10,019	7,651	13,986

Source: WYDOT, ITD, GTR, SE Group
Notes:
1. Extrapolated daily data based on Counter #4, located east of Victor.
2. This counter captures vehicular traffic in Wilson and these counts are likely higher than the number of vehicles traveling over Teton Pass.

On several of the roadways considered in this analysis, traffic volumes are higher on an annual basis than on busy days during the winter season at GTR. At every counter other than the one located at the GTR entrance, summer Saturday counts are 35 to 90 percent higher than AADT values. With the counter located at the base of Ski Hill Road, a large portion of the traffic on the roadway is not headed to GTR, particularly when reviewed on an annual basis or during the summer. There are likely more than 1,000 vehicles that pass the Ski Hill Road counter in Driggs that are not going to GTR on CCC winter days.[88]

Not all visitors to GTR would pass the Ski Hill Road Driggs counter such as those using Stateline Road when traveling from the north or south. It was estimated that ~60 percent of those traveling to GTR by personal vehicle pass that counter.[89]

Level of Service

Level of Service (LOS) is a planning level analysis in the Highway Capacity Manual, Third Edition, developed by the Transportation Research Board (TRB) to measure conditions on rural highways and roadways. LOS for roadways ranges from LOS A to LOS F, where LOS A describes primarily free-flow operations at average travel speeds and LOS F characterizes flow at extremely low speeds below one-third to one-fourth of the free-flow speed. Refer to the **Traffic and Parking Technical Report** for descriptions of each LOS.

Table 3.5-2 shows the LOS at each counter for average daily traffic in 2021, on days when visitation approximated the CCC from 2021 to 2023, and on the average daily traffic of summer Saturdays from 2020 to 2022.[90]

[88] ITD, 2023. Jorgensen, 2020. GTR, 2021.
[89] Estimate based on Jorgensen, 2020.
[90] A k-factor (a measure of the concentration of traffic within a single hour) of .11 was used in this analysis for winter as determined by reported hourly and daily roadway traffic volumes.

Table 3.5-2. Existing LOS at Key Locations

Location (by Proximity to Resort)	LOS Terrain Type	2021 AADT	2021-2023 Winter CCC Day Average Count	2020-2022 Summer Saturday Average Count
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	Mountainous	B	D	B
2. Ski Hill Road (just east of the fork with Cemetery Road)	N/A[91]	C	C/D	C/D
3. SH 33 (2.4 miles south of Driggs traffic light)	Level	C/D	C/D	D
4. SH 33 (2.8 miles southeast of Victor)	Rolling	D	C	D/E
5. SH 33 (5.8 miles east of Newdale)	Level	A/B	A/B	B
6. SH 31 (3.5 miles north of Swan Valley)	Rolling	B	A/B	B/C
7. WY-22 (west of WY-390)	Rolling[92]	D/E	D	E

Source: SE Group, Transportation Research Board

The above table shows that traffic conditions vary throughout the study area and by time of year. This analysis shows potential declines in vehicle speed or delays at the resort entrance on winter CCC days, and on SH 33 south of Driggs and Victor on busy summer Saturdays, and on WY-22 during all periods.

Traffic volumes on these roadways have been growing over the past few years. Average annual growth rate for summer and winter traffic for each roadway ranges from 3.1 to 6.4 percent in the winter and from 1.1 to 5.8 percent in the summer between 2016-2022. Growth rates were highest at SH 33 (5.8 miles east of Newdale) in the summer and at SH 31 (3.5 miles north of Swan Valley) in the winter. Growth rates were lowest at WY-22 (west of WY-390) in the summer and at Ski Hill Road (just east of the fork with Cemetery Road) in the winter. These growth rates represent background growth occurring in the study area.

Collision Data

The State of Idaho Local Highway Technical Assistance Council (LHTAC) provides spatial data on reported vehicular crashes from 2017 to 2021. Between 2017-2020, from the intersection of Little Avenue to Ski Hill Road at the Wyoming border, there were five crashes reported, none resulting in injuries or fatalities.[93] These crashes consisted of two wildlife/vehicle collisions, two rear-endings, and one vehicle

[91] Not classified as Rural Highway, capacity separately provided as 10,200 vehicles per day.
[92] While WY-22 includes mountainous stretches over Teton Pass, this counter is located in Wilson, WY and likely a large portion of the traffic at the counter does not go over Teton Pass
[93] LHTAC, 2021.

losing control on snow/ice. No crashes were reported from summer 2020 to the end of 2021. Overall, the sample size of this data is too small to extract conclusive trends.

TRANSIT

Daily transit access to GTR is provided by GTR as the Teton Valley Bus Service. This route goes from Victor to GTR and back, and offered 15 trips per day between 6 a.m. and 10 p.m. on the 2023-2024 winter schedule. The route makes 8 stops, with two in and around Victor, five in and around Driggs, and one at the resort. Ridership in 2017 was approximately 20,000 and approximately 75 percent of riders were employees.[94] Park and ride options are offered at the Driggs Transit Center, the 5th Street Skate Park in Driggs, and at the Victor Depot for guests to board the bus. GTR also provides a by-request paid shuttle from the Jackson Hole Airport and Idaho Falls Airport and a shuttle from outlying parking areas.

Transit ridership varies by season. It is estimated that 18 percent of local day guests and 30 percent of employees take transit on busy, capacity days during the winter season. During the summer, it was estimated that transit ridership was at 5 percent of day guests (1.6 percent of all guests not staying on resort and 1.2 percent overall) and 15 percent of employees on busy days. Refer to the **Traffic and Parking Technical Report** for more information on existing ridership.

PARKING

GTR has four parking lots for public skier use, all of which are located on private land. These parking lots are shared by employees, overnight, and day guests, except for approximately 24 spaces by Sioux Lodge dedicated to lodge guests. **Table 3.5-3** lists each parking lot and the number of spaces as of the 2022/23 season. These figures represent available winter parking spaces when snow storage is occurring. During the summer, an estimated 70 additional parking spaces are available.[95]

Table 3.5-3. Existing Parking Lots

Name	Base Area Access	Spaces
Lot 1	Walk-to	320
Lot 2	Walk-to/Shuttle	140
Lot 3	Walk-to/Shuttle	485
Lot 4	Shuttle	320
Overflow	Shuttle	190
Total		1,455

Source: GTR

On busy days in the winter, demand has exceeded parking supply, and cars have waited or been turned away when spaces are not available (prior to 2021/22, there were 325 fewer available spaces). Beginning

[94] City of Driggs, 2019.
[95] Communications with Grand Targhee Resort.

with the 2021/22 season, GTR has a parking section of their website where guests can track the occupancy of the lots and see if there are available spaces prior to driving up.

GTR began tracking occupancy data during the 2020/21 season. Average Vehicle Occupancy (AVO) was calculated through this occupancy data and transit ridership against skier visit counts from busy days; this analysis determined that guest AVO is approximately 2.5 people per vehicle at GTR during the ski season. This figure aligns with the industry standard of 2.5.

Parking and access are planned for GTR's CCC plus 4 percent as some non-skiing guests (i.e., family, tubers, Nordic skiers) would park at the resort. It was assumed that at-one-time (AOT) demand would be 90 percent of guests, given that some guests may arrive in the afternoon after others have already left for the day.

On winter days when visitation is at CCC, there is a slight surplus of parking spaces for the 2022/23 season. On these days, there would be available parking for all those visiting the resort, although unoccupied spaces would largely be in the overflow area. During the summer, there is a strong surplus of available parking spaces even for the busier days. Summer busy days see approximately 800 guests and 220 employees. [96] During summer events (i.e., Targhee Fest and Bluegrass Festival), shuttles are provided from Driggs for event attendees.

3.5.3 Direct and Indirect Environmental Consequences

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Under the No Action Alternative, the proposed projects on National Forest System (NFS) lands would not be constructed.

Traffic

Under the No Action Alternative, traffic volumes are forecast to increase by the background traffic growth rate. Winter CCC day traffic volumes associated with GTR would not change as CCC would be unchanged from 3,720; traffic associated with GTR would remain at 1,660 vehicles accessing the resort (3,320 vehicle trips two-way). While the frequency of these CCC-volume days may increase, the capacity of facilities and target experience would remain at that level of visitation. All increases shown for winter are attributable to background traffic growth. Summer visitation is expected to increase to 1,010 guests per busy day in summer 2033 (26 percent increase) as the parking and other facilities have additional capacity to allow busy day visitation to continue to grow in the summer. Summer busy day traffic volumes are anticipated to increase to 620 vehicles accessing the resort (1,240 vehicle trips two-way). Refer to **Table 3.5-4** and **Table 3.5-5** for additional detail.

Under the No Action Alternative, CCC day traffic volumes are projected to be unchanged at the resort entrance, but by up to 59 percent at other counters due to the level of background traffic growth anticipated.

In summer, the counter at GTR would see an increase of 15 percent over baseline growth, with all of that increase attributed to the increased visitation. The other counters would experience growth between 24

[96] GTR 2021

percent and 62 percent with nearly all of that growth attributable to background traffic growth (greater than 94 percent for all counters).

Table 3.5-4. Forecasted Traffic Volumes – No Action Alternative

Location (by Proximity to Resort)	Winter CCC Day			Summer Busy Day			
	2021-2023 Winter CCC Day Adjusted Count	2032/33 Estimated Vehicle Count	% Increase	2020-2022 Count	2033 Estimated Vehicle Count	% Increase	% Increase Attributable to Elevated Visitation
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	3,320	3,320	0%	1,080	1,240	15%	100%
2. Ski Hill Road (just east of the fork with Cemetery Road)	4,839	5,780	19%	4,452	5,520	24%	6%
3. SH 33 (2.4 miles south of Driggs traffic light)	8,596	11,900	38%	12,005	17,480	46%	1%
4. SH 33 (2.8 miles southeast of Victor)	5,012	7,160	43%	8,902	12,620	42%	1%
5. SH 33 (5.8 miles east of Newdale)	2,776	4,000	44%	3,929	6,360	62%	1%
6. SH 31 (3.5 miles north of Swan Valley)	1,885	3,000	59%	4,060	5,600	38%	1%
7. WY-22 (west of WY-390)	7,651	10,700	40%	13,986	15,720	12%	1%

Source: WYDOT, ITD, GTR, SE Group

Table 3.5-5. 2032/33 LOS at Key Locations – No Action Alternative

Location (by Proximity to Resort)	Winter No Action LOS	Summer No Action LOS
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	D	B
2. Ski Hill Road (just east of the fork with Cemetery Road)	D	D
3. SH 33 (2.4 miles south of Driggs traffic light)	D	E
4. SH 33 (2.8 miles southeast of Victor)	D	E
5. SH 33 (5.8 miles east of Newdale)	B	B/C

Location (by Proximity to Resort)	Winter No Action LOS	Summer No Action LOS
6. SH 31 (3.5 miles north of Swan Valley)	B	C/D
7. WY-22 (west of WY-390)	D/E	F

Source: SE Group, Transportation Research Board

The analysis of traffic volumes in **Table 3.5-5** illustrates that that under the No Action Alternative, the number of vehicles traveling on roadways accessing GTR may increase. Nearly all of this increase is attributable to background traffic growth described above. All roadways included in this analysis are expected to decrease by a half or whole grade from existing conditions except for Ski Hill Road at GTR by the 2032/2033 season.

Transit

Under the No Action Alternative, the CCC would not increase, and background growth is not anticipated to result in noticeable changes in transit ridership from the existing conditions described under **Section 3.5.2**. Refer to **Section 3.5.4** for a cumulative discussion of potential future transit and ridership patterns in relation to the No Action Alternative.

Parking

Under the No Action Alternative, a small surplus of 30 spaces is anticipated on days when visitation approximates CCC in the winter, forecasted for the 2032/33 season. There remains a strong surplus of available parking during busy days in the summer under the No Action Alternative.

ALTERNATIVE 2 – PROPOSED ACTION

The Proposed Action would result in an increase in comfortable carrying capacity to 6,170 guests per day at GTR. These additional visitors to GTR would generate an increase in vehicle trips and parking demand. It is anticipated that much of this growth would occur through an increase in overnight visitors as a percentage of total guests, given the relatively small and stable local population. The number of local, day visitors would increase as well, but not commensurate with the increase in overnight visitors. It is assumed under the Proposed Action that 70 percent of visitors would be overnight visitors to the region, up from 62 percent estimated for existing. The number of guests staying on-resort is anticipated to remain relatively constant, with a modest increase to occupancy but no change to available units.

For summer, the additional capacity and draw presented by the new activities offered (mountain coaster, ziplines), combined with the trend of growing summer visitation, is expected to result in busy summer day visitation of 1,700 visitors per day (up from 800 at existing and 1,010 under the No Action Alternative).

Under this alternative, there would be 2,790 vehicles seeking to access the resort on a winter CCC day, compared to 1,660 under the existing condition and no action alternative (when the CCC is 3,720). This includes the vehicles associated with non-skiing guests and employees. Under this alternative, for a summer busy day, there would be 960 vehicles accessing the resort, which is 420 additional vehicles beyond the existing and 340 beyond the forecast for the No Action Alternative. The 4 percent of additional guests would include those Nordic skiing, tubing, and fat biking in winter.

Traffic

The Proposed Action would result in additional visitation and, as a result, additional vehicle trips. All additional vehicle trips would pass through the counter located at GTR and a fraction would pass through counters at all other locations included in this analysis. The expected distribution of the additional roadways that access the resort and additional methodology is included in the **Traffic and Parking Technical Report**. **Table 3.5-6** and **Table 3.5-7** show the total forecast vehicle trips per day with additional vehicles resulting from implementation of the proposed projects under the Proposed Action Alternative for the winter and summer seasons, respectively.

Table 3.5-6. Forecasted Traffic Volumes – Proposed Action – Winter

Location (Proximity to the Resort)	2021-2023 Winter CCC Day Average Traffic Volume	No Action Alternative Forecast Winter CCC Day Traffic Volume	Additional Winter Vehicle Trips that Pass through the Location	Proposed Action Forecast Winter CCC Day Traffic Volume	Percentage Increase from No Action Alternative Traffic Volume
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	3,320	3,320	2,260	5,580	68%
2. Ski Hill Road (just east of the fork with Cemetery Road)	4,839	5,780	1,320	7,100	23%
3. SH 33 (2.4 miles south of Driggs traffic light)	8,596	11,900	620	12,520	5%
4. SH 33 (2.8 miles southeast of Victor)	5,012	7,160	420	7,580	6%
5. SH 33 (5.8 miles east of Newdale)	2,776	4,000	300	4,300	8%
6. SH 31 (3.5 miles north of Swan Valley)	1,885	3,000	40	3,040	1%
7. WY-22 (west of WY-390)	7,651	10,700	440	11,140	4%

Source: WYDOT, ITD, GTR, SE Group

The potential increase in busy day visitation (assumed to be the same as the additional lift capacity provided by the proposed projects for the purpose of this analysis) results in a 1 to 68 percent increase in traffic volume on the roads accessing the resort. The percent increase is highest at the resort entrance and on Ski Hill Road in Driggs and at or below 8 percent for all other roadways, with the lowest percent increase on SH 31 at Swan Valley.

Table 3.5-7. Forecasted Traffic Volumes – Proposed Action – Summer

Location (Proximity to the Resort)	2020-2022 Summer Saturday Average Traffic Volume	No Action Alternative Forecast Summer Traffic Volume	Additional Summer Vehicle Trips that Pass through the Location	Proposed Action Forecast 2033 Summer Busy Day Traffic Volume	Percentage Increase from No Action Alternative Traffic Volume
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	1,080	1,240	680	1,920	54%
2. Ski Hill Road (just east of the fork with Cemetery Road)	4,452	5,520	400	5,920	7%
3. SH 33 (2.4 miles south of Driggs traffic light)	12,005	17,480	200	17,680	1%
4. SH 33 (2.8 miles southeast of Victor)	8,902	12,620	140	12,760	1%
5. SH 33 (5.8 miles east of Newdale)	3,929	6,360	100	6,460	2%
6. SH 31 (3.5 miles north of Swan Valley)	4,060	5,600	20	5,620	0.4%
7. WY-22 (west of WY-390)	13,986	15,720	140	15,860	1%

Source: WYDOT, ITD, GTR, SE Group

The potential increase in summer busy day visitation results in a 0.4 to 54 percent increase in traffic volume on the roads accessing the resort. The percent increase is high at the resort entrance, 7 percent for Ski Hill Road in Driggs, and at or below 2 percent for all other counters. All forecast traffic volumes except for those at the counter at the resort entrance are higher than those forecast for winter CCC days under this alternative. **Table 3.5-8** summarizes the LOS at key locations under the Proposed Action.

Table 3.5-8. 2032/33 LOS at Key Locations – Proposed Action

Location (by Proximity to Resort)	Winter CCC Day		Summer Busy Day	
	Alt 2 LOS	No Action LOS	Alt 2 LOS	No Action LOS
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	D/E	D	C	B
2. Ski Hill Road (just east of the fork with Cemetery Road)	D/E	D	D/E	D
3. SH 33 (2.4 miles south of Driggs traffic light)	D	D	E	E

Location (by Proximity to Resort)	Winter CCC Day		Summer Busy Day	
	Alt 2 LOS	No Action LOS	Alt 2 LOS	No Action LOS
4. SH 33 (2.8 miles southeast of Victor)	D	D	E	E
5. SH 33 (5.8 miles east of Newdale)	B	B	B/C	B/C
6. SH 31 (3.5 miles north of Swan Valley)	B	B	C/D	C/D
7. WY-22 (west of WY-390)	D/E	D/E	F	F

Source: SE Group, Transportation Research Board

This analysis of traffic volumes illustrates that that the proposed projects may increase the number of vehicles traveling on roadways accessing GTR; therefore, implementation of the action alternatives could contribute to the back-up in Driggs and at the resort on busy days. No change in LOS is anticipated for roadways other than Ski Hill Road associated with the implementation of the Proposed Action. As illustrated in **Section 3.5.2**, there are existing challenges related to traffic associated with GTR and in the study area; GTR would need to continue to employ a variety of strategies to manage transportation demand.

Transit

Transit ridership is assumed to remain at the same percentage of day guests and employees as described in **Section 3.5.2**; because the total number of guests and employees would increase under the Proposed Action, additional buses may be required to accommodate the anticipated increase in transit ridership. The 2019 City of Driggs Transportation Plan did not identify existing capacity or infrastructure issues with the Teton Valley Bus Service to GTR, and did not identify improvements specific to the service; therefore, it is not anticipated that these additional riders would result in measurable changes to the service. Refer to **Section 3.5.4** for a cumulative discussion of potential future transit and ridership patterns in relation to the proposed projects.

Parking

With the additional lift capacity provided by the proposed projects, and the assumed commensurate increase in visitation, an additional 957 vehicles would seek to park at one time at the resort on a winter CCC day, beyond the number seeking to do so under the No Action Alternative. This results in a total at-one-time parking demand of 2,382 vehicles on a day when visitation is at the CCC (6,170 guests).

With 1,455 spaces that would be available under proposed conditions and assuming no expansions or improvements in base area parking capacity, there would be a deficit of 927 spaces when visitation is at a CCC (6,170 guests). Because GTR's anticipated base area is on private land, development was previously approved by Teton County, Wyoming in 2019, and no part of its implementation is dependent upon the decision to be made under this EIS process. The approved development included improvements to be made on the private land of the base area to increase parking capacity and use of other methods such as incentives for carpooling to balance parking capacity with resort CCC. The two actions of base area development and on-mountain improvements would result in a well-planned and balanced recreation

facility at GTR where base area infrastructure has been developed commensurate with on-mountain capacities – and vice versa. Refer to **Section 3.5.4** for a discussion of this "reasonably foreseeable future action" within the cumulative effects analysis.

In the summer, it is anticipated that an additional 333 vehicles would seek to park at one time at the resort on a busy day, beyond the number seeking to do so under the No Action Alternative. This results in a total at-one-time parking demand of 883 vehicles on a day when visitation is at 1,700 guests and a surplus of parking spaces (572) under the existing supply of parking.

Construction Trips

There would be a measurable increase in traffic volumes on GTR's administrative route network and roadways that access GTR during the snow free months associated with construction vehicles needed to implement projects included in the alternative. The construction of chairlifts, ski trails, summer trails, and other elements of this alternative would necessitate truck trips both for tree removal as well as for bringing materials and infrastructure to the mountain. Tree removal methods, including in gladed areas, would primarily be accomplished over-the-snow and utilizing the administrative route network. Both traditional timber removal and over the snow removal would necessitate truck trips to remove the timber. Helicopter removal, burning, or over the snow removal is planned for all areas where glading is planned. To estimate construction traffic patterns across seasons, this analysis determined construction periods based on the anticipated build-out of project components included for each action alternative. Construction vehicle traffic represents a temporary increase in traffic that would occur during a set construction period, which is assumed for this alternative to be each summer up to 2033. Construction trips would be routed around the downtown core of the City of Driggs proper as best as possible to avoid city traffic.

Under this alternative, 2,933 truck trips are anticipated for tree removal from GTR. An additional 10,000 truck trips are anticipated for construction and staging of projects (non-tree removal). The construction of proposed infrastructure included in the alternative is planned to take place over the 10-year summer construction period. This likely results in 10-20 timber and other construction trips per day on average during the summer. The trips would be a temporary increase to traffic, during the summer when winter ski traffic is not present and resulting in minor impacts to the roadways. Refer to the **Traffic and Parking Technical Report** for more information on construction trips.

ALTERNATIVE 3 – NO SUP EXPANSION

It is anticipated that the implementation of Alternative 3 would result in an increase in lift capacity to 4,910 guests per day at GTR. As described under the Proposed Action, these additional visitors would generate an increase in vehicle trips and parking demand and would impact the number and proportion of day and overnight visitors. It is assumed under Alternative 3 that 65 percent of visitors would be overnight visitors to the region, up from 62 percent estimated for existing.

For summer, it is anticipated that Alternative 3 would result in the same implemented projects as the Proposed Action, and increased visitation commensurate with that of The Proposed Action was assumed. Therefore, the projected parking and traffic conditions in summer as a result of the alternative implementation would be the same as under the Proposed Action.

Under this alternative, there would be 2,210 vehicles seeking to access the resort on a winter CCC day, compared to 1,660 in the existing condition and No Action Alternative (550 additional). This figure includes additional non-skiing guests and employees.

Traffic

Alternative 3 would result in additional visitation and, as a result, additional vehicle trips. All additional vehicle trips would pass through the counter located at GTR and a fraction would pass through counters at all other locations included in this analysis. The expected distribution of the additional roadways that access the resort and additional methodology is included in the **Traffic and Parking Technical Report**. **Table 3.5-9** shows the total forecast vehicle trips per day with additional vehicles resulting from implementation of the proposed projects under Alternative 3 for the winter season.

Table 3.5-9. Forecasted Traffic Volumes – Alternative 3 – Winter

Location (Proximity to the Resort)	2021-2023 Winter CCC Day Average Traffic Volume	No Action Alternative Forecast Winter CCC Day Traffic Volume	Additional Vehicle Trips that Pass through the Location	Alternative 3 Forecast CCC Day Traffic Volume	Percentage Increase from No Action Alternative Traffic Volume
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	3,320	3,320	1,100	4,420	33%
2. Ski Hill Road (just east of the fork with Cemetery Road)	4,839	5,780	640	6,420	11%
3. SH 33 (2.4 miles south of Driggs traffic light)	8,596	11,900	300	12,200	3%
4. SH 33 (2.8 miles southeast of Victor)	5,012	7,160	260	7,420	4%
5. SH 33 (5.8 miles east of Newdale)	2,776	4,000	180	4,180	4%
6. SH 31 (3.5 miles north of Swan Valley)	1,885	3,000	20	3,020	1%
7. WY-22 (west of WY-390)	7,651	10,700	200	10,900	2%

Source: WYDOT, ITD, GTR, SE Group

The potential increase in busy day visitation (assumed to be the same as the additional lift capacity provided by the proposed projects for the purpose of this analysis) results in a 1 to 33 percent increase in traffic volume on the roads accessing the resort. The percent increase is highest at the resort entrance and on Ski Hill Road in Driggs and at or below 4 percent for all other roadways, with the lowest increase on SH 31.

Projected summer traffic conditions are the same as under the Proposed Action. **Table 3.5-10** summarizes the LOS at key locations under Alternative 3.

Table 3.5-10. 2032/33 LOS at Key Locations – Alternative 3

Location (by Proximity to Resort)	Winter CCC Day	
	Alt 3 LOS	No Action LOS
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	D/E	D
2. Ski Hill Road (just east of the fork with Cemetery Road)	D/E	D
3. SH 33 (2.4 miles south of Driggs traffic light)	D	D
4. SH 33 (2.8 miles southeast of Victor)	D	D
5. SH 33 (5.8 miles east of Newdale)	B	B
6. SH 31 (3.5 miles north of Swan Valley)	B	B
7. WY-22 (west of WY-390)	D/E	D/E

Source: SE Group, Transportation Research Board

Similar to the discussion for the Proposed Action, this analysis of traffic volumes illustrates that that the proposed projects under Alternative 3 could increase the number of vehicles traveling on roadways accessing GTR; therefore, implementation of the action alternatives could contribute to the back-up in Driggs and at the resort on busy days.

Transit

Transit ridership is assumed to remain at the same percentage of day guests and employees as described in **Section 3.5.2**; because the total number of guests and employees would increase under Alternative 3, additional buses may be required to accommodate the anticipated increase in transit ridership. Impacts to transit under Alternative 3 would be to a lesser degree than under the Proposed Action; therefore, it is not anticipated that additional riders would result in measurable changes to the service. Refer to **Section 3.5.4** for a cumulative discussion of potential future transit and ridership patterns in relation to the proposed projects.

Parking

With the additional lift capacity provided by the proposed projects, and the assumed commensurate increase in visitation, an additional 452 vehicles would seek to park at one time at the resort on a winter CCC day, beyond the number seeking to do so under the No Action Alternative. This results in a total at-one-time parking demand of 1,877 vehicles on a day when visitation is at the CCC (4,910 guests).

With 1,455 spaces that would be available under proposed conditions, there would be a deficit of 422 spaces when visitation is at the CCC (4,910 guests). Refer to **Section 3.5.4** for a discussion of the cumulative impacts of this deficit.

Projected summer parking conditions are the same as under the Proposed Action.

Construction Trips

There would be a measurable increase in traffic volumes on GTR's administrative route network and roadways that access GTR during the summer months associated with construction vehicles needed to implement projects included in the alternative. Refer to **Section 2.3** and the **Traffic and Parking Technical Report** for specific construction details in relation to parking and traffic. To estimate construction traffic patterns across seasons, this analysis determined construction periods based on the anticipated build-out of project components included for each action alternative. Construction vehicle traffic represents a temporary increase in traffic that would occur during a set construction period, which is assumed for this alternative to be each summer up for a 5-to-7-year period. Construction trips would be routed around the City of Driggs proper as best as possible to avoid city traffic.

Under Alternative 3, 1,718 truck trips are anticipated for tree removal from GTR. An additional 5,000 truck trips are anticipated for construction and staging of projects (non-tree removal), for a total of 6,718 truck trips. The construction of the proposed infrastructure included in the alternative is planned to take place over 5-7 years. This likely results in 10-15 timber and other construction trips per day on average during the summer. The trips would be a temporary increase to traffic, during the summer when winter ski traffic is not present, and therefore, the impacts to roadway traffic would be minor.

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

It is anticipated that the implementation of Alternative 4 would result in an increase in lift capacity to 5,480 guests per day at GTR. As described under the Proposed Action, these additional visitors would generate an increase in vehicle trips and parking demand and would impact the number and proportion of day and overnight visitors. It is assumed under Alternative 4 that 69 percent of visitors would be overnight visitors to the region, up from 62 percent estimated for existing.

For summer, it is anticipated that Alternative 4 would result in the same implemented projects as the Proposed Action, and increased visitation commensurate with that of the Proposed Action was assumed. Therefore, the projected parking and traffic conditions in summer as a result of the alternative implementation would be the same as under the Proposed Action.

Under this alternative, there would be 2,480 vehicles seeking to access the resort on a winter CCC day, compared to 1,660 in the existing condition and No Action Alternative (an increase of 820). This figure includes additional non-skiing guests and employees.

Traffic

Alternative 4 would result in additional visitation and, as a result, additional vehicle trips. All additional vehicle trips would pass through the counter located at GTR and a fraction would pass through counters at all other locations included in this analysis. The expected distribution of the additional roadways that access the resort and additional methodology is included in the **Traffic and Parking Technical Report**. **Table 3.5-11** shows the total forecast vehicle trips per day with additional vehicles resulting from implementation of the proposed projects under Alternative 4 for the winter season.

Table 3.5-11. Forecasted Traffic Volumes – Alternative 4 – Winter

Location (Proximity to the Resort)	2021-2023 Winter CCC Day Average Traffic Volume	No Action Alternative Forecast Winter CCC Day Traffic Volume	Additional Vehicle Trips that Pass through the Location	Alternative 4 Forecast CCC Day Traffic Volume	Percentage Increase from No Action Alternative Traffic Volume
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	3,320	3,320	1,640	4,960	49%
2. Ski Hill Road (just east of the fork with Cemetery Road)	4,839	5,780	940	6,720	16%
3. SH 33 (2.4 miles south of Driggs traffic light)	8,596	11,900	440	12,340	4%
4. SH 33 (2.8 miles southeast of Victor)	5,012	7,160	300	7,460	4%
5. SH 33 (5.8 miles east of Newdale)	2,776	4,000	220	4,220	5%
6. SH 31 (3.5 miles north of Swan Valley)	1,885	3,000	40	3,040	1%
7. WY-22 (west of WY-390)	7,651	10,700	320	11,020	3%

Source: WYDOT, ITD, GTR, SE Group

The potential increase in busy day visitation (assumed to be the same as the additional lift capacity provided by the proposed projects for the purpose of this analysis) results in a 1 to 49 percent increase in traffic volume on the roads accessing the resort. The percent increase is highest at the resort entrance and on Ski Hill Road in Driggs and at or below 5 percent for all other roadways, with the lowest increase on SH 31.

Projected summer traffic conditions are the same as under the Proposed Action. **Table 3.5-12** summarizes the LOS at key locations under Alternative 4.

Table 3.5-12. 2032/33 LOS at Key Locations – Alternative 4

Location (by Proximity to Resort)	Winter CCC Day	
	Alt 4 LOS	No Action LOS
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	D/E	D
2. Ski Hill Road (just east of the fork with Cemetery Road)	D/E	D
3. SH 33 (2.4 miles south of Driggs traffic light)	D	D

Location (by Proximity to Resort)	Winter CCC Day	
	Alt 4 LOS	No Action LOS
4. SH 33 (2.8 miles southeast of Victor)	D	D
5. SH 33 (5.8 miles east of Newdale)	B	B
6. SH 31 (3.5 miles north of Swan Valley)	B	B
7. WY-22 (west of WY-390)	D/E	D/E

Source: SE Group, Transportation Research Board

Similar to the discussion for the Proposed Action, this analysis of traffic volumes illustrates that that the proposed projects under Alternative 4 could increase the number of vehicles traveling on roadways accessing GTR; therefore, implementation of the action alternatives could contribute to the back-up in Driggs and at the resort on busy days.

Transit

Transit ridership is assumed to remain at the same percentage of day guests and employees as described in **Section 3.5.2**; because the total number of guests and employees would increase under Alternative 4, additional buses may be required to accommodate the anticipated increase in transit ridership. Impacts to transit under Alternative 4 would be to a lesser degree than under the Proposed Action; therefore, it is not anticipated that additional riders would result in measurable changes to the service. Refer to **Section 3.5.4** for a cumulative discussion of potential future transit and ridership patterns in relation to the proposed projects.

Parking

With the additional lift capacity provided by the proposed projects, and the assumed commensurate increase in visitation, an additional 684 vehicles would seek to park at one time at the resort on a winter CCC day, beyond the number seeking to do so under the No Action Alternative. This results in a total at-one-time parking demand of 2,109 vehicles on a day when visitation is at the CCC (5,480 guests).

With 1,455 spaces that would be available under proposed conditions, there would be a deficit of 654 spaces when visitation is at the CCC (5,480 guests). Refer to **Section 3.5.4** for a discussion of the cumulative impacts of this deficit.

Projected summer parking conditions are the same as under the Proposed Action.

Construction Trips

There would be a measurable increase in traffic volumes on GTR's administrative route network and roadways that access GTR during the summer months associated with construction vehicles needed to implement projects included in the alternative. Refer to **Section 2.3** of this chapter and the **Traffic and Parking Technical Report** for specific construction details in relation to parking and traffic. To estimate construction traffic patterns across seasons, this analysis determined construction periods based on the anticipated build-out of project components included for each action alternative. Construction vehicle

traffic represents a temporary increase in traffic that would occur during a set construction period, which is assumed for this alternative to be each summer up for a 6-to-8-year period. Construction trips would be routed around the City of Driggs proper as best as possible to avoid city traffic.

Under Alternative 4, 1,953 truck trips are anticipated for tree removal from GTR. An additional 8,000 truck trips are anticipated for construction and staging of projects (non-tree removal), for a total of 9,953 truck trips. The construction of proposed infrastructure included in the alternative is planned to take place over 6-8 years. This likely results in 10-20 timber and other construction trips per day on average during the summer. The trips would be a temporary increase to traffic, during the summer when winter ski traffic is not present, and therefore, the impacts to roadway traffic would be minor.

ALTERNATIVE 5 – MONO TREES, NO SOUTH BOWL

It is anticipated that the implementation of Alternative 5 would result in an increase in lift capacity to 5,600 guests per day at GTR. As described under the Proposed Action, these additional visitors would generate an increase in vehicle trips and parking demand and would impact the number and proportion of day and overnight visitors. It is assumed under Alternative 5 that 68 percent of visitors would be overnight visitors to the region, up from 62 percent estimated for existing.

For summer, it is anticipated that Alternative 5 would result in the same implemented projects as the Proposed Action, and increased visitation commensurate with that of the Proposed Action was assumed. Therefore, the projected parking and traffic conditions in summer as a result of the alternative implementation would be the same as under the Proposed Action.

Under this alternative, there would be 2,540 vehicles seeking to access the resort on a winter CCC day, compared to 1,660 in the existing condition and No Action Alternative (increase of 880). This includes additional non-skiing guests and employees.

Traffic

Alternative 5 would result in additional visitation and, as a result, additional vehicle trips. All additional vehicle trips would pass through the counter located at GTR and a fraction would pass through counters at all other locations included in this analysis. The expected distribution of the additional roadways that access the resort and additional methodology is included in the **Traffic and Parking Technical Report**. **Table 3.5-13** shows the total forecast vehicle trips per day with additional vehicles resulting from implementation of the proposed projects under Alternative 5 for the winter season.

Table 3.5-13. Forecasted Traffic Volumes – Alternative 5 – Winter

Location (Proximity to the Resort)	2021-2023 Winter CCC Day Average Traffic Volume	No Action Alternative Forecast Winter CCC Day Traffic Volume	Additional Vehicle Trips that Pass through the Location	Alternative 5 Forecast CCC Day Traffic Volume	Percentage Increase from No Action Alternative Traffic Volume
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	3,320	3,320	1,760	5,080	53%
2. Ski Hill Road (just east of the fork with Cemetery Road)	4,839	5,780	1,020	6,800	18%

Location (Proximity to the Resort)	2021-2023 Winter CCC Day Average Traffic Volume	No Action Alternative Forecast Winter CCC Day Traffic Volume	Additional Vehicle Trips that Pass through the Location	Alternative 5 Forecast CCC Day Traffic Volume	Percentage Increase from No Action Alternative Traffic Volume
3. SH 33 (2.4 miles south of Driggs traffic light)	8,596	11,900	480	12,380	4%
4. SH 33 (2.8 miles southeast of Victor)	5,012	7,160	320	7,480	4%
5. SH 33 (5.8 miles east of Newdale)	2,776	4,000	260	4,260	6%
6. SH 31 (3.5 miles north of Swan Valley)	1,885	3,000	40	3,040	1%
7. WY-22 (west of WY-390)	7,651	10,700	320	11,020	3%

Source: WYDOT, ITD, GTR, SE Group

The potential increase in busy day visitation (assumed to be the same as the additional lift capacity provided by the proposed projects for the purpose of this analysis) results in a 1 to 53 percent increase in traffic volume on the roads accessing the resort. The percent increase is highest at the resort entrance and on Ski Hill Road in Driggs and at or below 6 percent for all other roadways, with the lowest relative increase on SH 31 at Swan Valley.

Projected summer traffic conditions are the same as under the Proposed Action. **Table 3.5-14** summarizes the LOS at key locations under Alternative 5.

Table 3.5-14. 2032/33 LOS at Key Locations – Alternative 5

Location (by Proximity to Resort)	Winter CCC Day	
	Alt 5 LOS	No Action LOS
1. GTR Resort (Ski Hill Road, prior to Parking Lot Entrance)	D/E	D
2. Ski Hill Road (just east of the fork with Cemetery Road)	D/E	D
3. SH 33 (2.4 miles south of Driggs traffic light)	D	D
4. SH 33 (2.8 miles southeast of Victor)	D	D
5. SH 33 (5.8 miles east of Newdale)	B	B
6. SH 31 (3.5 miles north of Swan Valley)	B	B
7. WY-22 (west of WY-390)	D/E	D/E

Location (by Proximity to Resort)	Winter CCC Day	
	Alt 5 LOS	No Action LOS

Source: SE Group, Transportation Research Board

Similar to the discussion for the Proposed Action, this analysis of traffic volumes illustrates that that the proposed projects under Alternative 5 could increase the number of vehicles traveling on roadways accessing GTR; therefore, implementation of the action alternatives could contribute to the back-up in Driggs and at the resort on busy days.

Transit

Transit ridership is assumed to remain at the same percentage of day guests and employees as described in **Section 3.5.2**; because the total number of guests and employees would increase under Alternative 5, additional buses may be required to accommodate the anticipated increase in transit ridership. Impacts to transit under Alternative 5 would be to a lesser degree than under the Proposed Action; therefore, it is not anticipated that additional riders would result in measurable changes to the service. Refer to **Section 3.5.4** for a cumulative discussion of potential future transit and ridership patterns in relation to the proposed projects.

Parking

With the additional lift capacity provided by the proposed projects, and the assumed commensurate increase in visitation, an additional 744 vehicles would seek to park at one time at the resort on a winter CCC day, beyond the number seeking to do so under the No Action Alternative. This results in a total at-one-time parking demand of 2,169 vehicles on a day when visitation is at the CCC (5,600 guests).

With 1,455 spaces that would be available under proposed conditions, there would be a deficit of 714 spaces when visitation is at the CCC (5,480 guests). Refer to **Section 3.5.4** for a discussion of the cumulative impacts of this deficit.

Projected summer parking conditions are the same as under the Proposed Action.

Construction Trips

There would be a measurable increase in traffic volumes on GTR's administrative route network and roadways that access GTR during the summer months associated with construction vehicles needed to implement projects included in the alternative. Refer to **Section 2.3** of this chapter and the **Traffic and Parking Technical Report** for specific construction details in relation to parking and traffic. To estimate construction traffic patterns across seasons, this analysis determined construction periods based on the anticipated build-out of project components included for each action alternative. Construction vehicle traffic represents a temporary increase in traffic that would occur during a set construction period, which is assumed for this alternative to be each summer up for a 6-to-8-year period. Construction trips would be routed around the City of Driggs proper as best as possible to avoid city traffic.

Under Alternative 5, 2,699 truck trips are anticipated for tree removal from GTR. An additional 8,000 truck trips are anticipated for construction and staging of projects (non-tree removal), for a total of 10,699 truck trips. The construction of proposed infrastructure included in the alternative is planned to take place over 6-8 years. This likely results in 10-20 timber and other construction trips per day on average during

the summer. The trips would be a temporary increase to traffic, during the summer when winter ski traffic is not present, and therefore, the impacts to roadway traffic would be minor.

3.5.4 Cumulative Effects

TEMPORAL BOUNDS

The temporal bounds for this cumulative effects analysis for traffic and parking resources extend from GTR's founding as a resort in 1966 through the foreseeable future in which GTR can be expected to operate.

SPATIAL BOUNDS

The spatial bounds for this cumulative effects analysis for traffic and parking resources include the roadways leading to GTR and parking at the resort.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects analysis area, the reader is referred to **Appendix A**. Past ski resort and county development projects have been incorporated and analyzed in this document. Projects that could have cumulative impacts on traffic, parking, and access are analyzed below.

The implementation of the action alternatives would induce visitation increases at GTR that would have impacts related to traffic and parking. Other projects in the area would result in changes from the current conditions. These developments and effects within the Analysis Area are discussed below.

Grand Targhee Resort First Amended Master Plan – Planned Unit Development for Planned Resort

The *Grand Targhee Resort First Amended Master Plan – Planned Unit Development for Planned Resort* (PUD-PR), accepted by the Teton County, Wyoming in 2019, proposes 450 total accommodation units on private land, an increase from 97 units that currently exist. The plan requires that one parking space be constructed for each accommodation unit, 2 spaces for a single-family residence, and 1.5 spaces for a cabin or attached dwelling unit. The plan also establishes a Transportation Demand Management Program whereby the transit service would carry a minimum of 70 percent of total Employees At One Time (EAOT) at full build-out of the resort and a target of 30 percent of daily skiers (area residents or those staying off-resort) at full build-out. In summer, the transit service would be required to serve up to 40 employees per day and 20 percent of day guests (area residents and those staying off-resort), with 25 percent during events. GTR would also be required to promote carpooling and participate in locating, planning, and designing facilities to facilitate winter and summer day visitors carpooling and riding transit (i.e., expanded park and ride facilities). During the construction phase, Grand Targhee would be required to pay a road impact fee representing the proportional impacts of development during the construction phase beyond that which would ordinarily occur on Ski Hill Road (from Stateline Road to the resort entrance).

Should the accommodation units be developed, the additional required parking spaces and transit ridership may impact traffic and parking conditions leading to and at the resort. Resulting traffic volumes, level of service, and parking supply are analyzed for each alternative. In this analysis, 450 additional parking spaces was used as a conservative (low) estimate for new spaces resulting from new units,

although if more single-family homes or cabins are built, that figure may be higher. This would be the required addition beyond the current supply of parking. No assumptions were made based on GTR's required promotion of carpooling, however, if done effectively, this could result in an increase to AVO that decreases the number of vehicles seeking to access the resort. Transit ridership assumptions were made in line with the requirements (70 percent of EAOT and 30 percent of day guests).[97] The availability of more on-site lodging would also likely lead to more guests being able to stay on-resort and avoid driving up and back to the resort each day.[98] The associated reduction in vehicle trips was derived from the estimated number of guests that would be staying on-resort and riding transit, and that figure is listed below for each alternative.

Alternative 1 – No Action Alternative (Cumulative)

Under the No Action Alternative, traffic volumes are forecast to increase by the background traffic growth rate experienced from 2016 to 2022 and the continued trend of growing summer visitation. With the Colter Lift, the CCC of the mountain is 3,720 guests per day, assumed to be the level of busy day visitation. Summer visitation is expected to increase to 1,010 guests per busy day in summer 2033 (26 percent increase).

Traffic

With higher transit ridership and additional accommodations available at the resort, the number of vehicles accessing the resort on a winter CCC day is anticipated to be 1,230 vehicles per day, compared to 1,660 vehicles under the existing condition and alternative as analyzed under Direct and Indirect Environmental Consequences. In summer, 490 vehicles are anticipated to access the resort on a busy day, compared to 620 under the alternative as analyzed under Direct and Indirect Environmental Consequences and 540 under the existing condition.

Future traffic volumes, projected for 2032/33 based on the No Action Alternative and 450 on-resort lodging units and elevated transit ridership, were analyzed for this cumulative effects analysis. Under the No Action Alternative, if the buildout of the projects approved in the PUD-PR occurs, winter CCC day traffic volumes are projected to largely decline from background growth conditions and the No Action Alternative. Compared to the No Action Alternative under non-cumulative conditions, the decline is strongest at the resort entrance (-26 percent) and Ski Hill Road in Driggs (-9 percent) and relatively small at the other counters.

Similarly, summer busy day traffic volumes are projected to decline or remain constant from background growth conditions and the No Action Alternative. Compared to the No Action Alternative under non-cumulative conditions, the decline is strongest at the resort entrance (-21 percent) and relatively negligible at the other counters (0 to -2 percent change).

Lastly, LOS ratings for each counter were analyzed in comparison to non-cumulative conditions. Nearly all counters would not change in LOS for both winter and summer busy days except for at the entrance to

[97] It was assumed that a large portion of those riding transit would need to drive to the transit stop/parking and may pass these vehicle count locations. Only the number of vehicles on Ski Hill Road was reduced by assumed transit ridership.

[98] It was still assumed that some of these guests would head down Ski Hill Road on occasion within their stay for restaurants, groceries, and other goods/services.

GTR resort, which would slightly decrease in LOS (from D to C on winter CCC days and from B to A/B on summer busy days).

Transit

As described in the previous section, the PUD-PR would increase transit ridership in relation to GTR guests and employees, for a minimum of 70 percent of EAOT and 30 percent of daily skiers in the winter and 40 percent of employees and 20 percent of day guests in the summer. Improvements to the transit system and specifically to the Teton Valley Bus Service to GTR, such as additional buses, additional trips, and perhaps additional infrastructure at bus stops, may be necessary to accommodate these changes as specified in the previously approved PUD-PR.

Parking

Under the No Action Alternative and considering cumulative impacts, in winter on a day when visitation is at CCC (3,720), there would be 1,175 vehicles seeking to park at the resort at one time. This is a decrease from 1,425 as analyzed for this alternative under Direct and Indirect Environmental Consequences, as it considers a scenario where the lodging units are developed and related transit requirements are imposed.

Additional parking required with the build-out (conservatively estimated at 450 new parking spaces) is also included here. This contributes to a surplus of 730 spaces is anticipated during CCC days in the winter, compared to a 30-space surplus under Direct and Indirect Environmental Consequences.

Under the No Action Alternative, for summer days when visitation is approximately 1,010, it is anticipated that 450 vehicles would seek to park at GTR at one time, compared to 490 as analyzed for this alternative under Direct and Indirect Environmental Consequences. There remains a strong surplus of available parking during busy days in the summer under the No Action Alternative if the lodging/parking is built and transit requirements come into effect.

Alternative 2 – Proposed Action (Cumulative)

The Proposed Action alternative would result in an increase in lift capacity to 6,170 guests per day at GTR. As mentioned under Direct and Indirect Environmental Consequences, it is assumed that 70 percent of visitors would be overnight visitors to the region, up from 62 percent as estimated for existing. Many of these winter overnight visitors to the region would be staying on-resort, with an estimated 24 percent under the cumulative condition, compared to 6 percent if the additional units are not built (as analyzed under Direct and Indirect Environmental Consequences).

For summer, the additional capacity and draw presented by the new activities offered (mountain coaster, ziplines), combined with the trend of growing summer visitation, is expected to result in busy summer day visitation of 1,700 visitors per day (up from 800 at existing and 1,010 under the No Action Alternative).

Under this alternative in this cumulative condition, there would be 2,070 vehicles seeking to access the resort on a winter CCC day, compared to 2,790 vehicles as analyzed for this alternative under Direct and Indirect Environmental Consequences. Comparatively, 1,230 vehicles seek to access the resort under the No Action Alternative under this cumulative condition. For a summer busy day, there would be 740 vehicles accessing the resort, compared to 495 under the No Action Alternative under this cumulative condition and 960 under the Proposed Action as analyzed under Direct and Indirect Environmental Consequences. Transit ridership would increase to 70 percent of employees and 30 percent of day guests,

in accordance with the requirement. The additional buses required to accommodate the increase in transit ridership are incorporated.

Traffic

Additional vehicle trip calculations under the Proposed Action alternative reflect the trips both accessing and departing the resort, with the 2,070 winter CCC day vehicles resulting in 4,140 total vehicle trips and 740 summer busy day vehicles resulting in 1,480 vehicle trips. While all vehicles would pass through the counter located at the resort, a fraction pass each of the other counters, in line with the existing guest and employee origin breakdown.

In the winter, with additional on-resort lodging and increased transit ridership, vehicle counts at the resort entrance and Ski Hill Road in Driggs would decrease by 26 percent and 12 percent from the Proposed Action as analyzed under Direct and Indirect Environmental Consequences. Decreases at other counters range from 6 percent to 1 percent. The increase from the cumulative No Action Alternative is relatively in line with the increase analyzed under Direct and Indirect Environmental Consequences.

In the summer, with additional on-resort lodging and increased transit ridership, vehicle counts at the resort and Ski Hill Road would decrease by 23 percent and 4 percent from the Proposed Action as analyzed under Direct and Indirect Environmental Consequences. Decreases at other counters would be negligible. The increase from the cumulative No Action Alternative is relatively in line with the increase analyzed under Direct and Indirect Environmental Consequences.

Lastly, LOS ratings for each counter were analyzed in comparison to non-cumulative conditions. The forecast LOS ratings would only change for summer, with a grade improvement (from C to B) at the resort entrance and half a grade improvement (from D/E to D) at Ski Hill Road in Driggs.

Transit

As described previously, the PUD-PR would increase transit ridership in relation to GTR guests and employees, for a minimum of 70 percent of EAOT and 30 percent of daily skiers in the winter and 40 percent of employees and 20 percent of day guests in the summer. Improvements to the transit system and specifically to the Teton Valley Bus Service to GTR, such as additional buses, additional trips, and perhaps additional infrastructure at bus stops, may be necessary to accommodate these changes under the Proposed Action, to a greater degree than the No Action Alternative due to estimated increases in annual resort visitation and the higher numbers of employees and guests that would correspond to the percentages stated in the PUD-PR.

Parking

With the additional lift capacity provided by the proposed projects, the assumed commensurate increase in visitation, and increased transit ridership in accordance with the requirements of the GTR *First Amended Master Plan – Planned Unit Development for Planned Resort,* 1,883 vehicles would seek to park at-one-time at the resort when visitation is at the CCC (6,170 guests). This is an increase from 1,175 from the No Action Alternative as analyzed under cumulative and a decrease from 2,382 from the Proposed Action as analyzed under Direct and Indirect Environmental Consequences. An additional 450 parking spaces are included here associated with the requirements of the build-out of additional accommodation units.

With 1,905 spaces available under cumulative conditions, there would be a small surplus of spaces when visitation is at the CCC (6,170 guests), representing a well-balanced condition. This is a decrease from the

deficit of 927 spaces as analyzed for the Proposed Action under Direct and Indirect Environmental Consequences.

For summer days under this cumulative scenario when visitation is approximately 1,700 guests per day, 751 vehicles would seek to park at-one-time at the resort. This is an increase of 233 from the No Action Alternative as analyzed under cumulative and a decrease of 142 from the Proposed Action as analyzed under Direct and Indirect Environmental Consequences. An additional 450 parking spaces are included here associated with the requirements of the build-out of additional accommodation units.

With 1,975 spaces that would be available under cumulative conditions, there would be a surplus of 1,224 spaces when visitation is at 1,700 guests. This is an increase in the surplus as analyzed for the Proposed Action under Direct and Indirect Environmental Consequences (572-space surplus).

Alternative 3 – No SUP Expansion (Cumulative)

It is anticipated that Alternative 3 would result in an increase in lift capacity to 4,910 guests per day at GTR. As analyzed under Direct and Indirect Environmental Consequences, it is assumed that 65 percent of visitors would be overnight visitors to the region, up from 62 percent estimated for existing. For this alternative, the number of guests staying on-resort increases to 29 percent of overnight visitors to the region, up from 7 percent under if the accommodations are not built.

For summer, it is anticipated that Alternative 3 would result in the same implemented projects as the Proposed Action, and increased visitation commensurate with that of the Proposed Action was assumed. Therefore, the projected parking and traffic conditions in summer as a result of the alternative implementation would be the same as under the Proposed Action.

Under this alternative in this cumulative condition, there would be 1,640 vehicles seeking to access the resort on a winter CCC day, compared to 2,220 vehicles as analyzed for this alternative under Direct and Indirect Environmental Consequences. Comparatively, 1,230 vehicles seek to access the resort on a winter CCC day in the existing condition/No Action Alternative. Transit ridership would increase to 70 percent of employees and 30 percent of day guests, in accordance with the requirement. The additional buses required to accommodate the increase in transit ridership are incorporated.

Traffic

Additional vehicle trip calculations under Alternative 3 reflect the trips both accessing and departing the resort, with the 1,640 winter CCC day vehicles resulting in 3,280 total vehicle trips. While all vehicles would pass through the counter located at the resort, a fraction pass each of the other counters, in line with the existing guest and employee origin breakdown. Projected summer traffic conditions are the same as under the Proposed Action (see previous section).

With additional on-resort lodging and increased transit ridership, vehicle counts at the resort and Ski Hill Road in Driggs would decrease by 26 percent and 11 percent from Alternative 3 as analyzed under Direct and Indirect Environmental Consequences. Decreases at other counters range from 5 to 1 percent. The increase from the cumulative No Action Alternative is relatively in line with the increase analyzed under Direct and Indirect Environmental Consequences.

Lastly, LOS ratings for each counter were analyzed in comparison to non-cumulative conditions. The forecast LOS ratings would only change at the resort and Ski Hill Road in Driggs, with a half grade improvement from LOS D/E to LOS D at both locations.

Transit

As described previously, the PUD-PR would increase transit ridership in relation to GTR guests and employees, for a minimum of 70 percent of EAOT and 30 percent of daily skiers in the winter and 40 percent of employees and 20 percent of day guests in the summer. Improvements to the transit system and specifically to the Teton Valley Bus Service to GTR, such as additional buses, additional trips, and perhaps additional infrastructure at bus stops, may be necessary to accommodate these changes under Alternative 3, to a greater degree than the No Action Alternative due to estimated increases in annual resort visitation, but to a lesser degree than under the Proposed Action.

Parking

With the additional lift capacity provided by the proposed projects, the assumed commensurate increase in visitation, and increased transit ridership in accordance with the requirements of the *Grand Targhee Resort First Amended Master Plan – Planned Unit Development for Planned Resort,* 1,528 vehicles would seek to park at-one-time at the resort when visitation is at the CCC (4,910 guests). This is an increase from 1,175 from the No Action Alternative as analyzed under cumulative and a decrease from 1,877 from Alternative 3 as analyzed under Direct and Indirect Environmental Consequences. An additional 450 parking spaces are included here associated with the requirements of the build-out of additional accommodation units.

With 1,905 spaces available under cumulative conditions, there would be a surplus of 377 spaces, compared to a deficit of 422 spaces as analyzed under Direct and Indirect Environmental Consequences. This represents a strong surplus of parking.

Projected summer parking conditions are the same as under the Proposed Action under the cumulative section.

Alternative 4 – South Bowl, No Mono Trees (Cumulative)

It is anticipated that Alternative 4 would result in an increase in lift capacity to 5,480 guests per day at GTR. As analyzed under Direct and Indirect Environmental Consequences, it is assumed that 69 percent of visitors would be overnight visitors to the region, up from 62 percent estimated for existing. For this alternative, the number of guests staying on-resort increases to 26 percent of overnight visitors to the region, up from 6 percent under if the accommodations are not built.

For summer, it is anticipated that Alternative 4 would result in the same implemented projects as the Proposed Action, and increased visitation commensurate with that of the Proposed Action was assumed. Therefore, the projected parking and traffic conditions in summer as a result of the alternative implementation would be the same as under the Proposed Action.

Under this alternative in this cumulative condition, there would be 1,830 vehicles seeking to access the resort on a winter CCC day, compared to 2,480 vehicles as analyzed for this alternative under Direct and Indirect Environmental Consequences. Comparatively, 1,230 vehicles seek to access the resort on a winter CCC day in the existing condition/No Action Alternative. Transit ridership would increase to 70 percent of employees and 30 percent of day guests, in accordance with the requirement. The additional buses required to accommodate the increase in transit ridership are incorporated.

Traffic

Additional vehicle trip calculations under Alternative 4 reflect the trips both accessing and departing the resort, with the 1,830 winter CCC day vehicles resulting in 3,660 total vehicle trips. While all vehicles

would pass through the counter located at the resort, a fraction pass each of the other counters, in line with the existing guest and employee origin breakdown. Projected summer traffic conditions are the same as under the Proposed Action (see previous section).

With additional on-resort lodging and increased transit ridership, vehicle counts at the resort and Ski Hill Road in Driggs would decrease by 26 percent and 11 percent from Alternative 4 as analyzed under Direct and Indirect Environmental Consequences. Decreases at other counters range from 5 to 1 percent. The increase from the cumulative No Action Alternative is relatively in line with the increase analyzed under Direct and Indirect Environmental Consequences.

Lastly, LOS ratings for each counter were analyzed in comparison to non-cumulative conditions. The forecasted LOS ratings would only change at the resort, with a half grade improvement from LOS D/E to LOS D.

Transit

As described previously, the PUD-PR would increase transit ridership in relation to GTR guests and employees, for a minimum of 70 percent of EAOT and 30 percent of daily skiers in the winter and 40 percent of employees and 20 percent of day guests in the summer. Improvements to the transit system and specifically to the Teton Valley Bus Service to GTR, such as additional buses, additional trips, and perhaps additional infrastructure at bus stops, may be necessary to accommodate these changes under Alternative 4, to a greater degree than the No Action Alternative due to estimated increases in annual resort visitation, but to a lesser degree than under the Proposed Action.

Parking

With the additional lift capacity provided by the proposed projects, the assumed commensurate increase in visitation, and increased transit ridership in accordance with the requirements of the *Grand Targhee Resort First Amended Master Plan – Planned Unit Development for Planned Resort,* 1,680 vehicles would seek to park at-one-time at the resort when visitation is at the CCC (5,480 guests). This is an increase from 1,175 from the No Action Alternative as analyzed under cumulative and a decrease from 2,109 from Alternative 4 as analyzed under Direct and Indirect Environmental Consequences. An additional 450 parking spaces are included here associated with the requirements of the build-out of additional accommodation units.

With 1,905 spaces available under cumulative conditions, there would be a surplus of 225 spaces, compared to a deficit of 654 spaces as analyzed under Direct and Indirect Environmental Consequences.

Projected summer parking conditions are the same as under the Proposed Action under the cumulative section.

Alternative 5 – Mono Trees, No South Bowl (Cumulative)

It is anticipated that Alternative 5 would result in an increase in lift capacity to 5,600 guests per day at GTR. As analyzed under Direct and Indirect Environmental Consequences, it is assumed that 68 percent of visitors would be overnight visitors to the region, up from 62 percent estimated for existing. For this alternative, the number of guests staying on-resort increases to 26 percent of overnight visitors to the region, up from 6 percent under if the accommodations are not built.

For summer, it is anticipated that Alternative 5 would result in the same implemented projects as the Proposed Action, and increased visitation commensurate with that of the Proposed Action was assumed.

Therefore, the projected parking and traffic conditions in summer as a result of the alternative implementation would be the same as under the Proposed Action.

Under this alternative in this cumulative condition, there would be 1,870 vehicles seeking to access the resort on a winter CCC day, compared to 2,540 vehicles as analyzed for this alternative under Direct and Indirect Environmental Consequences. Comparatively, 1,230 vehicles seek to access the resort on a winter CCC day in the existing condition/No Action Alternative. Transit ridership would increase to 70 percent of employees and 30 percent of day guests, in accordance with the requirement. The additional buses required to accommodate the increase in transit ridership are incorporated.

Traffic

Additional vehicle trip calculations under Alternative 5 reflect the trips both accessing and departing the resort, with the 1,870 winter CCC day vehicles resulting in 3,740 total vehicle trips. While all vehicles would pass through the counter located at the resort, a fraction pass each of the other counters, in line with the existing guest and employee origin breakdown. Projected summer traffic conditions are the same as under the Proposed Action (see previous section).

With additional on-resort lodging and increased transit ridership, vehicle counts at the resort and Ski Hill Road in Driggs would decrease by 26 percent and 11 percent from Alternative 5 as analyzed under Direct and Indirect Environmental Consequences. Decreases at other counters range from 6 to 1 percent. The increase from the cumulative No Action Alternative is relatively in line with the increase analyzed under Direct and Indirect Environmental Consequences.

Lastly, LOS ratings for each counter were analyzed in comparison to non-cumulative conditions. The forecasted LOS ratings would only change at the resort, with a half grade improvement from LOS D/E to LOS D.

Transit

As described previously, the PUD-PR would increase transit ridership in relation to GTR guests and employees, for a minimum of 70 percent of EAOT and 30 percent of daily skiers in the winter and 40 percent of employees and 20 percent of day guests in the summer. Improvements to the transit system and specifically to the Teton Valley Bus Service to GTR, such as additional buses, additional trips, and perhaps additional infrastructure at bus stops, may be necessary to accommodate these changes under Alternative 5, to a greater degree than the No Action Alternative due to estimated increases in annual resort visitation, but to a lesser degree than under the Proposed Action.

Parking

With the additional lift capacity provided by the proposed projects, the assumed commensurate increase in visitation, and increased transit ridership in accordance with the requirements of the *Grand Targhee Resort First Amended Master Plan – Planned Unit Development for Planned Resort,* 1,730 vehicles would seek to park at-one-time at the resort when visitation is at the CCC (5,600 guests). This is an increase from 1,175 from the No Action Alternative as analyzed under cumulative and a decrease from 2,169 from Alternative 5 as analyzed under Direct and Indirect Environmental Consequences. An additional 450 parking spaces are included here associated with the requirements of the build-out of additional accommodation units.

With 1,905 spaces available under cumulative conditions, there would be a surplus of 175 spaces, compared to a deficit of 714 spaces as analyzed under Direct and Indirect Environmental Consequences. This represents a strong surplus of parking.

Projected summer parking conditions are the same as under the Proposed Action under the cumulative section.

ADDITIONAL PAST, PRESENT AND REASONABLY FORESEEABLE PROJECTS

The Grand Targhee MDP, accepted by the Forest Service in 2018, includes several projects (i.e., chairlift upgrades, terrain expansions, summer trail expansions, additional snowmaking) that may generate increases in visitation and result in increases to traffic and parking demand. Prior to the implementation of projects on the NFS lands a traffic and parking analysis would be conducted to determine impacts to traffic and parking conditions.

The City of Driggs Comprehensive Plan has designated several areas along or near Ski Hill Road in Driggs for low density residential, single family residential, and high density residential development. Corridor residential development would result in an increase to daily traffic volumes and turning movements onto and along Ski Hill Road. This increase in residential traffic may compound the ski area traffic and backups along Ski Hill Road through Driggs.

The City of Driggs has planned several transportation projects in its Transportation Plan and Capital Improvements Plan. The City has budgeted to expand the transit center parking lot. These 55 new spaces may support additional guests utilizing Teton Valley Bus Service.

The Jackson/Teton (Wyoming) Integrated Transportation Plan includes Transportation Demand Management strategies for Teton Pass. These strategies include encouraging use of transit, carpooling promotion, and regional ride matching towards reducing vehicles driving over Teton Pass.

3.5.5 Irreversible and Irretrievable Commitments of Resources

No irreversible and/or irretrievable commitments of resources in relation to traffic, parking, or ski area access have been identified in association with any of the alternatives analyzed in this document.

3.6 Cultural Resources

3.6.1 Scope of the Analysis

As required by the National Historic Preservation Act (NHPA), this cultural resource assessment aims to evaluate the potential impact of the federal undertaking on cultural resources. Special attention is paid to analyzing the potential effects on cultural resources that are listed in or eligible for listing in the National Register of Historic Places (NRHP). The term "cultural resources" may encompass various types of sites, areas, buildings, structures, districts, and objects that hold scientific, historic, and/or social values to one or more cultural groups, as defined by 36 CFR § 296.3. Other applicable laws include: The Native American Grave Protection and Repatriation Act (NAGPRA), (P.L. 101-601); The American Indian Religious Freedom Act of 1978 (P.L. 96-341); and The Religious Freedom Restoration Act of 1993 (P.L. 1-3-141).

NRHP eligibility is evaluated in terms of the integrity of the resource; its association with significant persons, events, or patterns in history or prior to European arrival (a period entitled prehistory or

precontact) its engineering, artistic, or architectural values; or its information potentially relative to important research questions in history or the precontact. Cultural resource work for the Proposed Action proceeded under a Programmatic Agreement (PA) entered into by various Forest Service units in Wyoming, the Wyoming State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP), as provided in 36 CFR § 800.14.[99] The PA provides for several process stipulations governing how the Forest Service will implement its compliance with Section 106 of the NHPA at a programmatic level. The intent of the PA is to streamline the SHPO consultation process and allow for timelier implementation and approvals and permitting activities for its programs and for activities of proponents and applicants operating on federal lands under Forest Service administration. This is particularly true for projects for which a finding of "no historic properties affected" is made by the Forest Service.

As part of the Grand Targhee Environmental Impact Statement, the CTNF engaged in government-to-government consultation with potentially affected tribes. During the scoping comment period, the Forest Service sent a document to potentially affected tribes to inform them of the proposed project and to invite their input. The Forest Service recognizes the importance of tribal knowledge and cultural uses of the land and resources, and encouraged direct contact with the District Ranger to provide any information that could inform project development. To maintain confidentiality for the individual entities consulted as part of the tribal consultation the details of government-to-government consultation are maintained internally by the CTNF.

The following analysis relies on reporting from Metcalf Archaeological Consultants, Inc. a cultural resource contractor that completed the Class I and Class III cultural resource inventory and produced the *Grand Targhee Resort: Class III Cultural Resource Inventory for the 10-year Master Development Plan, Teton County, Wyoming* (Cultural Resources Technical Report).

3.6.2 Affected Environment

The project area is located within the western edge of the Teton Range between South Leigh Creek Canyon to the north and Teton Canyon to the south.[100] As it relates to cultural resources, the project area is a conifer-dominated forest intermixed with aspen; and possesses sand loams with mixed angular gravels (refer to **Section 3.5**, **Section 3.12**, and **Section 3.14** for more information and description of the project area). The slope areas have poor and unstable depositional environments that have poor potential of buried cultural materials. Ridges are heavily deflated and are very unlikely to have good potential for buried deposits except in isolated areas where microtopography may have allowed sediments to accumulate. Bench landforms have moderate potential for cultural materials. Stable alluvial floodplains are uncommon in the area and limited in extent along the primary drainages. However, where present, these have elevated potential for buried deposits, especially along the narrow corridor of the permanent flowing stream channel of Mill Creek.

[99] Programmatic Agreement amount the USDA Forest Service, Wyoming Forests, Wyoming State Historic Preservation Officer, and Advisory Council on Historic Preservation, Regarding Compliance with the National Historic Preservation Act on the National Forests and Grasslands of Wyoming. October 2008. Available for download here: https://wyoshpo.wyo.gov/index.php/programs/review-and-consultation-s106
[100] Fenneman 1946

CULTURAL HISTORY OF THE NATURAL ENVIRONMENT

For this cultural history, cultural contexts for the eastern Snake River Plain, which abuts the project area, provide a broad chronological overview, and are enhanced by observations made at archaeological sites nearer to and within the project area. These broad overviews include the 2004 Idaho National Engineering and Environmental Laboratory Cultural Resource Management Plan,[101] as well as Franzen's Southeastern Idaho Cultural Resources Overview,[102] Burley and Idaho Falls Districts, and Lohse's Southeastern Idaho Native American Prehistory and History.[103] These projects have identified a distinct presence of Native American activity in the alpine, with numerous site types ranging from lithic scatters and quarries to open camps and ice patches. While many of the sites are unevaluated and lacking diagnostics, they help dispel the popular public perception of these environments (tree line and above) as "wilderness, devoid of humans and their activities."[104] Other site types also provide evidence of historic era use ranging from Civilian Conservation Corps activity to lost items likely related to boy scouting activities.[105]

Early Precontact Period (15,000 to 7,500 years before present [BP])

For the Snake River Plain, Wilson Butte Cave provides the earliest evidence of human occupation, with deposits dating to ca. 14,500 BP.[106] More proximate to the project area, Pitblado and Fowler[107] identified three sites with Clovis components in the western margin of the Teton Valley on a terrace of the Teton River. These sites suggest a deeply rooted lifeway based on seasonally focused hunting and gathering that likely continued up until EuroAmerican contact. Ice Age fauna, including mammoth, camel, horse, and bison would have been available in the sagebrush grasslands, and around playas with bighorn sheep present in the mountains. These species would have been hunted with fluted and stemmed projectile points that have been recovered from surface contexts, as well as from sites excavated near the Idaho National Engineering and Environmental Laboratory.[108]

Middle Precontact Period (7,500 to 1,300 BP)

The Middle Precontact Period is marked by the appearance of smaller notched and stemmed projectile point forms that were used to hunt bison, pronghorn, mountain sheep, and deer. Ground stone also appears at this time, suggesting plant foods like camas were becoming increasingly important. Projectile point styles suggest that people from the Great Basin and the northwestern Plains occupied and/or influenced the eastern Snake River Plain at various times during the period.[109] Of particular relevance is the ongoing excavation occurring at the multicomponent Linn site between the present-day towns of Victor and Driggs, Idaho. The Linn site is a stratified, multicomponent campsite with a complex assemblage, including ground stone, drills, bifaces, and more.[110] Projectile point styles identified at the

[101] INEEL 2004
[102] Franzen 1981
[103] Lohse 1993
[104] U.S. Congress 1964
[105] Peterson 2019a
[106]Gruhn 2006
[107] Pitblado and Fowler 2010
[108] Pitblado et al. 2011; INEEL 2004
[109] Franzen 1981; INEEL 2004; Lohse 1993
[110] Sgouros and Stirn 2016

site span the Early Precontact Period through the Late Precontact period and include Cody Complex, McKean, Elko, and Rose Spring styles.

Late Precontact Period (1,300 to 150 BP)

The primary cultural change to occur during the advent of the Late Precontact Period was the adoption of bow and arrow technology and more diminutive projectile point styles; however, large lanceolate and corner-notched points continue to be present in small numbers. Projectile point styles consistent with the Great Basin Rosegate Series and the Northwestern Plains Avonlea types occur early in this period, followed by small side- and tri-notched projectile points. After about 700 BP, ceramics – most notably Shoshonean Intermountain Ware – appear with increasing frequency. Ground stone artifacts like mortars and pestles provide evidence for the use of camas and biscuitroot. The Wahmuza site, Baker Caves, and Aviator's Cave are important archaeological sites of this period.[111]

The assemblages from excavated sites suggest that at least some of the population spent winter months at camps along the Snake River and likely relied on stored foods, including bison, deer, camas, and biscuitroot. The continuance of lifeways based on seasonally focused hunting and gathering likely resulted in people utilizing the alpine environments in the project area and beyond, including parkland caldera of Yellowstone National Park, for seasonally abundant resources and to engage in trading relationships with other tribal groups living in the Greater Yellowstone Area.[112]

Protohistoric Period (300 to 150 BP)

This period is characterized by the introduction of the domesticated horse and exposure to EuroAmerican trade goods, including the gun, for many aboriginal groups.[113] Both resulted in considerable social, political, and economic change, including expanded range, increased warfare, and changes in leadership structure.

Historic Period – Native American

Numerous Native American groups, including the Nez Perce, Blackfeet, Sioux, and others, used the Snake River Plain for resources, transportation, and trade; however, the Shoshone and the Bannock (Northern Paiute) were two of the main groups that occupied the area. The Shoshone and Bannock tribes were highly nomadic and accessed a wide variety of seasonally available resources on the Snake River Plain and in adjacent uplands and mountains. During the winter months, people congregated in large winter villages along the Snake River in the Fort Hall area, dispersing into smaller groups in the spring. Important springtime resource areas included the Twin Falls area for salmon and the Fairfield/Dubois area for camas. In the late summer and early fall, the focus shifted mainly to hunting large game on the Great Plains and in Wyoming, although some people moved north into the Salmon River area for the late season salmon run. The introduction of the horse in the early 19th century allowed for greater mobility, increases in group size, and greater defense against outside groups.

The first documented encounter between Native American and EuroAmerican groups near the project area occurred in 1805 when the Lewis and Clark expedition met a group of Shoshone on the Continental Divide at Lemhi Pass (Idaho/Montana border). Following that, interaction between Native Americans and

[111] INEEL 2004; Lohse 1993
[112] MacDonald 2018; Lee and Metcalf 2011; Scheiber and Finley 2011
[113] INEEL 2004

EuroAmericans was largely limited to trappers, traders, miners, and small groups of mostly Mormon settlers until the mid-1850s and 1860s when there was a marked increase in immigrant traffic and settlement of the region. This led to increased settler violence towards native groups and the establishment of military forts like Fort Hall, south of the project area on the Snake River. Increasing contact with EuroAmericans defined by direct colonial violence, policies of removal, and brutal massacres as well as the introduction of disease decimated aboriginal populations. This ultimately led to the establishment of the Fort Hall Indian Reservation under the terms of the Fort Bridger Treaty of 1868. The Fort Hall Indian Reservation is located near present-day Pocatello, Idaho, which now serves as a home for the federally recognized of the Shoshone-Bannock Tribes.[114]

Historic Period – EuroAmerican

The rich soils of southeast Idaho facilitated farming and ranching since the late 19th and early 20th centuries. EuroAmerican settlement began in the 1880s, with the arrival of predominantly Mormon families from northern Utah. These settlers engaged in agriculture in and around the bottomlands of the Snake River. In response to limited rainfall and seasonal fluctuations of the Snake River, farmers developed irrigation systems, transforming the landscape.

The arrival of the railroad in the area in 1900, revolutionized farming, linking farmers to larger markets.[115] Consistent with national trends, however, the agricultural and economic depression in the 1920s and 1930s slowed area development and the population decreased. The creation of soil and water conservation districts in the late 1930s through the 1950s provided some help, allowing area farmers and ranchers to manage and maintain their agricultural lifeways.[116]

CULTURAL RESOURCE SURVEY – INVENTORY RESULTS

The cultural resource Class III inventory covered 1,586 acres, and resulted in the recordation of 11 cultural resources, including 10 sites (eight historic and two precontact) and one precontact isolated find within the area of potential effect (APE). Limited precontact cultural resources in the project area are likely due to its geography and ecology, which are unsuitable for significant or long-term residential or resource procurement sites. Alluvial cobbles (mostly quartzite and chert) were used for lithic testing and procurement, and the Mill Creek corridor may have served as a route of seasonal migration. Historic resources include a mid-20th century automobile road (the original and still operable entry road to GTR), a hiking trail, GTR original ski area buildings, and EuroAmerican historic arborglyphs. Two historic buildings and Ski Hill Road are recommended eligible for the National Register, while a precontact chipped stone scatter should be tested before construction of the proposed projects. All remaining cultural resources are not eligible for the National Register. See **Table 3.6-1** for a breakdown of a newly recorded isolate and other sites. The two precontact sites and the single isolated find are chipped stone artifact scatters, known as lithic scatters, consisting of chert and quartzite lithics. Three sites feature historic EuroAmerican arborglyphs in aspen stands, three are historic buildings associated with GTR's early development history (the Nature Center, Sioux, and Targhee Lodges), and a historic road (Ski Hill Road) and historic trail were also recorded.

[114] INEEL 2004; Lohse 1993; Shoshone-Bannock Tribes 2016
[115] Jorgenson 1979
[116] Ibid

Table 3.6-1. Newly recorded sites and isolated find in the project area.

Site / Isolated find #	Period	Description/name	NRHP Recommendation
48TE2168	Historic	Arborglyph	Not Eligible
48TE2169	Historic	Arborglyph	Not Eligible
48TE2170	Historic	Arborglyph	Not Eligible
48TE2171	Precontact	Lithic Scatter	Unevaluated (further testing recommended)
48TE2172	Precontact	Lithic Scatter	Not Eligible
IF-CA-01 (isolated find)	Precontact	Lithic Scatter	Not Eligible
48TE2173	Historic	Building (Sioux Lodge)	Eligible
48TE2174	Historic	Building (Targhee Lodge)	Not Eligible
48TE2175.1	Historic	Forest Trail 025	Not Eligible
48TE2176	Historic	East Alta Ski Hill Road	Eligible
48TE2177	Historic	Historic Building (Nature Center)	Eligible

The final Class III resource report was accepted by the CTNF and was submitted to the Wyoming SHPO for official consultation and concurrence on March 29, 2023. The Wyoming SHPO office concurred that the development of the proposed project would not affect historic properties on March 6, 2024. However, they did not concur with the NRHP eligibility for three sites at GTR including the Sioux Lodge, Targhee Lodge, and the Nature Center Building. They recommended that these three sites remain NRHP unevaluated pending additional research into the historic context of the resort buildings. They also recommended that the East Alta Ski Road be considered NRHP not eligible. No project actions would occur on the Sioux Lodge, Targhee Lodge, the Nature Center Building, or East Alta Ski Road.

Cultural resources are nonrenewable, with few exceptions. Once the resource is disturbed, damaged, moved, altered, or removed, nothing can recover the information that could have been gained through analysis, or replace the opportunity for individuals to understand and experience the site. Forest Service management activities, public use, and natural processes have impacted cultural resources. Damage from vandalism (e.g., looting) continues to be a management issue. Current forest management practices are aimed at minimizing and/or avoiding negative impacts to cultural resources. This is accomplished primarily through compliance with Section 106 of the National Historic Preservation Act.

3.6.3 Direct and Indirect Environmental Consequences

This section describes the effects of the proposed projects and alternatives on historic properties and cultural resources. Management of culture and history is an important part of federal land management policy and practice. Preservation of these resource helps to give a sense of orientation to the people and

groups whose ancestors left behind traces of their legacy in archaeological sites, historic properties, traditional cultural places, areas of importance, and sacred sites. Cultural resources tell the story of the changes in the environment and how humans benefited, impacted, or were otherwise affected by their use of the landscape and varying environmental conditions through time.

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Under the No Action Alternative, activities at GTR would essentially be a continuation of existing conditions. No new development projects either within GTR's existing or proposed SUP expansion area would occur. GTR would continue to operate under its current configuration and capacity. There would be no direct or indirect impacts to cultural resources and therefore no cumulative impacts from proposed development. The implementation of the No Action Alternative would not change or alter the characteristics of or the integrity of cultural resources within the project area.

EFFECTS COMMON ALL ACTION ALTERNATIVES (ALTERNATIVES 2-5)

Site 48TE2168

Site 48TE2168, a historic arborglyph inscription, is located within, an area of proposed terrain development under Alternatives 2 through 5 within the current SUP area of GTR. The proposed terrain development would involve some combination of glading and surface grading, which could impact this site. This site has been recommended *not eligible* for inclusion in the NRHP. Although the site retains integrity, archival research did not reveal that the site is associated with any significant events in the history of this area (Criterion A), nor did research into the name present on the tree reveal a person who was significant to the history of the area (Criterion B). This site does not have any distinctive design or construction characteristics (Criterion C), and it does not hold the potential to yield further information important to our understanding of the history of the area, either through more fieldwork or archival research (Criterion D).

The Sioux Lodge (Site 48TE2173)

The Sioux Lodge is located on private land within the existing operational boundary of the ski resort. Although snowmaking and terrain development are proposed in the area immediately north of the lodge under Alternatives 2 through 5, the lodge itself would not be impacted. The Sioux Lodge has been determined to be *eligible* for inclusion in the NRHP under Criterion C. Since it would not be altered by any of the action alternatives, there would be no effect to the Sioux Lodge.

The Targhee Lodge (Site 48TE2174)

The Targhee Lodge is separated from any proposed developments included in Alternatives 2 through 5 by about 80 feet, a space that is occupied by another structure. No changes to the Targhee Lodge are proposed. The Targhee Lodge does not retain sufficient integrity to meet the requirements of Criterion C, having lost character defining features and being impacted by the development of a modern building immediately abutting the north end of the lodge. The building is no longer readily identifiable as part of the original development of the resort. For these reasons the Targhee Lodge has been determined to be *not eligible* for inclusion in the NRHP. As none of the Proposed Action alternatives would include any modifications to the Targhee Lodge, it is expected that there would be no impact to this cultural resource.

Site 48TE2175.1

Site 48TE2175.1, Forest Trail 025, is a recorded trail segment high in the ski area just below the ridgeline of Fred's Mountain and below Mary's Nipple. Only the northwestern-most 100 feet would be impacted by proposed terrain development, glading, and grading in the existing SUP. The trail extends into the proposed (in Alternatives 2 and 4) South Bowl SUP expansion area but in locations of the South Bowl SUP expansion area that are not proposed to be disturbed. This site, Forest Trail 025, has been determined to be *not eligible* for inclusion in the NRHP as it fails to qualify under any of the criteria. Under the action alternatives, limited disturbance may occur to the northwestern 100 feet of this trail as a result of terrain development. This resource has been recommended ineligible for listing in the NRHP.

Site 48TE2176

Site 48TE2176, East Alta Ski Hill Road, has been determined to be *eligible* for inclusion in the NRHP under Criterion A for its direct association with GTR. The development of GTR has had a substantial impact on the Teton Valley providing recreation opportunities and economic stimulus. Today, the current alignment of the road is a paved, two-lane thoroughfare. The abandoned hairpin portion of the road remains a crown-and-ditch dirt road. The road is in excellent condition. Regular maintenance keeps it functional and allows it to continue to serve its original purpose of providing access to GTR. Since there would be no change to this eligible property, no effect is anticipated under any of the action alternatives to this site, the East Alta Ski Hill Road. The road is located partially within the current SUP boundary, and a short additional section of the road overlaps the proposed Mono Trees SUP expansion. The proposed projects do not include anything that would encroach upon or alter the existing road; therefore, no impacts would be anticipated to this resource under any of the alternatives.

The Nature Center (Site 48TE2177)

The Nature Center is adjacent to the active ski area and immediately adjacent to the proposed Summer Activity Zone and terrain development, glading, and grading areas under Alternatives 2 through 5. The building; however, is not proposed to be altered for those projects and would be avoided. The addition of a modern porch and windows to the southwest elevation and a porch to the northeast elevation impacts integrity of design and materials. Integrity of location, setting, workmanship, feeling, and association are retained. The Nature Center building is recommended as *eligible* under Criterion C given that it retains sufficient integrity and its character defining features. Original to the resort, which opened in 1969, this building boasts a distinctive design characteristic of the resort's early years reflected in the other buildings original to the resort (Sioux Lodge, 48TE2173; and Targhee Lodge, 48TE2174). The modern additions are readily distinguishable from the original building and could be easily removed. As the array of Proposed Actions under the full range of alternatives do not include any modifications to this building, it is anticipated that there would be no impact.

ALTERNATIVE 2 – PROPOSED ACTION

Under the Proposed Action, several additional sites may be impacted due to proposed development specifically in the Mono Trees SUP expansion area where multiple cultural resources recommended *not eligible* or *unevaluated* for NRHP occur. Further testing (or site avoidance) is recommended to determine NRHP recommendation for the *unevaluated site.*

Site 48TE2169

This site includes historic arborglyphs carved into the bark of aspen trees. Site 48TE2169, recommended *not eligible*, is located along a proposed new road/skiway access corridor in Mono Trees SUP expansion area, which may impact or remove some of the site's inscribed trees (EuroAmerican historic arborglyphs) under the Proposed Action.

Site 48TE2170

This site includes historic arborglyphs carved into the bark of aspen trees. Site 48TE2170, recommended *not eligible*, is located within the proposed Mono Trees SUP Expansion Area and within areas proposed for terrain development, consisting of a combination of glading and surface grading. The Proposed Action may impact or remove this site composed of historic EuroAmerican arborglyphs.

Site 48TE2171

Site 48TE2171, recommended as *unevaluated* for eligibility to the National Register, is along a proposed access road/skiway, within the Mono Trees SUP expansion area, which would serve new ski terrain proposed for development under the Proposed Action. Without flagging and avoidance, this potentially NRHP-eligible site would be impacted by future developments. Avoidance or a small-scale testing effort is recommended to assess eligibility of this site prior to any development.

Site 48TE2172

This newly recorded site is a precontact artifact scatter of unknown age featuring coarse-grained quartzite alluvial/glacial cobbles displaying flake scars, fracturing, or battering, indicating human use, with the majority exhibiting only one or two flake scars, implying the material was subjected to testing for lithic reduction. Site 48TE2172, recommended *not eligible*, is within the proposed Mono Trees SUP Expansion Area, but outside of areas proposed for specific developments. This site is avoided and would not be impacted by the proposed developments under the Proposed Action.

Isolated Find IF-CA-01

Isolated find IF-CA-01 consists of five pieces of debitage, two chert expedient tools and two quartzite cores, and is recommended *not eligible* for listing in the NRHP. This isolated find is located in the Mono Trees SUP expansion area along Mill Creek, but outside of the various development elements proposed under the Proposed Action. No impacts would be expected to this isolated find under the Proposed Action.

ALTERNATIVE 3 – NO SUP EXPANSION

Under Alternative 3 no SUP expansion would occur. Proposed projects would occur within GTR's existing SUP area. Sites located within the existing SUP include 48TE2168, the Sioux Lodge (48TE2173), the Targhee Lodge (48TE2174), 48TE2175.1, 48TE2176, and The Nature Center (48TE2177). No changes are proposed to the existing conditions of any of these sites within the existing SUP and therefore no impact would be expected under Alternative 3. Given that Alternative 3 does not propose expansion outside of the existing SUP, Alternative 3 would have no effect on cultural resources outside of the existing SUP. Impacts to cultural resources within the SUP would be consistent with those described under the discussion of *Effects Common to All Alternatives*.

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

For project elements specific to Alternative 4, only site 48TE2175.1 (Forest Trail 025), is within the proposed South Bowl expansion area. While this alternative would impact the historic trail, it would avoid the impacts to resources in Mono Trees that would occur under Alternatives 2 and 5. This site was recommended not eligible for inclusion in the NRHP. The trail extends into the South Bowl SUP expansion area in locations slated for terrain development. Impacts to cultural resources within the SUP would be consistent with those described under the discussion of *Effects Common to All Alternatives*.

ALTERNATIVE 5 – MONO TREES, NO SOUTH BOWL

Under Alternative 5, the impacts to cultural resource sites located in the proposed expansion of the Mono Tree expansion area would be similar to those described in the Proposed Action. Impacts to any sites located in the South Bowl area would not occur under this alternative. Site 48TE2171 would still require avoidance or further testing and assessment to determine its potential eligibility for listing on the NRHP before any ground-disturbing activities can occur. Moreover, the impacts to cultural resources associated with the Mono Tree expansion area, which were analyzed under the Proposed Action, would also occur under Alternative 5. For an impact analysis of each site that could be affected in the Mono Tree expansion area, please refer to the discussion provided under **Alternative 2 - Proposed Action**.

3.6.4 Cumulative Effects

Effects analyzed in the Cumulative Effects discussion apply to all alternatives, including the No Action Alternative.

TEMPORAL BOUNDS

The temporal bounds for this cumulative effects analysis for cultural resources extend from GTR's founding as a ski area in 1966 through the foreseeable future in which GTR can be expected to operate.

SPATIAL BOUNDS

The spatial bounds for this cumulative effects analysis for cultural resources are limited to public and private lands in the vicinity of GTR's operational area.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects study area, the reader is referred to **Appendix A**. Past ski area and county development projects have been incorporated and analyzed in this document as part of the Affected Environment discussion.

Several projects, such as building mountain biking and hiking trails or expanding ski terrain, have the potential to collectively affect cultural resources. Nevertheless, any future projects listed in **Appendix A** that are not currently being analyzed would need to undergo cultural surveys to assess their eligibility for being listed under the NRHP.

Selection of a No Action Alternative would not add any cumulative impacts to cultural resources within the project area. All action alternatives, when combined with other past, present, and reasonably foreseeable future actions at GTR, could alter the cultural resources within the project area. However, since all action alternatives would avoid NRHP-eligible and unevaluated cultural resources, all action

alternatives (as well as the no action alternative) would have no effect on historic properties in the APE, and no cumulative impacts to cultural resources are possible.

3.6.5 Irreversible And Irretrievable Commitments Of Resources

Since all action alternatives would avoid NRHP-eligible and unevaluated cultural resources, including tribal cultural sites, sacred areas, or traditional uses of the land, all action alternatives (as well as the no action alternative) were determined to have no irreversible and/or irretrievable commitments of cultural resources.

3.7 Public Safety

3.7.1 Scope of the Analysis

The scope of this analysis includes the extent of the existing and proposed GTR SUP area. In particular, this analysis would focus on the proposed South Bowl area. This section describes the existing conditions at GTR as they relate to public safety, as well as the associated effects to public safety for each alternative. It is recognized that certain areas adjacent to the existing GTR SUP boundary are attractive destinations for backcountry skiing. This public safety analysis describes risks to backcountry skiers as well as skiers within the SUP boundary under each alternative.

3.7.2 Affected Environment

GTR serves as a premier destination for advanced skiers. Approximately 12 percent of GTR skiers are experts. Within the GTR SUP area, there are approximately 142 acres of expert trails. GTR also has several backcountry exit points along the SUP boundary that serve as entry points for out-of-bounds terrain. Designated exit points are located in areas that allow for appropriate access to backcountry terrain. Exit points are strategically located to mitigate potential risks where possible. Skiers must use designated exit points to enter backcountry terrain. Backcountry terrain areas are outside of the GTR SUP boundary and are unmonitored and uncontrolled environments. Skiers who enter this terrain do so at their own risk.

The South Bowl area is a popular destination for backcountry skiers. It is located outside of the GTR SUP boundary, adjacent to the inbounds terrain served by the Colter Lift. GTR has a closed boundary/open space backcountry access policy, where skiers are permitted to leave the SUP boundary only through designated areas. Backcountry skiing within South Bowl is primarily accessed by a backcountry exit point near the summit of Peaked Mountain referred to as the Noodle Ridge exit point (above the top terminal of the Colter Lift) and another further down the ridge referred to as El Dente exit point (below the top terminal of the Colter Lift).[117] The Noodle Ridge exit point is strategically located above the top terminal of the Colter Lift and requires a hike (described in detail in the following paragraphs) to help mitigate the number of unprepared guests that may exit the controlled SUP area. Unprepared guests (e.g., not possessing adequate equipment, knowledge, or skills for backcountry travel) pose risks to themselves and the staff of GTR, who responds to incidents involving these users.

The backcountry terrain of South Bowl has received consistent use for many years. The accessibility of South Bowl is particularly attractive to many backcountry skiers as they can leave the SUP boundary, ski

[117] Communication with GTR and USFS, January 2023

backcountry terrain, and return to in-bounds terrain with limited effort. Specifically, skiers accessing the backcountry via the Noodle Ridge and El Dente exit points can return to the ski area on the south side of the Colter terrain pod where there is an opening in the rope line. This results in the majority of the backcountry skiers recreating in this area coming back the ski area boundary rather than descending into the bottom of Teton Canyon. This characteristic, along with the scenery and quality of terrain, contribute to its heavy use.

To access South Bowl from the Noodle Ridge exit point, it is a minimum of 1 mile from the top of the Dreamcatcher Lift, there is no direct uphill access from the Colter Lift to the Noodle Ridge exit point. A wildlife camera study performed for this analysis in 2021 found that backcountry skier use was high, ranging from an estimated 5-10 skiers/month to 20+ skiers per month in the northern part of South Bowl. These are likely very conservative estimates due to accuracy limitations with game cameras.[118]

The El Dente exit point can be accessed from skiing downhill from the Colter Lift; however, it provides limited access to the South Bowl backcountry terrain. The backcountry terrain accessed by El Dente is a small shoulder of the South Bowl terrain.

Since the time of backcountry use monitoring, the Colter Lift has been constructed and is now open to the public. Primary access to the South Bowl area is unchanged from conditions prior to Colter Lift construction, with the exception of the El Dente exit point which did not exist prior to the lift construction. As previously mentioned, the El Dente exit point only accesses a limited area of the South Bowl backcountry terrain. Although use within this specific area has increased, it is confined to a limited spatial area. During the 2023 season (first season Colter Lift operations) a marginal increase in use patterns was observed within the South Bowl area.[119]

AVALANCHE TERRAIN

Four factors are important to consider when assessing avalanche risk: slope, snow cover, weak layers in the snow cover, and triggers.[120] Triggers could be human-induced or could be due to natural forces such as wind, rain, and warming temperatures.[121] Slopes between 30 and 45 degrees and above are prone to avalanches, particularly if there are weak layers buried under snowpack.[122] Weak layers are caused by many circumstances, including the slope's aspect. In the Northern hemisphere, south-facing slopes often have strong slabs created by melt-freeze crusts, where the snow surface repeatedly melts from sun exposure and refreezes overnight.[123] The strong slabs created by these conditions have a low chance of collapsing and causing a slab avalanche. North-facing slopes, however, receive less solar exposure and are more prone to slab avalanches due to weaker slab layers beneath the surface.[124] Similarly, east-facing slopes generally do not warm as much as west-facing slopes because their only solar exposure is during

[118] Alder Environmental 2021
[119] Communication with USFS and GTR, January 2023
[120] Government of Canada 2018
[121] REI 2021
[122] Ibid.
[123] Snow Brains 2021
[124] Ibid.

colder morning temperatures.[125] Due to these conditions, west-facing and south-facing slopes are generally less prone to avalanches.

The GTR SUP area exists primarily on a west-facing slope on the western edge of the Tetons. While the ski area includes steep terrain prone to avalanches, ski patrol management and monitoring efforts mitigate avalanche risk to skiers in the resort. However, these efforts are only conducted within the SUP boundary. As previously described, many backcountry skiers access unmanaged and unmaintained backcountry terrain from GTR. Refer to **Section 3.1** for more information on recreation patterns in and around the GTR SUP boundary.

The South Bowl is a portion of terrain in Teton Canyon characterized by steep slopes, open bowls, and rock bands. It has a south-facing aspect and the slope ranges from approximately 30 to over 60 degrees. The area is prone to avalanches due to its steep slope and snow cover.

The existing Mono Trees area that is currently outside of the SUP boundary has low avalanche risk and is not a popular backcountry skiing area.

SKI PATROL OPERATIONS

There are currently two First Aid/Ski Patrol facilities within the GTR SUP boundary that provide downhill access to all points of the developed trail network. There is also a First Aid facility in the base area. During the 2022 construction season a ski patrol facility was constructed adjacent to the top terminal of the Colter Lift. This facility allows patrollers to more easily access accidents within the Colter terrain pod and adjacent areas beyond the SUP boundary in the South Bowl area, which currently exists as backcountry adjacent the ski area.

Ski patrol techniques include hand charges, ski cutting, skier compaction, winch cat operations for snowcat compaction, and other commonly used techniques to mitigate avalanche risk within the SUP boundary. There are currently no avalaunchers used as part of GTRs avalanche mitigation protocol. The boundaries of the GTR ski patrol are currently limited to the GTR SUP area; however, they serve as a resource for occasional backcountry rescues when possible/necessary.

EMERGENCY SERVICES

Emergency services that are relevant within this Public Safety analysis include search and rescue, firefighting, and ambulance service. Teton County Search and Rescue (TCSAR) is located in Jackson, Wyoming, approximately 45 miles from GTR. As described in **Section 3.4**, TCSAR offers search and rescue and emergency response services in and around GTR, particularly in the backcountry. GTR ski patrol and TCSAR collaborate to ensure the safety of skiers at GTR. However, because TCSAR only has two members in Alta and doesn't fly at night or in snowstorms, response times can pose a challenge for emergency services at GTR. Additional search and rescue services are provided by Teton County Idaho Search and Rescue (TCISAR), which offers rescue and emergency response in Teton County, Idaho as well as in Teton County, Wyoming. TCISAR, TCSAR, and GTR ski patrol collaborate on trainings and

[125] Avalanchce.org 2022

response procedures to distribute resources as appropriate and ensure adequate emergency response in Teton County, Wyoming, and Idaho.[126]

In addition to TCISAR, Teton County Idaho's Fire and Rescue is contracted to provide emergency services in and around Alta, Wyoming. The Teton County Fire and Rescue team primarily provides firefighting and ambulance services in this area and does not typically respond to backcountry related incidents.

More about emergency services in the project area is discussed in **Section 3.4**.

3.7.3 Direct and Indirect Environmental Consequences

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Under the No Action Alternative, the South Bowl would not be included in the ski area boundary. Guests who decide to ski this terrain would do so at their own risk. The area would continue to exist as backcountry terrain as described in the Affected Environment.

Avalanche Terrain

Access to unmanaged avalanche terrain adjacent to the GTR SUP boundary would not change under the No Action Alternative. It is anticipated that as participation in backcountry recreation continues to grow, additional guests of GTR would venture into South Bowl from the Noodle Ridge and El Dente exit points that currently exist on Peaked Mountain. Refer to **Section 3.1**, for a discussion of trends in backcountry recreation. At other resorts, increases in use of highly accessible adjacent backcountry terrain have resulted in increased avalanche accidents and injuries.[127]

Ski Patrol Operations

In this alternative, ski patrol facilities and the extent of their operations would largely remain the same as described in Affected Environment. It is anticipated that participation in backcountry recreation would increase into the future consistent with current trends. Commensurate to this trend, the demand of GTR patrol to respond to incidents outside the SUP boundary is also anticipated to increase under this Alternative.

Emergency Services

In this alternative, it is likely that the anticipated increase in backcountry use in South Bowl would increase the strain on TCSAR and Teton County, Idaho Fire and Rescue. These services may need to respond to more backcountry incidents into South Bowl as participation in backcountry recreation increases commensurate with existing trends.

ALTERNATIVE 2 – PROPOSED ACTION

The Proposed Action alternative includes an expansion of the GTR SUP area to include the South Bowl and the Mono Trees areas. The total SUP expansion in this alternative is 866 acres. Both the Mono Trees

[126] Personal communication with TCISAR
[127] David Hamre and Associates 2021

and the South Bowl areas would be lift-served terrain within the ski area boundary under the Proposed Action.

Other proposed projects and activities within the existing SUP boundary may have inherent risks associated with them; however, they would exist in an area that is already managed for these types of uses and are not discussed in the context of this public safety analysis.

Avalanche Terrain

As previously discussed, the South Bowl area is prone to avalanches and is a consistently used backcountry skiing destination. Consistent use patterns have been observed by GTR ski patrol for many years. The proposed South Bowl boundary has been drawn in a way that takes on manageable risk and avoids the most dangerous and avalanche-prone areas. Including South Bowl in the GTR SUP boundary and extending ski patrol operations and avalanche mitigation practices into the area would substantially reduce avalanche risk to skiers in this area. This would allow more skiers to utilize the unique terrain in South Bowl without as great of a risk but would change the character of the area from unmanaged backcountry to a lift served skiing experience. Further, while a large portion (266 acres) of the South Bowl area would be included in the SUP boundary, adjacent backcountry areas that are currently being recreated in would remain in their existing, natural states and would still be available to skiers. The incorporation of South Bowl into the SUP boundary would increase the ease of access into this backcountry terrain just adjacent to South Bowl, which could result in more skiers in unmanaged and uncontrolled terrain.

It is likely that with the addition of South Bowl, skiers that currently participate in backcountry expeditions in the South Bowl area would be displaced into other backcountry areas. Some skiers may continue to ski in Teton Canyon, where South Bowl is located, or South Leigh Canyon, on the north and eastern side of the GTR SUP boundary, as both are currently used as backcountry destinations (refer to **Section 3.1** for more information). However, as a result of the South Bowl projects, some skiers may travel farther from GTR and into the JSW in other uncontrolled and avalanche-prone terrain. As skiers move farther away from the GTR boundary, they are also moving farther from Search and Rescue resources, further increasing their risk in the event of an avalanche.

Ski Patrol Operations

In order to include South Bowl and Mono Trees within the SUP area boundary, necessary safety and management practices would be required. The boundaries of regular ski patrol operations would expand 866 acres to include the Mono Trees and South Bowl areas. Ski patrol and mountain operations staff would ensure the safety of skiers through existing measures described under Affected Environment as well as the use of additional measures in the South Bowl area. The Mono Trees area is not considered avalanche terrain and GTR does not anticipate safety or avalanche concerns in this area. However, regular ski patrol operations would occur in this area as it would become a part of the operational boundary under the Proposed Action alternative.

As described previously, the South Bowl area has avalanche terrain. The Proposed Action includes the construction of an additional ski patrol facility located at the top of the South Bowl Lift to serve the area. All existing ski patrol facilities including the recently constructed facility at the top of the Colter Lift would also remain in service. Additional safety practices in South Bowl include the use of avalaunchers to disrupt unstable snowpack, bootpacking applicable terrain, adding two rescue caches, providing adequate signage to inform users of avalanche hazards, and the use of machinery such as winch snow cats to pack

and groom the snow. Two avalaunchers and a bomb cache that would store avalauncher rounds are proposed at the base of the South Bowl Lift (refer to **Figure 4**). Two rescue caches would be located within the South Bowl area to ensure risk mitigation and public safety in the area. One rescue cache would be located out of the existing and proposed SUP boundaries on the peak east of Mary's Nipple, and the other below the South Bowl area in Teton Canyon. The rescue cache in Teton Canyon is intended to house a snowmobile and have a rescue sled to help Teton County Search and Rescue teams and other first responders access victims.

Additional safety measures in South Bowl would mitigate the risk of avalanches in the SUP area. In surrounding areas, the installation of rescue caches would support the public safety of skiers within the SUP boundary and in potentially surrounding backcountry areas by providing storage for rescue equipment, thus improving the efficiency of emergency response. Further, additional ski patrol operations at GTR could assist local search and rescue in responding to emergencies in areas adjacent to the SUP.

Emergency Services

In the Proposed Action alternative, portions of the South Bowl area would no longer be backcountry terrain. The area within GTR's proposed SUP boundary would be managed primarily by GTR ski patrol and therefore would largely reduce the needs of emergency services in South Bowl as a whole, especially when compared with the No Action alternative. At the same time, as described previously within this section, the incorporation of South Bowl into the GTR SUP boundary would provide easier access into the surrounding backcountry terrain in Teton Canyon. This could increase the number of skiers entering uncontrolled terrain, which could require additional search and rescue response. Further, because backcountry skiers who frequent the South Bowl area could be displaced into other backcountry terrain, it is possible that occasional emergency response would be required in areas farther from the resort under this alternative. The rescue caches proposed in the area are intended to provide support not only to GTR but to first responders such as Teton County Search and Rescue.

Further, the expansion of the ski area is predicted to increase the guest capacity, which would most likely increase the need for services and create additional strain on emergency services. Additional guests may also impact traffic patterns, creating more challenges with access to the resort for emergency response (refer to **Section 3.5** for more information).

Although there would be impacts on Search and Rescue resources as a result of increased visitation and backcountry skier displacement, the Proposed Action alternative could address concerns about the increase in backcountry use in the South Bowl by providing additional ski patrol facilities and public safety resources within this area and eliminating unmanaged backcountry use within the area most proximate to the developed terrain network of GTR. The presence of South Bowl as backcountry terrain adjacent to the developed lift network within GTR's SUP boundary could present long-term challenges as backcountry skiing continues to grow into the future. Inclusion of South Bowl into the SUP boundary could offer a more long-term management strategy, reduce the demand for emergency services within South Bowl, and provide additional support within areas that would continue to exist as backcountry within proximity of the proposed ski area boundary.

Conversely, the incorporation of South Bowl into the SUP boundary would increase the ease of access into backcountry terrain just adjacent to South Bowl and displace users into more remote extents of the surrounding backcountry. This could result in more skiers in unmanaged and uncontrolled terrain and could have a strain on emergency services. The extents of backcountry terrain beyond the proposed South

Bowl SUP area generally require different skillsets to navigate and are less desirable for the majority of recreationists that would consider entering the portion of South Bowl that is proposed to be incorporated into GTR's SUP boundary from the existing SUP boundary.

By managing the area that is most proximate the ski area and preventing higher quantities of inexperienced backcountry travelers from getting lured into this currently unmanaged area, it is anticipated that the proposed South Bowl project would have a positive impact on emergency services. However, it is important to note that existing backcountry use in further extents of South Bowl and beyond would persist and could continue to generate demand for emergency services.

ALTERNATIVE 3 – NO SUP EXPANSION

Under the no SUP expansion alternative, there would be improvements within the SUP area; however, the GTR SUP boundary would not change.

Avalanche Terrain

The consequences in this alternative would be similar to that of the No Action alternative contained within this section. The South Bowl backcountry area would not be monitored or managed by ski patrol, as it would be out-of-bounds terrain. In an unmanaged state, as would exist under this alternative, the South Bowl presents considerable avalanche hazards that could present impacts to public safety when considered with increasing participation in backcountry recreation.

Ski Patrol Operations

In this alternative, ski patrol techniques would remain the same as described under the No Action Alternative. All existing ski patrol facilities would remain in service. Under this alternative, it is anticipated that ski patrol operations would more frequently need to extend to adjacent backcountry terrain within the South Bowl area to support local emergency services as participation in backcountry recreation increases consistent with current trends.

Emergency Services

The impacts to emergency services would be similar to that described under the No Action alternative. However, due to the proposed projects in this alternative, there would be a larger increase in guest capacity which could strain emergency resources more than in the No Action alternative as there could be a greater number of guests that decide to use the existing Colter Lift to access adjacent backcountry terrain in the South Bowl area. No portion of South Bowl would be managed by GTR under this alternative. The recently constructed Colter Lift, coupled with increased visitation that would be generated by proposed projects within the existing SUP boundary, is anticipated to create additional challenges for emergency services.

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

Under the South Bowl, No Mono Trees alternative, the proposed SUP expansion would include the South Bowl area but not the Mono Trees area. The total SUP expansion in this alternative is 266 acres.

Avalanche Terrain

Similar to the Proposed Action alternative, under Alternative 4 the South Bowl area would have lift access for skiers at GTR. While the area has avalanche-prone terrain, necessary safety protocols would be conducted by GTR's ski patrol and mountain operations staff to control for avalanche risk. Backcountry

skiers who currently frequent the area could be displaced into other areas around the GTR SUP boundary or further into the JSW. Refer to the Proposed Action discussion for more information on the impacts of including South Bowl terrain within the SUP boundary. The Mono Trees area would not be included in the SUP boundary.

Ski Patrol Operations

Ski patrol operations would be extended 266 acres into the South Bowl area and might be required farther from the resort due to backcountry skier displacement, as described in the Proposed Action alternative. Similar to the Proposed Action alternative, this alternative includes one additional ski patrol facility located at the top of the South Bowl Lift to provide timely response to skiers within the South Bowl terrain pod, along with adjacent backcountry terrain. All existing ski patrol facilities would also remain in service. Ski patrol techniques would include all existing techniques as well as the use of avalaunchers, bootpacking, and snowcats to ensure public safety in the South Bowl area.

Emergency Services

The need for emergency services response would be similar to that in the Proposed Action alternative as backcountry skiers would be displaced from the South Bowl area and GTR's guest capacity would increase. Alternative 4 would also address increased usership that is anticipated in the South Bowl area as participation in backcountry recreation increases into the future. This alternative would allow GTR to have a managing presence in South Bowl, as is the case in the Proposed Action, and is anticipated to have beneficial effects to public safety and emergency services as a result.

ALTERNATIVE 5 – MONO TREES, NO SOUTH BOWL

Under the Mono Trees, No South Bowl alternative, the SUP area would be expanded to include Mono Trees but not South Bowl. The total SUP expansion in this alternative is 600 acres.

Avalanche Terrain

Mono Trees is not currently a backcountry skiing destination and has low avalanche risk. Skier access into avalanche terrain would be similar to that described in the No Action alternative.

Ski Patrol Operations

Ski patrol operations would be extended 600 acres into the Mono Trees area. All existing ski patrol facilities would remain in service under this alternative. There would not be an additional ski patrol facility at the top of the South Bowl Lift in this alternative. Without South Bowl included in the GTR SUP boundary, backcountry skiers would not be displaced. The demand for backcountry response would be similar to that of the No Action Alternative.

Emergency Services

Impacts to Emergency Services would be similar to that of the No Action Alternative. Under this alternative, increased visitation that would be generated by proposed projects within the existing SUP boundary and Mono Trees, are anticipated to create additional challenges for emergency services.

3.7.4 Cumulative Effects

SCOPE OF THE ANALYSIS

Temporal Bounds

The temporal bounds for this cumulative effects analysis for public safety extend from GTR's inception as a resort in 1966 through the foreseeable future in which GTR can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis for public safety are limited to public lands and surrounding backcountry in the vicinity of the existing and proposed GTR SUP area.

PAST, PRESENT, AND FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects study area, the reader is referred to **Appendix A** in the document. Past ski area development projects have been incorporated and analyzed in this document as part of the Affected Environment. Projects that could have cumulative impacts on public safety are analyzed below.

The development within and adjacent to the existing GTR SUP area has incrementally increased the number of visitors to GTR. An increased number of visitors in recent has impacted public safety by creating a higher demand for emergency services and ski patrol operations. Additionally, future projects that have yet to be implemented and are included in these documents and analyses would be expected to require more resources of TCSAR, Teton County Fire and Rescue, and GTR ski patrol.

The proposed projects could add strain to emergency services and ski patrol within and around the GTR SUP area by displacing backcountry skiers and requiring emergency response in more remote and avalanche-prone locations. However, including South Bowl in the SUP area would ensure that the avalanche-prone terrain is controlled and monitored to optimize public safety. When considered cumulatively with other projects, the Proposed Action would add to the demand for search and rescue and ski patrol resources due to an increase in guest capacity and a need for more resources to ensure public safety.

3.7.5 Irreversible and Irretrievable Commitments of Resources

No additional irreversible and/or irretrievable commitments of resources have been identified that may impact public safety in association with the alternatives analyzed in this document.

3.8 Livestock and Grazing

3.8.1 Scope of the Analysis

The scope of this analysis of land use includes GTR's existing and proposed SUP areas and adjacent NFS and private lands. Pursuant to the regulations issued by the Secretary of Agriculture, the Forest Service is authorized to develop, administer, and protect range resources, and permit and regulate grazing use of all kinds and classes of livestock on all NFS lands and on other lands under Forest Service control.[128] While

[128] USDA Forest Service 2005

the Proposed Action specifically applies to uses of NFS lands within GTR's SUP boundary and the proposed boundary expansion areas, the proposed projects have the potential to alter land use patterns on adjacent NFS lands including those used by other permit holders.

In order to address the potential effects of the proposed projects on grazing allotments, this analysis considers the existing conditions and the proposed uses of land within the scope of analysis.

3.8.2 Federal, State, and Local Policy and Guidance

FOREST SERVICE MANUAL 2200 – RANGE MANAGEMENT

Forest Service Manual (FSM) 2200 outlines authorities, objectives, policies, and responsibilities related to range management on NFS lands. In managing livestock grazing on public rangelands and National Grasslands, the Forest Service's overall objectives are:

1. To manage range vegetation to protect basic soil and water resources, provide for ecological diversity, improve or maintain environmental quality, and meet public needs for interrelated resource uses.
2. To integrate management of range vegetation with other resource programs to achieve multiple use objectives contained in Forest land and resource management plans.
3. To provide for livestock forage, wildlife food and habitat, outdoor recreation, and other resource values dependent on range vegetation.
4. To contribute to the economic and social well-being of people by providing opportunities for economic diversity and by promoting stability for communities that depends on range resources for their livelihood.
5. To provide expertise on range ecology, botany, and management of grazing animals.[129]

1997 FOREST PLAN DIRECTION

As identified within the *1997 Forest Plan*, the study area is composed of three different Management Prescriptions: Management Prescription 4.2 – *Special Use Permit Recreation Sites*, located within GTR's existing SUP area; Management Prescription 2.1.2 – *Visual Quality Maintenance*, located adjacent the GTR SUP area and overlapping the proposed South Bowl and Mono Trees areas; and Management Prescription 2.8.3 – *Aquatic Influence Zone*, located within and adjacent to the GTR SUP area and overlapping the proposed Mono Trees area. Refer to **Figure 1** for a depiction of the existing *1997 Forest Plan* Management Prescriptions.

All Management Prescriptions within the study area are relevant to the analysis of Livestock and Grazing as the Proposed Action would convert approximately 866 acres of NFS lands, currently within Management Prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 – *Aquatic Influence Zone*, to Management Prescription 4.2 – *Special Use Permit Recreation Sites*.

Management area prescriptions are inherently tied to use of NFS lands as they provide sets of objectives and requirements for specific land areas. Though dictating the primary uses and parameters that guide land management, designations are not exclusive, and provide for uses beyond the primary management

[129] USDA Forest Service 2005

objective. Guidelines and Management Prescription characterizations relevant to the livestock and grazing analysis for each Management Prescription are highlighted below in **Table 3.8-1**.

Table 3.8-1. 1997 Forest Plan Management Prescription Characterizations within the Study Area

Management Prescription	Livestock and Grazing Management
Management Prescription 4.2 – Special Use Permit Recreation Sites	• Unless grazing activities are needed to meet recreation objectives, or unless authorized by special use or grazing permit, grazing of recreation stock and other livestock will not be allowed in special use recreation sites.
Management Prescription 2.1.2 – Visual Quality Maintenance	• Maintaining the existing visual quality within major travel corridors with high quality natural vistas, while allowing livestock production, and other compatible commodity outputs. • During the summer and fall, you may encounter cattle or sheep grazing in openings.
Management Prescription 2.8.3 – Aquatic Influence Zone	• Recreational grazing must meet range standards for utilization of riparian vegetation. • Permitted stock holding, watering, and handling facilities within riparian vegetation are allowed only if appropriate mitigation measures are implemented to reduce negative impacts. • Proposed livestock watering facilities, corrals, and holding pastures within these lands are allowed only if appropriate mitigation measures are implemented to reduce negative impacts. • Existing livestock watering facilities, corrals, and holding pastures within these lands are allowed at permit issuance only if mitigation measures are implemented to reduce negative impacts.

Source: USDA Forest Service 1997

3.8.3 Affected Environment

EXISTING LAND USE

Land uses within and around GTR generally correspond their existing management area emphasis. As GTR is located within Management Prescription 4.2 – *Special Use Permit Recreation Sites*, it is managed primarily for recreation activities that occur throughout the year. For a complete discussion of visitation and recreation opportunities at GTR, refer to **Section 3.1**. Although land use within the GTR SUP area is defined by recreation, NFS lands within the GTR SUP area are also used for other purposes, including hunting and livestock grazing. As previously stated, management of NFS lands accommodates diverse uses that do not need to be specifically emphasized within a management area prescription.

Livestock grazing is a prominent land use, other than recreation, on NFS lands within, and adjacent to, the GTR SUP area. The Forest Service issues grazing permits to livestock producers that meet qualifications of the permit. Grazing permits generally are issued for a 10-year period. Annually, instructions are given to grazing permittees that outline grazing management, schedule, and coordination on NFS lands.

LIVESTOCK GRAZING PERMITTEES

GTR is located within the Teton Basin Ranger District of the CTNF. The Teton Basin Ranger District has 11 grazing allotments.[130] There are three grazing allotments in and adjacent to the study area. These include Leigh Creek, Fred's Mountain, and Mill Creek / Teton allotments. Leigh Creek is located to the North of the existing GTR SUP boundary. The Fred's Mountain Allotment is located on the northwestern edge of the GTR SUP boundary. Occasionally livestock from this allotment will drift into Rick's Basin following user created routes and the permittee herds them back out of the area. If user created routes increase in this area, then this incidental livestock drift may increase. The Mill Creek / Teton Allotment borders the GTR SUP area along its western and southern edge (refer to **Exhibit 3.8-1**). The Mill Creek / Teton Allotment intersects the existing GTR SUP area and the proposed South Bowl and Mono Trees areas. It is the only allotment that is within the study area and is the focus of this analysis.

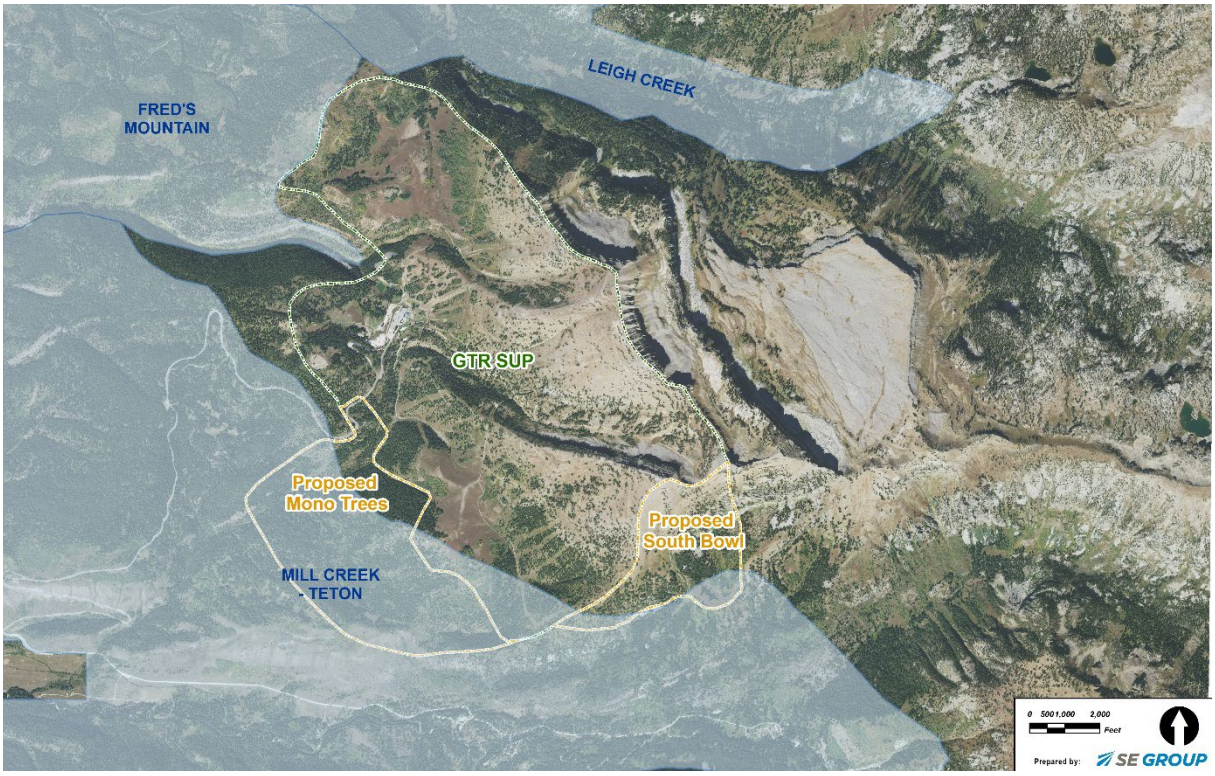


Exhibit 3.8-1. Grazing allotments near GTR. GTR's existing SUP boundary is depicted in green, the proposed expansion areas are depicted in orange, and grazing allotments are shaded in blue.

The Mill Creek / Teton Allotment is approximately 6,600 acres in area. It intersects the existing GTR SUP area, parts of the proposed Mono Trees and South Bowl areas, and adjacent NFS lands designated as Management Prescription 4.2 – *Special Use Permit Recreation Sites*, Management Prescription 2.1.2 – *Visual Quality Maintenance*, and Management Prescription 2.8.3 – *Aquatic Influence Zone*, with the majority of its area in Management Prescription 2.1.2 – *Visual Quality Maintenance*. Approximately 110

[130] USDA Forest Service 2021b

acres or 1.7 percent of the total Mill Creek / Teton Allotment area shares land with the GTR SUP boundary.

The Mill Creek / Teton Allotment was permitted for 55 cows and calf pairs between June 16th and September 30th, 2021.[131] The allotment is managed with a three-pasture rotation grazing system described in an allotment management plan. The rotation allows grazing from June 16 – July 20 on the Bustle Creek Pasture, July 20 – August 14 on the Mill Creek Pasture, and August 15 – September 30 on the Teton Canyon Pasture.[132]

The portions of the GTR SUP area occupied by the Mill Creek / Teton Allotment are near the edge of the developed ski area. Within this area, GTR maintains a painted cattleguard on Ski Hill Road and a short section of fence within the existing SUP boundary on Forest Service Mill Creek Trail 131, in Papoose Creek.

Because the grazing permit season of use exists outside of winter ski area operations, only summer operations create opportunities for direct interactions between recreationists and livestock. When the fence structures mentioned in the previous paragraphs are not maintained by GTR or the trail gate is not closed by the public, cattle sometimes travel into the resort and towards the base area on private lands. In these instances, the grazing permittee is responsible for herding them back to their allotment and has done so successfully in the past.

The recently completed Colter lift, and the Mill Creek Trail, Rocky Mountain way and Colters Escape trails have created new opportunities for livestock to enter into the GTR SUP area. When livestock enter this are of the permit there is the potential for negative interactions with resort infrastructure and additional work can be created for GTR staff. It is anticipated that GTR would need to expand the drift fence and install cattleguards into their trails in order to keep the livestock out of this portion of the permit area if conflicts warrant such actions necessary.

The proposed Mono Trees and South Bowl areas exist in their natural, undeveloped states and do not currently include ski area infrastructure or activities.

3.8.4 Direct and Indirect Environmental Consequences

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Under the No Action Alternative, existing livestock grazing permits and permittees and allotments would not change. Land uses authorized to these permittees would be subject to Forest Service terms and both permittees would continue to work out management strategies that best suit the coexistence of both land uses.

ALTERNATIVE 2 – PROPOSED ACTION

Implementation and operation of the projects included in the Proposed Action have the potential to impact land uses within GTR's existing and proposed SUP areas and on adjacent NFS lands.

[131] USDA Forest Service 2021c
[132] Ibid.

Under the Proposed Action, approximately 866 acres of Management Prescription 2.1.2 – *Visual Quality Maintenance* and an overlay of 125 acres of Management Prescription 2.8.3 – *Aquatic Influence Zone* would be converted to Management Prescription 4.2 – *Special Use Permit Recreation Sites* to accommodate the development of lift-served skiing opportunities in the Mono Trees and South Bowl areas. These areas would be incorporated into the GTR SUP area. The resulting area in which the Mill Creek / Teton Allotment overlaps the ski area is approximately 720 acres or 11 percent of the allotment's total area.

Existing livestock and grazing could be further impacted through the densification of summer recreational opportunities that would occur under the Proposed Action as there would be a higher likelihood for direct interactions between recreationists and livestock. Particularly, in the area at the base of the Colter Lift where proposed multi-use trails and roads overlap the existing Mill Creek / Teton grazing allotment, there would be increased probability of land use conflicts (refer to **Section 3.1** for discussion of recreation patterns in the area). If user created routes increase in this area, then incidental livestock drift may increase, although it would be confined by livestock and grazing PDCs. To address the potential increase in land use conflicts, a various PDC are included in **Table 2.4-1** that minimize impacts on the grazing permittee. One specific PDC states, "Should issues arise between the operations of existing livestock, specifically cattle, and grazing permit holders and GTR, GTR will cooperate with the Forest Service and livestock and grazing permittee and take measures, including but not limited to, the installation of vegetative buffers and fencing to protect the interests of both permit holders as directed by the Forest Service. Any reasonable installation costs of vegetative buffers or fencing construction and maintenance would be borne by GTR."

Further, an increase in visitor traffic on Ski Hill Road, which is within the Mill Creek / Teton allotment and is often crossed by grazing cattle, may have an impact on livestock and grazing patterns and feasibility (refer to **Section 3.5** for more information). Impacts associated with the densification of summer recreational opportunities are incremental in nature (e.g., adding to the existing trail network); however, they are anticipated to span the life of the projects and would thus reduce the suitability of the existing GTR SUP area for livestock grazing. The impacts to existing livestock grazing would be minimal as only a small portion (110 acres) of the Mill Creek / Teton Allotment is within the existing GTR SUP area, and no summer projects are proposed outside of the existing GTR SUP area.

Existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer and these activities may disrupt the area for livestock. Forage availability would be reduced due to overlap of the SUP boundary and the Mill Creek/Teton grazing allotment. Specifically, construction of the Mono Tree Lift and related activities could temporarily displace permitted livestock. The Forest Service, grazing permittees, and GTR shall coordinate before and during construction to minimize impacts on grazing operations as is specified in PDC included in **Table 2.4-1**. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily. Although temporary impacts to vegetation within the overlapping allotments would occur during construction, permittees would be consulted to minimize loss of forage and displacement of livestock. Vegetation would be restored following construction as indicated in the PDC included in **Table 2.4-1** (refer to **Section 3.12** for more information).

The development of ski terrain and glades in the Mono Trees and South Bowl areas may impact the available forage for livestock. The existing Mono Trees area is overlapped by dense timber and much of this area that cannot be grazed in its existing conditions would become available forage as lift lines, runs and trails are constructed. The difference in available forage in Mono Trees may result in changes to grazing patterns, which has potential to shift livestock use off the current permit area into the existing resort area without addition of new fencing and other barriers to livestock. The construction of administrative routes, trails, and ski area terrain may change the vegetation and make routes that are attractive to livestock, changing grazing patterns in this area. Even during construction implementation, the area of the project overlapping with the Mill Creek/ Teton allotment would not consist entirely of ground disturbing activities. Therefore, the PDCs included in **Table 2.4-1** address the loss of land viable for grazing within the allotment and would reduce the displacement of livestock. As a result, GTR and the grazing permittee would coordinate to establish fencing, cattle guards, and/or livestock management techniques to ensure that livestock remain in their permanent allotment. GTR would contribute funding, fence maintenance and other adequate support to ensure that suitable conditions exist for both operations. These measures would be further documented in GTR's summer operating plan, or a specific livestock management plan prepared by GTR that would be reviewed by the CTNF prior to implementation of projects overlapping the Mill Creek / Teton Allotment.

The South Bowl area is not currently grazed by cattle due to the steep slope and difficulty accessing its terrain that makes it a less desirable livestock grazing location. Because of this, ski area operations in South Bowl are not likely to substantially impact livestock grazing patterns.

There are no summer activities proposed in the South Bowl and Mono Trees areas, and their associated facilities would only operate in the winter. However, summer maintenance in the areas may increase the chance of interactions between resort personnel and livestock, which may also result in changes to grazing patterns necessitating fencing or the installation of cattle guards. Overall, it is anticipated that proposed changes within the South Bowl and Mono Trees areas would increase the suitability of the South Bowl and Mono Trees areas for livestock grazing and change livestock use patterns.

ALTERNATIVE 3 – NO SUP EXPANSION

Under Alternative 3, there would be no expansion of the GTR SUP area. Livestock and grazing in this area would be similar to existing conditions; however, there would be more developed recreation opportunities in both the winter and summer. It is anticipated that with the proposed projects under Alternative 3, there would be higher summer visitation and trail and administrative route development in a portion of the SUP area that is overlapped by the Mill Creek / Teton Allotment. This could create a higher likelihood for direct interactions between recreationists and livestock in the summer. However, these impacts would only occur in the small area of approximately 110 acres where the Mill Creek / Teton Allotment overlaps the SUP area and would have negligible impacts on livestock grazing patterns in the study area. The South Bowl and Mono Trees areas would remain in their natural, undeveloped states.

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

Under the Proposed Action, approximately 266 acres of Management Prescription 2.1.2 – *Visual Quality Maintenance* would be converted to Management Prescription 4.2 – *Special Use Permit Recreation Sites* to accommodate the development of lift-served skiing opportunities in the South Bowl area. This area would be incorporated into the GTR SUP area. The resulting total area of the Mill Creek / Teton

Allotment within the GTR SUP boundary would be approximately 220 acres or 3.3 percent of the allotment's total area.

The impacts of this alternative would be similar to that of the Proposed Action alternative, but at a smaller scale because of the smaller area of expansion. The Mill Creek / Teton Allotment only includes a small portion of the proposed South Bowl area, and the Mono Trees area would remain in its current natural, undeveloped state. As described under the Proposed Action alternative, summer construction and maintenance activities may result in temporary changes to livestock and grazing patterns in the South Bowl area. Vegetation modification may also result in changes in grazing patterns; however, there would be negligible impacts to livestock and grazing as a result of these changes.

ALTERNATIVE 5 – MONO TREES, NO SOUTH BOWL

Under the Mono Trees, No South Bowl alternative, approximately 600 acres of Management Prescription 2.1.2 – *Visual Quality Maintenance* and an overlay of 125 acres of Management Prescription 2.8.3 – *Aquatic Influence Zone* would be converted to Management Prescription 4.2 – *Special Use Permit Recreation Sites* to accommodate the development of lift-served skiing opportunities in the Mono Trees area. This area would be incorporated into the GTR SUP area. The resulting total area of the Mill Creek / Teton Allotment within the GTR SUP boundary would be approximately 610 acres or 9.2 percent of the allotment's total area.

The impacts of this alternative are also similar to that of the Proposed Action alternative, but only in the Mono Trees area. The South Bowl area would remain in its natural, undeveloped state. Most of the Mono Trees area overlaps with the Mill Creek / Teton Allotment, therefore the impacts to livestock and grazing patterns due to vegetation removal would be more substantial than that of Alternative 4. Specifically, modifications to vegetation, construction and maintenance activities, and increased summer visitation may reduce the suitability of the area for livestock and grazing and change grazing patterns. Refer to the discussion under the Proposed Action alternative for more information on the impacts in Mono Trees.

3.8.5 Cumulative Effects

SCOPE OF THE ANALYSIS

Temporal Bounds

The temporal bounds for this cumulative effects analysis for livestock and grazing extend from GTR's inception as a resort in 1966 through the foreseeable future in which GTR can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis for livestock and grazing are limited to public lands in Teton County, Wyoming and Idaho.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects study area, the reader is referred to **Appendix A** in this document. Past ski area development projects have been incorporated and analyzed in this document as part of the Affected Environment. Projects that could have cumulative impacts on livestock and grazing are analyzed below.

Although past, present, and reasonably foreseeable projects at GTR have resulted in and would continue to result in greater densification of recreation and the reduction of forage within certain portions of the project area, it is not anticipated that the currently proposed projects would substantially alter existing land uses. The proposed projects would cumulatively increase the density of recreation and reduce forage within the project area; however, the seasonality of the projects as well as their location would create minimal impacts to grazing patterns and human and livestock interactions for the allotments in and adjacent to the study area. Despite past ski area development, history has proven that a variety of land uses can occur within the study area.

To address the ever-changing character of NFS lands, the Forest Service would need to continually evaluate the suitability of different land uses in the project area and address conflicts between existing land uses. Through continued land management and adherence to the *1997 Forest Plan*, it is anticipated that the Proposed Action would have minor cumulative impacts on existing land use within the project area. Further, it is anticipated the CTNF would continue to meet a growing demand for a variety of uses on federal lands and do so by balancing the interests of a variety of permit holders operating on NFS lands through future actions and management.

3.8.6 Irreversible and Irretrievable Commitments of Resources

The conversion of 866 acres of Management Prescription 2.1.2 – *Visual Quality Maintenance* and an overlay of 125 acres of Management Prescription 2.8.3 – *Aquatic Influence Zone* would be considered an irretrievable change to resource management direction on the CTNF; however, this commitment is not considered irreversible, as those areas could be reallocated in the future. No additional irreversible or irretrievable commitments of resources have been identified that may impact the livestock and grazing resource in association with the alternatives analyzed in this document.

3.9 Wilderness

3.9.1 Scope of Analysis

The scope of this analysis includes discussion of potential impacts of the proposed projects at GTR, including changes in its SUP boundary, as they relate to the JWS that is adjacent to the project area (i.e., the area generally encompassed by all five action alternatives) on NFS lands. No construction, and therefore no direct effects, would occur on NFS lands within the JSW. However, indirect impacts on its wilderness character and wilderness users could occur, as described below. The basis for this analysis is the **Wilderness Technical Report**, prepared by SE Group.[133]

3.9.2 Federal, State, and Local Policy and Guidance

WILDERNESS ACT OF 1964

The Wilderness Act was passed in 1964 to ensure that all areas of the United States. are not modified by a growing population, expanding settlement, and growing mechanization. It designated 54 areas totaling 9.1 million acres in 13 different states. Under the Wilderness Act of 1964, the restrictions that apply to designated wilderness areas include:[134]

[133] SE Group 2023e
[134] 16 United States Code 1131-1136

- no commercial enterprises;
- no permanent roads;
- no temporary roads;
- no use of motor vehicles, motorized equipment, or motorboats;
- no landing of aircraft;
- no other form of mechanical transport; and
- no structure or installation.

WYOMING WILDERNESS ACT OF 1984

The Wyoming Wilderness Act of 1984 added an additional 1.1 million acres of congressionally recognized wilderness to the National Wilderness Preservation System (NWPS), including the now 123,896-acre JSW (116,535 acres at its designation). Today there are roughly 3 million acres of wilderness within the State of Wyoming.[135] The Wyoming Wilderness Act of 1984 made note as to buffer zones around designated wilderness areas:

> *Congress does not intend that the designation of wilderness areas in the State of Wyoming lead to the creation of protective perimeters or buffer zones around each wilderness area. The fact that nonwilderness activities or uses can be seen or heard from within any wilderness area shall not, of itself, preclude such activities or uses up to the boundary of the wilderness area.*[136]

1997 FOREST PLAN DIRECTION

The *1997 Forest Plan* identifies three Management Prescriptions for designated wilderness. They are:

- 1.1.6 Designated Wilderness – Opportunity Class I (applies to portions of the Jedediah Smith Wilderness)
  - Goals and Objectives: Maintaining the natural diversity of wildlife species is the highest priority. Outstanding opportunities exist for solitude, self-reliance, and challenge. Trails are non-existent. No measurable downward trend in plant species composition and diversity. Forestwide standards and guidelines apply.
  - No motorized cross country or road and trail travel allowed (Standard).
  - Recreation Opportunity Spectrum (ROS) standard is primitive.
  - Visual Quality Objective (VQO) standard is preservation.
- 1.1.7 Designated Wilderness – Opportunity Class II (applies to areas of the Jedediah Smith Wilderness)
  - Goals and Objectives: Maintaining the natural diversity of wildlife species is a high priority and there is limited displacement of wildlife. Human activities are managed so that limited

[135] Wyoming Wilderness Association n.d.
[136] U.S. Congress 1984

modification of natural succession only occurs at campsites, trails, and grazed areas. Soil erosion may occur. Forestwide standards and guidelines apply.

- ♦ No motorized cross-country road and trail travel allowed.
- ♦ ROS is primitive to semi-primitive nonmotorized.
- ♦ VQO is preservation.
- ♦ Evaluate and protect heritage resources for public visibility.

- 1.1.8 Designated Wilderness – Opportunity Class III (applies to areas of the Jedediah Smith Wilderness)
  - ♦ Goals & Objectives: Maintaining the natural diversity of wildlife species is a high priority but does not necessarily dominate other uses. Human activities are managed so that modification of natural succession only occurs at campsites and a moderate amount of soil erosion may occur. Forestwide standards and guidelines apply.
  - ♦ No motorized cross country or road and trail travel allowed.
  - ♦ ROS is primitive to semi-primitive nonmotorized.
  - ♦ VQO is preservation.

Much of the JSW that borders GTR is identified under Opportunity Class II. This means that the area is essentially unmodified. It is a natural environment where concentrations of visitors are low, but there is evidence of human use. The area may experience up to 20 visitors per day. It has a high to moderate opportunity for solitude during July-September, with a high opportunity for solitude during other times of the year. Users are expected to experience a moderate degree of self-reliance and challenge, and may see other users.[137]

GTR is managed as Management Prescription 4.2 – *Special Use Permit Recreation Sites*, whereas the adjacent areas overlapped by the proposed South Bowl and Mono Trees projects and associated SUP expansions are currently classified as Management Prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 – *Aquatic Influence Zone*. The Management Prescription 2.1.2 – *Visual Quality Maintenance* is managed to maintain the existing visual quality through the high-quality vistas that are present in the area. The Management Prescription 2.8.3 – *Aquatic Influence Zone* is managed to maintain the health and integrity of lakes, reservoirs, ponds, perennial and intermittent streams, and wetlands. Consequentially, the *1997 Forest Plan* would have to be amended to convert the Management Prescriptions of the South Bowl and Mono Trees areas from Management Prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 – *Aquatic Influence Zone* to Management Prescription 4.2 – *Special Use Permit Recreation Sites* should the project be approved. The South Bowl project area is most proximate to the JSW boundary, but it is important to note that it does not directly border the JSW boundary and therefore would not increase the extent to which GTR borders the JSW. Although, the South Bowl Management Prescription would have to be amended, no portion of the proposed SUP expansion would occur in areas classified as designated wilderness (Management Prescription 1.1.6 – *Designated Wilderness-Opportunity Class I,* Management Prescription 1.1.7 – *Designated Wilderness-Opportunity Class II*, and Management Prescription 1.1.8 – *Designated*

[137] USDA Forest Service 1997

Wilderness-Opportunity Class III). The proposed Mono Trees area is located adjacent the southern corner of the existing GTR SUP boundary and does abut wilderness. Refer to **Figure 1** for a depiction of the proposed boundary expansion areas and *1997 Forest Plan* Management Prescriptions.

RECREATION OPPORTUNITY SPECTRUM

The Recreation Opportunity Spectrum (ROS) is a tool used by Forest Service managers to classify different outdoor experiences on NFS lands. The ROS class designated for JSW is *primitive* to *semi-primitive non-motorized*, which means that the JSW must maintain several pristine qualities to be consistent with the ROS. A few of these are dominance of unmodified and natural-appearing settings, and the absence of roads. To follow Forest Service management direction, the proposed projects cannot alter these qualities or the overall ROS class designation of *primitive* to *semi-primitive* for the JSW.

3.9.3 Affected Environment

GEOGRAPHY OF THE AREA

The 123,896 acres of the JSW is located both within the Teton Range subsection and the Madison Plateau subsection of the Targhee National Forest (TNF). It lies on the west slope of the Teton Range and extends from Yellowstone National Park south to Teton Pass. It is bordered by Teton Valley to the west and GTNP to the east.[138]

The JSW was designated due to the unique karst limestone features, numerous caves, and outstanding scenery located within its boundaries. Additionally, Teton Canyon, South Leigh Canyon, and North Leigh Canyon are located in proximity to GTR, providing access points to the JSW.

The JSW boundary starts 100 feet northeast of the top of the ridge east of Mary's Nipple. The boundary is variable along the backside of the ridge all the way to South Leigh Canyon due to the slope of the ridge. Once the JSW boundary reaches the 8,000-foot contour along the backside of the ridge, it then jumps to the top of the ridge for the rest of shared boundary between GTR.

USE OF THE AREA

Jedediah Smith Wilderness

Wilderness land use restrictions and management are imposed on JSW lands, but certain low-impact recreational activities are permitted, like hiking, backpacking, camping, and horseback riding.

The JSW is served by a 175-mile trail system that is used by a variety of recreationists including hikers, equestrians, and outfitters and guides.[139]

The JSW is intensively used yearlong with approximately 113,000 visits in the summer.[140] Concentrated use occurs in the summer, as heavy snowfall in the winter creates access challenges. Individuals that do recreate in the JSW in the winter are often seeking out backcountry skiing or riding experiences.

[138] USDA Forest Service 1997
[139] "Fast Facts – Wilderness Connect – University Of Montana" n.d
[140] Personal communication with Jeremiah Kunzman, 2022

Both summer and winter traffic enter the JSW southeast via the Teton Valley trailheads like Teton Canyon and Darby Canyon or northwest via the South-Leigh Creek Trail. The Coal Creek Trailhead is also used but requires traveling through the adjacent NFS land prior to reaching the JSW. [141]

From 1999 to 2009 visitation to wilderness areas nationwide has increased by 18 percent. It is projected that visitation would increase by 24 percent in the next ten years. Additionally, due to the COVID-19 Pandemic, wilderness visitation increased substantially as individuals were trying to find ways to safely get outdoors while social distancing. Typical wilderness visits last one to three days, with day visits being the most common. These visits are most often comprised of groups of two to five people, who venture to wilderness areas close to their homes or in their home state, foregoing traveling long distances. [142]

Grand Targhee Resort

Due to the existing shared boundary between the JSW and GTR, there are current uses and operations of GTR that influence the wilderness area.

Maintenance and operation of GTR during the winter months currently generates noise; however, this has little to no impact on the soundscape of the JSW. Current noise levels in and around the base area range from a level similar to a quiet rural area (25 to 30 dBA) to an outdoor concert (120 dBA) (refer to **Section 3.3** for more information). As depicted in **Figure 1**, the shared boundary between GTR and the JSW is at the upper extent of the GTR SUP area, approximately 1.3 miles from the base area. Top terminals of a number of existing lifts are proximate to this boundary, producing a noise level equivalent to a snowmobile at a distance of 25 feet (100 dBA). Operational equipment, like snowmobiles and snowcats, travel near this shared boundary; however, they do not produce enough noise to measurably alter the soundscape of the greater JSW because of the short duration of time they are present in the area. As the majority of GTR's noise is generated by base area activity, there is little impact of existing GTR operations on the soundscape of the JSW during the winter. During the winter months, operation and maintenance activities, like use of avalaunchers, operation of lifts, and grooming equipment, within the existing SUP boundary and the proposed South Bowl SUP expansion area have the potential to impact the soundscape of the JSW.

During the summer months, construction activities at GTR have the greatest potential to impact the soundscape of the JSW. Past and ongoing projects have resulted in the use of helicopters and heavy machinery (a range of 70 dBA to 100 dBA) as well as the use of blasting and other specialized tools (comparable to thunder at 120 dBA) which would have any even greater impact on the soundscape; however, these alterations to the soundscape are temporary in nature and vary in their proximity to the JSW boundary. Summer programming and associated visitation is considerably less than winter and does not currently impact the JSW soundscape (refer to **Section 3.3** for more information).

Currently, GTR offers a variety of summer recreational experiences, including lift-served mountain biking, hiking, and equestrian trails. Bikers and hikers make up the majority of summer visits (refer to **Section 3.1** for more information). Use of the Dreamcatcher Lift facilitates increased use of the JSW in both summer and winter due to its convenient access. Specifically, summer use of GTR can cause both

[141] "Summer Travel Map for the Palisades and Teton Basin Ranger Districts" 2000; "Winter Travel Map for the Palisades and Teton Basin Ranger Districts" 2000
[142] Wilderness Connect 2020

impacts to the natural environment and the user experience of the wilderness area. A higher influx of people from a more direct access point has the potential to diminish the perception of solitude that wilderness users have when recreating in the JSW. Although GTR may provide such access points in the summer months, a notable impact to solitude has not been attributed to ski area guests entering the wilderness from the ski area. Additionally, there are existing measures that help curb the extent of which GTR access points contribute to the dispersal of guests into the wilderness. Primarily these measures include closures and prohibiting overnight bags on lifts during the summer months. This is intended to limit the extent of which GTR is used as an access point.

In terms of impacts to the environmental conditions of the wilderness, hikers, backpackers, horses, and pack stock can deteriorate vegetation like grasses and sedges. In areas like the JSW, small amounts of use and visitation generally cause more impact. With high-use areas like trailheads, there is an existing condition of vegetation being highly modified and formalized routes that concentrate use to existing disturbed areas.

Although the JSW is still accessible in the winter, the main group of recreators are backcountry skiers. This type of winter usership has a limited ability to impact the experience and solitude for two reasons. The first is that the number of backcountry recreationists entering the JSW from GTR in the winter months is minimal (refer to **Section 3.1** for a description of existing backcountry use), and the second is that there is a minimal number of wilderness users accessing the JSW from other trailheads and access points during the winter months. Overall, visitation is substantially lower during winter months which creates increased opportunities for solitude. Over the snow travel generally does not damage grasses and sedges; therefore, winter use of the JSW does not have the capacity to cause measurable degradation in the same way that summer use has the potential to.

WILDERNESS CHARACTERISTICS

Although the Wilderness Act of 1964 provided a definition of "wilderness," it did not establish any wilderness characteristics. The terms defined below were not established until decades after the Wilderness Act of 1964 went into effect, when the Forest Service determined that more in-depth criteria were needed to conceptualize what it means for certain lands to be better managed as "wilderness." These characteristics are meant to be necessary qualifiers for any federal lands within a congressionally mapped wilderness area, and they are fully applicable as a basis of analysis for the JSW; however, it is important to note that these wilderness characteristics are not necessarily achieved in totality by all federal lands within congressionally mapped wilderness areas, and some may possess only one or two of these characteristics. Although some areas may not possess all of the characteristics, all wilderness areas, including the JSW, must comply with the presented criteria to the highest extent possible.

Four out of the five are described below, and the JSW adheres to these four. The fifth characteristic, "Other Features of Value," is not required by law for wilderness areas to adhere to and can also be subjective to personal experiences within the wilderness. Given this, only the four characteristics that the JSW adheres to are analyzed further.:[143]

- Untrammeled – which means that wilderness is "essentially unhindered and free from the actions of modern human control and manipulation. This quality is degraded by modern human activities or

[143] Landres et al. 2015

actions that control or manipulate the components or processes of ecological systems inside the wilderness."

- Natural – which describes that "wilderness ecological systems are substantially free from the effects of modern civilization. This quality is degraded by intended or unintended effects of modern people on the ecological systems inside the wilderness since the area was designated."
- Undeveloped – which outlines that "wilderness is an area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, where man himself is a visitor who does not remain, and with the imprint of man's work substantially unnoticeable. This quality is degraded by the presence of structures, installations, habitations, and by the use of motor vehicles, motorized equipment, or mechanical transport that increases people's ability to occupy or modify the environment."
- Has outstanding opportunities for solitude or a primitive and unconfined type of recreation – which identifies that wilderness offers an opportunity for people that "is not directly about visitor experiences per se. This quality is degraded by settings that reduce these opportunities, such as visitor encounters, signs of modern civilizations, recreation facilities, and management restrictions on visitor behavior."

Direct and indirect environmental consequences under each of the alternatives for this project are analyzed for their potential to affect these wilderness characteristics.

Further supporting these criteria is the wilderness stewardship performance (WSP). The WSP framework was established and implemented in 2015 with the purpose of acknowledging limitations of certain criteria and stark differences between wilderness areas across the nation. The WSP framework includes five categories of wilderness characteristics: 1) Natural, 2) Undeveloped, 3) Untrammeled, 4) Solitude, 5) Other Features of Value; along with two landscape level management categories: 1) Special Provisions and 2) Administration. Each category has specific elements included in them like invasive species, trails, agency management actions, opportunities for solitude, outfitter and guide management, etc. Wilderness managers select specific elements that they want their wilderness to try and achieve. Elements that the JSW is currently focusing on are solitude monitoring, recreation facility tracking, and outfitter and guide capacity study. [144]

Due to the characteristics being very similar in both the identified wilderness criteria and the WSP Framework, the categories of 1) Untrammeled, 2) Natural, 3) Undeveloped, and 4) Opportunities for Solitude or a Primitive and Unconfined Type of Recreation, would be used in this analysis.

Subjectivity of Wilderness Experience

Although the wilderness characteristics detailed previously offer well-defined standards for analyzing impacts on the wilderness experience of users in the JSW, wilderness experience is intrinsically subjective and intangible to the public. Wilderness experience impacts considered substantial to one individual may be considered trivial to another. This is important because the analysis of direct and indirect environmental consequences that follows is limited by the subjective nature of the wilderness experience. Although wilderness experience may be subjective to the public, as stated previously there are specific

[144] "Forest Service Agency Resources – Wilderness Connect for Practitioners." 2020

criteria that wilderness areas need to follow in order to be classified as wilderness. These criteria are the basis for this analysis.

3.9.4 Direct and Indirect Environmental Consequences

Impacts on local wilderness resources for each alternative have been analyzed based on potential use of the area and on four qualities of wilderness that are called out in the Wilderness Act of 1964 and further described by the Forest Service.[145] These qualities are "untrammeled," "undeveloped," "natural," and "opportunities for solitude or primitive and unconfined recreation."

Due to there not being an existing scale to determine effects to wilderness, a scale was created in order to quantify these effects. The scale has three categorizations, no effect, minorly adverse, and adverse. On this scale, adverse impacts are ones that directly impact the characteristics of the wilderness area and have a close spatial proximity to the wilderness area or are within the wilderness area. For example, this could be introducing non-natural structures, construction of trails, visual intrusions, or loud unnatural sounds for long durations. Minorly adverse impacts are characterized as ones that indirectly impact the wilderness area or are temporary in nature and are further separated spatially from the wilderness area or limited to a confined portion of the wilderness area. For example, this could be in the form of noise generation from nearby construction, which would temporarily impact the solitude of the wilderness area. The no effect impact is given to actions that that either do not directly or indirectly impact a wilderness characteristic, or there are specific PDC that are included that mitigate impacts. This scale is used throughout this section to understand specific impacts.

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Use of Area

Under the No Action Alternative, activities at GTR would essentially be a continuation of existing conditions. Ambient visitation growth consistent with ski industry trends is anticipated. Similarly, current use and visitation of the JSW would increase in accordance with trends discussed under the *Affected Environment*. As previously mentioned, trends in outdoor recreation participation have been increasing over the past ten years, and as a result of the COVID-19 Pandemic, visitation to wilderness areas have been increasing.[146] It is expected that use and visitation to the JSW would continue to increase as individuals are participating in outdoor recreation more and more. This trend would occur independently of the COVID-19 Pandemic.

Furthermore, the recently constructed Colter Lift within GTR's existing SUP boundary has the potential to increase accessibility to NFS lands and the JSW. This new lift could act as an additional access point, particularly in the winter months due to its proximity to the adjacent South Bowl backcountry terrain. As previously described, this terrain is not located within the JSW, but the new lift could prompt new user patterns of the area. Along with this, it is foreseeable that search and rescue operations could increase as backcountry skiers would have greater accessibility to adjacent backcountry terrain and the JSW through the Colter backcountry access points. The use of motorized vehicles and the like to perform search and rescue operations could increase in the JSW. These impacts to the JSW are expected to be minorly adverse, as the Colter Lift does not provide direct access to the wilderness area but rather enhances

[145] Landres et al. 2015
[146] Wilderness Connect 2020

accessibility. Changes in use patterns and ways of accessing the JSW as associated with the Colter Lift are anticipated to be minorly adverse at this time.

Wilderness Characteristics

Untrammeled

Under the No Action Alternative, the CTNF would not authorize construction of MDP projects that are not already previously approved. No modern human control or manipulation would be introduced to the JSW, so there would be no alteration of its untrammeled wilderness character. With no alteration of the JSW's untrammeled wilderness character, there would be no effect, related to this issue.

Undeveloped

Similar to the untrammeled wilderness characteristic, no permanent improvements or human habitation would be introduced to the JSW, so there would be no alteration of its undeveloped wilderness character. Although the project would not directly introduce permanent improvements or human habitation, it could indirectly introduce structures constructed by users of the JSW. However, the Forest Service has no way of regulating this and can only perform remedial actions once these structures are found. With no direct alteration, there would be no effect under NEPA.

Natural

Due to the No Action Alternative resulting in a continuation of existing conditions, none of the effects of modern civilization would be introduced to the JSW ecological systems. Thus, there would be no alteration of its natural wilderness character and no effect related to this issue.

Opportunities for Solitude or Primitive and Unconfined Recreation

Under the No Action Alternative, there would be no reduction in opportunities for solitude or primitive and unconfined recreation. With no reduction in opportunities for solitude or primitive recreation, there would be no effect related to this wilderness characteristic.

ALTERNATIVE 2 – PROPOSED ACTION

Use of the Area

Alternative 2 – Proposed Action would result in a number of projects being implemented within the existing GTR SUP boundary, as well as two SUP expansion areas that would include additional project elements and ski area infrastructure. As stated previously, no expansion of the SUP would occur within the JSW. Additionally, the boundary of the JSW exists 100 feet northeast of the ridgeline of Fred's Mountain and it is important to note that the proposed SUP boundary expansion would not abut anymore of the JSW than it does already.

Through the proposed expansion of multi-season and summer activities within the Summer Activity Zone (refer to **Figure 3**), summer visitation is anticipated to increase under the Proposed Action (refer to **Section 3.1** for more information). With the construction of the Fred's Mountain Top Guest Facility as included in the Proposed Action, along with an increase of summer users, an increase in access to the

JSW is expected during non-winter months and transitional seasons.[147] This is because lift users would have the potential to enter the JSW directly from the lift.[148] The shared wilderness and SUP boundary adjacent to the proposed Fred's Mountain Top Guest Facility has the potential to generate additional trips into the JSW that could occur through unsanctioned access points. Similarly, the proposed maintenance administrative route in the South Bowl expansion has the potential to facilitate easier access to neighboring NFS lands and the JSW by creating a smooth and navigable surface proximate to the valley floor where existing hiking trails exist. However, through PDCs, impacts to the JSW would be mitigated (refer to **Table 2.4-1**). In summary, PDC are intended to create enforceable closures by GTR that prohibit guests from accessing the JSW through non-designated access points as is done under existing conditions. Signage, rope lines, and measures such as those preventing guests from bringing overnight bags on lifts would be designed around new project components and continue to be enforced. Furthermore, due to Fred's Mountain Top Guest Facility being located on top of the ridge, and the JSW being located lower in elevation, there is a possibility of material movement through the construction of this facility. No material is allowed to enter the wilderness from outside the boundary; therefore, specific PDC would be implemented in order to mitigate material entering the JSW from outside the boundary.

Although additional lifts are included in the Proposed Action, access to the JSW is not anticipated to increase as a result of these projects. Specifically, the Dreamcatcher Lift, Crazy Horse Lift, and the South Bowl would increase the capacity of the ski area during the winter months; however, none of these proposed projects would provide access that doesn't already exist or direct access to the JSW. Further, the North Boundary Lift could have the potential of creating an easier access point for users to the JSW as well as neighboring NFS lands. However, through the incorporation of PDC included in **Table 2.4-1** enforceable closures by GTR that prohibit guests from accessing the JSW through non-designated access points would be implemented. Signage, rope lines, and measures such as those preventing guests from bringing overnight bags on lifts would be designed around new project components and continue to be enforced. These PDC would mitigate impacts to the JSW. Furthermore, the North Boundary lift is not planned to operate outside of the winter months. The JSW experiences limited use attributable to backcountry skiing and snowboarding as compared to the summer and overall visitation to the JSW is substantially lower during the winter months.

The South Bowl Lift would not provide direct access to the JSW; however, over the snow travel into the JSW could increase as skiers and snowboarders would be in closer proximity to prime backcountry terrain and have the potential to return back to the bottom terminal of the South Bowl Lift without skiing out to the valley floor (refer to **Figure 4**). This new extent of GTR would likely entice additional users to venture beyond the boundary of GTR into adjacent NFS lands that provide backcountry skiing opportunities (refer to **Section 3.1**); however, only a minimal number of users would be anticipated to use this new configuration to access the JSW, as this would entail much more involved route finding and longer travel during potentially harsh winter conditions. This could potentially increase the likelihood of

[147] Transitional seasons are defined as the early and late ski seasons, when both winter and summer recreational activities are viable. Inconsistent snow cover is commonly found during the transitional seasons, when ski areas are open for the skiing/snowboarding public and at the same time, the southern aspect slopes are mostly dry or not entirely covered with snow; for example, the northern aspect slopes at GTR may have snow cover suitable for skiing/snowboarding, while the southern aspect slopes are dry enough to provide for hiking/backpacking. While periods of inconsistent snow cover are more likely during the early and late season, they may also occur mid-season.
[148] Social trails are defined as trails created by erosion due to foot traffic from people and animals. They are not part of the official NFS lands trail network and are indication of human disturbance.

visitor encounters within the JSW area immediately adjacent to GTR, thereby minimally reducing opportunities for solitude and primitive and unconfined recreation. However, this changed condition is not anticipated to generate a substantial number of users and in the context of the greater extent of the JSW opportunities for solitude and primitive and unconfined recreation would not be affected by the project.

The proposed avalaunchers that would be necessary to mitigate avalanche risk and ensure public safety in the South Bowl area are located southeast of the South Bowl Lift in the lower extent of the proposed terrain pod (refer to **Figure 4**). The avalaunchers would create temporary disturbances to the soundscape and thus the JSW. The soundscape would resemble a range from noise levels of a quiet rural area (25 to 30 dBA) to thunder (120 dBA), differing from the current conditions that range from a quiet rural area to a snowmobile at a distance of 25 feet (100 dBA) (refer to **Section 3.3** for more information). Additionally, through the use of helicopters and chainsaws to construct proposed lift projects and remove trees in the South Bowl area, the temporary soundscape of the JSW would also be impacted. The noise levels during periods of construction could range from 80 dBA to 120 dBA (refer to **Section 3.3** for more information). Depending on the perception of individual users, opportunities for solitude within the JSW could be reduced in the long-term and short-term as a result of avalanche mitigation and construction operations. Overall, due to the new Fred's Mountain Top Guest Facility and line of site voices, there would be minorly adverse impacts on the quiet nature of the soundscape of the JSW.

Wilderness Characteristics

Untrammeled

The Proposed Action would not involve installation of any infrastructure within the JSW. All construction-related activity and equipment, along with subsequent operation and maintenance of the proposed projects after their completion, would occur outside the JSW. However, under the Proposed Action there would be the possibility of increased use associated with over the snow travel as the proposed lifts provide proximal access to the JSW. Therefore, possible trammeling within the JSW. Similarly, increased trammeling may occur in the summer, as the proposed Summer Activity Zone (refer to **Figure 3**) is expected to increase summer visitation. With the proximal location of Fred's Mountain Top Guest Facility, users would have easier access to the JSW and thus the potential to venture off trail and into the wilderness area exists. This could increase the trammeling of the JSW during the summer months; however, it would be limited an extremely small area in the context of the greater JSW. Specific PDC would be implemented in order to mitigate effects to the JSW; however, the untrammeled quality of these lands may be reduced, and the impact would be minorly adverse.

Undeveloped

Under the Proposed Action there would not be installation of any infrastructure within the JSW. All infrastructure required to facilitate operation of the proposed projects would be installed outside the JSW (see Figure 2). Therefore, the Proposed Action would not introduce any permanent improvements or human habitation to the JSW, so the undeveloped quality of these lands would not be reduced and there would be no effect.

Natural

The Proposed Action would not result in the construction or operation of any infrastructure within the JSW, nor would it involve any modification of management strategies within those lands. However, the Proposed Action would result in effects (direct or indirect) of modern people on the ecological systems

existing within the JSW. As stated in **Section 3.13** of the FEIS, the Proposed Action has the potential to directly and indirectly impact both grizzly bear and bighorn sheep habitat within the project area. Furthermore, this would result in indirect disturbance to the ecological processes occurring within the JSW. This may cause the JSW to not be substantially free from the effects of modern civilization. For this reason, the natural quality of these lands would be reduced, and the effect would be minorly adverse.

Opportunities for Solitude or Primitive and Unconfined Recreation

At its closest point, Fred's Mountain Top Guest Facility would be approximately 100 feet from the JSW. Depending on the perception of individual users, opportunities for solitude or primitive and unconfined recreation from within the JSW could be reduced in both the short-term and the long-term.

In the short-term, the Proposed Action would cause temporary audio and visual impacts on users of the JSW during the construction phase. Impacts could include visibility of helicopters, machinery, and work crews; and audible construction activities, such as rock drilling, blasting, and use of helicopters. As stated previously, the soundscape of the JSW could be impacted due to noise levels ranging from 80 dBA to 120 dBA (refer to **Section 3.3** for more information). With the construction of Fred's Mountain Top Guest Facility, events at the top of the mountain may also alter the JSW soundscape in areas of the wilderness proximate to the existing and proposed GTR SUP boundary. Because extents of the JSW further from GTR would not be impacted and the overall soundscape of the JSW would resemble existing conditions, impacts to the soundscape of the JSW are expected to be minorly adverse.

In the long-term, operation of Fred's Mountain Top Guest Facility, Dreamcatcher Lift, South Bowl Lift, North Boundary Lift, and Crazy Horse Lift may create visual impacts for users of the JSW as facilities and operations, towers, and chairs would be visible from Mary's Saddle trail and the northeast side of Fred's Mountain, respectively (see **Section 3.2** for more information). Furthermore, considerable development can already be seen from Table Mountain (refer to **Appendix A** of the **Scenery Technical Report** for images of the existing conditions and visual simulations for each view and **Section 3.2** for more information) in the distance, and visibility of additional structures could negatively affect the sense of solitude and reduce opportunities for primitive and unconfined recreation for users of the JSW along the boundary with the project area. Along with this, new proposed downhill mountain biking trails may increase the visitation to GTR during the summer, thus contributing to the long-term impacts of the proposed project to the perceived solitude within the JSW's boundaries (refer to **Figure 3**). In addition, auditory impacts associated with operation of the South Bowl avalaunchers, and accessibility impacts are possible in the long-term. These potential effects to opportunities for solitude or primitive and unconfined recreation depend on the perception of the development to individual users of the JSW. However, they would be year-round, including during transitional seasons.

PDC that would be followed to mitigate impacts to the JSW include prohibiting overnight backpacks on lifts that provide access to the JSW. Overall, short-term and long-term effects related to opportunities for solitude or primitive and unconfined recreation would be minorly adverse.

ALTERNATIVE 3 – NO SUP EXPANSION

Use of Area

Alternative 3 would have similar effects as described in the Proposed Action (refer to Alternative 2 – Proposed Action for more information). Although effects are similar, Alternative 3 would have less effect

on the JSW soundscape due to no SUP expansions being included in this alternative (refer to Alternative 2 – Proposed Action above for more information).

Wilderness Characteristics

Untrammeled

Alternative 3 would have similar effects as described in Alternative 2 – Proposed Action. Although effects are similar, Alternative 3 would have a lesser effect overall as compared to the Proposed Action (refer to Alternative 2 – Proposed Action for more information). However, with the increase in visitation during the summer months, the Fred's Mountain Top Guest Facility, and presence of guests in this area, there is an increased likeliness for trammeling to occur in the nearby JSW. As in the case of the Proposed Action Alternative, this trend would be limited an extremely small area in the context of the greater JSW. Specific PDC would be implemented in order to mitigate effects to the JSW; however, the untrammeled quality of these lands may be reduced, and the impact would be minorly adverse under Alternative 3.

Undeveloped

Similar to as described in the Proposed Action, under Alternative 3 there would not be installation of any infrastructure within the JSW (refer to Alternative 2 – Proposed Action for more information). All infrastructure required to facilitate operation of the proposed projects would be installed outside the JSW (see **Figure 2**). Therefore, Alternative 3 would not introduce any permanent improvements or human habitation to the JSW, so the undeveloped quality of these lands would not be reduced and there would be no effect.

Natural

As described in Alternative 2 – Proposed Action, Alternative 3 has the potential to create the same effects (refer to Alternative 2 – Proposed Action for more information). However, the effects would be less adverse as compared to the Proposed Action due to the proposed projects only occurring in the existing GTR SUP area.

Opportunities for Solitude or Primitive and Unconfined Recreation

Alternative 3 would have the same effect on opportunities for solitude or primitive and unconfined recreation as the Proposed Action. (refer to Alternative 2 – Proposed Action for more information). However, compared with the Proposed Action, Alternative 3 would result in less of a visitation increase to the JSW, as the South Bowl area would not be created. Users would only be able to access the JSW through the North Boundary Lift, Crazy Horse Lift, Dreamcatcher Lift, or Fred's Mountain Top Guest Facility. Additionally, without the use of avalaunchers in the South Bowl area, the impacts of GTR's operations on the JSW soundscape would be lesser than those of the Proposed Action but would still alter the soundscape due to the construction and operation of the Fred's Mountain Top Guest facility. Overall, direct and indirect effects related to opportunities for solitude or primitive and unconfined recreation would be minorly adverse.

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

Use of the Area

Alternative 4 would have similar effects as the Proposed Action (refer to Alternative 2 – Proposed Action for more information). During parts of the year when lifts would continue to operate, and southern aspect

slopes would be dry enough for hiking at the same time, the Dreamcatcher Lift, Crazy Horse Lift, Fred's Mountain Top Guest Facility, and the South Bowl Lift/expansion would put users in closer proximity to the JSW (refer to **Figure 2 and 4**). Overall, increased accessibility and decreased solitude would decrease the primitive nature of the JSW.

Wilderness Characteristics

Untrammeled

Alternative 4 would have similar effects as described in the Proposed Action (refer to Alternative 2 – Proposed Action for more information). Summer use would increase due to the proposed Summer Activity Zone. This would lead to more people utilizing Fred's Mountain Top Guest Facility, and thus increased potential for trammeling within the JSW. Additionally, there could be an increase in backcountry skiing use during the winter, and due to this area being avalanche prone, search and rescue operations could increase. This could increase the use of motorized vehicles and the like to perform these operations, impacting the untrammeled nature of the JSW. As in the case of the Proposed Action, this trend would be limited to an extremely small area in the context of the greater JSW. Specific PDC would be implemented in order to mitigate effects to the JSW. Therefore, under Alternative 4 impacts to the untrammeled quality of the JSW would be minorly adverse.

Undeveloped

Similar to as described in the Proposed Action, under Alternative 4 there would not be installation of any infrastructure within the JSW (refer to Alternative 2 – Proposed Action for more information). All infrastructure required to facilitate operation of the proposed projects would be installed outside the JSW (see **Figure 2**). Therefore, Alternative 4 would not introduce any permanent improvements or human habitation to the JSW, so the undeveloped quality of these lands would not be reduced and there would be no effect.

Natural

Similarly, Alternative 4 would have the same effect on the natural wilderness characteristic as the Proposed Action would (refer to Alternative 2 – Proposed Action for more information). In accordance with **Section 3.13**, although none of the grizzly bear or bighorn sheep habitat, including designated critical habitat, within the JSW would be directly disturbed by the project facilities, critical habitat within the proposed South Bowl area would be directly impacted. Therefore, the ecological processes occurring within the JSW would be altered to some degree by implementation of Alternative 4, as animals would relocate to this area. This may cause the JSW to not be substantially free from the effects of modern civilization. For this reason, the natural quality of these lands would be reduced, and the effect would be minorly adverse.

Opportunities for Solitude or Primitive and Unconfined Recreation

As described in the Proposed Action, Alternative 4 would have similar effects on opportunities for solitude or primitive and unconfined recreation (refer to Alternative 2 – Proposed Action for more information). Alternative 4 would cause temporary audio and visual impacts on users of the JSW during the construction phase. In addition, visual impacts associated with continued operation of Fred's Mountain Top Guest Facility and auditory impacts associated with operation of the South Bowl avalaunchers are possible in the long-term. These potential effects on opportunities for solitude or primitive and unconfined recreation depend on the perception of the development to individual users of

the JSW (refer to Alternative 2 – Proposed Action for more information). However, they would be year-round, including during transitional seasons. Direct and indirect effects related to opportunities for solitude or primitive and unconfined recreation would be minorly adverse.

ALTERNATIVE 5 – MONO TREE, NO SOUTH BOWL

Use of the Area

Alternative 5 would have similar effects as the Proposed Action (refer to Alternative 2 – Proposed Action for more information). However, Alternative 5 would have a lesser effect overall as compared to the Proposed Action, due to no South Bowl Expansion. There would still be increased accessibility to the JSW from Dreamcatcher and Crazy Horse Lifts, decreasing the primitive nature of the JSW overall.

Wilderness Characteristics

Untrammeled

Alternative 5 would have similar effects as described in the Proposed Action (refer to Alternative 2 – Proposed Action for more information). Although effects are similar, Alternative 5 would have a lesser effect overall as compared to the Proposed Action. This is due to Alternative 5 not including the South Bowl expansion. Similarly with increased summer use, Fred's Mountain Top Guest Facility and proposed lifts could result in increased trammeling of the JSW. As in the case of the Proposed Action Alternative, this trend would be limited to an extremely small area in the context of the greater JSW. Specific PDC would be implemented in order to mitigate effects to the JSW. Therefore, under Alternative 5 impacts to the untrammeled quality of the JSW would be minorly adverse.

Undeveloped

Similar to as described in the Proposed Action, Alternative 5 would have no effect on the undeveloped qualities of the JSM (refer to Alternative 2 – Proposed Action for more information). Specifically Alternative 5 would create a lesser effect on the undeveloped nature of wilderness due to not including the South Bowl expansion. Additionally, all infrastructure required to facilitate operation of the proposed projects would be installed outside the JSW, so there would be no effect on the undeveloped nature of these lands.

Natural

As described in Alternative 2, Alternative 5 has the potential to create the same effects (refer to Alternative 2 – Proposed Action for more information). However, effects would be less adverse, as compared to the Proposed Action, due to the proposed Mono Trees expansion being spatially removed from the JSW. Therefore, there would be no effect on the natural nature of the JSW.

Opportunities for Solitude or Primitive and Unconfined Recreation

Alternative 5 would have the same effect on opportunities for solitude or primitive and unconfined recreation as the Proposed Action did. However, compared with the Proposed Action, Alternative 5 would result in less of a visitation increase to the JSW, as the South Bowl area would not be created. Users would only be in close proximity to the JSW through the North Boundary Lift, Crazy Horse Lift, Dreamcatcher Lift, or Fred's Mountain Top Guest Facility. Additionally, without the use of avalaunchers in the South Bowl area, the impacts of GTR's operations on the JSW soundscape would be lesser than those of the Proposed Action but would still alter the soundscape due to the construction and operation of

the Fred's Mountain Top Guest facility. Overall, direct, and indirect effects related to opportunities for solitude or primitive and unconfined recreation would be minorly adverse (refer to Alternative 2 – Proposed Action for more information).

3.9.5 Cumulative Effects

SCOPE OF THE ANALYSIS

Effects analyzed in the Cumulative Effects discussion apply to all alternatives, including the No Action Alternative. The following projects are expected to cumulatively have short- and long-term effects on overall recreational opportunities in the GTR SUP area and on the adjacent JSW and NFS lands, as well as throughout Teton County, Wyoming.

Temporal Bounds

The temporal bounds for this cumulative effects analysis for wilderness resources extend from GTR's founding as a ski area in 1966 through the foreseeable future in which GTR can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis for wilderness resources are limited to public and private lands in the vicinity of GTR's operational area.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects study area, the reader is referred to **Appendix A** in the FEIS. Past ski area and county development projects have been incorporated and analyzed in this document as part of the Affected Environment discussion. Projects that could have cumulative impacts on wilderness are analyzed in the following discussion.

Many of the projects that have the potential to cumulatively impact wilderness resources are *1997 Forest Plan* revisions, monitoring, construction of mountain biking and hiking trails, and development of additional ski terrain. Construction of the Colter Lift coupled with these proposed projects could increase the visitation to the JSW which could impact the opportunity of solitude or primitive unconfined recreation within the JSW. Additionally, future projects that have yet to be implemented and are included in these documents and analyses would be expected to further diminish the opportunity for solitude or primitive unconfined recreation that can be found in wilderness areas. Not only future projects located within the GTR's SUP, but adjacent projects like residential construction, increased traffic, and increased and retained use of the JSW due to the COVID-19 pandemic have cumulative effects to wilderness characteristics of the JSW.

The expansion of GTR's SUP boundary and development of lift-served skiing in the Mono Trees and South Bowl area specifically would impact areas not previously influenced by ski area operations, further extending the reach of GTR's influence to the adjacent JSW through audio and visual impacts when considered cumulatively with other projects.

3.9.6 Irreversible and Irretrievable Commitments of Resources

The addition of ski trails, lifts, and associated infrastructure would represent irretrievable effects to wilderness characteristics of the JSW adjacent to GTR. However, the implementation of the proposed

projects are not considered irreversible commitments of these resources because operations could be discontinued, returning GTR to its natural state. No additional irreversible and/or irretrievable commitment of resources have been identified that may impact wilderness resources in association with the alternatives analyzed in this document.

3.10 Air Quality

3.10.1 Scope of the Analysis

This air quality review assesses impacts that air emissions from activities related to projects at GTR would have on air quality in the region. Although air pollution can impact areas far away as a result of wind direction, temperature, and other factors, the spatial scope of this analysis is the airshed of the CTNF and of Teton County, Wyoming and Idaho. The temporal scope of this analysis spans from the ski area's inception in 1969 through the foreseeable future in which GTR can be expected to operate.

This analysis summarizes the *Air Quality Technical Report for the Grand Targhee Master Development Plan Projects Environmental Impact Statement*, referred to as the **Air Quality Technical Report**.[149] Refer to the **Air Quality Technical Report** for more information on methodology, data sources, definitions, *1997 Forest Plan* direction, and emissions data.

3.10.2 Federal, State, and Local Policy and Guidance

FEDERAL POLICY AND GUIDANCE

Clean Air Act

In 1970, the Clean Air Act (CAA) established national ambient air quality standards for common pollutants to reduce the presence of pollution across the United States. The CAA requires the EPA to establish National Ambient Air Quality Standards (NAAQS) for common pollutants, and as a result the EPA defined six criteria pollutants: particulate matter, ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead. The most recent NAAQS for these pollutants are included in **Table 3.10-1** below.

Table 3.10-1. EPA NAAQS

Pollutant	Primary/ Secondary[1]	Averaging Time	NAAQS Level[2]
Carbon Monoxide	primary	8 hours	9 ppm
		1 hour	35 ppm
Lead	primary and secondary	Rolling 3-month average	0.15 µg/m3
Nitrogen Dioxide	primary	1 hour	100 ppb

[149] SE Group 2023f

	primary and secondary	1 year	53 ppb
Ozone	primary and secondary	8 hours	0.070 ppm
PM2.5 (particulate matter of 2.5 microns or less)	primary	1 year	9.0 ug/m3
	secondary	1 year	15.0 ug/m3
	primary and secondary	24 hours	35 ug/m3
PM10 (particulate matter of 10 microns or less)	primary and secondary	24 hours	150 ug/m3
Sulfur Dioxide	primary	1 hour	75 ppb
	secondary	1 year	10 ppb

Source: U.S. EPA 2024
Notes: [1] Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.
[2] ppm=parts per million; ug/m3= micrograms per cubic meter

The CAA was amended in 1977 and 1990. The 1977 CAA Amendments established Class I, II, and III areas, which have strict air quality standards and are only allowed a certain amount of air quality deterioration. These areas must comply with the NAAQS listed above. Class I and II airsheds proximate to the study area are discussed in detail under **Section 3.10.3**.

1997 Forest Plan Standards and Guidelines

The Targhee Forest Plan provides goals, standards, and guidelines for air quality. The desired future conditions for air quality are that it "*complies with Clean Air Act and other state requirements for Utah, Wyoming, and Idaho*."[150]

The *1997 Forest Plan* establishes a monitoring and evaluation plan for air quality, focused mostly on Class I and II areas. The plan states that "*monitoring should be conducted in designated wilderness on the Forest; and other nonwilderness areas upwind from and adjacent to Class I airsheds and Class II wilderness airsheds managed by other entities.*"[151] The plan identifies visibility as the air quality indicator, to be measured using two methods: timed-exposure camera(s) with density-monitoring devices and aerosol particle evaluation supplemented by photographs.

[150] USDA Forest Service 1997
[151] Ibid

The *1997 Forest Plan* also specifically discusses air quality monitoring for the JSW, a Class II wilderness area, listing the following methods:[152]

1. *Monitor acid deposition in Wilderness lakes. Specifically, Two Island Lake is extremely sensitive to acid deposition; and Middle Granite Lake is more typical of Wilderness lakes with some buffering capacity. Reference for more information the water quality survey conducted in 1992 by personnel from the Targhee and Bridger-Teton National Forests.*
2. *Monitor visual air quality by means such as periodic photography. Consider establishing a monitoring station at the Grand Targhee ski area or other location which would permit observation of air quality in both the Wilderness and Grand Teton National Park.*

STATE POLICY AND GUIDANCE

Wyoming

The State of Wyoming Department of Environmental Quality (Wyoming DEQ) Air Quality Division (AQD) regulations also apply to this proposed project. These regulations include clean air goals and standards, permits for major and area source emissions, and permits for outdoor burning, all in compliance with the Wyoming Environmental Quality Act. In addition, the State of Wyoming supports Class I and II designations as described previously.

Under the Wyoming Environmental Quality Act, the State established the Wyoming Air Quality Standards and Regulations (WAQSR) which describe the requirements for air quality criteria such as ambient standards, general emissions, permitting, and monitoring. Refer to the **Air Quality Technical Report** for more information.

Idaho

The State of Idaho Department of Environmental Quality (Idaho DEQ) has goals, regulations, monitoring programs, and permits intended to maintain good air quality in the region. Idaho DEQ regulations are guided by the CAA and other national policies. The Idaho DEQ monitors air quality through modeling, meteorology, emission inventory, and transportation planning across the State of Idaho and collects hourly data from over 35 monitors for various NAAQS pollutants.[153] The Idaho DEQ also requires permits for construction projects to buildings or facilities that may emit air pollutants.

LOCAL POLICY AND GUIDANCE

Teton County, Wyoming does not have additional air quality policy; instead, the county air quality guidance is consistent with the Wyoming Air Quality Standards and Regulations and AQD programs and permits.[154] The same is true for Teton County, Idaho and Idaho DEQ standards and regulations.

3.10.3 Affected Environment

This analysis focuses on pollutants relevant to regional air quality and GTR's impacts. These include pollutants generated as a result of vehicle use, resort operations, and construction activities: CO, NO_2, SO_2, PM10, PM2.5, carbon dioxide (CO_2), and methane (CH_4). This analysis also considers ozone, a

[152] USDA Forest Service 1997
[153] Idaho DEQ 2021
[154] Teton County Wyoming n.d.

secondary pollutant generated through chemical reactions under ultraviolet radiation (sunlight) between NO_X (which includes both NO and NO_2) and other volatile organic molecules generated by cars, power plants, and other activity. The only NAAQS that does not apply to this report is Lead, since it is not generated by GTR's operation or construction activities.

RELEVANT EMISSIONS

CO_2 and CH_4 are not included in the EPA's NAAQS, however, both are relevant emissions impacted by transportation, resort operations, and construction practices. These emissions are not regulated in the same way as NAAQS and do not have an extensive monitoring network. The EPA measures these emissions primarily through inventories of energy data, agricultural data, and other national statistics and through reporting programs. These factors combined provide annual estimates of national emissions production.

The United States Energy Information Administration (EIA) also provides adjusted CO_2 emissions data for all states within the United States between 1980 and 2020. In Wyoming, transportation sector emissions include uses of petroleum products and natural gas. Transportation emissions in Wyoming amounted to an average of 7.8 million metric tons of CO_2 annually between 2010 and 2020.[155] This translates to an average of approximately 21,300 metric tons of CO_2 emissions per day.

REGIONAL AIR QUALITY

The Air Quality Index (AQI) is a measure of air quality used by the EPA that describes the air quality of an area. Between 2001 and 2021, the AQI for Teton County has ranged from "good" to "moderate." There have been several isolated time periods where the air quality was "unhealthy for sensitive groups" or "unhealthy."[156] It is recognized that while air quality has generally been improving, certain events such as wildfires can compromise air quality in Wyoming and Idaho. Wildfire smoke contributes primarily to PM2.5 and ozone levels in the atmosphere. Wildfire smoke from areas as far as Oregon or Washington can impact air quality in Wyoming. The visibility and air pollution in Teton County has been impacted by wildfire smoke, which is evident in the data discussed below.

This analysis makes use of existing air quality data for NAAQS pollutants (CO, NO_X, Ozone, PM2.5, PM10, SO_X) from the closest active monitors to the project area. Active Air Quality Monitors closest GTR and used in this report are shown in **Table 3.10-2**.

Table 3.10-2. Air Quality Monitors near GTR

Monitor	Location	Pollutants Measured	Approximate distance from GTR (miles)
Grand Teton NP – Science School	GTNP	PM2.5, PM10, Ozone	20
Jackson SLAM Site	Jackson, WY	PM10, PM2.5	24

[155] EIA 2021
[156] U.S. EPA 2022a

Yellowstone National Park – Old Faithful Snow Lodge	YNP	CO, NO_2	40
Idaho Falls IDEQ Station	Idaho Falls, ID	PM2.5	60
Soda Springs	Soda Springs, ID	SO_2	84

Source: Air Quality Technical Report

Class I and II Airsheds

The GTR project area and the surrounding Class I and II Wilderness areas are not located in any United States Environmental Protection Agency (U.S. EPA) designated non-attainment areas for ozone, particulate matter, carbon monoxide, lead, nitrogen dioxide, or sulfur dioxide.

Wyoming is home to numerous state and national parks, monuments, and wilderness areas. Among these are a number of federal Class I and Class II areas. Class I areas near GTR (in order of distance from GTR) are GTNP, Yellowstone National Park, Teton Wilderness, Washakie Wilderness, Bridger Wilderness, Fitzpatrick Wilderness, and North Absaroka Wilderness. Class II areas near GTR (in order of distance from GTR) are JSW and Gros Ventre Wilderness.

Two nearby Class I areas, GTNP and Yellowstone National Park (YNP), can provide insight into general air quality trends near the project area. The closest ozone, PM2.5, and PM10 monitor is located approximately 20 miles from GTR in GTNP. Daily average ozone at GTNP in the previous three years and up to the last 8 years has remained below the NAAQS value of 0.070 ppm. PM10 in the last 10 years has also remained below NAAQS values in GTNP. Additionally, the closest NO_2 and CO monitor to GTR is in YNP, approximately 40 miles from the project area. Both NO_2 and CO concentrations have remained well below NAAQS in the region since 2019. Refer to the **Air Quality Technical Report** for more information on existing emissions data.

Population Centers

The nearest population centers with U.S. EPA air quality monitoring sites in proximity to GTR are Jackson, Wyoming (~25 miles south) and Idaho Falls, Idaho (~60 miles southwest). In the last 10 years, Jackson's AQI has been primarily "good" to "moderate," with rare events of "unhealthy for sensitive groups" and "unhealthy."[157] Similarly, Idaho Falls' AQI since 2001 has been primarily "good" to "moderate" with occasional "unhealthy" days that are most likely attributable to wildfire smoke.[158]

There is a monitor in Jackson, Wyoming which measures PM10 and PM2.5 and a monitor in Idaho Falls that measures PM2.5. Since 2019, PM10 has remained below the NAAQS value, however, PM2.5 spiked above NAAQS concentrations in the summers of 2020 and 2021 in both Jackson and Idaho Falls. As described earlier in this section, while general air quality in the region is improving, the frequency of wildfire events has recently increased, creating challenges for maintaining good air quality. It is important

[157] U.S. EPA 2022a
[158] Ibid

to note that other than these two events, the air quality in both areas has remained below the NAAQS for PM2.5 since 2019.

Lastly, to understand SO_2 pollution around GTR, the nearest monitor collecting SO_2 data is in Soda Springs, Idaho. Daily averages remained well below NAAQS levels in Soda Springs between 2019-2021.

Emissions from Vehicle Traffic

The National Emissions Inventory (NEI) is a dataset from the U.S. EPA that estimates emissions of criteria pollutants from point, nonpoint, on road mobile, and nonroad mobile sources. On road mobile emissions sources include cars and trucks (highway vehicles), and nonroad mobile sources include lawn and garden equipment (off-highway vehicles). Highway and off-highway vehicle emissions of CO, NO_X, SO_X, and PM2.5 were collected from the 2020 NEI for the State of Wyoming and Teton County. These emissions results are included in the Air Quality Technical Report and were used **Table 3.10-3**.

Table 3.10-3. Wyoming Highway Vehicle Emissions, 2020

Source	Pollutant	State of Wyoming	
		Total Emissions (tons/year)	Total Emissions (tons/day)
Highway Vehicle	CO	59,054	162
	NO_X	17,354	48
	SO_2	34.9	0.1
	PM2.5	465	1.3
Off-Highway	CO	29,658	81
	NO_X	17,938	49
	SO_2	29.6	0.1
	PM2.5	612	1.7

Source: Air Quality Technical Report

EMISSIONS FROM SKI AREA OPERATIONS

Emission sources considered as a result of ski area operations include the resort's power use, highway vehicle traffic driven by resort operations, and construction vehicles. Additionally, GTR may require occasional maintenance vehicle trips on their existing infrastructure when the needs arise, which could require the use of heavy-duty construction vehicles.

Power

Power is required to service lifts, guest services facilities, snowmaking, lighting, and other essential components to a ski area. GTR ski area operations are powered by Fall River Rural Electric Cooperative

(FRREC) in Teton County, Idaho. FRREC power is driven by 95 percent renewable sources (84 percent hydroelectric, 10 percent nuclear, and 1 percent wind).[159] The remaining 5 percent comes from the local energy market.[160] Because GTR is powered by a source that is 95 percent renewable rather than sourced by fossil fuels, the amount of power used by GTR and its ski area operations does not measurably contribute to concentration levels of pollutants like CO_2, NO_x, SO_2, CH_4, etc.. GTR does have emergency and backup generators for a number of its facilities and infrastructure. These do contribute emissions from maintenance, testing, and instances when they are used. Due to the irregular and infrequent use of emergency and backup generators, their emissions are not specifically quantified.

Vehicle Traffic at GTR

GTR is a local driver of vehicular emissions as an employer and tourist destination for thousands of people each year. Vehicular emissions were calculated based on the visitor origin data, lodging occupancy and location, transit ridership, and estimated average vehicle occupancy (2.5 guests/vehicle) documented in the **Traffic and Parking Technical Report.** With this data, it was estimated that the average winter visitor travels over 60 miles per ski day.[161] The average summer visitor travels almost 80 miles per day.[162] Emissions were calculated for vehicle miles driven on the average day across the season; resulting vehicle emissions would likely be higher on busier days and lesser on lower visitation days. Transit/bus miles associated with the Teton Valley Bus service, employees driving to the resort each day, and visitor travel within the region were included in seasonal emission totals as well.

Estimated vehicle emissions as a result of existing visitor trips to GTR in the winter, summer, and due to construction of projects on NFS lands are estimated in **Table 3.10-4**.

Table 3.10-4. Existing Traffic and Construction Vehicle Emissions

Pollutant	Existing Conditions (lbs/day)		
	Winter	Summer	Construction
CO	338.23	135.87	0
NO_x	36.84	16.36	0
SO_x	0.93	0.38	0
PM 2.5	5.66	2.33	0
CO_2	9.63E+04	3.91E+04	0
CH_4	3.50	1.41	0

[159] Fall River Rural Electric Cooperative 2022
[160] Personal correspondence with Fall River, 01/05/2022
[161] For example, if a group of 3 travels the 400 miles round trip from Bozeman, stays at the resort, takes one trip into Driggs for dinner (25 miles round trip), and skis for 2 days, this would be (400+25)÷3)÷2=71 vehicle miles per skier visit. A group of two taking a day trip from Jackson (90 miles round trip), would be 45 vehicle miles per skier visit.
[162] A lower percentage of summer visits are from residents from the immediate area.

Source: Air Quality Technical Report

As shown in **Table 3.10-4**, the pollutants measurably impacted by daily visitor vehicle emissions at GTR are NO_X (including NO and NO_2), CO, and CO_2. Vehicle emissions have the largest impact on CO_2, at an estimated 108,300 lbs (49 tons) per day in the winter and 39,100 lbs (18 tons) per day in the summer. On an annual basis, these emissions are approximately 0.2 percent of all relevant emissions in the transportation sector in Wyoming. Additionally, existing vehicle emissions of NAAQS (NO_X, CO, PM2.5, and SO_X) as a result of GTR operations contribute to 0.2 percent or less of highway vehicle emissions in the State of Wyoming on an annual basis.

In the existing conditions at GTR, there are no existing construction projects, therefore there are no existing air quality impacts from construction vehicles.

COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

As described previously, State of Wyoming guidance defines stationary sources, secondary sources, and significant emissions. According to state standards and regulations, GTR would not be considered a stationary source because it does not produce emissions directly from its operations. Additionally, emissions generated as a result of operations, such as vehicle traffic, would not be considered a secondary source according to State standards and regulations because it excludes "any emissions which come directly from a mobile source." While these standards and regulations do not directly apply to GTR and its operations, this analysis uses this definition as a tool for scaling emissions impacts.

In its existing condition, GTR annual operations, including summer and winter seasons, would not be considered "significant" by Wyoming standards and guidelines. Refer to the **Air Quality Technical Report** for more information.

3.10.4 Direct and Indirect Environmental Consequences

The following sections present the direct and indirect environmental consequences anticipated under the No Action Alternative and all action alternatives.

There are six pollutants analyzed in this section, four of which are pollutants subject to NAAQS: CO, NO_X, SO_X, and $PM_{2.5}$, and the other two of which are characterized as relevant emissions, CO_2 and CH_4. This section estimates pollutant emissions as a result of proposed projects and compares them to existing pollutant emissions as a result of highway and off-highway vehicles (which are the primary drivers of emissions as a result of proposed projects) in the State of Wyoming and Teton County, Wyoming in order to quantify the project impacts. Additionally, this section uses existing concentrations compared to NAAQS as described in **Section 3.10.3** in a qualitative analysis to determine the impacts of the proposed projects and whether or not they could contribute to concentrations above NAAQS standards.

For all alternatives, the primary source of additional pollutant emissions is visitor vehicle traffic. It is important to recognize that many of the additional visitors to GTR contributing air pollution are recreationists seeking the recreational experience in general. While they may choose to come to GTR over other resorts as a result of the proposed projects in each alternative, they may have traveled to another nearby resort whether or not the projects were implemented and may have still contributed to pollutant emissions. Therefore, estimated increases in pollutants as a result of visitor vehicle traffic is most likely a high-end estimate of air quality impacts from each alternative.

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Under the No Action Alternative, GTR resources would remain in their existing conditions and the ski area would continue to operate within the existing SUP area, utilizing existing terrain and lifts. Average daily visitation in both winter and summer is expected to increase modestly in line with the current trend.

Impacts from Construction and Timber Removal

Without the construction of proposed projects, heavy machinery and additional construction vehicles would not be used at GTR and would not generate emissions contributing to air quality under the No Action alternative. In continuing operations, GTR may require occasional maintenance vehicle trips on their existing infrastructure, which could require the use of heavy-duty construction vehicles. However, these impacts would be temporary and are likely to have little impact on air quality in the region.

Impacts from Operation

The contribution of activities at the ski area, such as visitor traffic/emissions, to air quality would continue along current trends. Summer and winter visitation is expected to increase in coming years, resulting in very small increases in CO, NO_X, and SO_X emissions from vehicles (refer to the **Air Quality Technical Report**). Average vehicle miles per skier visit is anticipated to increase slightly from existing conditions to reflect more visitors coming from further away. Total vehicle miles on an average winter day under the No Action Alternative would increase by approximately 16,000 from the existing condition; on an average summer day, vehicle miles traveled would increase by approximately 7,000 from the existing condition. These emissions would contribute to an increase of less than 0.1 percent of highway vehicle emissions in Wyoming and are not likely to produce emissions that would increase concentrations above NAAQS.

The largest increase would be in CO_2 emissions, with a total annual difference from existing conditions of approximately 18,300 lbs (8 tons) per day in the winter and 7,800 lbs (3.5 tons) per day in the summer (following current trend of growing visitation). On an annual basis, increased visitation would only contribute to less than a 0.1 percent increase in CO_2 and CH_4 emissions in the transportation sector in Wyoming, which is expected to result in negligible impacts to air quality.

Additionally, GTR operations would continue to have negligible impacts on emissions as its power source is primarily renewables that do not result in the emission of pollutants (for more information, refer to the Emissions from Ski Area Operations section in **Section 3.10.3**).

Compliance with Federal, State, and Local Regulations

As described in **Section 3.10.3**, State of Wyoming guidelines do not consider emissions generated as a result of operations, such as vehicle traffic, a secondary source; however, this analysis assesses GTR emissions under the definition of a “significant” secondary source per state guidelines as a tool for scaling impacts. Annual emissions under the No Action Alternative, assuming a 145-day winter season and an 80-day summer season, would not be considered “significant” by Wyoming standards (refer to the **Air Quality Technical Report**).

ALTERNATIVE 2 – PROPOSED ACTION

The Proposed Action is consistent with federal, state, and local regulations regarding air quality. Three categories of activities would contribute to increased emissions from the proposed projects: (1) emissions from construction of the projects; (2) emissions from additional winter visitation and operation of

proposed infrastructure; (3) emissions from additional summer visitation, driven by proposed multi-season projects.

Impacts from Construction and Timber Removal

Two types of construction activities would generate pollutant emissions as a result of the Proposed Action: on-road and off-road vehicles. The Proposed Action would require trucks and other heavy equipment on administrative routes for tree removal, construction, staging, and installation of proposed infrastructure, which would result in up to 5 passenger vehicle trips and 5 logging vehicle trips per day for the duration of construction activities. Additionally, off-road activities such as tree removal, rock clearing, soil removal and placement, vegetation clearing on the proposed new ski terrain, ski terrain access improvements, and mountain biking trails would also require use of heavy equipment. The Proposed Action would result in up to 5 off-road vehicles used for 8 hours per day of an approximately 3.5-month construction season. The use of these off-road machines such as spider hoes and chipping equipment would result in pollutant emissions during the summer construction seasons. When helicopters would be employed for aerial tree removal or lift tower placement, they would consume fuel and contribute to pollutant emissions as well. Helicopters would be used for less than 5 days each construction season and as a result would contribute to a fraction of construction emissions; therefore, they are not included in the off-road construction vehicle emissions calculations.

Combined impacts from on-road and off-road construction activity would result in temporary impacts to air quality. Of the NAAQS pollutants, SO_X and PM2.5 are not likely to be considerably impacted by construction activities. However, small amounts of CO and NO_X (approximately 22 and 14 lbs per day, respectively) may be released daily into the atmosphere as a result of construction vehicle activity. Emissions of each NAAQS pollutant would contribute to an increase of less than 0.1 percent or less of off-highway vehicle emissions in Wyoming on an annual basis. When considering the recent trends for CO and NO_X in the region, existing CO and NO_X concentrations are far below NAAQS, and these additional contributions are not likely to considerably increase pollutant concentrations and are especially not expected to result in pollutant levels above the NAAQS.

When looking at impacts to CO_2 and CH_4, there would be little to no difference in CH_4 emissions as a result of construction from the Proposed Action, however, CO_2 emissions as a result of construction would increase by approximately 5,460 lbs (2.5 tons) daily. An additional 5,460 lbs of CO_2 daily would contribute to an 0.1 or less percent increase in total transportation emissions in Wyoming, which is not expected to contribute to the degradation of air quality in the state or area. Therefore, the impacts of construction as a result of the Proposed Action on these emissions would be negligible.

In gladed ski areas that require tree removal, trees would either be removed over the snow and using administrative route networks or hand cut, piled, and burned. In case of burning, vegetation and felled trees would be burned on site, adhering to State of Wyoming Burn Permit parameters and CTNF for pile size and the timing of burning. Burning would result in the short-term release of pollutant emissions, limited to the duration of the burn itself. Compliance with CTNF and state regulations on this activity would mitigate impacts on air quality. Because of harsh wildfire conditions and fire bans, burning may not be an option during construction of these projects. Additionally, due to the small area of tree removal projects that are anticipated to require burning, possible use of pile burning during the construction phase of the proposed projects is unlikely to result in regional or Class I or II areas air quality degradation.

Emissions of criteria pollutants and greenhouse gases like CO, NO_x, O_3, $PM_{2.5}$, PM_{10}, SO_x, CO_2, and CH_4 do have the potential to change year-over-year during the construction period and from tree removal for the proposed project. As different projects are constructed/trees are removed, different types of construction/heavy-duty equipment may be required, which could alter the levels of certain criteria pollutants or greenhouse gases. However, given daily emissions are not expected to significantly alter existing conditions or create a non-attainment area, changes in different construction or tree removal processes year-over-year are not expected to alter the overall concentrations of criteria pollutants or greenhouse gases in the region. Impacts on a yearly basis would be negligible similar to daily impacts.

Impacts from Operation

Future changes in recreational use in the winter and summer seasons would result in possible air quality impacts. Vehicular traffic due to an increase in visitation would result in possible impacts on air quality in the region. The Proposed Action is estimated to generate approximately an additional 800 visitors on average per day during the winter season and an additional 450 on average during the summer season, when compared to the existing condition. Average vehicle miles per skier visit is anticipated to increase slightly to reflect more visitors coming from further away. Total vehicle miles on an average winter day would increase by approximately 59,000 from the existing condition; on an average summer day, vehicle miles traveled would increase by approximately 34,000 from the existing condition. Total vehicle miles include the commutes of additional employees that would be hired by GTR under the Proposed Action.

With increased winter visitation and vehicle miles, of the NAAQS pollutants, CO and NO_X emissions would increase by approximately 236 and 25 lbs per day, compared to the existing condition. PM 2.5 would increase approximately 4 lbs and SO_X would increase less than 1 lb. These emissions would contribute to an increase of less than 0.2 percent of highway vehicle emissions in Wyoming on an annual basis and compared to the existing condition. As described in **Section 3.10.3**, NO_X, CO, and SO_X have remained well below NAAQS for several years, and so has PM2.5 except for major spikes likely caused by major events such as wildfires. When comparing the proposed increases to existing conditions, it is unlikely that these small increases in emissions would cause pollutant concentrations to surpass the NAAQS.

CH_4 concentrations are expected to slightly increase by approximately 2.4 lbs per day in the winter as a result of GTR's operations under the Proposed Action, compared to the existing condition. Additionally, winter activity under the Proposed Action is expected to produce an additional approximately 67,000 lbs (30 tons) of CO_2 daily. This is less than a 0.2 percent increase in daily CO_2 emissions from the transportation sector in Wyoming on an annual basis. These emissions as a result of the Proposed Action may contribute slightly to increases in CO_2 and CH_4 in the atmosphere; however, the scale of the projects and their impacts on emissions are not large enough to negatively impact air quality in the area.

New ski area infrastructure, including chairlifts, would require additional power and maintenance, however, as GTR's power source is primarily renewables that do not result in the emission of pollutants (as described in **Section 3.10.3**), this is not expected to generate substantial additional pollutant emissions and is expected to have negligible impacts on air quality.

Compliance with Federal, State, and Local Regulations

As described previously, in the case of burning timber during construction of proposed projects, burn activity would adhere to State of Wyoming Burn Permit parameters and CTNF for pile size and the timing of burning.

As described in **Section 3.10.3**, State of Wyoming guidelines do not consider emissions generated as a result of operations, such as vehicle traffic, a secondary source; however, this analysis assesses GTR emissions under the definition of a "significant" secondary source per state guidelines as a tool for scaling impacts. Annual emissions under the Proposed Action, assuming a 145-day winter season and an 80-day summer season, would not be considered "significant" by Wyoming standards (refer to the **Air Quality Technical Report**).

ALTERNATIVE 3 – NO SUP EXPANSION

Alternative 3 includes all projects in the Proposed Action that would occur within the existing GTR SUP area. There would be similar impacts as the Proposed Action, however, without the construction of South Bowl and Mono Trees areas, construction impacts and increases in winter visitation would be smaller. Summer visitation is expected to increase by the same amount as under the Proposed Action.

Impacts from Construction and Timber Removal

Alternative 3 would require trucks and other heavy equipment for tree removal, construction, staging, and installation of proposed infrastructure, which would result in an estimated 3 passenger vehicle trips and 3 logging vehicle trips per day for the duration of construction activities as well as approximately 3 off-road vehicles such as excavators or spider hoes used for 8 hours per day. Construction-associated vehicle trips combined with off-road vehicle use described under Alternative 3 would result in a difference of approximately 3,280 lbs (1.5 tons) of CO_2 per day plus negligible changes (<1 lb) in SO_X, PM2.5, and CH_4 and small amounts of CO and NO_X emissions (approximately 13 and 8 lbs, respectively). The increase in CO_2 emissions would contribute to less than an 0.1 percent increase to annual CO_2 emissions in the transportation sector in Wyoming, resulting in negligible changes. Emissions of each NAAQS pollutant would contribute to an increase of less than 0.1 percent of off-highway vehicle emissions in Wyoming. Similar to the discussion in the Proposed Action, when considering the recent trends for NAAQS in the region, these additional contributions are not likely to considerably increase pollutant concentrations and are especially not expected to result in pollutant levels above the NAAQS. Helicopter use, if needed for tree removal or lift tower placement, may also be required under this alternative. Refer to the Proposed Action analysis for a discussion of the impacts of helicopter use.

Additionally, burning may be required to create proposed gladed areas where over-the-snow removal methods are not possible. Burning would have short-term impacts on air quality in the vicinity of GTR but are not expected to have measurable long-term impacts on regional air quality or Class I or II areas. For more information on burning refer to the explanation of construction impacts under the Proposed Action.

Impacts from Operation

With the projects proposed under Alternative 3 and the continuing trend of increasing visitation, it is anticipated that winter visitation would increase by approximately 380 people per average day and summer visitation would increase by 450 people per day on average (same as Proposed Action), compared to the existing condition. Average vehicle miles per skier visit is anticipated to increase slightly from existing conditions to reflect more visitors coming from further away. Total vehicle miles on an average winter day under Alternative 3 would increase by approximately 27,000 from the existing condition; average summer day miles are estimated to be approximately the same as the Proposed Action. This increase in visitation and vehicle miles would result in increases in vehicular emissions, however, to a lesser degree than the increases in emissions under the Proposed Action. When compared to the

Proposed Action, Alternative 3 would have less of an impact on air quality from GTR operations by creating less additional traffic without the SUP expansion and associated projects. Specifically, NAAQS pollutants are not expected to surpass NAAQS given their current concentrations and the increases in CO, NO_X, SO_X, and PM2.5 anticipated from Alternative 3. Compared to the existing condition, these emissions would contribute to an increase of 0.1 percent or less of highway vehicle emissions in Wyoming on an annual basis (refer to the **Air Quality Technical Report**). While there would be little to no impact to CH_4 concentrations, CO_2 emissions would increase in both the winter and summer seasons, with higher daily emissions in the winter at an increase of approximately 31,400 lbs (14 tons) per day compared to the existing condition. This would cause less than a 0.1 percent increase in Wyoming's average CO_2 emissions in the transportation sector on an annual basis compared to the existing condition, resulting in negligible impacts to air quality.

Compliance with Federal, State, and Local Regulations

As described above, in the case of burning timber during construction of proposed projects, burn activity would adhere to State of Wyoming Burn Permit parameters and CTNF for pile size and the timing of burning.

As described in **Section 3.10.3**, State of Wyoming guidelines do not consider emissions generated as a result of operations, such as vehicle traffic, a secondary source; however, this analysis assesses GTR emissions under the definition of a "significant" secondary source per state guidelines as a tool for scaling impacts. Annual emissions under Alternative 3, assuming a 145-day winter season and an 80-day summer season, would not be considered "significant" by Wyoming standards (refer to the **Air Quality Technical Report**).

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

Alternative 4 includes all projects in the Proposed Action that would occur within the SUP area as well as the proposed projects in South Bowl. There would be similar impacts as the Proposed Action however, without the construction of the Mono Trees areas, construction impacts would be less substantial and winter visitation is not projected to increase as much as under the Proposed Action. The summer projects included under this alternative are the same as under the Proposed Action and projected increases to summer visitation are the same.

Impacts from Construction and Timber Removal

Alternative 4 would require trucks and other heavy equipment for tree removal, construction, staging, and installation of proposed infrastructure, which would result in an estimated 4 passenger vehicle trips and 4 logging vehicle trips per day for the duration of construction activities. Alternative 4 would also result in approximately 4 off-road vehicles such as excavators or spider hoes used for 8 hours per day to complete the proposed projects. Vehicle trips combined with off-road vehicle use to construct the South Bowl area would result in a difference from the existing condition of approximately 4,370 lbs (2 tons) of CO_2 per day plus small amounts (approximately 17 and 11 lbs, respectively) of CO and NO_X and negligible changes (<0.5 lb) to SO_X, PM2.5, and CH_4 emissions on a daily basis. An additional 2 tons per day of CO_2 would result in less than a 0.1 percent increase in Wyoming's transportation sector emissions on an annual basis, and this change is not expected to measurably impact air quality in the region. Emissions of each NAAQS pollutant would contribute to an increase of less than 0.1 percent of off-highway vehicle emissions in Wyoming. Similar to the discussion in the Proposed Action, when considering the recent trends for NAAQS in the region, these additional contributions are not likely to considerably increase

pollutant concentrations and are especially not expected to result in pollutant levels above the NAAQS. Helicopter use, if needed for tree removal or lift tower placement, may also be required under this alternative. Refer to the Proposed Action analysis for a discussion of the impacts of helicopter use.

Additionally, burning may be required to create proposed gladed areas where over-the-snow removal methods are not possible. Burning would have short-term impacts on air quality in the vicinity of GTR but are not expected to have measurable long-term impacts on regional air quality or Class I or II areas. For more information on burning refer to the explanation of construction impacts under the Proposed Action.

Impacts from Operation

With the projects proposed under Alternative 4 and the continuing trend of increasing visitation, it is anticipated that winter visitation would increase by approximately 600 people per average day and summer visitation would increase by 450 people per day on average (same as Proposed Action), compared to the existing condition. Average vehicle miles per skier visit is anticipated to increase slightly from existing conditions to reflect more visitors coming from further away. Total vehicle miles on an average winter day under Alternative 4 would increase by approximately 45,000 from the existing condition; average summer day miles are estimated to be approximately the same as the Proposed Action. This increase in visitation and vehicle miles would result in increases in vehicular emissions, however, to a lesser degree than the increases in emissions under the Proposed Action. When compared to the Proposed Action, Alternative 4 would have less of an impact on air quality from GTR operations by creating less additional winter traffic compared to existing conditions without the SUP expansion into Mono Trees and associated projects. To note, summer visitor vehicular traffic is projected to increase by the same amount as under the Proposed Action.

Estimated emissions for CO, NO_X, SO_X, and PM2.5 under Alternative 4 are not expected to surpass NAAQS. These emissions would contribute to an increase of approximately 0.1 percent or less of highway vehicle emissions in Wyoming compared to the existing condition and on an annual basis. Daily CO_2 emissions are expected to increase by approximately 51,300 lbs (23 tons) per day in the winter and approximately 38,000 lbs (17 tons) per day in the summer. These emissions would contribute to an approximately 0.1 percent increase in annual Wyoming transportation sector CO_2 emissions and are not expected to have measurable impacts on air quality.

Compliance with Federal, State, and Local Regulations

As described previously, in the case of burning timber during construction of proposed projects, burn activity would adhere to State of Wyoming Burn Permit parameters and CTNF for pile size and the timing of burning.

As described in **Section 3.10.3**, State of Wyoming guidelines do not consider emissions generated as a result of operations, such as vehicle traffic, a secondary source; however, this analysis assesses GTR emissions under the definition of a “significant” secondary source per state guidelines as a tool for scaling impacts. Annual emissions under Alternative 4, assuming a 145-day winter season and an 80-day summer season, would not be considered “significant” by Wyoming standards (refer to the **Air Quality Technical Report**).

ALTERNATIVE 5 – MONO TREES, NO SOUTH BOWL

Alternative 5 includes all projects in the Proposed Action that would occur within the SUP area as well as the proposed projects in Mono Trees. There would be similar impacts as Proposed Action, however, without the construction of South Bowl, construction impacts would be less substantial.

Impacts from Construction and Timber Removal

Alternative 5 would require trucks and other heavy equipment for tree removal, construction, staging, and installation of proposed infrastructure, which would result in an estimated 4 passenger vehicle trips and 4 logging vehicle trips per day for the duration of construction activities. Alternative 5 would also result in approximately 4 off-road vehicles such as excavators or spider hoes used for 8 hours per day to complete the proposed projects. Vehicle trips combined with off-road vehicle use would result in a daily difference of approximately 4,370 lbs (2 tons) of CO_2 per day plus small amounts (approximately 17 and 11 lbs, respectively) of CO and NO_X and negligible changes (<0.5 lb) to SO_X, PM2.5, and CH_4 emissions. Specifically, the increases in daily CO and NO_X emissions as a result of the construction of projects in Alternative 5 are not expected to measurably contribute to pollutant contributions or surpass NAAQS for the pollutants. Similar to Alternative 4, an additional 541 lbs per day of CO_2 as a result of construction would contribute to less than a 0.1 percent increase in daily Wyoming transportation emissions, resulting in negligible impacts to air quality. Emissions of each NAAQS pollutant would contribute to an increase of less than 0.1 percent of off-highway vehicle emissions in Wyoming on an annual basis and compared to existing condition. Similar to the discussion in the Proposed Action, when considering the recent trends for NAAQS in the region, these additional contributions are not likely to considerably increase pollutant concentrations and are especially not expected to result in pollutant levels above the NAAQS. Helicopter use, if needed for tree removal or lift tower placement, may also be required under this alternative. Refer to the Proposed Action analysis for a discussion of the impacts of helicopter use.

Additionally, burning may be required to create proposed gladed areas where over-the-snow removal methods are not possible. Burning would have short-term impacts on air quality in the vicinity of GTR but are not expected to have measurable long-term impacts on regional air quality or Class I or II areas. For more information on burning refer to the explanation of construction impacts under the Proposed Action.

Impacts from Operation

With the projects proposed under Alternative 5 and the continuing trend of increasing visitation, it is anticipated that winter visitation would increase by approximately 550 people per average day and summer visitation would increase by 450 people per day on average (same as Proposed Action), compared to the existing condition. Average vehicle miles per skier visit is anticipated to increase slightly from existing conditions to reflect more visitors coming from further away. Total vehicle miles on an average winter day under Alternative 5 would increase by approximately 41,000 from the existing condition; average summer day miles are estimated to be approximately the same as the Proposed Action. This increase in visitation and vehicle miles would result in increases in vehicular emissions, however, to a lesser degree than the increases in emissions under the Proposed Action. Specifically, the small increases in NAAQS pollutants (CO and NO_X) are not anticipated to contribute to pollutant concentrations that surpass NAAQS. These emissions would contribute to an increase of approximately 0.1 percent or less of highway vehicle emissions in Wyoming on an annual basis and compared to the existing condition. Daily CO_2 emissions are expected to increase by 47,200 lbs (21 tons) per day in the winter and 38,000 lbs (17 tons) per day in the summer. On an annual basis, on the increase in CO_2

emissions would contribute to an approximately 0.1 percent increase in Wyoming transportation sector CO_2 emissions, compared to the existing conditions. This is not expected to have measurable impacts on air quality.

Compliance with Federal, State, and Local Regulations

As described previously, in the case of burning timber during construction of proposed projects, burn activity would adhere to State of Wyoming Burn Permit parameters and CTNF for pile size and the timing of burning.

As described in **Section 3.10.3**, State of Wyoming guidelines do not consider emissions generated as a result of operations, such as vehicle traffic, a secondary source; however, this analysis assesses GTR emissions under the definition of a "significant" secondary source per state guidelines as a tool for scaling impacts. Annual emissions under Alternative 5, assuming a 145-day winter season and an 80-day summer season, would not be considered "significant" by Wyoming standards (refer to the **Air Quality Technical Report**).

3.10.5 Cumulative Effects

SCOPE OF THE ANALYSIS

The effects analyzed in this discussion apply to both the Proposed Action and the No Action Alternative. The following projects are expected to cumulatively have short- and long-term effects on air quality in the airshed of the CTNF and of Teton County, Wyoming and Idaho.

Temporal Bounds

The temporal bounds for this cumulative effects analysis of air quality extend from 1969 when GTR first opened as a ski area through the foreseeable future in which GTR can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis of air quality includes the airshed of the CTNF and of Teton County, Wyoming because these are the airsheds in closest proximity and influences by the project.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects project area, the reader is referred to **Appendix A** in the EIS document. Past ski area and regional development projects have been incorporated and analyzed in this document as part of the Affected Environment. Projects that could have both beneficial and adverse cumulative impacts on air quality are analyzed in the following discussion.

Projects such as the South Valley and Teton Canyon Hazardous Fuels Reduction and Red Creek Caribou Prescribed Fire projects that involve burning would likely be visible from GTR and would have temporary impacts to air quality in the region through the release of PM2.5 and ozone into the atmosphere. However, the goal of these projects is to reduce the severity of impacts from large wildfires in the future that could have serious impacts on air quality. Therefore, while burning during these projects may result in temporary impacts to air quality in the region, they would have positive long-term impacts

on air quality and other resources by reducing the severity of impacts from large wildfire events that contribute to high pollutant concentrations.

Projects in the 2018 MDP, including those that are not included in the Proposed Action, are also included in this analysis. As these projects are accepted in the 2018 MDP but not approved under environmental review, they are considered here as reasonably foreseeable future projects. Included in the 2018 MDP but not in the Proposed Action are various lift upgrades and installments, additional guest services and ski area operations facilities, and additional snowmaking. Additionally, the PUD-PR was approved in 2019 and included private lands projects in the resort's base area (refer to **Section 3.4 – Socioeconomics** for more information). Approved but unimplemented projects from the First Amended Master Plan include construction of 450 residential and lodging units and 12,300 square feet of commercial and resort services.

On-mountain development and base area development combined are expected to make GTR more appealing as a destination resort. It is anticipated that if these projects are constructed, a higher percentage of guests would be able to stay at the resort and daily vehicle trips to the mountain would be reduced. This has the potential to reduce daily vehicle mileage and emissions, thus reducing the pollutant emissions as a result of visitation. Base area development has the potential to reduce day traffic and daily emissions and is favorable when considering impacts to air quality.

3.10.6 Irreversible and Irretrievable Commitments of Resources

The addition of new trails, snowmaking capability, and infrastructure at GTR represent irretrievable contributions to air quality, because the emissions that would be generated from the construction of the proposed projects and increased visitation cannot be retrieved. However, these emissions are not considered irreversible due to offsetting and mitigation that could possibly occur in the future. These offsetting and mitigation measures include consideration of the loss of carbon sequestration capacity resulting from vegetation removal, which could be reversed in the long-term if vegetation were allowed to regrow. Additionally, measures could be put into place to reduce vehicular and construction emissions that might impact air quality and visibility.

3.11 Climate Change

3.11.1 Scope of the Analysis

Extensive comments related to climate change were received during the scoping comment period. This analysis responds to those comments and as such is intended to assess (1) the effect of proposed projects at GTR on climate change in the region; and (2) the effects climate change would have on the proposed projects and future operations at GTR.

The spatial scope of this analysis is the mountainous regions of Teton County, Wyoming and adjacent areas in the northern Rocky Mountains of Wyoming with similar climate, ecology, wildlife, and plant species. This region is expected to experience similar effects from climate change, and represents the range of what may occur at GTR. The temporal scope of this analysis spans from the ski area's inception

in 1969 through 2100, the date climate change literature uses as a benchmark in discussion of climate change effects.[163]

Climate change may affect resources such as watershed resources and wildlife, and/or actions that affect these resources may in turn affect the climate. These considerations are discussed in the following resource specific sections in **Section 3.1, Section 3.10, Section 3.12, Section 3.13, Section 3.14, Section 3.15,** and **Section 3.16.**

3.11.2 State and Local Policy and Guidance

There are no specific state or local policies or guidance related to climate change. However, there have been various studies done within the region to understand the impacts of climate change. One specific study was conducted on the Greater Yellowstone Area (GYA). This assessment presents an in-depth summary of past, historical, and projected future changes to the climate of the GYA. This includes looking at changes in temperature, precipitation, and water. The intentions of this assessment are to provide a foundation for future climate research, along with discussing impacts, adaptations, and mitigation strategies for the GYA. The assessment determined that there is a projected 5.3°F warming by the year 2100 in the GYA. Similarly, there would be a 9 percent increase in precipitation, a 40 percent loss in snowpack, and 35 percent less runoff from June-August.[164]

3.11.3 Affected Environment

CURRENT CLIMATE OVERVIEW

The climate of Wyoming is characterized by frequent sunshine, low humidity, and large temperature variations. Since the National Weather Service doesn't have a Cooperative Observer Program (COOP) site at GTR, this analysis has been based on a COOP site from the Town of Alta, Wyoming, located 7.8 miles southwest of GTR. The Town of Alta, Wyoming, located at an elevation of 6,440 feet above mean sea level, receives an average of 22.7 inches of precipitation per year, along with 110.6 inches of snowfall per year. The average winter temperature is about 13°F and the average summer temperature is about 75°F.[165] However, sitting at a slightly higher elevation, GTR is generally cooler on average and receives substantially greater annual snowfall.

FUTURE CLIMATE PROJECTIONS

Climate Change Projections

The climate information that is presented in this assessment is applicable to current management and all action alternatives. The basis for this analysis relies on the report *Climate Change Vulnerability and Adaptation in the Intermountain Region* (2018 CCVA). This report of best available science provides a guidance document for land managers and partners. To understand how the climate, biogeography, natural resource conditions, and management issues influence potential climate change effects and adaptation strategies, the intermountain region was divided into six subregions. The GTR project area is located within the Southern Greater Yellowstone subregion. This report uses two representative concentration

[163] USGCRP. 2018
[164] Hostetler et al. 2021
[165] Western Regional Climate Center 2010

pathway (RCP) scenarios.[166] These RCPs are emission concentrations defined and used by the Intergovernmental Panel on Climate Change (for quantitative analysis of emissions refer to **Section 3.10**). Therefore, this analysis uses RCP 4.5 and RCP 8.5.

There are four RCPs: 2.6, 4.5, 6.0, and 8.5. The number represents the projected radiative forcing, with 2.6 being the least amount of radiative forcing and 8.5 being the highest. Radiative forcing is a measure of the effect emissions and other aerosols have on trapping heat (i.e., with higher concentration levels of emissions there is going to be a higher radiative forcing and thus more heat trapped).[167] Hausfather further describes the characteristics of the RCP pathways as:[168]

- RCP 4.5
  - "Lower emissions"
  - Emissions peak in 2040 then decline
  - Requires CO2 emissions to decline by 2045
  - Requires CH4 to stop increasing by 2050 and decline to about 75 percent of the levels in 2040
  - Requires SO2 emissions to decline to approximately 20 percent of those of 1980-1990
  - Results in global temp rise between 3.6°F with sea level rise 35 percent higher than RCP 2.6
- RCP 8.5
  - "Higher emissions"
  - Relatively unlikely (assumes historical trends continue without future reductions in emissions)
  - Useful in tracking historical total cumulative CO2 emissions
  - Useful in predicting mid-century and earlier emissions based on current policies

Within the 2018 CCVA report, climate is projected to the year 2100. Under RCP 4.5 it was determined that for the Southern Greater Yellowstone region, the median maximum temperature is projected to rise about 5°F and the median minimum temperature is projected to rise about 6°F. Whereas under RCP 8.5, the median maximum temperature is expected to rise about 11°F and the median minimum temperature is expected to rise about 12°F by 2100. Furthermore, under RCP 8.5, the median minimum temperature is projected to rise to just under freezing by 2100, whereas under RCP 4.5 it would remain below freezing. Although there are definite changes in temperature projected, precipitation is expected to be more variable with no definite trend, "Annual precipitation projections are highly variable with no discernable trend under RCP 4.5 and a slight increasing trend under RCP 8.5."[169]

Seasonal temperatures are expected to increase as well. Winter temperatures are expected to rise 3°F, with all other seasons rising about 5°F under RCP 4.5. Under RCP 8.5, winter, spring, and fall temperatures are expected to rise about 10°F, where summer temperatures are expected to rise by more than 12°F by the end of the 21st century. Along with this, median minimum spring and fall temperatures are expected to increase, such that some projections rise above freezing by 2100 under RCP 8.5.

[166] Halofsky et al. 2018
[167] Hausfather 2019
[168] Ibid
[169] Halofsky et al. 2018

Climate Trends

Recently there have been increases in severe hot weather events, decreases in frost days, and increases in heavy precipitation over much of North America. Anthropogenic processes have contributed to these events increasing the likelihood of earlier peak flow of snowmelt runoff and declines in the amount of water stored in spring snowpack in snow-dominated streams and areas of the western United States and Canada (refer to **Section 3.10** for more information). With the steady contribution of emissions from anthropogenic processes warming of 3.6°F is very likely. This would eventually lead to more extreme heat events and daily precipitation extremes, along with more low-snow years and earlier snowmelt runoff in the western United States and Canada.[170] Furthermore, temperatures in Teton County, Wyoming have risen by 1.1°F since 1900. This has serious implications for precipitation falling as snow, lower summer stream flows, and drier forests that are more prone to forest fires.[171]

Temperature

One of the main effects of climate change across the continental United States (CONUS) is an increase in temperature overall. This is due to the continued warming of the atmosphere resulting from the greenhouse effect. As more CO_2, CH_4, SO_2 are inputted into the atmosphere, the Earth warms. As the Earth warms, more emissions are released, creating a positive feedback loop and thus further warming (refer to **Section 3.10** for more information on this process).

As with most other locations in the CONUS, GTR is projected to have an increase in winter temperatures over the next century. Warmer winter temperatures are expected to shift the rain-snow transition zone. This zone is where precipitation is more likely to be snow rather than rain for a specific time of year. This zone is expected to move higher in elevation as temperatures increase, due to climate change. Although this may only affect lower elevation areas in terms of downhill skiing quality, higher elevation areas become more vulnerable to climate-related disturbance, like insect outbreaks and fire, which can pose challenges for resort and Forest management. Furthermore, as with winter temperatures, summer temperatures at GTR are projected to increase.[172]

Overall, average daily minimum temperature is expected to increase over time within the project area (refer to **Exhibit 3.11-1**). Along with this, average daily maximum temperature is expected to increase as well by the year 2100 (refer to **Exhibit 3.11-2**).[173]

[170] Romero-Lankao et al. 2015
[171] Ringos and Newcomb 2014
[172] Halofsky et al. 2018
[173] USDA Forest Service 2018a

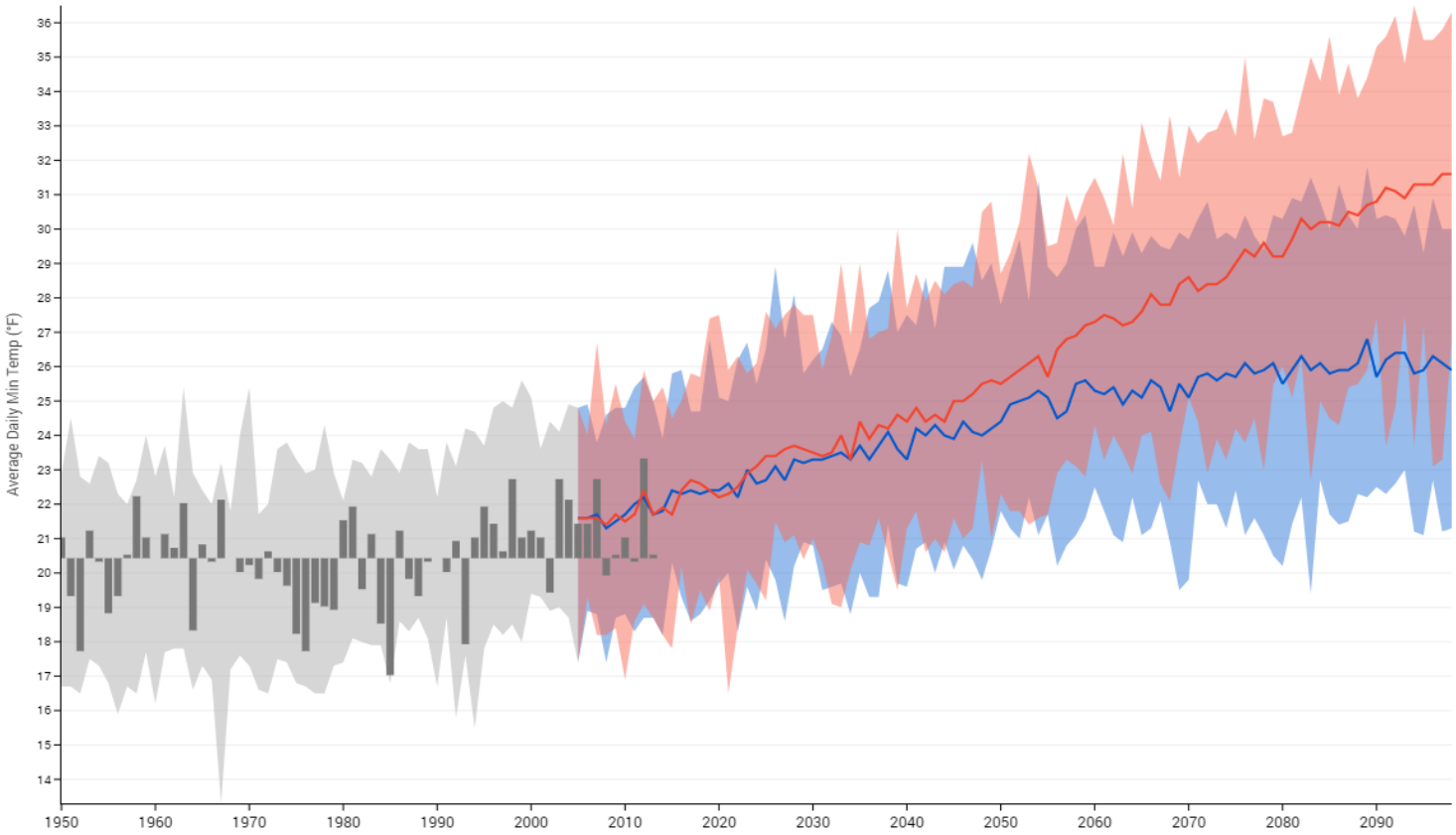


Exhibit 3.11-1: Graph of average daily minimum temperature until the year 2100. The light grey represents modeled history, the dark grey represents observed history, with the red coloration being RCP 8.5 and the blue coloration being RCP 4.5. Average daily minimum temperature is expected to increase over time.[174]

[174] USDA Forest Service 2018a

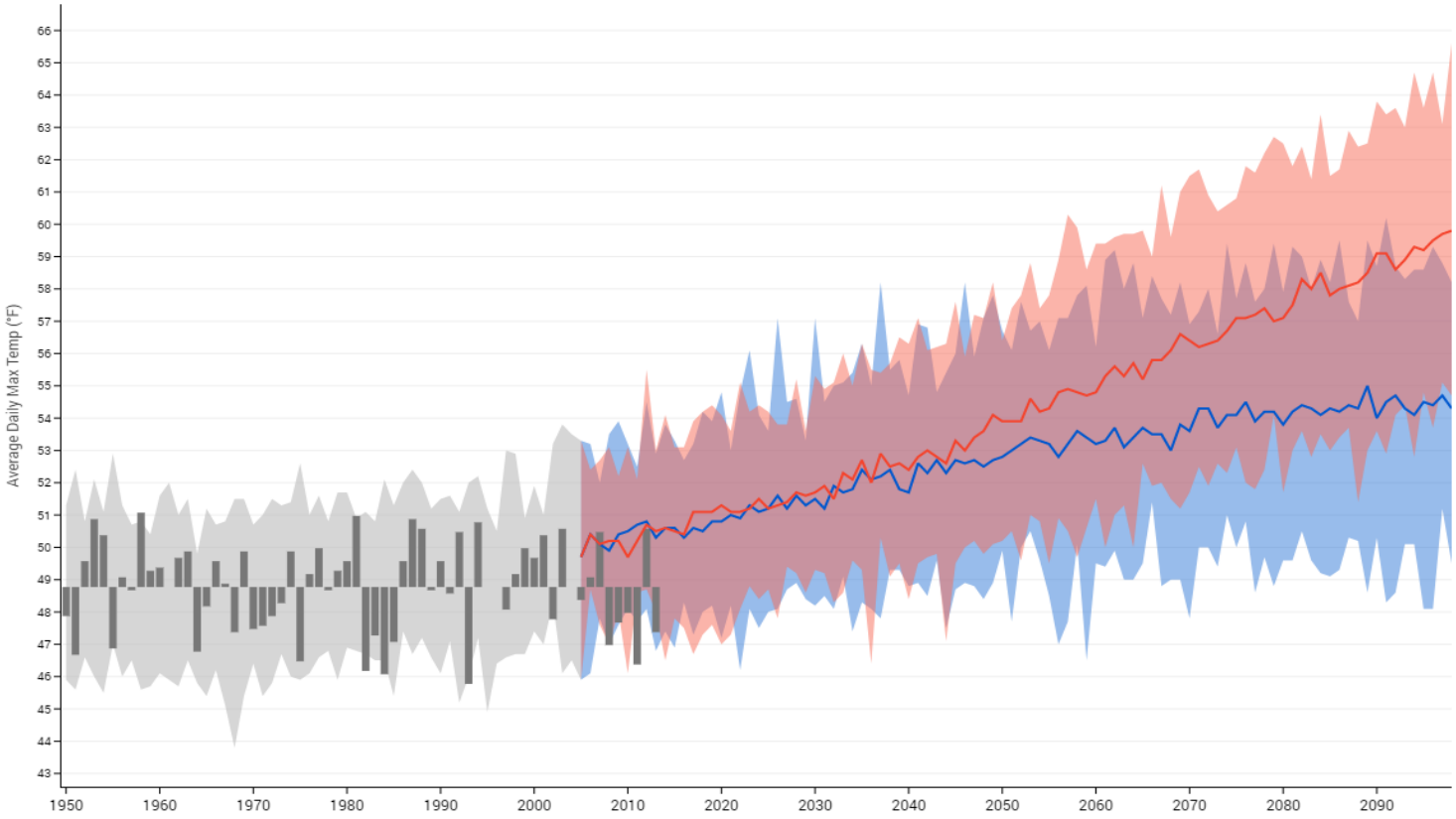


Exhibit 3.11-2: Graph of the average daily maximum temperature until the year 2100. The light grey represents modeled history, the dark grey represents observed history, with the red coloration being RCP 8.5 and the blue coloration being RCP 4.5. Average daily maximum temperature is expected to increase over time.[175]

[175] USDA Forest Service 2018b

Precipitation

Climate change projection models have shown that GTR would have an increase in precipitation as climate change progresses. However, winter snowfall would shift to rain as increases in temperatures continue. The areas that have historically been snow-dominated would become rain-dominated going into the future.[176] With this overall increase in temperature, and shift in type of precipitation, snow seasons that have historically been five months (November-March) would become three months (December-February). However, due to its prime elevation, GTR has experienced an average total of 364 inches of snow over the past ten seasons.[177] Although there has been consistent snow over the past ten seasons, as stated, precipitation that currently falls as snow is expected to fall as rain. Overall, however, total precipitation is not expected to differ that much. This is supported by **Exhibit 3.11-3** below. Total annual precipitation is modeled to not present a definite change in trend, but rather just be variable from year to year.

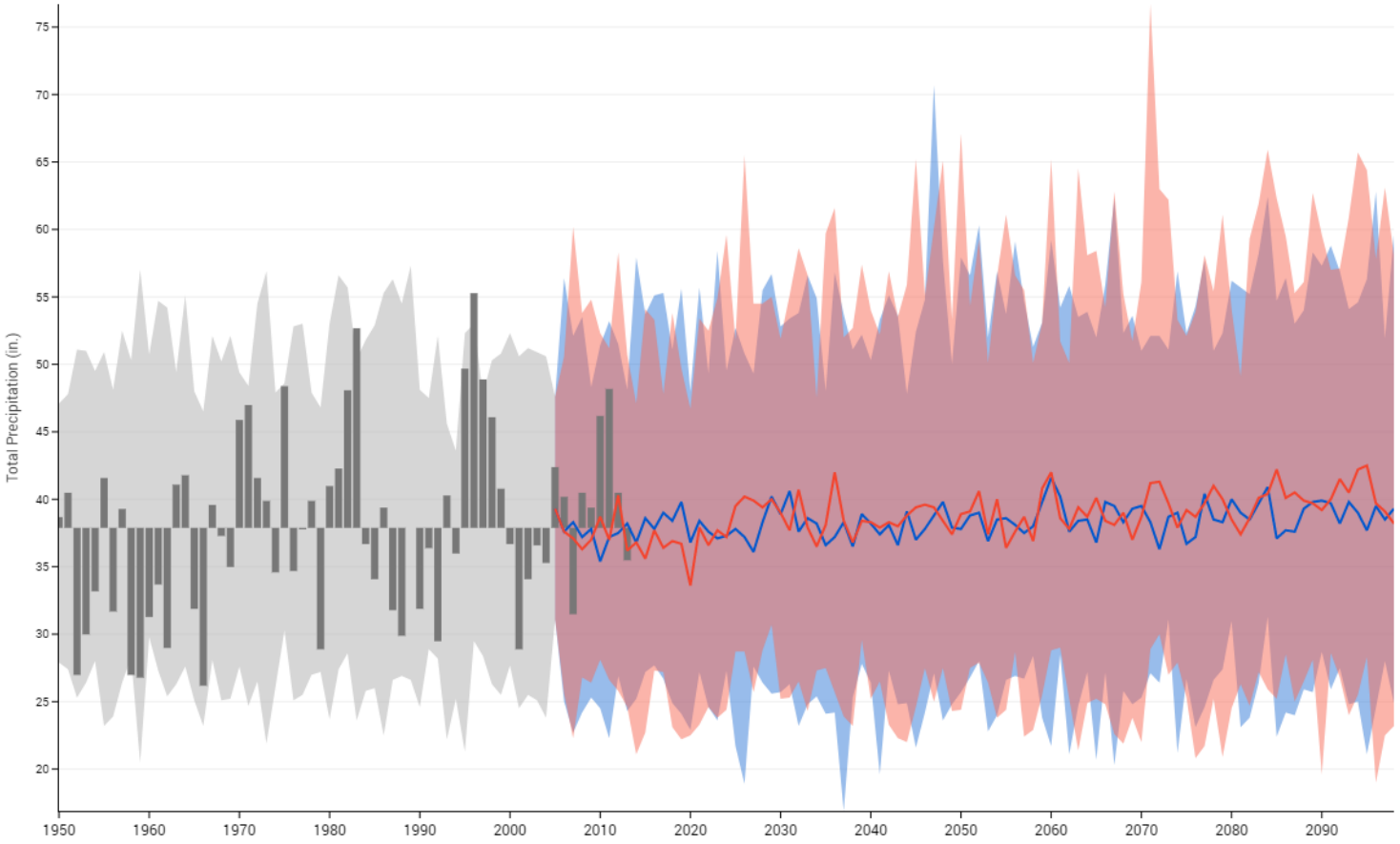


Exhibit 3.11-3: Total annual precipitation until the year 2100. The light grey represents modeled history, the dark grey represents observed history, with the red coloration being RCP 8.5 and the blue coloration being RCP 4.5.[178]

[176] Ning and Bradley, 2015
[177] Grand Targhee Resort Ski Srsort Area Overview - OnTheSnow" n.d.
[178] USDA Forest Service 2018c

Shifts in Downhill Ski Season Length

The length of the downhill ski season is dependent on two things: (1) Early season temperatures, which influence snowmaking and (2) Natural precipitation and temperature, which influences water resources and existent snowpack on the mountain.[179] Recently, factors such as late winter snowpack and earlier spring melt have influenced the ski season not only in Teton County, Wyoming but across the CONUS. Due to temperature increases and associated snowfall decreases, the downhill ski season length is projected to shorten on both ends, as ideal winter snowpack develops later, and spring melt occurs earlier. In addition, days of viable skiing and a decrease in overall snowfall during the season are projected to decline due to rising temperatures.[180] Not only do temperature and precipitation pose a threat to snowpack, but a projected increase in rain would also make it more challenging to keep snow on the ground.

Snowpack and Snowmaking

There are multiple factors that influence the level of snowmaking that can occur. Highly important factors include humidity and temperature. With an average humidity at 60 percent, artificial snow can be manufactured at around 27°F, with ideal temperatures being 21°F.[181] Additionally, to create sufficient snowpack, ski resorts require between 400-500 hours of suitable snowmaking conditions. Currently, GTR reaches an average 450 hours of snowmaking between November 1st – 15th (refer to **Exhibit 3.11-4**). However, according to climate projections, sufficient levels of snowpack would be reached 10-20 days later (RCP 4.5) or 30-70 days later (RCP 8.5).[182]

[179] Wobus et al. 2017
[180] Chin et al. 2018
[181] Michon 2018
[182] Wobus et al. 2017

Furthermore, analysis of snow water equivalent (SWE) has projected that it is going to decrease over the next 78 years (refer to **Exhibit 3.11-5**).[183] SWE is the amount of water contained within a snowpack at a certain location. It is also thought of as the depth of water that would result if the whole snowpack was melted. It has been projected that reductions in snowpack and shifts in snowmelt are expected in the future. Overall, the potential for warming and earlier snowmelt has the potential to accelerate the start of wildfire season along with disrupting timing and abundance of streamflow.[184] Along with this, snow residence time is expected to decrease as well (refer to **Exhibit 3.11-6**).[185] Snowpack is a valuable resource, in which changes have the potential to affect agriculture, winter recreation, and tourism, along with plants and wildlife in some areas.[186]



Exhibit 3.11-4: The average date by which a resort must reach an average of 450 hours of snowmaking in order to create sufficient snowpack.

[183] Luce, Lopez-Burgos, and Holden 2014
[184] U.S. EPA 2007a
[185] Luce, Lopez-Burgos, and Holden 2014
[186] U.S. EPA 2007a

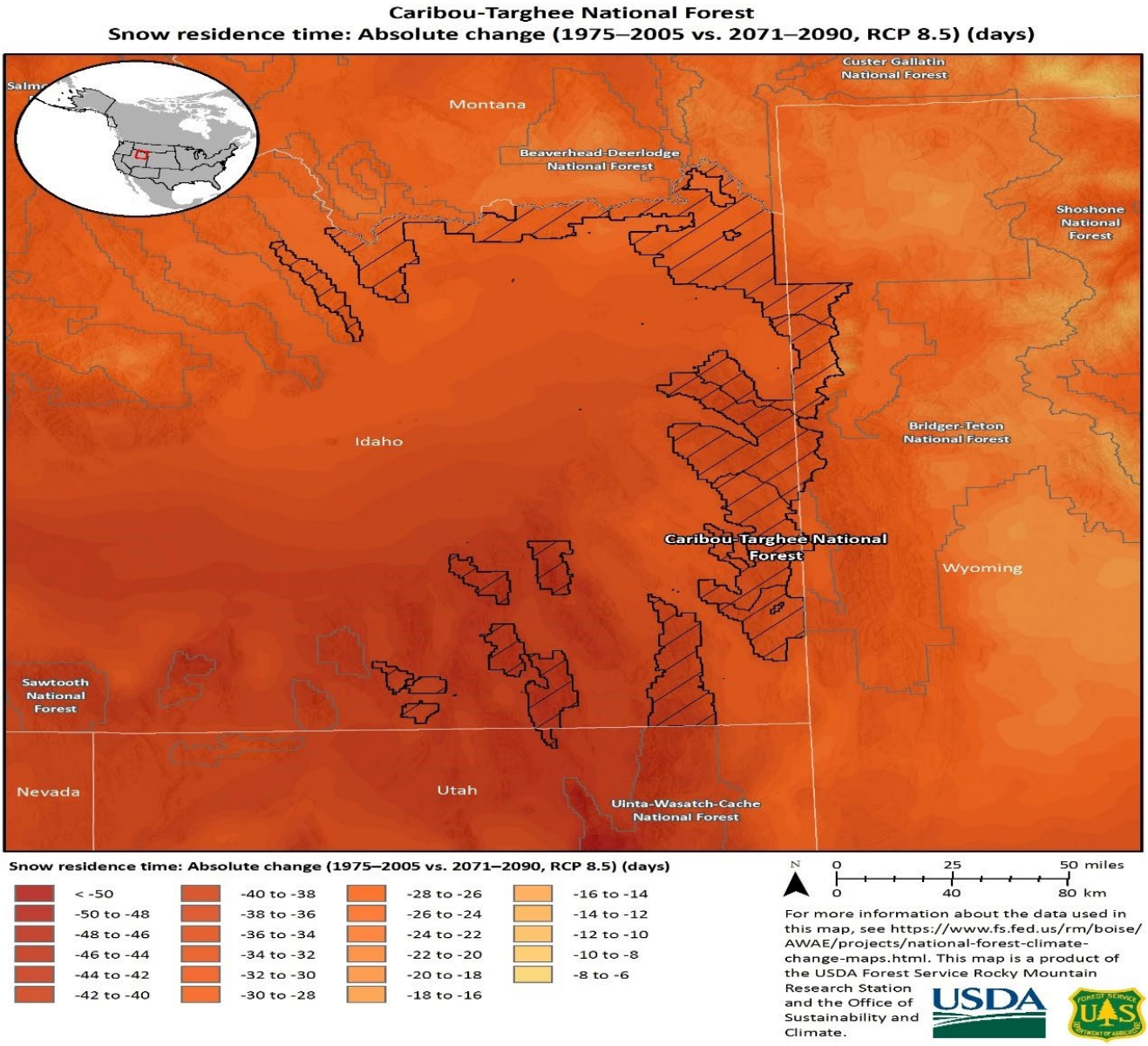


Exhibit 3.11-5: SWE within the intermountain region per RCP 8.5. It is projected that there could be a -20 to -5 percent change in SWE within the project area. This means that SWE could decrease by as much as 20 percent.

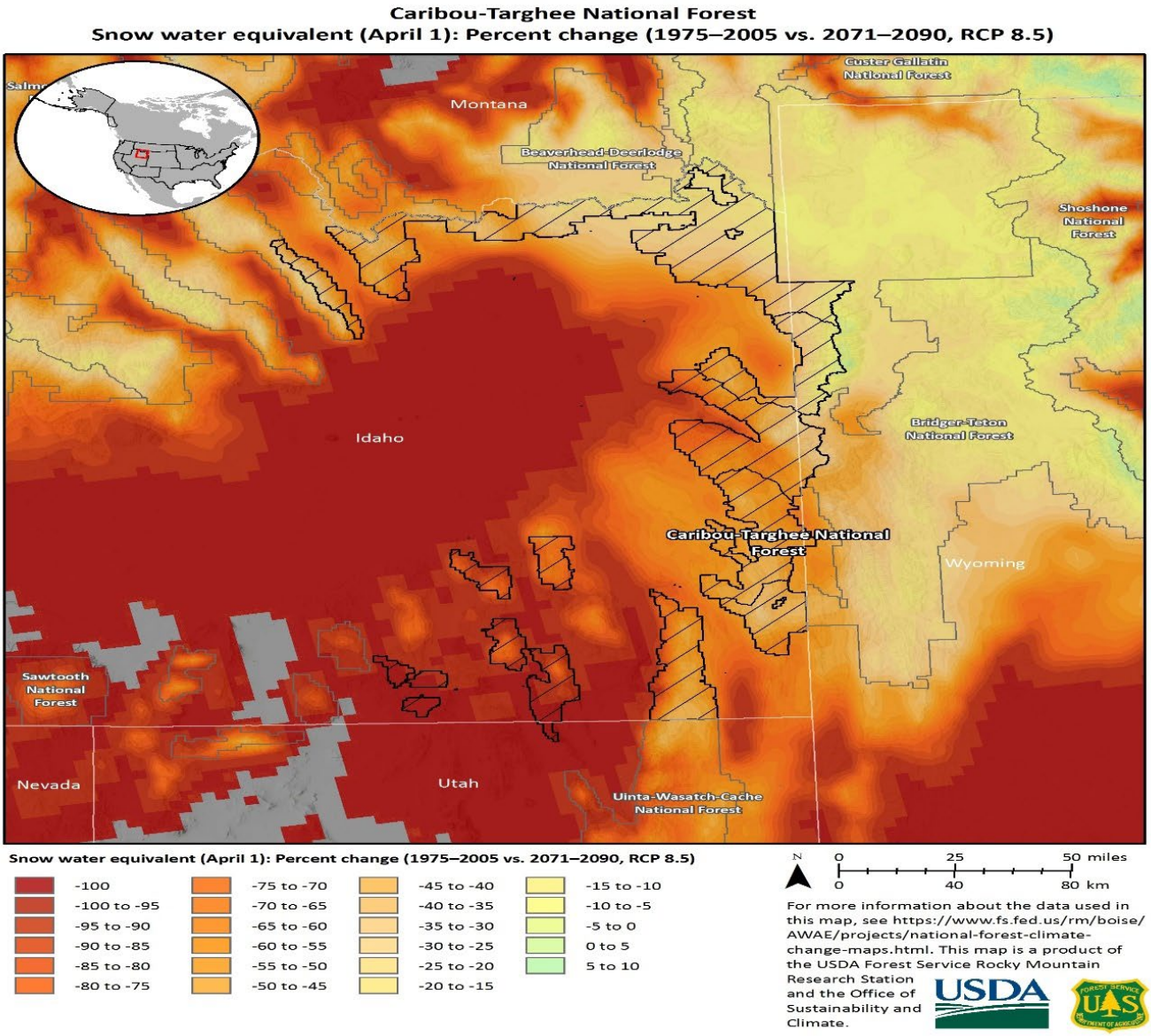


Exhibit 3.11-6: Snow residence time (SRT) within the intermountain region per RCP 8.5. It is projected that the project area could have 28-36 less days of SRT.

SKI AREA OPERATIONS AND CLIMATE CHANGE

Ski area operations including running lifts, snowmaking, grooming, construction, and completing general maintenance tasks have short- and long-term effects on climate change.

Short-Term Effects on Climate Change

Normal maintenance and construction operations can contribute to climate change in the short-term. Tasks that require the use of heavy equipment or flying of helicopters to replace lifts or remove trees only contribute to climate change during the duration of the maintenance or construction project. Additionally, the construction of new facilities and lifts can contribute to climate change in the short-term (refer to **Section 3.10** for more information).

Long-Term Effects on Climate Change

Operation of lifts and snowcats daily and nightly have long-term effects on climate change. Additionally, vehicle traffic due to the increase in visitation, especially in the first five years after expansion (see **Section 3.5.3**), would result in possible long-term effects on climate change through their emission of CO_2, CH_4, NO_x, and SO_2 .

Conversely, GTR is largely powered by renewable sources (84 percent hydroelectric, 10 percent nuclear, and 1 percent wind).[187] The remaining 5 percent comes from the local energy market.[188] Because GTR, and all of the lifts it operates, is powered by a source that is 95 percent renewable rather than sourced by fossil fuels, the amount of power used by GTR, and its ski area operations does not measurably contribute to the emission of CO_2, CH_4, NO_x, and SO_2.

As a result, daily activities on the mountain like warming of facilities, use of restrooms and showers, and restaurant use, are greatly reduced in their long-term contributions to climate change (refer to **Section 3.10** for more information).

Climate Adaptation

Due to the effects of climate change, ski areas like GTR may have to implement specific climate adaptations both in the short- and long-term to mitigate impacts from climate change. Various adaptations strategies need to incorporate ways to transition recreation management to address shorter winter recreation seasons and changing recreational use patterns. Strategies may include expanding facilities where concentrated use occurs, more snowmaking, additional ski lifts, and higher elevation runs. Along with this, incorporation of multi-season recreational opportunities may prove to be more beneficial. Warm weather activity seasons are expected to lengthen as higher temperatures lead to later snowpack establishment and earlier snowmelt.[189] Adaptation strategies could include increasing flexibility and capacity for managing recreation resources to meet shifting demands. Incorporated with this is increasing the flexibility of year-round use of facilities through redeveloping/mitigating existing or new sites (e.g. implementing summer uses into ski area operations); paving access roads for winter and wet uses; installing gates or other access control where snow no longer closes areas; changing types of infrastructures; and increasing the capacity at existing sites to accommodate longer use seasons.[190]

[187] Fall River Rural Electric Cooperative 2022
[188] Personal correspondence with Fall River, 01/05/2022
[189] Halofsky et al. 2018
[190] Adaptation Partners, 2021

Similarly, GTR is already taking steps to decrease their CO_2, CH_4, NO_x, and SO_2 emissions and to offset their carbon emissions. Through their various sustainability partnerships with Protect our Winters (POW) and the National Ski Areas Association (NSAA), GTR is learning how to adapt to climate change while also decreasing their impact on climate change overall.[191] These partnerships outline specific projects and initiatives that GTR is taking to either minimize their emissions or improve their recycling programs. Through these partnerships, GTR incorporates new sustainability programs and identifies new ways to decrease their emissions. These partnerships are important to this project, as GTR would continue to incorporate them to decrease their emissions and thus their impact on climate change overall.

Protect Our Winters (POW)

GTR was the first ski resort to partner with POW in 2009. POW specializes in mobilizing the snowsports and outdoor communities against climate change. POW's main focus is on youth education, climate advocacy, and community activism.[192] Through this partnership, GTR has committed to donating money towards climate advocation and land stewardship, focusing on reducing their carbon footprint, supporting strong climate policy, and being a vocal advocate against climate change. GTR's employees can donate dollars from their paychecks to POW, with each dollar being matched by GTR. To this date, around $100,000, or $7,500 per year, has been donated to support land conservation and stewardship in Teton County, Idaho.[193]

National Ski Areas Association (NSAA) Climate Challenge

The NSAA's Climate Challenge encourages ski resorts across the nation to take on climate change. Through this challenge, ski areas must track and inventory their GHG emissions, set an emissions reduction goal, and implement a project a year aimed at reducing GHG emissions. Projects that have been completed in accordance with this challenge are as follows:[194]

- A Tier 3 diesel groomer was upgraded to a Tier 4. This decreases the emissions of particulate matter and NOx by 45 percent as compared to Tier 3 use[195]
- New doors were installed in chairlift houses to provide better insulation, along with new programmable heaters to replace inefficient units.
- Installation of a new networking monitoring/automation equipment system for the Water Treatment and Snowmaking operations to assist staff in running departments more efficiently through managing water usage systems remotely.
- The IT department's enactment of a new program that automatically shuts down the base area computers each night. This saves an estimated 50,000 kWh in electricity.
- POW Carpool Challenge in February 2019. Guests were encouraged to carpool to decrease GHG emissions. By doing so on the weekends, they were entered into weekly drawings for prizes. In 2019, 26,000 individuals were shuttled from the surrounding area to GTR.

[191] GTR n.d.
[192] Protect Our Winters 2020
[193] GTR n.d.
[194] National Ski Areas Association 2019
[195] U.S. EPA 2018

- Integration of sustainability efforts into employee training and orientation materials, as well as the lodging information.
- Around 500 incandescent light bulbs in the base area and on-mountain facilities were replaced with newer, more efficient LED bulbs. Fluorescent T12 bulbs were switched to T8s. It is estimated that these upgrades saved more than 53,000 kWh and 37 tons of CO2 emissions per year.
- Over 25 tons of recycling was diverted from the landfill, including 350lbs. of lift tickets and 20,000 energy bar wrappers through the Terracycle recycling programs.
- Teton Mountain Outfitters, GTR's on mountain retail store, implemented a "no one-time-use bags" policy. This prevented around 4,000 plastic bags that would have been used otherwise.
- Stone paper, from Stone Paper Solutions, is utilized for all trail maps. Stone paper is composed of 75 percent or more recycled material. Through a clean production process this process avoids the air and water pollution that is associated with paper production. It uses 85 percent less energy and has a 67 percent smaller front-end carbon footprint.
- The Human Resources department made the transition to Kronos, eliminating paperwork from the hire, termination, review, and HR related processes. Similarly, the Guest Service and Ski/Snowboard School departments transitioned to an online waiver system, decreasing the use of paper overall.

NSAA Vehicle Idling Policy

In 2008 GTR adopted NSAA's No Idling Policy. This policy limits gasoline-powered vehicles to idle for five minutes and 15 minutes for diesel vehicles. Through this policy, GTR aims to raise awareness of the impacts idling has on air quality and climate change. GTR hopes to reduce overall fuel use and reduce emissions associated to unnecessary idling.[196]

NSAA Sustainable Slopes Charter

The NSAA Sustainable Slopes Charter has prompted the ski industry to be leaders among the outdoor recreation community to promote environmental stewardship by improving environmental performance in all aspects of their operations. GTR joined the Sustainable Slopes Charter and has made improvements across the mountain to combat climate change and promote environmental stewardship (refer to *National Ski Areas Association (NSAA) Climate Challenge* previously for more information).[197]

3.11.4 Direct and Indirect Environmental Consequences

The following sections present the direct and indirect environmental consequences anticipated under the action alternatives. Interactions and impact analysis between climate change and other resources considered in this FEIS are discussed in the following resource sections in **Section 3.1, Section 3.10, Section 3.12, Section 3.13, Section 3.14, Section 3.15,** and **Section 3.16.**

US EPA 2018[196] GTR n.d.
[197] Ibid

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Under the No Action Alternative, GTR's resources would remain in their existing conditions and the ski area would continue to operate with existing terrain and lifts.

The contribution of the activities at the ski area such as visitor traffic/emissions, maintenance and operations, and water use to climate change would resemble current trends, which is anticipated to increase slightly for approximately five years, then decrease to current levels (see **Section 3.1.3**). No additional effects from the Proposed Action to emissions would occur under the No Action Alternative.

Similarly, the effects of climate change on operations at GTR would be consistent with current trends. GTR would continue to experience changes in winter and summer temperatures; the timing and amount of precipitation that falls as snowpack; and the timing and duration of the winter season and snowmelt/runoff due to climate change. Current climate induced effects would be expected to continue under the No Action Alternative, and could affect snowmaking capacity, visibility, visitation, and operations at GTR.

ALTERNATIVE 2 – PROPOSED ACTION

Climate Change Impacts on Proposed Projects and Operations

As discussed in the Precipitation section previously, precipitation in the form of snowfall is expected to decrease. A decrease in snowfall could create a limit on available water that GTR utilizes to operate their on-mountain facilities. This may pose a difficulty for the construction of Fred's Mountain Top Guest Facility as water for the facility is proposed to be used from a groundwater well. Similarly, water that is going to be used for the proposed snowmaking would be accessed from existing and new groundwater wells (refer to **Section 3.15** for more information). The decrease in the amount of annual precipitation delivered as snowfall has the potential to impact the available water used for snowmaking. With the predicted warming temperatures, a larger percentage of the annual precipitation is expected to be delivered as rainfall. Not only would this pose a difficulty for Fred's Mountain Top Guest Facility and proposed snowmaking, but also the existing vegetation within GTR. Less precipitation and hotter conditions create a higher frequency of wildfires along with drier conditions in and around GTR, which represents a shift from legacy conditions that the vegetation in the area is adapted to. In the event of exceptionally dry years or wildfires outside the normal range of variation that were influenced by climate change, vegetation could be severely impacted. Climate change may impact the duration, timing, and nature of visitation to the resort, which in turn may affect the types of operations and amenities provided at GTR.

Furthermore, with increases in temperature, the existing snowpack is more likely to melt faster as compared to historical conditions.[198] This has serious implications for snow rain transition (SRT). SRT is influenced by both temperature and precipitation. It is predicted that in regions similar to GTR, precipitation would fall as rain instead of snow.[199] Precipitation in the form of rain has serious repercussions for SRT. Rain affects the ability of the snowpack to maintain its base temperature. With a higher base temperature, existent snowpack has a greater possibility of melting faster and breaking

[198] Luce, Lopez-Burgos, and Holden, 2014
[199] U.S. EPA 2007b

down.[200] This not only decreases the overall maximum snowpack depth but also poses public safety concerns in the form of avalanches. In a study done in the central Cascade Mountains in Washington, immediate avalanching, delayed avalanching, and a return to stability occurred after a rain event.[201] Consequentially, areas like the South Bowl, which is already prone to avalanches and has a south facing aspect, could see an increase in avalanches in the future (refer to **Section 3.7** for more information).[202]

Not only would SRT at GTR decrease, but the capacity for GTR to make artificial snow also has the potential to decrease. Although there may be more precipitation in the form of rain to support snowmaking, specific temperatures are needed for snowmaking, and due to increases in temperature there is a projected shift in viable days for snowmaking at GTR. As mentioned previously, under RCP 4.5 it was determined that for the Southern Greater Yellowstone region, the median maximum temperature is projected to rise to 5°F and the median minimum temperature is projected to rise about 6°F. Whereas under RCP 8.5, the median maximum temperature is expected to rise about 11°F and the median minimum temperature is expected to rise about 12°F by 2100. This has implications for ski season length as the snowmaking GTR relies on to open may decrease due to higher temperatures being predicted. GTR may have to invest in more snowmaking cannons or offer more shoulder season recreational opportunities to address these changes in the future.

As previously described, the proposed South Bowl is a south-facing slope. Southern-facing slopes are known for not keeping a sufficient snowpack throughout the year as compared to north-facing slopes. North-facing slopes reach their maximum snowpack depth in early spring, whereas south-facing slopes go through fluctuations of episodic snow and melt events throughout the winter and early spring.[203] Additionally, south facing slopes are prone to hotter temperatures as compared to north facing slopes. In a study done on the rain-snow transition for the Colorado Front Range it was found that north-facing slopes were on average 4.2°C (39.6°F), whereas on the south-facing slopes it was an average 6.2°C (43.2°F).[204] This trend is relevant to the proposed South Bowl area as it has a southeast aspect. Snow management would be necessary due to the sun and warming this area would receive from its southerly aspect. It is important to note that the portion of the South Bowl area that is proposed for incorporation into the GTR SUP boundary also has an eastern facing aspect through the majority of the terrain. Favorable wind patterns and loading over the ridge have proven that this terrain can hold viable snow throughout the portion of the season that it would be operational. Additionally, the lift and terrain configuration that is proposed is largely above tree line and stays within higher elevations that have longer SRTs. This proposed terrain area could be operated without supplemental snowmaking; however, the number of days that this area would be open to the public would be less than other areas of the mountain. This is consistent with GTR's plans to provide lift-served skiing within the South Bowl. Into the future, this trend could be exacerbated by climate change and additional snow management features and/or snowmaking could be necessary. If these projects were determined to be necessary in the future, they would be subject to a separate NEPA analysis. Additionally, the quality of skiing in this area could decrease as forests become more susceptible to insect and disease outbreaks as a result of climate change. As trees within the ski area are impacted by insects and disease, they could die and fall over or remain dead standing trees.

[200] Luce, Lopez-Burgos, and Holden, 2014
[201] Conway and Raymond 1993
[202] Ibid
[203] Hinckley et al. 2014
[204] Ibid

These trees could pose safety hazards to guests within the ski area and certain areas of the SUP could become closed as mitigation measures are undertaken. Further, as trees die, the guest experience of gladed skiing could be reduced as less trees could exist in the future reducing the ability of GTR to provide gladed skiing experiences.[205]

Furthermore, even though higher elevation areas, like South Bowl would have longer SRTs, areas lower in elevation like Mono Trees would not. SRTs at lower elevations would decrease, potentially prompting a need for snowmaking in this area in the future. Although snowmaking could occur, the number of viable days for snowmaking could decrease, which could pose a threat to the number of days that this area could be open to the public. Along with this, while higher elevation areas like South Bowl would experience consistent snow throughout the winter, mid- to low-elevation areas, like Mono Trees, are expected to experience midwinter rain and more rain-on-snow flooding, leading to midwinter flooding and unstable snowpacks. Overall, higher elevation areas would fare better to shifts in temperature and changes in snowpack, as compared to lower elevation areas.[206]

Lastly, the combination of a shorter winter season and earlier spring melt would have serious impacts on water resources, ecosystems, and the economy at GTR.[207] While this temperature and precipitation projection do not particularly favor a large snow base at GTR, it does highlight the critical need for the ski area to have good snowmaking so it can be reliably open as much of the season as possible. It also shows that there is a need to diversify GTR's operation with more summer and alternative forms of mountain recreation along with incorporating various adaptation strategies into long-term planning. These adaptation strategies could range anywhere from implementing new snowmaking infrastructure and constructing additional ski runs at higher elevations to increasing the available shoulder season and multi-season recreational opportunities. Projects that are not included within this NEPA analysis would have to go through a separate analysis if determined a priority for GTR. Currently, within the Proposed Action, GTR proposes 29 additional miles of summer recreation trails, a canopy tour/fly line, a zip line, an aerial adventure course, and a disc golf course. GTR is also proposing to have alternative winter activities like a snow tubing facility, and the expansion of Nordic skiing, snowshoeing and fat tire biking opportunities. All of these opportunities would provide supplementation to GTR's operations as the effects of climate change occur.

Potential Contributions of Proposed Projects to Climate Change

There are three categories of activities that would contribute to climate change from the proposed projects: (1) emissions of CO_2, CH_4, NO_x, and SO_2 from construction of the projects; (2) emissions of CO_2, CH_4, NO_x, and SO_2 from additional winter visitation and operation of proposed infrastructure in the off-season; (3) emissions of CO_2, CH_4, NO_x, and SO_2 from additional summer visitation as generated by the proposed projects. Overall, emissions from construction are expected to be very small, representing a 0.1 percent or less increase in NAAQS pollutants across Wyoming (see **Section 3.10.4**), and would only occur in the short-term until the projects are complete. The increase in year-round visitation, and thus an increase in vehicular activity would have a long-term measurable impact on CO, NO_X, and CO_2; however, this is expected to be a less than 0.5 percent increase compared to current statewide emissions. Emissions

[205] Halofsky et al. 2018
[206] Ibid
[207] Ning and Bradley 2015

from year-round operations and summer visitation are not expected to generate substantial additions. For more information on these potential contributions, refer to **Section 3.10.**

ALTERNATIVE 3 – NO SUP EXPANSION

Climate Change Impacts on Proposed Projects and Operations

Alternative 3 would be impacted by climate change in a similar fashion as the Proposed Action (refer to Alternative 2 – Proposed Action for more information). Overall, precipitation in the form of rain is expected to increase, SRT is expected to decrease, and viability of snowpack would decrease. Through the offering of multi-season recreation like hiking and mountain biking, GTR would adapt to these impacts from climate change. Although climate change impacts would be similar, impacts to South Bowl and Mono Trees expansion areas would be non-existent as these proposed SUP expansions are not included in this alternative. Specifically, the maintenance of the south facing slopes and dealing with solar warming in the South Bowl would not be introduced into GTR's operations.

Potential Contributions of Proposed Projects to Climate Change

Alternative 3 would have similar effects as described in the Proposed Action (refer to Alternative 2 – Proposed Action above for more information). Although effects are similar, Alternative 3 would have a slightly lesser effect overall as compared to the Proposed Action. This is due to Alternative 3 not including the South Bowl and Mono Trees expansion. However, due to GTR operating on mostly renewables (95 percent), the operation of these lifts isn't expected to contribute much to climate change in terms of emissions. Without the construction and installation of the South Bowl Lift, Mono Trees Lift, avalaunchers, and accompanying ski runs, vehicle trips are expected to be reduced and thus less emissions would be produced (refer to **Section 3.10** for more information).

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

Climate Change Impacts on Proposed Projects and Operations

Alternative 4 would be impacted by climate change in the same way that the Proposed Action would be (refer to Alternative 2 – Proposed Action for more information). With the inclusion of South Bowl, threats of avalanches, an increase in public safety (refer to **Section 3.7**), and the possibility of a less viable snowpack would still be present. With the installation of avalaunchers, the threat of avalanches in the South Bowl area would possibly be mitigated and thus public safety impacts would be diminished. This alternative does not include the Mono Trees expansion; therefore, impacts from climate change are expected to be less overall, although a very minimal difference from Alternative 2 as the low elevation Mono Trees area that would be most affected by climate change would not be included in Alternative 4.

Potential Contributions of Proposed Projects to Climate Change

Alternative 4 would have a similar nature of effects to climate change as described in the Proposed Action (refer to Alternative 2 – Proposed Action for more information). Although effects are similar, Alternative 4 would have more effect as compared to Alternative 3, and an overall lesser effect as compared to the Proposed Action on climate change, mostly due to decreased visitation, construction, and operations emissions associated with this alternative (refer to **Section 3.10** for more information).

ALTERNATIVE 5 – MONO TREES, NO SOUTH BOWL

Climate Change Impacts on Proposed Projects and Operations

Alternative 5 would be impacted by climate change in the same way that the Proposed Action would be (refer to Alternative 2 – Proposed Action for more information). Specifically, Alternative 5 would be impacted less due to not including the South Bowl expansion. There would be less of a threat to public safety from avalanches and decreased public safety issues overall (refer to **Section 3.7 – Public Safety** for more information).

Potential Contributions of Proposed Projects to Climate Change

Alternative 5 would have similar effects on climate change as Alternative 4. Furthermore, Alternative 5 would have less of an effect on climate change as compared to the Proposed Action, mostly due to decreased visitation, construction, and operations emissions associated with this alternative (refer to **Section 3.10**).

3.11.5 Cumulative Effects

SCOPE OF THE ANALYSIS

Effects analyzed in the Cumulative Effects discussion apply to all alternatives, including the No Action Alternative. The following projects are expected to cumulatively have short- and long-term effects on overall recreational opportunities in the GTR SUP area and on adjacent NFS lands, as well as throughout Teton County, Wyoming.

Temporal Bounds

The temporal bounds for this cumulative effects analysis for climate change resources extend from GTR's founding as a ski area in 1966 through the foreseeable future in which GTR can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis for climate change resources are limited to public and private lands in the vicinity of GTR's operational area.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects project area, the reader is referred to **Appendix A** in the document. Past ski area and regional development projects have been incorporated and analyzed in this document as part of the Affected Environment. Projects that could have both beneficial and adverse cumulative impacts on climate change are analyzed in the following discussion.

Climate adaptation measures and GTR's participation in the NSAA Climate Challenge, as well as other NSAA policies to prevent CO_2 and CH_4 emissions, could have beneficial cumulative impacts on CO_2 and CH_4 emissions and climate change.

Continued development and use of fossil fuels at GTR, throughout Teton County, and around the world would continue to escalate the issue of climate change. The Proposed Action would contribute a small amount of emissions to overall Teton County and State of Wyoming emissions. These effects could increase risks such as wildfire and heavy precipitation events, change the amount and timing of snowfall

and snowmelt, and affect visibility. Temperature increases or variability may result in shortened ski seasons. Climate adaptation measures at GTR and in the Teton County region could have a small beneficial cumulative effect on locally-produced CO_2 and CH_4 emissions, waste diversion, and water use, but may not have substantial cumulative effects that reduce the impacts of climate change at a broader scale.

3.11.6 Irreversible and Irretrievable Commitments of Resources

The addition of new trails, snowmaking capability, and infrastructure at GTR represent irretrievable contributions to climate change, because the emissions that would be generated from the construction of the proposed projects and increased visitation would contribute to climate change and be influenced by climate change. However, these emissions are not considered irreversible due to offsetting and mitigation that could possibly occur in the future. These offsetting and mitigation measures include consideration of the loss of carbon sequestration capacity resulting from vegetation removal, which could be reversed in the long-term if vegetation were allowed to regrow. Additionally, measures could be put into place to reduce vehicular and construction emissions that might impact air quality and visibility.

3.12 Vegetation

3.12.1 Scope of Analysis

This analysis summarizes the *Biological Assessment for Whitebark Pine* (Wildlife and Botany BA), the *Biological Evaluation for Botany* (Botany BE), the *Old Growth Forest Assessment* (Old Growth Assessment), and the *Noxious Weed Risk Assessment* (Noxious Weed Assessment), all of which are available on the project website.[208] Species included in this analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* TNF SOLC, and Wyoming Natural Diversity Database (WYNDD). Old growth vegetation was also assessed, along with the presence of noxious weeds. Excluding whitebark pine, there are 11 Forest Service Region 4 Sensitive Species listed, 0 SOLC, and 65 WYNDD Species of Concern with potential to occur within the project area. Based on this and the habitat preferences of the project area it was determined that six species were considered likely to occur in the project area, of which four are Forest Service Region 4 Sensitive Species. Details of these species, old growth vegetation, and noxious weeds within the project area are described in the following sections.

3.12.2 Federal, State, and Local Policy and Guidance

1997 FOREST PLAN

The *1997 Forest Plan* provides the following standards and guidelines related to sensitive plant taxa:

> *Vegetation Guideline 8: Maintain, and where possible, increase unique or difficult-to-replace elements or habitats such as whitebark pine, and areas of high species diversity, such as aspen, riparian zones, etc.*
>
> *Plant Species Diversity Standard 1: Information on the presence of listed threatened, endangered, or sensitive plant species will be included in all assessment for vegetation*

[208] Alder Environmental 2023 b, c, and d

> *and/or ground disturbing management activities. Appropriate protection and mitigation measures will be applied to the management activities.*[209]

In relation to old growth forest areas, located within Targhee Principal Watersheds (TPWs): Teton Creek (TPW 19) and Leigh Creeks (TPW 20) each principal watershed should maintain a minimum of 20 percent of late seral and old growth forest. A guideline in the *1997 Forest Plan* specifically states:

> In each principal watershed, the combination of old growth and late seral forest stage acres will be 20 percent or more of the forested areas.[210]

The *1997 Forest Plan* does not provide direct guidance regarding the management of noxious weeds or invasive plants; however, it does provide three guidelines that indirectly address them. These guidelines are presented in the *1997 Forest Plan* on page III-14. Please refer to the **Noxious Weed Assessment** for more information.

FOREST SERVICE MANUALS

FSM 2600 provides guidance for the management of wildlife, fish, and sensitive plant habitat. There are various directives including objectives, policies, definitions, and objectives of the biological evaluation that FSM 2600 provides. Refer to the **Botany BE** for more information.

There are also three FSMs that provide policy and direction related to the management of noxious weeds and invasive plants. FSM 2070, Native Plant Materials Policy, provides direction on the proper use of native plant materials in re-vegetation, rehabilitation, and restoration of aquatic and terrestrial ecosystems. FSM 2150, Pesticide Use Management and Coordination Policy, provides guidance on the use of pesticides as part of a pest management approach. Finally, FSM 2900 provides nationwide policy on the management of invasive species. Please refer to the Noxious Weed Assessment for more information.

ENDANGERED SPECIES ACT OF 1973 – 2022 WHITEBARK PINE

Forest Service policy requires a review of programs and activities to determine their potential effect on threatened, endangered, and proposed species. The United States Fish and Wildlife Service (USFWS) listed Whitebark Pine (WBP) (*Pinus albicaulis*) as threatened under the Endangered Species Act of 1973 (ESA), as amended, on December 15, 2022. The USFWS finalized a 4(d) rule that identifies actions and prohibitions required for the preservation and recovery of the species, including a limited number of exceptions to the prohibited acts. WBP has previously been listed as proposed threatened since 2020 and as a Candidate Species since 2011. The USFWS concluded that habitat loss is not a driving threat to WBP, so critical habitat was not designated. Under the section 4(d) rule, the removal, damage, or destruction of WBP on federal lands, as well as the import, export, transport, or sale of the species is prohibited. Exceptions are included to allow for forest management strategies that promote the survivability of WBP.

Section 7(a)(1) of the ESA requires federal agencies to use their authorities to further the conservation of listed species. Section 7(a)(2) requires that federal agencies ensure that any action is not likely to inhibit the continued existence of federally listed species, or destroy, or adversely modify designated critical

[209] USDA Forest Service 1997
[210] Ibid

habitat. This analysis and documentation conform to legal requirements as provided under section 7 of the ESA. Refer to the WBP Assessment for more information.

EXECUTIVE ORDERS

Executive Order 13112

There are many laws and regulations that provide direction and guidance on the management of invasive species and vegetation. Executive Order 13112 that identifies specific guidance for invasive species applies to this analysis. This Executive Order directs federal agencies to identify actions that may impact invasive species, prevent the introduction of invasives, detect and control invasives, monitor species, provide restoration of native species, conduct research on invasive species, promote public education on these species, and to not authorize or fun actions that are likely to cause the introduction or spread of invasive species.[211]

3.12.3 Affected Environment

The existing GTR SUP spans western slopes and valleys below Fred's Mountain and Peaked Mountain. Lower elevation (7,500 – 8,200) conifer forests and aspen are interspersed with wetlands and subalpine herbaceous communities. The Douglas-firs and lodgepole pines at lower elevations merge with Englemann spruce and subalpine fir at higher elevations. Above 8,500 feet soils become rockier and more exposed, providing habitat for WBP and low-lying herbaceous plants.

At higher elevations (above 8,500 feet) WBP and low-lying herbaceous plants exist. The recent listing of WBP in 2022 determined that white pine blister rust was the leading threat to WBP. Pre-project surveys in 2020 determined that 70 percent of WBPs within the Greater Yellowstone Ecosystem are infected with white pine blister rust, and white pine blister rust is prevalent among trees in the project area.

During pre-project botanical surveys, no Forest Service Region 4 Sensitive Species were observed, but two WYNDD Species of concern were encountered: keeled bladderpod (*Lesquerella carinata var. carinata;* synonym *Physaria carinata* ssp. *carinata*) and brightgreen spleenwort (*Asplenium trchomanes-ramosum;* synonym *A. viride*). One Forest Service Region 4 Sensitive species was not encountered during these pre-project surveys but was previously observed within the project area: Payson's bladderpod (*Lesquerella paysonii;* synonym *Physaria carinata* ssp. *paysonii*). These three species are analyzed further below.

The presence of late seral and old growth forest was also analyzed within each TPW, and a desktop review of data was completed. The best available data was utilized for this analysis and multiple reliable existing datasets were assessed to ensure accuracy in reporting the projects potential effects to late seral and old growth forests. In conjunction with this, a working definition for old growth within the project area was identified. It was determined that old growth is characterized by three aspects: diameter at breast height (DBH), trees per acre (TPA), and age. Existing vegetation data that was analyzed in a desktop review included, vegetation analysis from the Teton Canyon LAU and the TNF Mid-level Vegetation Map Geodatabase. These vegetation data and definition have been utilized to determine existing conditions of

[211] Clinton 1999

old growth within GTR's existing and proposed SUP. Existing conditions of old growth are further described in the following *Old Growth* subsection.

Pre-project surveys were also conducted for invasive plants and noxious weeds. Botanists surveyed for Wyoming State Designated Noxious Weeds, and it was determined by Teton County Weed and Pest that noxious weeds exist throughout the project area. The presence of noxious weeds is further described under the following *Noxious Weeds and Invasive Plants* subsection.

THREATENED AND ENDANGERED SPECIES

Whitebark Pine

WBP (*Pinus albicaulis*) has a habitat range extending from central British Colombia east to the Canadian Rocky Mountains, with a southern habitat range extending from the Cascade and Sierra Nevada Ranges eastward through the northern Rocky Mountains of Idaho and Montana, ending in the Wyoming Basin.[212] Within the Greater Yellowstone Ecosystem (GYE), WBP are the dominant conifer in high elevation tree line environments, and serve to facilitate community structure at tree line sites.[213] WBP is also considered a keystone species of subalpine ecosystems, as it supports the survival of other species and functions to increase biodiversity.

Surveys for the presence of WBP within the project area were conducted between July 30 and August 15, 2019 across steep, variable terrain with limited personnel. Given these constraints, survey efforts were prioritized using elevation and vegetation GIS data provided by the CTNF to focus on areas with the highest likelihood of WBP occurrence, rather than attempting complete ground coverage. Priority was placed on covering the project area using a variety of methods, including a combination of on-the-ground surveys and observations from strategic vantage points, instead of surveying individual trees. Abundance and condition of living WBP trees were documented across the project area where on-the-ground surveys were feasible. Using GPS points or GIS polygons, botanists recorded count or density, presence of female cones, health, and presence of flagging or cankers (considered symptoms of blister rust; Hoff, 1992) (refer to **Figure 14** and **Figure 15** in the **Biological Assessment**). WBPs were recorded with GPS waypoints for single or small groups of trees and GIS polygons based on approximate density for larger groups. For each point or polygon, botanists recorded the approximate number of non-cone-bearing trees and cone-bearing trees, health category (see details below), and whether cankers or flagging were visible. Cone bearing status was recorded based on observed presence of female cones at the time of field surveys. WBP is a masting species, with synchronous high cone production occurring intermittently (often every 2-5 years), and relatively low cone production in other years. Individual trees typically do not produce substantial cone crops annually.[214] WBP is also slow to reach reproductive maturity and generally does not begin producing cones until approximately 30-50 years of age.[215] Given these ecological characteristics, cone-bearing status was categorized into three field-based classes representing observable conditions at the time of survey. Trees with visible, confirmed female cones were classified as "cone-bearing." Trees where cones were not observed, despite adequate visibility of the crown, were classified as "non-cone bearing." Trees where cone presence or absence could not be reliably determined due to

[212] USFWS 2018
[213] Wagner et al. 2018
[214] Crone et al. 2011
[215] Perkins et al. 2016

visual limitations (e.g., distance, topography, canopy position, or crown structure) were classified as "mixed" (refer to the **Wildlife and Botany BA** for more information).

In areas that were not accessed by foot, WBP occurrence and density were estimated by observing slopes and drainages using binoculars from strategic locations (e.g., ridges, chairlifts). From these surveys, it was determined that several thousand WBP trees were documented within the project area. The highest densities of WBP trees existed at the high elevations and exposed ridges of GTR's existing and proposed SUP. WBP was not found within aspen stands or low-elevation drainages. Density of WBP ranged from one to more than 25 trees per acre. Specifically, WBP has approximately 6,945 acres of habitat within the TPWs. This is approximately 11 percent of the total 62,505-acre analysis area of TPW19 and TPW20.

Most of the trees were healthy, but many trees were also dead, and symptoms of blister rust were present on roughly one-quarter of the trees. Three "Plus Trees" were identified on the eastern end of GTR's existing SUP by the TNF in 2020. One of the plus trees blew over in a wind event in 2022 resulting in two recorded plus trees at GTR. These WBP "Plus Trees" are ones that exhibit genetic resistance to white pine blister rust.

In summary, WBP trees within the project area are abundant and widespread, appear to be reproducing successfully, and exhibit a range of health conditions. Density of WBP within the existing and proposed SUP is most prolific near Fred's Mountain and Peaked Mountain, given the elevation of these areas. As identified in **Table 3.12-1** within the 3,282-acre project area, there are approximately 511 acres of WBP in a density of at least one tree per acre. Specifically, 239 acres contain 1 – 5 trees per acre; 76 acres contain 5 – 10 trees per acre; 80 acres contain 10 – 25 trees per acre; and 4 acres contain 25 trees or more per acre. Overall, approximately 200 acres, or six percent, of the project area contains an estimated five or more WBP trees per acre. Refer to the Wildlife and Botany BA for more information on the methodology of data collection.

Table 3.12-1. Estimated Density of Whitebark Pine Trees Throughout the Project Area

Estimated Density (tree/acre)	Methodology	Area (acres)
Low Density WBP		**310.48**
1-5	GPS & Binocular Surveys	239.19
Likely few WBP (estimated <5)	Not Surveyed - Aerial Imagery & GIS Analysis	71.29
Mid to High density WBP		**200.71**
5-10	GPS & Binocular Surveys	76.90
10-25	GPS & Binocular Surveys	80.53
25+	GPS & Binocular Surveys	4.14

Likely some WBP (estimated 5-10)	Not Surveyed - Aerial Imagery & GIS Analysis	22.37
Likely many WBP (estimated 10+)	Not Surveyed - Aerial Imagery & GIS Analysis	16.77
Total		**511.19**

WYOMING NATURAL DIVERSITY DATABASE SPECIES OF CONCERN

Keeled Bladderpod

During field surveys in 2019, keeled bladderpod was frequently observed across the project area in loamy, rocky soils in alpine and subalpine ridge crests, drainages, and slopes. Occupied habitat was high in elevation, ranging from 8,750 to 9,850, and usually in the vicinity of WBP. Within the project area, a total of 14 subpopulations, occupying a total of 14.7 acres were scattered from the Blackfoot chairlift to the slope south of Peaked Mountain (refer to **Table 3.12-2**). It was determined that habitats closest to ridge crests contained denser populations than as compared to habitats on lower slopes. Specifically, based on each survey point, approximately 51 percent contained zero to one plants within a square meter, 16 percent contained two to 10 plants, and 33 percent contained more than 10.

Table 3.12-2. Element Occurrences (EO) of Keeled Bladderpod Across the Project Area

New or Updated EO	EO Nickname	Estimated number of individuals	Subpopulations	Occupied Habitat (acres)	Elevation (ft)
Update	Dreamcatcher Summit	2000	4	7.3	8,800 – 9,850
New	Top of Blackfoot	1500	2	3.2	8,800 – 9,350
Update	Top of peaked	200	1	0.2	9,790
New	Peaked South Slope	200	4	1.3	8,750 – 9,250
Update	Peaked Chairlift	125	2	1.3	8,850 – 9,250
Update	Sacajawea Cliff	100	1	1.3	9,040

Brightgreen Spleenwort

The brightgreen spleenwort inhabits cliffs and crevices of limestone and other rocks with basic pH. During 2019 field surveys, the brightgreen spleenwort was observed in one place, in the crevices of limestone bedrock northwest of Mary's Saddle. This occurrence was new, and a fairly large population of 58 clusters of 2-30 stems. The elevation of the area was approximately 9,275 feet in a large bowl with

Englemann spruce and subalpine fir nearby. The occupied space of this occurrence was just 0.04 acres. This occurrence is located within a popular side-country ski run below Mary's Nipple, and off-trail mountain biking use of the limestone rock was observed in this area. However, none of the individual plants were disturbed. The limestone cliffs that are located southwest, below Peaked Mountain, were inaccessible, but do have the possibility to provide habitat for the brightgreen spleenwort.

FOREST SERVICE REGION 4 SENSITIVE SPECIES

Payson's Bladderpod

The Payson's bladderpod inhabits gravelly calcium-rich ridge crests, slopes, and floodplains/bottomlands often associated with sagebrush grassland communities that are sparsely vegetated.[216] It is mostly found on southern aspect slopes in elevations ranging from 5,500 to 10,500 feet. Given their inhabitants of southern aspect slopes, the environment tends to be warmer and drier than surrounding areas. Payson's bladderpod was not identified within the project area during field surveys in 2019. A previously documented occurrence existed near the Dreamcatcher Lift around 9,900 feet, but no plants were found. This occurrence was observed in 1995 when fewer than 10 plants were observed. It is not known where the population has declined permanently or temporarily due to environmental variation. No other populations are known to exist within the project area.

OLD GROWTH

Old growth forests are ecosystems distinguished by old trees and related structural attributes; old growth encompasses the later stages of stand development that typically differs from earlier stages in a variety of characteristics including tree size, accumulations of large dead woody material, number of canopy layers, species composition, and ecosystem function.[217] There are two TPWs that overlap the existing and proposed SUP area, which are TPW19 and TPW20. TPW19 encompasses both Mono Trees and South Bowl, whereas TPW20 encompasses only the existing SUP. Two existing and reliable data sets were used to determine existing conditions of late seral and old growth within the project area. These included the Vegetation Analysis for the Targhee National Forest Lynx Analysis Unit (lynx habitat data)[218] and the Caribou-Targhee Mid-Level Existing Vegetation Classification and Mapping (mid-level data).[219] Both datasets combine field surveys, photo interpreting, modeling, and Landsat and aerial imagery. However, the lynx habitat dataset was created for a smaller area, while the mid-level dataset covers all of the CTNF. The Vegetation Analysis for the Targhee National Forest Lynx Analysis Unit data is more accurate but only identified vegetation within a portion of TPW19, whereas the mid-level vegetation data identified vegetation within the entirety of both TPW19 and TPW20. The lynx habitat data encompasses approximately 90 percent of Mono Trees, but only a portion of South Bowl and the existing SUP (refer to the **Late Seral and Old Growth Assessment** for more information).

The analysis that is summarized in the following discussion utilized the entire lynx habitat data set and combined it with the mid-level vegetation data to account for the rest of TPW19 and the entire TPW20. Assumptions were made to merge the data, always deferring to an approach that would lead to the most conservative estimate of old growth and late seral stage vegetation in the analysis area. In other words, the

[216] Fertig 1997
[217] Hamilton 1993
[218] USDA Forest Service 2015
[219] USDA Forest Service 2014

approach that could result in the highest potential of late seral and old growth vegetation in the TPW-19 and TPW-20 to ensure that full scope of potential project impacts was analyzed. Specifically, the mid-level dataset did not match up exactly with the dbh ranges that are identified by Hamilton 1993[220] for old growth and late seral stage. For this reason, the old growth areas could not be specifically determined, but instead approximated by comparing late seral stand that may meet old growth characteristics (classified as "potential old growth" in **Table 3.12-3** below). For a complete discussion of methodology, the reader is referred to the **Late Seral and Old Growth Assessment** available in the project file.

Based on specific directions in the *1997 Forest Plan*, late seral and old growth forest stands should be in blocks over 300 acres in size.[221] Therefore, data was organized into contiguous polygons (forest blocks) of 300 or more acres. Analysis of combined late seral and potential old growth forest collectively and in 300-acre blocks, indicates the following existing conditions within TPW-19 and TPW-20.

The following **Table 3.12-3** highlights the percentage of old growth and late seral stage stands using the best available data and direction from the Forest Plan.

Table 3.12-3. Estimated Percentage of Late Seral and Old Growth Within TPW19 and TPW 20

TPW Analyzed and Organization	Percentage of Late Seral and Old Growth (%)
Percent Forested Acres in TPW19 in Late Seral/Potential* Old Growth	25.7
Percent Forested Acres in TPW19 in Late Seral/Potential* Old Growth in 300-acre Forest Blocks	21.7
Percent Forested Acres in TPW20 in Late Seral/Potential* Old Growth	28.9
Percent Forested Acres in TPW20 in Late Seral/Potential* Old Growth in 300-acre Forest Blocks	21.3

*Old growth areas could not be specifically determined but were approximated and thus classified as "potential old growth."

As highlighted in **Table 3.12-3**, both TPW 19 and TPW 20 can be conservatively estimated to be comprised of over 20 percent old growth and late seral stage stands in their existing condition. Different data sets, assumptions, and qualifications have been considered to ensure accuracy in assessing the potential impacts to old growth and late seral stage stands within TPWs overlapping the project area. A discussion of potential changes to old growth and late seral stage stand composition under the action alternatives is included in the following *Old Growth* discussion within the *Direct and Indirect Environmental Consequences* section of this Chapter.

[220] Hamilton 1993
[221] USDA Forest Service 1997

NOXIOUS WEEDS AND INVASIVE PLANTS

Surveys for invasive species and noxious weeds were conducted during the 2019 field surveys. A total of 81 infestations were found, concentrated in areas of disturbance. Weeds and invasive species were found primarily along administrative routes and trails, in the base area, within wetland areas, and in areas grazed by cattle. Weed species that were encountered included Canada thistle (*Cirsium arvense*), musk thistle (*Carduus nutans*), scentless chamomile (*Tipleurospermum perforatum*), and yellow toadflax (*Linaria vulgaris*) (refer to **Table 3.12-4** for more information).[222]

Table 3.12-4. Noxious Weeds Observed at GTR During 2019 Field Surveys

Species and Priority Level by Teton County[223]	Locations Found	Infestations Recorded	Approximately Total Number of Plants
Canada Thistle Priority 4	Roads, trails, base area, wetlands	49	1,532
Musk thistle Priority 4	Roads, base area	20	52
Scentless chamomile Priority 4	Base area	8	654
Yellow toadflax Priority 3	Roads, trails	4	281
Total		**81**	**2,519**

Following 2019 field surveys, the construction of the Colter Lift occurred. Prior to this development only three infestations were observed in this area, two musk thistle and one yellow toadflax. The musk thistle infestation had evidence of herbicide spray, suggesting the area had been treated; therefore, if treated properly this infestation may not have spread during disturbance of the area. The yellow toadflax infestation was most likely not spread as machinery avoided the infested area. As a result of the new ground disturbance, there may be a few more infestations in the area that were not observed during surveying.

[222] Teton County Weed and Pest District 2023

[223] Priority 3 and 4 weeds are described by Teton County as established in large numbers, highly invasive, and posing a threat to non-infested native plant communities. Priority 3 weeds are localized and control is recommended to maintain them. Priority 4 weeds are widespread and their control is only recommended to maintain the weeds at their current level.

3.12.4 Direct and Indirect Environmental Consequences

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Threatened and Endangered Species

Whitebark Pine

Under the No Action Alternative, vegetation within the project area would remain in the same condition as described in the Affected Environment section previously. Over the short-term, barring disturbance such as insects, disease, or wildfire, WBP and viable habitat for it would remain the same. Given winter and summer visitation is expected to increase at GTR, ski area activities and operations may cause direct loss of WBP saplings. Regeneration of WBP may also be impacted where activity within GTRs SUP increases. Ongoing maintenance and management activities that occur annually to ensure safety, functionality, and environmental sustainability of GTR facilities have had and will continue to have impacts to WBP. Removal of trees and brush and mowing to maintain ski terrain, facilities, and summer trail may result in occasional removal of existing trees if they present a safety risk or could prevent regeneration or sapling success in some areas. However, continual regrowth likely keeps WBP presence in the project area steady under current practices. Further, given that WBP do not compete well with other conifer species, maintaining open areas around the species might promote its success and regeneration in some areas of the project area. Ongoing factors like white pine blister rust, predation by mountain pine beetle, increases in temperature, and habitat loss due to fire suppression could indirectly affect WBP. Overall, given the minor long-term indirect impacts, the determination for the No Action Alternative for WBP is may effect, not likely to adversely effect.

Wyoming Natural Diversity Database Sensitive Species

Keeled Bladderpod

The No Action Alternative reflects a continuation of existing conditions and operations at GTR. Besides natural vegetative cover changes with the seasons caused by succession, or the presence of insects, disease, and wildfire, the project area would remain unimpacted by development. Although there are no direct impacts from development, visitation at GTR is expected to increase during both the winter and summer. This increase in visitation could indirectly impact the keeled bladderpod in the form of compaction, trampling, and total removal due to grooming or mowing could occur.[224] In observation of the keeled bladderpod at GTR it appears that trampling of the plant by hikers or other forms of recreation does not threaten the long-term persistence or abundance of the plant; however, a substantial increase in this activity could have an adverse effect on the keeled bladderpod. Additionally, as a result of increases in temperature and increases in duration of droughts, the keeled bladderpod could be susceptible to moisture wicking from the soil, especially if it exists on ridgetops. However, as observed at GTR populations are the densest at ridgetops so may be the most resilient to such changes.

Brightgreen Spleenwort

Under the No Action Alternative current operations and development at GTR would remain the same. The brightgreen spleenwort would experience minimal impacts under the No Action Alternative. Given the location of the plant on the limestone rocks near the Dreamcatcher Lift, it is out of a primary ski way and

[224] Fahey and Wardle 1998

would not experience impacts from winter recreation. In the summer, off-trail hiking and biking could impact the brightgreen spleenwort, as some off-trail hiking was observed during the 2019 field surveys. Similar to the other plants, changes in temperature and precipitation could have long-term impacts to the brightgreen spleenwort as the plant requires moist and shaded microsites.

Forest Service Region 4 Sensitive Species

Payson's Bladderpod

Although the Payson's bladderpod was not observed during the 2019 field surveys, it could still exist at the top of the Dreamcatcher Lift. Impacts under the No Action Alternative would be similar as described for the keeled bladderpod. As a result of snow grooming and operations snow compaction could occur, this could result in indirect impacts of altered hydrologic and soil conditions in habitat areas for Payson's Bladderpod. In the summer, direct impacts of trampling from hikers and other recreationists could occur. Additionally, as a result of increases in temperature moisture wicking of the soil could occur as well. Given the 1995 observance of Payson's bladderpod only having 10 individuals, it is highly susceptible to adverse effects.

Old Growth

Under the No Action Alternative, late seral and old growth forest would remain in the same condition as described in the Affected Environment section previously. Habitat and existing forest stands of late seral and old growth would remain the same, barring any impacts from insects, disease, or wildfire. Aspen and conifer saplings that would gradually change through natural succession to later seral stages could be impacted by the expected increase in visitation at GTR. Visitation during the summer and winter is expected to increase and operation in the form of grooming and mowing could directly impact saplings, and thus succession to later seral stages and old growth. Overall, these direct impacts would be minimal in the long-term and would not reduce the percentage of late seral and old growth forest stands within the TPW19 and TPW20.

Noxious Weeds and Invasive Plants

Under the No Action alternative, GTR would continue to manage noxious weeds and invasive plants according to their current noxious weed management guidelines. In the situation that invasive species out compete native species, a management plan to mitigate these impacts may need to be established. Overall, the transport, establishment, and spread and control of noxious weeds and invasive species within the project area would continue to occur under current conditions. No adverse impacts due to noxious weeds and invasive species are anticipated.

ALTERNATIVE 2 – PROPOSED ACTION

Threatened and Endangered Species

Whitebark Pine

WBP prime habitat is located within a high elevation, sub-alpine environment. The most prolific WBP is present within GTR's existing SUP, and the South Bowl, given the high elevations of these areas. Specifically, high concentrations of WBP exist near Fred's Mountain and Peaked Mountain. WBP is not prolific within the Mono Trees expansion area, only two individuals were documented, given the lower elevations of this area. Under the Proposed Action, projects would result in a reduction in WBP within the existing SUP and the South Bowl and Mono Trees expansion areas. Specifically, the Proposed Action

would cause approximately 78 acres of impacts to WBP (refer to **Table 3.12-5**). Specifically, glading, grading, and tree clearing processes to implement the Proposed Action would impact numerous individual trees throughout the existing SUP and proposed SUP. The process of glading (removing 40 percent of trees) would impact WBP only located within the existing SUP. Therefore, tree removal for glading would impact the same number of trees across all action alternatives. Through grading and tree clearing, approximately 282 trees or small stands of WBP would be impacted as a result of the Proposed Action (refer to **Table 3.12-6**).

Even though most WBP exist at high elevations, low elevation trees and ones that are in low density would be impacted by the Proposed Action more than mid to high density. This is in correlation to where the most development is proposed to occur, as more development is occurring at lower elevations than higher elevations. Approximately 44 acres of low density WBP would be impacted by the Proposed Action as compared to approximately 35 acres of mid to high density WBP (refer to **Table 3.12-7**).

Additionally, WBP trees that are cone bearing help to disperse seeds of the species and prompt regeneration. Under the Proposed Action no cone-bearing trees would be impacted given their presence at high elevation, but both non-cone bearing trees and mixed (cone bearing and non-cone bearing) trees would be impacted by the Proposed Action (refer to **Table 3.12-8**).[225]

Table 3.12-5. Estimated Impacts to Areas of WBP Under the Proposed Action

Alternative	Potential Impacts to WBP Areas (acres)			
	Existing SUP	South Bowl	Mono Trees	Total
Alternative 2 – Proposed Action	59.33	19.50	0	78.83

Table 3.12-6. Estimated Impacts by Disturbance Type to WBP Individuals and Small Stands Under the Proposed Action

Estimated Density (tree/acre)	Methodology	Potential Impacts to WBP Surveyed Trees (individuals and small stands)
Glading (40 percent Tree Removal)		**174**
Glading (40 percent tree removal)	GPS & Binocular Surveys	154
Groomable Glades (40 percent tree removal)	GPS & Binocular Surveys	20

[225] Trees classified as “mixed” had the potential to be producing cones but could not be evaluated with confidence at the time of survey; this category is considered undetermined based on available information during the site assessment. Trees classified as “non-cone bearing” did not have visible cones at the time of survey but may still be reproductively mature and capable of cone production in other years. Because of masting behavior, delayed reproductive maturity, and field visibility constraints, cone-bearing status as recorded here has inherent limitations and should not be interpreted as a complete indicator of long-term reproductive capacity.

Grading and Tree Clearing (100 percent tree removal)		**282**
Grading	GPS & Binocular Surveys	47
Grading and Tree Clearing	GPS & Binocular Surveys	111
Tree Clearing	GPS & Binocular Surveys	124
Total		**456**

Table 3.12-7. Estimated Density of Impacted WBP Under the Proposed Action

Estimated Density (tree/acre)	Methodology	Area (acres)
Low Density WBP		**43.82**
1-5	GPS & Binocular Surveys	37.58
Likely few WBP (estimated <5)	Not Surveyed - Aerial Imagery & GIS Analysis	6.24
Mid to High density WBP		**35.01**
5-10	GPS & Binocular Surveys	11.93
10-25	GPS & Binocular Surveys	13.77
25+	GPS & Binocular Surveys	0.32
Likely some WBP (estimated 5-10)	Not Surveyed - Aerial Imagery & GIS Analysis	4.67
Likely many WBP (estimated 10+)	Not Surveyed - Aerial Imagery & GIS Analysis	4.32
Total		**78.83**

Table 3.12-8. Estimated Impacts to Different Types of WBP Individuals and Small Stands Under the Proposed Action

Observed Cone Status	Methodology	Potential Impacts to WBP Surveyed Trees (individuals and small stands)
Cone-bearing	GPS & Binocular Surveys	0
Non-Cone Bearing	GPS & Binocular Surveys	220
Mixed	GPS & Binocular Surveys	236
Total		**456**

The Proposed Action would cause a direct reduction in WBP within both the existing and proposed SUP. Under the Proposed Action approximately 1.13 percent of the WBP habitat within the project area would be reduced. This equates to approximately 0.13 percent of the TPWs and prime habitat for the WBP. Trees that are not directly impacted by the Proposed Action may be indirectly impacted by project related activities like soil compaction, altered hydrology, or ongoing trail maintenance. The grading or mowing around remaining trees during construction and maintenance processes could affect the health and viability of remaining WBP or impact the regeneration of WBP. Proposed avalanche control could also indirectly impact individual WBP. Natural avalanches already impact the species, but in bounds avalanche control by GTR has the potential to increase the frequency of avalanches. Although avalanche control work is intended to decrease the size and severity of avalanches within the project area, these activities are not well understood in terms of their potential to impact species as compared to natural avalanches.

Given the WBP is characterized as a keystone species, residual impacts to other resources may be experienced as individual trees and small stands are impacted. Impacts that could occur include but are not limited to affects to watershed hydrology, slower forest succession, and decrease in food sources for grizzly bears[226] and Clark's Nutcracker (refer to **Section 3.13** for more information). WBP is one of the primary food sources for grizzly bears, and Clark's Nutcracker may relocate to other more prolific food sites. Given the Clark's Nutcracker is the primary transporter of WBP seeds and plays a symbiosis role in regeneration of the species, if they were to relocate recruitment and regeneration could be halted within the GTR's existing and proposed SUP.

Three Plus Trees, WBP trees that have been identified to exhibit genetic resistance to white pine blister rust, were identified in 2016 by the CTNF and were confirmed by Forest Service surveys in 2020. One of the plus trees blew over in a wind event in 2022 resulting in two recorded Plus Trees at GTR. These Plus Trees are on the eastern end of the existing SUP. Implementation of various PDC as identified in **Table 2.4-1** as well as GTR's commitment as to being a Whitebark Pine Friendly Ski Area Certification from the Whitebark Pine Ecosystem Foundation would assist in mitigating impacts to Plus Trees.

[226] USFWS 2018

Further, specific PDC have been included in this project to mitigate the impacts on WBP. PDC include during tree removal for new disturbances, five needle pine would be retained, and an alternate tree species would be removed; however, if this is not practicable, mature five needle pine would be approved by the Forest Service after site-specific review. Additionally, tree islands of WBP would also be retained in proposed ski runs, particularly at higher elevations to increase visibility during low visibility conditions and to help mitigate the loss of WBP. As a result of these measures and the analysis contained in this section, the Proposed Action is in compliance with Plant Species Diversity Standard 1, as described in **Section 3.12.2**.

Despite PDC, the Proposed Action would not meet the intent of Vegetation Guideline 8, as described in **Section 3.12.2**. This is due to the direct impacts to WBP habitat that would occur under this alternative; however, at the scale of the *1997 Forest Plan* area, WBP population viability would not be threatened and relevant PDC would be incorporated to help minimize impacts to both habitat and individuals, thereby meeting the intent of Vegetation Guideline 8 to the greatest extent possible. Amendments to the *1997 Forest Plan* would not be pursued for this species as the aforementioned inconsistency is with a guideline rather than a standard (refer to the **Wildlife and Botany BA** for more information). Overall, the Proposed Action *may affect, likely to adversely affect* for WBP.

Wyoming Natural Diversity Database Sensitive Species

Keeled Bladderpod

Under the Proposed Action the keeled bladderpod is expected to experience a range of impacts. These impacts could be separated into heavy disturbance, moderate disturbance, or light disturbance.

Heavy disturbance totally eliminates occupied and suitable habitat. It can be characterized as building installation, trenches for utilities or snowmaking, lift tower installation, rock blasting, etc. Impacts from heavy disturbance could eliminate suitable habitat and plant cover due to removal of the top layer of soil and soil compaction. It has been observed that vegetation recovery is slow and limited following construction of ski runs. The plant communities can be less dense and less diverse following the disturbance.[227] During the 2019 field surveys this was observed along graded or heavily compacted areas, as no sensitive plants were present in these areas. Refer to **Table 3.12-9** for more information.

Moderate disturbance is fairly likely to reduce plant vigor in the short and long-term and would degrade suitable habitat. It can be characterized by tree clearing, glading, constructing temporary access routes, travel of low-impact machinery, etc. Tree removal can cause snow and soil compaction, but impacts would be limited as most tree clearing would occur over the snow (refer to **Table 2.4-1**). Even though there are PDC to limit impacts to snow and soil compaction, over-snow timber removal can compact soil if the soil is not frozen to at least 7 cm.[228] This snow compaction and soil compaction could alter snowmelt duration, soil moisture and ultimately plant composition.[229] Refer to **Table 3.12-10** for more information.

Lighter disturbance can reduce plant vigor over time and reduce suitable habitat over the long-term. Light disturbance can occur as the result of snow grooming, increased skier activity, increased hiking or biking,

[227] Urbanska 1997
[228] Sutherland 2003
[229] Fahey and Wardle 1998

and snowmaking. Many actions described as being light disturbance would gradually degrade habitat and plant vigor over the long-term. It was observed that the keeled bladderpod does persist in lightly disturbed areas like hiker trampling or occasional biking. Changes in the hydrologic function and soil changes as a result of soil or snow compaction would cause a mild short-term effect to plant health and presence. Refer to **Table 3.12-11** for more information.

Table 3.12-9. Impacts to Keeled Bladderpod Under the Proposed Action as a Result of Heavy Disturbance

EO Nickname	Existing Condition	Heavy Disturbance Proposed	Effects to Each Occurrence
Dreamcatcher Summit	7.3 acres	Grading with some tree clearing: 0.77 acre	Loss of 11% of occupied habitat due to grading
		Within 50 feet of occurrence, grading for trails and roads: 1.04 acres	Loss of 1.04 acres of habitat adjacent to occurrence
Top of Blackfoot	3.2 acres	Grading with some tree clearing: 1.05 acres	Loss of 33% of occupied habitat due to grading, including 56% of one subpopulation
		Within 50 feet of occurrence, grading for trails and roads: 1.13 acres	Loss of 1.13 acres of suitable habitat adjacent to occurrence, mostly on ridge near lift terminal
Top of Peaked	0.25 acres	Grading and installation of chairlift terminal: 0.18 acre	Loss of 72% of occupied habitat and possibly viability of population and loss of 0.28 acre of adjacent potentially suitable habitat
		Within 50 feet, grading for buildings and lifts: 0.28 acre	Long term habitat degradation due to snow compaction from skiers near lift in remaining 28% of occupied habitat
Peaked South Slope	1.3 acres	Within 50 feet, grading and tree	20% of occupied habitat impacted by tree clearing

		clearing for ski trails: 0.02 acre	
Peaked Chairlift	1.3 acres	Grading for road enlargement: 0.05 acre	Loss of 4% of occupied habitat
		Within 50 feet, grading for road enlargement: 0.1 acre	Loss of 0.1 acre of adjacent, likely suitable habitat
Sacajawea Cliff	1.3 acres	Grading for summer trail: 0.09 acre	Loss of 7% of occupied habitat
		Within 50 feet, grading for summer trail: 0.03 acres	Loss of 0.03 acre of adjacent, likely suitable habitat

Table 3.12-10. Impacts to Keeled Bladderpod Under the Proposed Action as a Result of Moderate Disturbance

EO Nickname	Existing Condition	Moderate Disturbance Proposed	Effects to Each Occurrence
Dreamcatcher Summit	7.3 acres	Tree clearing over snow or via helicopter: 0.51 acre	Reduced vigor and habitat quality in 7% of occupied habitat
Top of Blackfoot	3.2 acres	Glading and tree clearing over snow or via helicopter: 0.42 acre	Reduced vigor and habitat quality in 13% of occupied habitat
Peaked South Slope	1.3 acres	Tree clearing: 0.25 acre	3 of 4 subpopulation 44 – 100% impacted by tree clearing and potential habitat degradation due to increased backcountry skiing and snow compaction
Peaked Chairlift	1.3 acres	Glading: 0.05 acres	Long term degradation of 4% of occupied habitat that is 66% of one subpopulation

Table 3.12-11. Impacts to Keeled Bladderpod Under the Proposed Action as a Result of Light Disturbance

EO Nickname	Existing Condition	Light Disturbance Proposed	Effects to Each Occurrence
Dreamcatcher Summit	7.3 acres	Increased ski trail grooming, winter and summer activity	Long term mild habitat degradation in approximately 50% of occupied habitat
Top of Blackfoot	3.2 acres	Increased grooming, winter and summer activity	Long term mild habitat degradation in approximately 25% of occupied habitat
Top of Peaked	0.25 acre	Substantial increase in winter activity in remaining occupied habitat	Potential to reduce recruitment to tother occurrences at lower elevations
Peaked Chairlift	1.3 acres	Increased grooming and summer and winter activity	Long term degradation of 4% of occupied habitat that is 66% of one subpopulation

Overall, as a result of the Proposed Action there would be a 9 percent loss of total occupied habitat; a loss of approximately 10 percent of adjacent habitat (may or may not be suitable); the most vigorous occurrence could be 75 percent eliminated due to grading, with a possible loss of source population for other occurrences; the Blackfoot occurrence would be 1/3 eliminated; and all occurrences of keeled bladderpod would be adversely impacted. Additionally, as a result of the Proposed Action it is estimated that approximately there would be a 25 percent loss of viability of the keeled bladderpod in the project area, which constitutes a 6 percent loss of viability to the plant in Wyoming. Therefore, the Proposed Action *may impact individuals or their habitat but would not likely contribute to a trend toward federal listing or cause a loss of population viability* for the keeled bladderpod.

Brightgreen Spleenwort

Under the Proposed Action, brightgreen spleenwort could be directly impacted by grading and rock blasting. Specifically, proposed grading within the occupied habitat of brightgreen spleenwort comprises 0.012 acre, which totals 33 percent of the occurrence. Grading would cause elimination of approximately 1/3 of the population and occupied habitat of the brightgreen spleenwort. Additionally, most all of the occupied and suitable habitat could be lost during rock blasting that would likely be needed to grade a administrative route. As a result of this, the viability of the occurrence would substantially decrease and the occupied habitat of this plant may be entirely eliminated. The loss of this habitat would have a negligible effect on global viability and a small effect on the viability in Wyoming. Therefore, the Proposed Action *may impact individuals or their habitat but would not likely contribute to a trend toward federal listing or cause a loss of population viability* for the brightgreen spleenwort.

Forest Service Region 4 Sensitive Species

Payson's Bladderpod

Due to similar habitat types, under the Proposed Action, the Payson's bladderpod is anticipated to have similar impacts to the keeled bladderpod. Even though the Payson's bladderpod was not observed during the 2019 field surveys, there is a possibility that projects under the Proposed Action could impact the population at the top of Dreamcatcher lift if it is still existing. Impacts experienced from an increase in skier activity and summer recreationists could occur. This could lead to snow and soil compaction, which would impact the hydrologic and soil function of the project area. Increases of summer visitation could also lead to increases in trampling by hikers and bikers. These impacts could inhibit the growth and revegetation of the disturbed areas. The Proposed Action, *may impact individuals or their habitat but would not likely contribute to a trend toward federal listing or cause a loss of population viability* for the Payson's bladderpod .

Old Growth

Under the Proposed Action there is expected to be minimal direct impacts to late seral and old growth stands. Impacts to old growth and late seral stage stands could occur from grading and tree clearing within the existing and proposed SUP area. The following **Table 3.12-12** summarizes the potential impacts to old growth and late seral stage stand composition within TPW 19 and TPW 20 based on the different existing and reliable data sets used to analyze this resource.

Table 3.12-12. Estimated Percentage of Late Seral and Old Growth Within TPW19 and TPW 20

TPW Analyzed and Organization	Existing Percentage of Late Seral and Old Growth (%)	Percent Decrease based on Proposed Project Impacts	Percentage of Late Seral and Old Growth (%) under Proposed Conditions
Percent Forested Acres in TPW19 in Late Seral/Potential Old Growth	25.7	0.7	25
Percent Forested Acres in TPW19 in Late Seral/Potential Old Growth in 300-acre Forest Blocks	21.7	0.2	21.5
Percent Forested Acres in TPW20 in Late Seral/Potential Old Growth	28.9	0.2	28.8
Percent Forested Acres in TPW20 in Late Seral/Potential Old Growth in 300-acre Forest Blocks	21.3	No Impacts	21.3

Note: There are no impacts to the percent of Forested Acres in TPW20 in Late Seral/Potential Old Growth in 300-acre Forest Blocks because when merged and parsed into 300-acre polygons, there were not any late seral and old growth areas that met the qualifications within the existing SUP in TPW 20.

Table 3.12-12 indicates that estimated impacts to the threshold of late seral and old growth vegetation are limited, changing by less than a percent across all data modeling scenarios. The Proposed Action is consistent with Guideline #6 of the *1997 Forest Plan*, as the 20 percent or more threshold of old growth and late seral stands within the study area TPWs would be maintained or negligibly impacted under all modeling scenarios, utilizing the best available existing and reliable data.

Noxious Weeds and Invasive Species

Under the Proposed Action, the existing populations of noxious weeds could potentially spread into the expanded South Bowl and Mono Trees proposed SUP areas. Noxious weeds and invasive species could also increase in density and abundance within the existing SUP. The greatest risk to noxious weed and invasive species seed dispersal occurs when ground disturbing activities takes place in mid to late summer. Noxious weeds and invasive species are producing seeds at this time and transport via motor vehicles, horses, bikes, and other forms of transport is more likely. Specifically, if grading activities or other ground disturbing activities occur in weed infested areas when weeds are actively producing seed, the seeds could potentially be transported to other sites via soil or plant parts embedded on construction vehicles. Additionally, construction personnel have the potential to transport seeds if seeds become attached to clothing, to other non-infested areas of the project area.

Furthermore, changes in temperature and precipitation have the potential to enhance the spread of noxious weeds and invasive species throughout the project area. This has the potential to intensify the competition among native plants and weeds and could create an increased risk for weed spread where they do not already exist.

Reducing the threat of weed spread and managing existing weed populations hinges on the implementation of management measures such as those outlined in **Table 2.4-1**. Specifically, through the establishment of the Noxious Weed Management Plan, the spread and establishment of noxious weeds and invasive species within the project area would be limited. The main elements of this Plan includes: 1) pretreatment of existing infestations; 2) cleaning all off-road and construction equipment; 3) revegetation with Forest Service approved seed mixes that are certified noxious weed free; 4) use of Forest Service approved weed free mulches; and 5) monitoring and treatment of the project area for three years.

Overall, given the specific PDC included within the project and under the Proposed Action, Executive Order 13112 would be maintained.

ALTERNATIVE 3 – NO SUP EXPANSION

Threatened and Endangered Species

Whitebark Pine

Under Alternative 3, impacts to WBP would be similar as experienced under the Proposed Action, however, less intensive given no SUP expansion. A total of approximately 59.33 acres of WBP would be impacted by Alternative 3 (refer to **Table 3.12-13**). Similarly, approximately 174 individual trees or small stands would be impacted by glading, and 181 trees or small stands would be impacted by grading and tree clearing (refer to **Table 3.12-14**). Additionally, approximately 37 acres of low density WBP and approximately 22 acres of mid to high density WBP, for a total of approximately 59 acres that would be impacted under Alternative 3 (refer to **Table 3.12-15**). Finally, zero cone-bearing individuals or small stands, approximately 175 non-cone-bearing individuals or small stands, and 180 mixed individuals or

small stands, for a total of 355 individual trees or small stands that would be impacted under Alternative 3 (refer to **Table 3.12-16**). Specific PDC would be implemented in order to mitigate the impacts to WBP within the existing SUP.

Table 3.12-13. Estimated Impacts to Areas of WBP Under the Proposed Action

Alternative	Potential Impacts to WBP Areas (acres)			
	Existing SUP	South Bowl	Mono Trees	Total
Alternative 3 – No SUP Expansion	59.33	0	0	59.33

Table 3.12-14. Estimated Impacts by Disturbance Type to WBP Individuals and Small Stands Under the Proposed Action

Estimated Density (tree/acre)	Methodology	Potential Impacts to WBP Surveyed Trees (individuals and small stands)
Glading (40 percent Tree Removal)		**174**
Glading (40 percent tree removal)	GPS & Binocular Surveys	154
Groomable Glades (40 percent tree removal)	GPS & Binocular Surveys	20
Grading and Tree Clearing (100 percent tree removal)		**181**
Grading	GPS & Binocular Surveys	37
Grading and Tree Clearing	GPS & Binocular Surveys	106
Tree Clearing	GPS & Binocular Surveys	38
Total		**355**

Table 3.12-15. Estimated Density of Impacted WBP Under the Proposed Action

Estimated Density (tree/acre)	Methodology	Area (acres)
Low Density WBP		**37.42**
1-5	GPS & Binocular Surveys	36.32

Likely few WBP (estimated <5)	Not Surveyed - Aerial Imagery & GIS Analysis	1.10
Mid to High density WBP		**21.91**
5-10	GPS & Binocular Surveys	11.93
10-25	GPS & Binocular Surveys	5.32
25+	GPS & Binocular Surveys	0.04
Likely some WBP (estimated 5-10)	Not Surveyed - Aerial Imagery & GIS Analysis	4.62
Likely many WBP (estimated 10+)	Not Surveyed - Aerial Imagery & GIS Analysis	0.00
Total		**59.33**

Table 3.12-16. Estimated Impacts to Different Types of WBP Individuals and Small Stands Under the Proposed Action

Alternative	Methodology	Potential Impacts to WBP Surveyed Trees (individuals and small stands)
Cone-bearing	GPS & Binocular Surveys	0
Non-Cone Bearing	GPS & Binocular Surveys	175
Mixed	GPS & Binocular Surveys	180
Total		**355**

PDC would mitigate the impacts on WBP under Alternative 3. As a result of these measures and the analysis contained in this section, the Alternative 3 is in consistent with Plant Species Diversity Standard 1, as described in **Section 3.12.2**. Similar to the Proposed Action, Alternative 3 would not meet the intent of Vegetation Guideline 8, as described in **Section 3.12.2**. This is due to the direct impacts to WBP habitat that would occur under this alternative; however, at the scale of the *1997 Forest Plan* area, WBP population viability would not be threatened and relevant PDC would be incorporated to help minimize impacts to both habitat and individuals, thereby meeting the intent of Vegetation Guideline 8 to the greatest extent possible. Amendments to the *1997 Forest Plan* would not be pursued for this species as the

aforementioned inconsistency is with a guideline rather than a standard (refer to the **Wildlife and Botany BA** for more information). Overall, the Alternative 3 *may affect, likely to adversely affect* for WBP.

Wyoming Natural Diversity Database Sensitive Species

Keeled Bladderpod

Under Alternative 3, impacts to the keeled bladderpod would be similar to those anticipated under the Proposed Action; however, impacts would be less overall. As Alternative 3 only involves expansion and development within GTR's existing SUP, the most vigorous occurrence of keeled bladderpod would be preserved. Additionally, there would be no effect to the EOs at the top of Peaked and on the Peaked south slope. Therefore, the determination of *may impact individuals or their habitat but would not likely contribute to a trend toward federal listing or cause a loss of population viability* for this species.

Brightgreen Spleenwort

Under Alternative 3, impacts to brightgreen spleenwort would be similar to those anticipated under the Proposed Action. There would still be a potential for a third of the occupied habitat to be diminished as a result of grading and rock blasting. Overall, the viability of the plant would substantially decrease, and the occupied habitat may be entirely eliminated. Therefore, the determination of, *may impact individuals or their habitat but would not likely contribute to a trend toward federal listing or cause a loss of population viability* for this species.

Forest Service Region 4 Sensitive Species

Payson's Bladderpod

Under Alternative 3, impacts to Payson's bladderpod would be similar to those anticipated under the Proposed Action. There is still potential for an increase in snow and soil compaction that could alter the hydrologic and soil function of the project area. This would lead to a decrease in the viability of the plant. As a result, it was determined that Alternative 3 *may impact individuals or their habitat but would not likely contribute to a trend toward federal listing or cause a loss of population viability* for the Payson's bladderpod.

Old Growth

Under Alternative 3, impacts to late seral and old growth would be less than those anticipated under the Proposed Action. Impacts would occur from grading and tree clearing in order to expand ski runs and replace chairlifts within the existing SUP area. As Alternative 3 does not include expansion into the proposed South Bowl and Mono Trees areas, there would be less impacts anticipated to late seral and old growth forests overall. The following **Table 3.12-17** summarizes the potential impacts to old growth and late seral stage stand composition under Alternative 3 within TPW 19 and TPW 20 based on the different data sets used to analyze this resource.

Table 3.12-17. Estimated Percentage of Late Seral and Old Growth Within TPW19 and TPW 20

TPW Analyzed and Organization	Existing Percentage of Late Seral and Old Growth (%)	Percent Decrease based on Proposed Project Impacts	Percentage of Late Seral and Old Growth (%) under Proposed Conditions
Percent Forested Acres in TPW19 in Late Seral/Potential Old Growth	25.7	0.6	25.1
Percent Forested Acres in TPW19 in Late Seral/Potential Old Growth in 300-acre Forest Blocks	21.7	0.1	21.6
Percent Forested Acres in TPW20 in Late Seral/Potential Old Growth	28.9	0.2	28.8
Percent Forested Acres in TPW20 in Late Seral/Potential Old Growth in 300-acre Forest Blocks	21.3	No Impacts	21.3

Note: There are no impacts to the percent of Forested Acres in TPW20 in Late Seral/Potential Old Growth in 300-acre Forest Blocks because when merged and parsed into 300-acre polygons, there were not any late seral and old growth areas that met the qualifications within the existing SUP in TPW 20.

Table 3.12-17 indicates that estimated impacts to the threshold of late seral and old growth vegetation under Alternative 3 are limited, changing by less than a percent across all data modeling scenarios. Alternative 3 is consistent with Guideline #6 of the *1997 Forest Plan*, as the 20 percent or more threshold of old growth and late seral stands within the study area TPWs would be maintained or negligibly impacted under all modeling scenarios, utilizing the best available data.

Noxious Weeds and Invasive Species

Under Alternative 3 the spread of noxious weeds and invasive species would be similar to that anticipated under the Proposed Action. However, impacts would be less as there would not be development and disturbance within the South Bowl and Mono Trees expansion areas. Weed seeds would still have the potential to be transported via construction equipment and other forms like clothing, horses, bikes, etc. Establishment of these seeds would occur where recent ground disturbance is expected to occur. Similar to the Proposed Action, under Alternative 3, specific PDC would be implemented to prevent the transport and establishment of seeds within the existing SUP area. PDC like the Noxious Weed Management Plan would also help control infestations within the existing SUP area. Under Alternative 3, Executive Order 13112 would be maintained.

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

Threatened and Endangered Species

Whitebark Pine

Under Alternative 4, impacts would be similar to those anticipated under the Proposed Action. Given most WBP are located within the South Bowl expansion area and at high elevations within the existing SUP, both the Proposed Action and Alternative 4 would have the same impact on WBP within the project area. Although acres of impacted WBP are similar under the Proposed Action and Alternative 4, only approximately 454 individual trees, two less mixed cone-bearing trees than the Proposed Action, would be impacted by Alternative 4, as compared to the 456 individuals potentially impacted by the Proposed Action. This is due to no expansion within the Mono Trees area.

Under Alternative 4, PDC would mitigate the impacts on WBP within the existing SUP and proposed South Bowl area. As a result of these measures and the analysis contained in this section, Alternative 4 is consistent with Plant Species Diversity Standard 1, as described in **Section 3.12.2**. Similar to other action alternatives, Alternative 4 would not meet the intent of Vegetation Guideline 8, as described in **Section 3.12.2**. This is due to the direct impacts to WBP habitat that would occur under this alternative; however, at the scale of the *1997 Forest Plan* area, WBP population viability would not be threatened and relevant PDC would be incorporated to help minimize impacts to both habitat and individuals, thereby meeting the intent of Vegetation Guideline 8 to the greatest extent possible. Amendments to the *1997 Forest Plan* would not be pursued for this species as the aforementioned inconsistency is with a guideline rather than a standard (refer to the **Wildlife and Botany BA** for more information). Overall, Alternative 4 *may affect, likely to adversely affect* for WBP.

Forest Service Region 4 Sensitive Species

Payson's Bladderpod

The potential impacts to Payson's bladderpod would be similar to those anticipated under the Proposed Action. A determination for the Payson's bladderpod would be *may impact individuals or their habitat but would not likely contribute to a trend toward federal listing or cause a loss of population viability* under Alternative 4. Refer to the Proposed Action discussion for this species for more information.

Wyoming Natural Diversity Database Sensitive Species

Keeled Bladderpod

Under Alternative 4, potential impacts to keeled bladderpod would be similar to those anticipated under the Proposed Action. The most vigorous occurrence of the plant would be eliminated under Alternative 4. As the result of grading, tree clearing, and an increase in summer and winter visitation, snow and soil compaction along with trampling of plants would occur. This would alter the hydrologic function and soil properties within the project area, thus inhibiting the regeneration and viability of the species in the project area. Therefore, a determination of *may impact individuals or their habitat but would not likely contribute to a trend toward federal listing or cause a loss of population viability* for the keeled bladderpod has been reached.

Brightgreen Spleenwort

Under Alternative 4, the brightgreen spleenwort is anticipated to be impacted similarly to the Proposed Action. Given its habitat type and existence within cliffs and crevices, rock blasting and grading to construct an administrative route would directly impact the viability of this species. Therefore, the determination of *may impact individuals or their habitat but would not likely contribute to a trend toward federal listing or cause a loss of population viability* for the brightgreen spleenwort has been determined. Refer to the Proposed Action discussion for more information.

Old Growth

Under Alternative 4, impacts to late seral and old growth forest stands would be similar to those anticipated under Alternative 3 as there is no expansion into the Mono Trees proposed SUP area. The following **Table 3.12-18** summarizes the potential impacts to old growth and late seral stage stand composition within TPW 19 and TPW 20 under Alternative 4 based on the different data sets used to analyze this resource.

Table 3.12-18. Estimated Percentage of Late Seral and Old Growth Within TPW19 and TPW 20

TPW Analyzed and Organization	Existing Percentage of Late Seral and Old Growth (%)	Percent Decrease based on Proposed Project Impacts	Percentage of Late Seral and Old Growth (%) under Proposed Conditions
Percent Forested Acres in TPW19 in Late Seral/Potential Old Growth	25.7	0.6	25.1
Percent Forested Acres in TPW19 in Late Seral/Potential Old Growth in 300-acre Forest Blocks	21.7	0.1	21.6
Percent Forested Acres in TPW20 in Late Seral/Potential Old Growth	28.9	0.2	28.8
Percent Forested Acres in TPW20 in Late Seral/Potential Old Growth in 300-acre Forest Blocks	21.3	No Impacts	21.3

Note: There are no impacts to the percent of Forested Acres in TPW20 in Late Seral/Potential Old Growth in 300-acre Forest Blocks because when merged and parsed into 300-acre polygons, there were not any late seral and old growth areas that met the qualifications within the existing SUP in TPW 20.

Table 3.12-18 indicates that estimated impacts to the threshold of late seral and old growth vegetation under Alternative 4 are limited, changing by less than a percent across all data modeling scenarios. Alternative 4 is consistent with Guideline #6 of the *1997 Forest Plan*, as the 20 percent or more threshold

of old growth and late seral stands within the study area TPWs would be maintained or negligibly impacted under all modeling scenarios, utilizing the best available data.

Noxious Weeds and Invasive Species

Impacts to the transport and establishment of noxious weeds and invasive species under Alternative 4 would be similar to those anticipated under the Proposed Action, but more intensive than what is anticipated under Alternative 3. Weeds would most likely be transported and established within the proposed South Bowl proposed expansion. Establishment of these seeds would occur in places where recent ground disturbance is proposed to occur. Similar to the Proposed Action a Noxious Weed Management Plan, along with other PDC would be implemented to prevent the further spread of noxious weeds and invasive species within the existing and proposed SUP area.

ALTERNATIVE 5 – MONO TREE, NO SOUTH BOWL

Threatened and Endangered Species

Whitebark Pine

Under Alternative 5, impacts are anticipated to be similar as experienced under Alternative 3. Given there are very limited numbers of WBP within the Mono Trees expansion area, Alternative 5 has the potential for similar impacts to WBP as Alternative 3. There would be two more mixed cone-bearing trees that are impacted by Alternative 5, as compared to Alternative 3. Approximately 357 individual trees and small stands would be impacted by Alternative 5, as compared to 355 trees under Alternative 3.

Under Alternative 5, PDC would mitigate the impacts on WBP within the existing SUP and proposed Mono Trees area. As a result of these measures and the analysis contained in this section, Alternative 5 is consistent with Plant Species Diversity Standard 1, as described in **Section 3.12.2**. Similar to other action alternatives, Alternative 5 would not meet the intent of Vegetation Guideline 8, as described in **Section 3.12.2**. This is due to the direct impacts to WBP habitat that would occur under this alternative; however, at the scale of the *1997 Forest Plan* area, WBP population viability would not be threatened and relevant PDC would be incorporated to help minimize impacts to both habitat and individuals, thereby meeting the intent of Vegetation Guideline 8 to the greatest extent possible. Amendments to the *1997 Forest Plan* would not be pursued for this species as the aforementioned inconsistency is with a guideline rather than a standard (refer to the **Wildlife and Botany BA** for more information). Overall, Alternative 5 *may affect, likely to adversely affect* for WBP.

Wyoming Natural Diversity Database Sensitive Species

Keeled Bladderpod

Impacts to the keeled bladderpod under Alternative 5 would be similar to those anticipated under Alternative 3. As there is less expansion and no expansion into the South Bowl area proposed under this Alternative, the occurrences at the top of Peaked and on the south slope of Peaked would be maintained. Additionally, the most vigorous occurrence of the species would be maintained as well. Even though impacts are less than those anticipated under the Proposed Action, the keeled bladderpod would still be affected and have the likelihood of being adversely affected under Alternative 5. Refer to the Proposed Action discussion for this species for more information.

Brightgreen Spleenwort

Under Alternative 5, impacts to the brightgreen spleenwort would be similar to those anticipated under the Proposed Action. There would still be the potential for soil and snow compaction, which could inhibit the viability of the plant in both the short and long-term. Under Alternative 5, the brightgreen spleenwort would be affected with the likelihood of being adversely affected. Refer to the Proposed Action discussion previously for more information.

Forest Service Region 4 Sensitive Species

Payson's Bladderpod

Similar to the other three action alternatives, Alternative 5 could impact Payson's bladderpod. Due to the anticipated increase in both summer and winter visitation along with the continuation of operations at the ski area, trampling of plants and soil and snow compaction could occur. This could inhibit the growth and viability of the plant in both the short and long-term. Therefore Alternative 5 *may impact individuals or their habitat but would not likely contribute to a trend toward federal listing or cause a loss of population viability* for the Payson's bladderpod. .

Old Growth

Under Alternative 5, impacts to late seral and old growth would be similar to those anticipated under the Proposed Action; however, to a lesser extent. Since expansion into the Mono Trees area is proposed under this alternative, there would be more impacts than those anticipated under Alternative 4. The following **Table 3.12-19** summarizes the potential impacts to old growth and late seral stage stand composition within TPW 19 and TPW 20 based on the different data sets used to analyze this resource.

Table 3.12-19. Estimated Percentage of Late Seral and Old Growth Within TPW19 and TPW 20

TPW Analyzed and Organization	Existing Percentage of Late Seral and Old Growth (%)	Percent Decrease based on Proposed Project Impacts	Percentage of Late Seral and Old Growth (%) under Proposed Conditions
Percent Forested Acres in TPW19 in Late Seral/Potential Old Growth	25.7	0.6	25
Percent Forested Acres in TPW19 in Late Seral/Potential Old Growth in 300-acre Forest Blocks	21.7	0.2	21.5
Percent Forested Acres in TPW20 in Late Seral/Potential Old Growth	28.9	0.2	28.8
Percent Forested Acres in TPW20 in Late Seral/Potential Old Growth in 300-acre Forest Blocks	21.3	No Impacts	21.3

Note: There are no impacts to the percent of Forested Acres in TPW20 in Late Seral/Potential Old Growth in 300-acre Forest Blocks because when merged and parsed into 300-acre polygons, there were not any late seral and old growth areas that met the qualifications within the existing SUP in TPW 20.

Table 3.12-19 indicates that estimated impacts to the threshold of late seral and old growth vegetation under Alternative 5 are limited, changing by less than a percent across all data modeling scenarios. Alternative 5 is consistent with Guideline #6 of the *1997 Forest Plan*, as the 20 percent or more threshold of old growth and late seral stands within the study area TPWs would be maintained or negligibly impacted under all modeling scenarios, utilizing the best available data.

Noxious Weeds and Invasive Species

Under Alternative 5 the risk of transport and establishment of noxious weeds and invasive species would be similar to what is anticipated under the Proposed Action. However, impacts would be to a lesser extent as there would not be expansion into the South Bowl proposed SUP. Similar to all other action alternatives weed seeds could be transported via motorized equipment, along with horses, bikes, and personnel's clothing. These seeds would establish themselves in areas that recently experienced ground disturbance. Just as under the other action alternatives, specific PDC would be implemented to prevent the transport and establishment of seeds, along with enhancing the control of species.

3.12.5 Cumulative Effects

SCOPE OF THE ANALYSIS

Effects analyzed in the Cumulative Effects discussion apply to all alternatives, including the No Action Alternative. Projects identified in **Appendix A** are expected to cumulatively have short- and long-term effects on the vegetation within the existing GTR SUP and proposed SUP, along with the TPW19 and TP20.

Temporal Bounds

The temporal bounds for this cumulative effects analysis for vegetation resources extend from GTR's founding as a ski area in 1966 through the foreseeable future in which GTR can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis of vegetation resources include the existing SUP as well as the proposed expansion into South Bowl and Mono Trees and extends to nearby areas of NFS lands. These nearby NFS lands include the TPW19 and TPW20, where select projects could affect species composition and overall vegetation.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects study area, the reader is referred to **Appendix A** in the FEIS. Past ski area, TNF, and other local or county projects have been incorporated and analyzed in this document as part of the Affected Environment discussion. Projects that could have cumulative impacts on vegetation are analyzed in the following discussion.

Whitebark Pine

Many of the projects identified previously are not expected to cumulatively impact WBP within the TPWs, except for the construction of the Colter Lift. Through the construction of the Colter Lift, removal of trees, and ongoing impacts from mowing and operation resulted in past and ongoing impacts to WBP. Both indirect and direct impacts in the form of soil compaction, loss of WBP saplings, and interrupted regeneration of WBP could occur. Although the construction of the Colter Lift had past and would have ongoing impacts to WBP, other projects assessed for cumulative impacts would not directly cause impacts to WBP. This is due to the species living at high elevations, and many of these projects occur at lower elevations. Over the long-term, the expected greatest threats to WBP include altered fire regimes, increases in temperature, shifts in precipitation, and disease. Specifically due to warming temperatures the distribution of WBP could become further limited; fire frequency and severity of fires could increase; and more favorable conditions for whitepine blister rust and mountain pine beetle could increase. Although these impacts are suspected to occur over the long-term, interagency collaborative efforts are increasing and gaining more traction to conserve WBP.[230] Overall impacts under the Action Alternatives would result in the loss of WBP; however, these losses would be minimal given the presence of WBP within the cumulative analysis area, TPWs, and total loss of the WBP population is not expected.

Old Growth

Cumulative impacts to late seral and old growth forests within the TPW 19 and TPW 20 would be similar to those impacts to WBP as described in the previous section. Through the construction of the past ski area projects, both removal of trees, along with operations and mowing has resulted in past impacts to late seral and old growth within the project area. Additionally, indirect impacts in the form of soil compaction and direct impacts of loss of new tree saplings has the potential to prohibit succession of species and thus the creation of late seral and old growth forests. In the long-term, due to the increase in temperature resulting in increased fire severity, late seral and old growth forests could become impacted by insects, disease, fires, and have a decrease in habitat availability. Furthermore, due to various forest health projects and decreasing the fuel load on the forest, some late seral and old growth trees could be removed. However, these projects would still have to be in adherence to the vegetation guideline of maintaining 20 percent or more late seral and old growth forest. Although there are expected to be both direct and indirect impacts to late seral and old growth forests, at a landscape level of 300-acre forest blocks, impacts are not expected to be cumulative and therefore not expected to contribute measurably to any larger trends occurring cumulatively.

Noxious Weeds and Invasive Species

Past, present, and reasonably foreseeable projects that have the potential to increase the transportation and establishment of noxious weeds and invasive species throughout the TPWs include future development projects, forest health projects, and continued maintenance and operation of GTR. Specifically, the Teton Canyon Hazardous Fuels Reduction Project has the potential to both increase and decrease the spread of invasive species throughout the Analysis Area. This fuels reduction project would mitigate the risk of a forest fire igniting and causing damage to GTR, thus decreasing the risk of a high intensity forest fire igniting and causing the enhanced transport and establishment of weeds. Through the implementation of this project, there would be a decrease in weed diversity and abundance as a lowered wildfire risk reduces

[230] Keane et al 2017

the long-term risk of weed establishment and spread.[231] Although there would be a decrease in weed spread due to the lowered risk of wildfire, through the process of mechanical thinning and prescribed burning weed diversity and abundance has the possibility of increasing. However, the project includes specific PDC to mitigate the spread of these noxious weeds and invasive species. Therefore, this fuels project increases the risk of transport and establishment of noxious weeds and invasive species within the cumulative analysis area. Overall, these ongoing and foreseeable activities would increase the potential for weed establishment and spread within the Analysis Areas, but also allow for better control and detection of weeds. The net effect may vary over time, with more spread or more control occurring depending on project statues. Noxious weeds can be expected to slowly increase in extent and density, with the rate of spread mitigated by enhanced weed management.

Wyoming Natural Diversity Database Sensitive Species and Forest Service Region 4 Sensitive Species

Past and ongoing projects that have the potential to impact keeled bladderpod, brightgreen spleenwort, and Payson's bladderpod include improvements and maintenance at GTR, along with forest health projects and other development projects within the TPW 19 and TPW 20. Activities that occurred for the implementation of the Colter Lift resulted in past and ongoing impacts to the species, including possible reduction of plant abundance and degradation of suitable habitat due to new lift and trail development. Additionally, forest health projects and activities like timber harvesting, forest thinning, and prescribed burning could have adverse impacts on the species. Trampling and crushing of species by machinery, grading, and tree clearing for administrative route construction could eliminate occupied habitat. Additional projects and activities like livestock grazing and increases in recreational use could cause both direct and indirect impacts in the form of removal or soil compaction. Overall, the action alternatives would slightly contribute to these adverse cumulative effects.

3.12.6 Irreversible and Irretrievable Commitments of Resources

The further development and expansion of GTR's SUP area, including the addition of ski trails, lifts, and associated infrastructure would represent irretrievable effects, as ground disturbance would impact the vegetation on the landscape. Overstory removal and impacts to vegetation, however, is not considered irreversible given timber and plant species are renewable in the long-term.

3.13 Wildlife

3.13.1 Scope of Analysis

This analysis summarizes the *Grand Targhee Master Development Plan Projects Biological Assessment* (Wildlife and Botany BA), and the *Grand Targhee Master Development Plan Projects Wildlife Biological Evaluation* (Wildlife BE), both of which are available on the project website.[232] Species included in this analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species*, and/or Species of Local Concern (SOLC). Species information, their habitat within the project area, and potential to be affected by the proposed projects are described in the following sections.

[231] Keeley et al. 2003
[232] Alder Environmental 2023 h, g

3.13.2 Federal, State, and Local Policy and Guidance

ENDANGERED SPECIES ACT

Forest Service policy requires a review of programs and activities to determine their potential effects on *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species*. Under the ESA, the effects analysis report is called a BA and must be prepared for federal actions that are "major construction activities" to evaluate the potential effects of the proposal on listed or proposed species and critical habitats.

The documentation herein conforms to legal requirements set forth under section 7 of the ESA (19 U.S.C. 1536 (c), 50 CFR 402.12 (f) and 402.14). Section 7(a)(1) of the ESA requires federal agencies to use their authorities to further the conservation of listed species. Section 7(a)(2) requires that federal agencies ensure any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of federally listed species, or destroy or adversely modify designated critical habitat.

MIGRATORY BIRD TREATY ACT

A Memorandum of Understanding (MOU) was signed by the Forest Service with the USFWS to promote the conservation of migratory birds. The Migratory Bird Treaty Act prohibits the killing, capture, "take", or otherwise harming of birds listed as migratory. Migratory birds, as well as their nests and eggs, are protected by the Migratory Bird Treaty Act, including songbirds, waterfowl, raptors, and shorebirds. Birds of Conservation Concern are identified for Bird Conservation Regions in a list published and maintained by the USFWS, Division of Migratory Bird Management.[233] The CTNF is located within the Northern Rockies Bird Conservation Region (BCR 10). Partners in Flight (PIF) also published a watch list of Species of Continental Concern for the Continental United States and Canada.[234]

NORTHERN ROCKIES LYNX MANAGEMENT DIRECTION AMENDMENT

In 2000, the USFWS listed the Canada lynx as a threatened species, and in 2001 the Forest Service signed a Lynx Conservation Agreement with the USFWS to consider the Lynx Conservation Assessment and Strategy (LCAS). As a result, the Northern Rockies Lynx Management Direction (NRLMD) was developed. Goals of the NRLMD are to incorporate management direction in land management plans that conserve and promote recovery of Canada lynx, by reducing or eliminating adverse effects from land management activities on NFS lands, while preserving the overall multiple-use direction in existing plans.

The Wildlife BA prepared for this project and summarized in this FEIS section, discloses information specific to analyzing projects under the NRLMD ROD.[235] The NRLMD ROD incorporated Goals, Objectives, guidelines, and standards into the existing plans of all National Forests in the Northern Rockies Lynx Planning Area. The aim is to help ensure that the appropriate information is used in the effects analysis and provided to the USFWS, thus streamlining consultations on NRLMD projects.

Under this decision, standards are applied only to vegetation management activities that have the potential to directly affect snowshoe hare prey and thus may impact lynx at the population level. Other activities that may have possible adverse effects on individual lynx are subject to guidelines. Any deviations from

[233] USFWS 2021
[234] Rosenburg et al. 2016
[235] USDA Forest Service 2007

guidelines would be considered only after analysis of site-specific conditions, and in compliance with ESA Section 7 consultation requirements.

1997 FOREST PLAN DIRECTION

The *1997 Forest Plan* provides a number of relevant Standards and Guidelines that were considered for the various species included in this wildlife analysis. Specifically, this includes the following standards and guidelines:

- Forest-Wide Snag/Cavity Nesting Habitat Standards and Guidelines (Pages 111-16 and 111-17)
- Management Prescription 2.8.3 – *Aquatic Influence Zone* Wildlife Guideline (Page 111-109)
- Grizzly Bear Standards and Guidelines (Pages 111-17 and 111-18)
- Bighorn Sheep Standards and Guidelines (Teton Range subsection (M33 1Db))
- Great Gray Owl Habitat Standards (Page 111-22)
- Boreal Owl Habitat Standard and Guideline (Page 111-21)
- Flammulated Owl Habitat Standard (Page 111-21)
- American Goshawk Standards and Guidelines (Page 111-20 and 111-21)
- Peregrine Falcon Habitat Standards and Guideline (Page 111-20)
- Yellowstone Cutthroat Trout Guideline 3 (Page 111-11)

All of these standards and guidelines can be reviewed in **Appendix B**. *The 1997 Forest Plan* consistency in the context of project-related impacts is discussed in the following **Section 3.13.4**. For each of the standards and guidelines cited in the list, the corresponding species sub-heading under **Section 3.13.4** contains a discussion of the project's adherence to relevant *1997 Forest Plan* direction or need for amendments to the *1997 Forest Plan*.

FOREST SERVICE MANUALS

It is the objective of the Forest Service to develop and implement practices that ensure species do not become threatened or endangered because of Forest Service Actions (FSM 2670.22). To achieve this objective, the Regional Forester has identified a list of sensitive animal species for which population viability is a concern (FSM 2672). The Regional Forester's list, updated in June 2016, has been edited to include species that have the potential to occur in the CTNF, and is analyzed in detail under the *Forest Service Region 4 Sensitive Species* sub-heading that is contained within the following **Section 3.13.3** and **Section 3.13.4**. At the time of publication of this FEIS, the Forest Service Region 4 sensitive species list has not been updated; therefore, no additional analysis for Regional Forester Sensitive Species is required, beyond what is already included in this FEIS.

3.13.3 Affected Environment

An overview of the vegetative communities that make up GTR can be found in **Section 3.12** of this FEIS and are further described in the context of wildlife within the **Wildlife BA** and **Wildlife BE** that have been prepared for this project. The following discussion describes listed species with potential to occur in the project area, broken out by their listing status. Additional species were studied but determined not to have potential to occur within the project area. A complete discussion of all species considered in this

analysis, including additional information on life history and baseline conditions within the broader region can be found in the **Wildlife BA** and **Wildlife BE**.

THREATENED AND ENDANGERED SPECIES

A list of *federally listed endangered, threatened, proposed, or candidate fish and wildlife species* was obtained for the action area from the USFWS's IPaC website on June 13, 2023. Additionally, *Forest Service Region 4 sensitive* fish and wildlife species were obtained for the action area from the Forest Service. Species/critical habitat with the potential to occur within the action area were determined using this list. Species with no potential of occurring within the action area are not included in the analysis. Rational for excluding these species is in the following **Table 3.13-1**.

Table 3.13-1. Threatened, endangered, proposed, and candidate wildlife species identified by IPaC for the proposed project and consideration for the analysis.

Species	Status	Typical Habitat	Suitable Habitat Present or Affected?	Rationale if not carried forward for analysis
Mammals				
Canada Lynx (Lynx canadensis)	Threatened	Spruce/fir and other high elevation forests with snowshoe hare present.	Yes	Carried forward
Grizzly Bear (Ursus arctos horribilis)	Threatened	Alpine/subalpine coniferous forest, lower elevation riparian areas in spring, lack of human disturbance.	Yes	Carried forward
North American Wolverine (Gulo gulo luscus)	Threatened	Alpine and subalpine forests with persistent spring snow cover	Yes	Carried forward
Birds				
Yellow-billed Cuckoo (Coccyzus americanus)	Threatened	Cottonwood/willow riparian habitat below 7,000 feet (Bennett & Keinath 2003).	No	Species' range is within open woodlands with dense riparian understory vegetation at elevations below 7,000 feet.
Insects				
Monarch Butterfly *(Danaus plexippus)*	Proposed Threatened	Milkweed, flowering plants and shrubs	Yes	Carried forward

Suckley's Cuckoo Bumble Bee (*Bombus suckleyi*)	Proposed Endangered	Relies on colonies of other *Bombus* species for breeding and native flowering plants for nutrition	Yes	Carried forward

Canada Lynx

The proposed project occurs within the Teton Creek and Badger Creek Lynx Analysis Units (LAUs). [236] Habitat for Canada lynx occurs within the proposed Mono Trees and South Bowl areas, and throughout the adjacent NFS lands outside the SUP Area. Only the topographically lowest, or westernmost, portion of the existing SUP Area provides lynx habitat. Site specific horizontal cover assessments were conducted in Mono Trees and South Bowl to quantify the effectiveness of mapped lynx habitat in these areas. Hare pellet plots were also utilized in both areas to provide a rough approximation of hare presence or absence.

The majority of the current GTR SUP Area (about 2,148 acres) is located within the Teton Creek LAU, with the approximate 2,148 acres totaling about 6.5 percent of the LAU. About 405 acres of the Badger Creek LAU overlaps the northern portion of the SUP Area. The 405 acres total less than one percent of the area encompassing the Badger Creek LAU.

All areas not mapped as lynx habitat on the CTNF are considered to be linkage areas for lynx. Many mountain ranges in the Rocky Mountain West support lynx habitat in a narrow band of forest bounded by agricultural hay meadows and residential development in the valley bottoms and by alpine ecosystems (which lynx avoid during winter) above timberline. Such is the case along the west side of the Teton Range where GTR is located. However, unlike many Rocky Mountain ski areas, GTR does not extend to the valley floor. Rather, the lowest elevation at GTR is separated from the valley floor by 2.5 miles of conifer that provides forage and travel habitat for lynx within the Teton Creek LAU. As a result, the SUP Area does not present the impediment to lynx travels that is present at many ski areas. Lynx desiring to avoid the SUP Area can simply shift their movements westward to avoid the ski area.

Within the operational boundary of the GTR SUP Area, effective lynx habitat has been fragmented by ski trail development; however suitable forested areas remain between ski trails in the lower portion of the resort that may be used by a lynx while traveling. Most of the forest stands within the operational boundary are skied throughout the winter. As a result of the disturbance by skiers, these stands are not likely to provide habitat suitable to meet life requisites for snowshoe hares. Therefore, it is not likely that an individual lynx would choose to forage within the SUP area in the winter.

The suitability of lynx habitat within the Mono Trees and South Bowl areas was examined using horizontal cover as the variable of interest. Lynx rely almost entirely on snowshoe hares as a food source, and thus are closely tied to boreal forests with high horizontal vegetation cover that provides habitat for snowshoe hares.[237] The results of the survey demonstrated that overall lynx habitat throughout the Mono Trees and South Bowl areas is at the lower end of the functional range (horizontal cover value range 23-

[236] Lynx Analysis Units approximate the size of an area used by an individual lynx and are the scale at which the effects of management activities are evaluated for lynx.
[237] Squires et al 2010

60, mean 36). Hare pellet counts in these two areas confirmed that hares are present in very low numbers. As a result, these area function a very low-quality foraging habitat; however, both areas do provide suitable cover for traveling lynx and are valuable as connective habitat. Further, given the existing habitat loss and fragmentation associated with the existing SUP area, the presence of skiers within and adjacent to the existing SUP has likely degraded the value of lynx habitat as foraging and security areas. The subsequent negative effects of winter skiing in the form of snow compaction, increased predator/competitor presence, and reduced hare habitat effectiveness, the existence of snowshoe hare presence is often reduced and may eventually be eliminated in some areas year-round due to ski area development.[238] The area is at the lower end of the functional range for lynx and given existing use and low hare availability, foraging habitat quality is low. As a result, it is not likely that lynx would choose to forage in either of these areas; both areas do provide suitable cover for travelling lynx and are valuable as connective habitat. There is no USFWS designated critical wildlife habitat in the project area. Please refer to the **Wildlife and Botany Biological Assessment** for more information.

Grizzly Bear

The project area occurs within the Teton Bear Analysis Unit (BAU), which is entirely classified as occupied grizzly bear range.[239] Approximately 3,282 acres of the Teton BAU (about 2 percent of the BAU) occurs within the project area. In total, 73 percent of the project area is currently non-secure habitat and 27 percent is secure habitat for grizzly bears. Within the two proposed expansion areas (Mono Trees and South Bowl), 516 acres are classified as secure and only 347 acres are classified as non-secure habitat. Approximately 60 percent of the secure grizzly bear habitat within the project area is located within the two proposed expansion areas. The CTNF is not mandated to manage for secure habitat as the project area is outside of the grizzly bear Recovery Zone; secure habitat is used solely for analysis purposes.

Documented occurrences of grizzly bears, detections, and human bear conflicts have occurred proximate to the project area. The most recent population estimate for grizzly bears in the Greater Yellowstone Ecosystem is 1,030 bears, with a 95 percent credible interval of 865 to 1,230 individuals.[240] Based on recent population estimates, the GYE grizzly bear population appears to be relatively stable overall.[241] In addition to documented grizzly bear occurrences, grizzly bear tracks were documented by a wildlife ecologist at Alder Environmental while conducting pre-project fieldwork within and near the project area in 2019 and 2020. The grizzly bear in 2019 was likely transient based on movement patterns and the lack of additional grizzly bear sign in the area during several weeks of field surveys following the initial observation. The status of the grizzly bear associated with tracks observed in 2020 was not ascertained because the location was not revisited. In addition to the secure habitat assessment included in this analysis, systematic survey efforts for grizzly bear presence and activity within and adjacent to the project area have occurred in the Teton BAU. Field surveys involved systematic ground-based observations to detect physical evidence of grizzly bear presence, and regional research efforts incorporated long-term monitoring radio telemetry data from the Interagency Grizzly Bear Study Team. Regionally, human-bear conflict records began in 1999.

[238] USFWS 2013
[239] Landenburger et al. 2017
[240] IGBST 2024
[241] Ibid

There are no known denning or reproduction sites in or near the existing GTR SUP Area or the proposed expansion areas. The USFWS's proposed grizzly bear critical habitat does not include the project area or the vicinity.

Wolverine

The CTNF has tracked wolverine observations across the forest in their GIS database since 1998. In that time, wolverines have been documented within and adjacent to the SUP area and proposed expansion areas. Relevant observations include the following:

- Wolverine tracks were observed about a mile northwest of the project area in January 2009;
- A wolverine was sighted 0.3 miles west of the proposed Mono Trees expansion area on July 11, 2019, by two CTNF biologists;
- A wolverine was sighted in the Peaked Mountain area up slope from the Sacajawea Lift in February 2020;
- Fresh wolverine tracks were observed within the proposed Mono Trees expansion area on November 25, 2022; and
- A wolverine was sighted on Ski Hill Road on January 11, 2023.

Survey data from earlier studies also documented wolverines within and in the vicinity of the project area, which includes radio telemetry data collected between 1998-2005 and field survey data from 2004-2005. Detections from these two studies include wolverine occurrences in the Mono Trees proposed expansion area and in the existing SUP near the base of the resort. Additionally, wolverines were incidentally observed during baseline wildlife surveys in 2019 and 2020, and although game cameras deployed in South Bowl during winters 2020, 2021, and 2023 (targeting bighorn sheep) could have detected them, none were recorded. In addition to pre-project surveys and historical telemetry data, the CTNF used elevation, aspect, and vegetation to model potential wolverine denning habitat across the forest.

Vegetation cover types in the existing SUP area, as well as in Mono Trees and South Bowl, are all considered to provide habitat for wolverines. The USFWS has not yet designated critical habitat for wolverines. The CTNF has created a GIS model of wolverine denning habitat across the forest. The model predicts denning habitat throughout the CTNF, including within the higher elevations of the existing SUP area where steep terrain, alpine meadows, boulders, and avalanche chutes are present. Approximately 477 acres of modeled wolverine denning habitat is mapped within the existing SUP area, although this habitat is not likely to be used for denning due to the noise and commotion associated with winter and summer recreation at GTR. Occasional wolverine sightings within the ski area are most likely individuals that are traveling through the ski area to access more suitable habitat, rather than denning or foraging within the SUP area. Wolverines are documented to avoid winter recreation sites and the landscape within the current SUP is not considered to be effective habitat.[242] Within Mono Trees, 10.7 acres of denning habitat exists; within South Bowl, 104.7 acres of denning habitat exists. In totality, the existing SUP Area plus the two proposed expansion areas account for approximately 0.7 percent (593 acres) of the 87,248 acres of modeled denning habitat across the CTNF. A suspected wolverine den site was identified in 2020 about 0.5 miles east of the South Bowl expansion area.[243]

[242] Wildlife BE, Alder Environmental 2023g
[243] Chris Kula, Palisades and Teton Basin Ranger District Wildlife Biologist, pers. comm. 2023

Monarch Butterfly

The western migratory monarch butterfly population has declined by more than 90 percent since the 1980s. The CTNF and Curlew National Grassland are within the northern tier of the western monarch butterfly breeding range. Requirements for monarchs to successfully breed and increase before migrating south to favorable wintering areas include native milkweed for egg and larval stages, as well as nectar sources, roosting structures, and connectivity between breeding sites for the adult monarchs.

Adult monarch butterflies tend to be generalist foragers on a variety of flowering forbs, shrubs, and trees for nectar resources, switching between genera depending on seasonal availability. Maintaining a diverse plant community for season-long nectar resources is one key to quality habitat. Late season flowering plants are crucial during fall migration.

Throughout the range of monarch butterflies, primary threats include habitat loss and degradation (conversion of grasslands to agriculture, widespread use of herbicides, logging/thinning at overwintering sites in Mexico, senescence, incompatible management of overwintering sites in California, urban development, and drought), exposure to insecticides, and changes in temperature and precipitation (Federal Register 2020). Further mediating western monarch population dynamics is its small population and widely scattered breeding habitats within an otherwise arid landscape.[244]

A 2-year systematic assessment of monarch butterfly and milkweed populations existence in Idaho and Washington was completed in 2016 and 2017.[245] The assessment found that key monarch butterfly breeding habitat sites exists in areas with moist-soils within grasslands, wetlands, deciduous forest, and shrub-steppe, with high density milkweed existing at elevations ranging from 2,198 to 5,532 feet in Idaho. Further the assessment found that milkweed was rarely found in cultivated cropland, bare rock/gravel, developed areas, pasture-hay, garden, mixed forest, or evergreen forest habitat types. Milkweed suitable to support breeding is not known to occur in the project area, though suitable nectar sources and roosting structures exist to support migrating/moving adult butterflies. Though milkweed specific surveys were not conducted during pre-project surveys, botanists did note observations of milkweed within the project area during plant and wildlife surveys during 2019. Records of plant observations including USFS databases, the Wyoming Natural Diversity Database, and the Monarch Milkweed Mapper supported by the Xerces Society do not document milkweed or monarch observations in the project area. Recorded observations of milkweed species in the region appear to generally occur at lower elevations than most of the terrain within the project area. It may be that the climate, soil conditions, moisture and elevations are not suitable in the project area to support substantial milkweed populations and monarch breeding. While not extremely common, milkweed does exist in the bottom of Teton Canyon, adjacent to the SUP Area.[246]

Suckley's Cuckoo Bumble Bee

Suckley's cuckoo bumble bee is a parasitic species that relies on eusocial bumble bee colonies to reproduce and represents approximately 10 percent of all bumble bee species. Confirmed host species include the Western bumble bee (*Bombus occidentalis*) and Nevada bumble bee (*Bombus nevadensis*), though other host species may also be used.[247] Both species are known to occur within the CTNF and

[244] WAFWA 2019
[245] Waterbury et al. 2019
[246] Chris Kula, Palisades and Teton Basin Ranger District Wildlife Biologist, pers. comm. 01-23-23
[247] U.S. Department of the Interior U.S. Fish and Wildlife Service 2024

habitat conditions within the project area could support host colonies. Because Suckley's cuckoo bumble bee is an obligate social parasite, successful reproduction depends on the availability and health of suitable host colonies. Suckley's cuckoo bumble bee is considered a habitat generalist and has been documented in a variety of habitats including prairies, grasslands, meadows, woodlands, agricultural areas, and some developed areas.[248] Records indicate the species occurs across a wide elevational range from approximately 2 to 3,200 meters (6 to 10,500 feet). Despite its broad geographical and elevational distribution, the species has experienced significant declines in recent decades. The species has not been documented within the contiguous United States since 2016 despite an increased survey effort in certain areas of its historical range.[249]

Suckley's cuckoo bumble bee occurrences have not been documented within the project area by Wyoming Natural Heritage or Forest Service databases; however, portions of the project area and surrounding vicinity may provide suitable habitat for the species and its host colonies. Approximately 3,225 acres within the project area consist of forest, shrubland, or herbaceous cover that support flowering plant communities and may provide suitable foraging habitat, overwintering habitat, or habitat for host bumble bee colonies. Of these areas, approximately 2,360 acres occur within the existing SUP boundary, 599 acres occur within the Mono Trees expansion area, and 266 acres occur within the South Bowl expansion area. Forest cover comprises approximately 2,510 acres of the project area, including 1,742 acres within the existing SUP boundary, 584 acres within the Mono Trees expansion area, and 185 acres within the South Bowl expansion area. Adjacent meadow, shrubland, and other open habitats with abundant flowering resources, as well as the presence of burrowing rodent species that may support underground host nests, may also influence habitat suitability for Suckley's cuckoo bumble bee and associated host species. Although suitable habitat may be present, the likelihood of Suckley's cuckoo bumble bee occurring within the project area is considered low. This determination is based on the absence of recorded occurrence of the species within and surrounding the CTNF during the last 50 years.

FOREST SERVICE REGION 4 SENSITIVE SPECIES

The CTNF sensitive species list includes five species of mammals, 12 species of birds, and 2 fish species. The species in the following **Table 3.13-2** were determined to have potential habitat in the project area and were carried forward for detailed analysis. At the time of publication of this FEIS, the Forest Service Region 4 sensitive species list has not been updated; therefore, no additional analysis for Regional Forester Sensitive Species is required, beyond what is already included in this FEIS.

Table 3.13-2. Region 4 Sensitive Species with Potential Habitat in Project Area

Species (*scientific name*)	Habitat Association
Mammals	
Bighorn Sheep (Ovis canadensis)	Alpine meadows, talus slopes, and rock outcrops (Beecham et al. 2007).

[248] Ibid
[249] Ibid

Townsend's Big-Eared Bat (Corynorhinus townsendii townsendii)	Xeric to mesic uplands including shrublands, woodlands, montane forests for foraging. Caves or cave-like structures for hibernaculum or maternity roosts (Gruver and Keinath 2006; WGFD 2017).
Birds	
Great Gray Owl (Strix nebulosa)	Spruce-fir, lodgepole pine, and other forests located near meadows or open areas for nesting (Franklin 1988, Bedrosian et al. 2015).
Boreal Owl (Aegolius funereus)	Subalpine fir and other mature coniferous forests (Hayward et al. 1993).
Flammulated Owl (Psiloscops flammeolus)	Mature and old growth coniferous and mixed forests (Hayward and Verner 1994).
American Goshawk (Accipiter atricapillus)	Mature, old-growth or dense forest stands (Hayward and Escano 1989).
Peregrine Falcon (Falco peregrinus anatum)	Cliffs with open areas nearby for foraging (WGFD 2017).
Three-toed Woodpecker (Picoides dorsalis)	High elevation coniferous forests with dead and dying trees (Wiggins 2004).
Reptiles and Amphibians	
Columbia Spotted Frog (Rana luteiventris)	Waterbodies with stagnant or slow-moving water and shallow areas and emergent vegetation (Patla & Keinath 2005).
Western Toad (Anaxyrus boreas boreas)	Wetlands near other waterbodies and within less densely forested areas (Keinath and McGee 2005).
Fish	
Yellowstone Cutthroat Trout (Oncorhynchus clarki bouvieri)	Lakes, rivers, and small headwater streams with well-oxygenated waters (Gresswell 2009).
Insects	
Western Bumble Bee (*Bombus occidentalis*)	Diverse array of flowering plant species across a wide range of elevations and habitat types (Williams et al. 2014, Roof et al. 2018)

Source: Wildlife BE

Note: The monarch butterfly (Danaus plexippus) is a sensitive species, as well as a candidate for listing under ESA. As such, the species is discussed in the previous threatened and endangered Species subsection.

In addition to species described in **Table 3.13-2** that are known or expected to occur on the CTNF, a number were eliminated from detailed analysis. These include the species discussed in the following paragraphs.

Pygmy rabbits can be found in sagebrush steppe habitat with loose soils, and their distribution in Wyoming is in the southwest portion of the state, outside of the project area. Fishers occur in mesic forests with large trees and structural complexity, but their distribution is primarily north of Wyoming and outside of the project area. Range maps and distribution models from the Wyoming Natural Diversity Database indicate that spotted bats do not occur in the vicinity of the project area, and thus no surveys were conducted for spotted bats. Due to the habitat requirements and distributions of these three mammal species, they were not included for detailed analysis in the project area.

Four of the avian species, the bald eagle; trumpeter swan; common loon; and harlequin duck, are associated with aquatic habitats (e.g., rivers, lakes) that are not present within the project area such as large waterbodies, extensive wetlands, and larger perennial streams. The greater sage-grouse is a sagebrush shrubland obligate species; habitat is not present within the project area. The Columbian sharp-tailed grouse occurs in grassland and shrub communities in mountain foothills that are typical of elevations lower than the project area. The habitat requirements of these species are not met by vegetative cover types within the project area; therefore, they were eliminated from detailed analysis.

Two sensitive fish species are known to occur on the CTNF, one of these species is the northern leatherside chub. While this species utilizes lakes, ponds and small cool streams, their distribution is to the east and south of the Tetons, and outside of the project area. Therefore, this fish species was eliminated from detailed analysis for the proposed project.

Sensitive species with potential to occur within the project area are described in greater detail in the following paragraphs.

Big Horn Sheep

Bighorn sheep have been detected within the proposed South Bowl expansion area and habitat modeling suggests that the project area contains valuable winter and summer habitat. Game cameras were installed in and near the South Bowl area for the purpose of this project to survey for bighorn sheep and backcountry skier activity and several bighorn sheep were documented by photographs. One of the game cameras, located on the western side of South Bowl less than 400 feet from the existing resort boundary and the Colter Pod, captured motion-activated photographs of a bighorn sheep ram on November 4 and November 8, 2020. On May 11, 2021, a different camera 1,500 feet down slope to the east of the existing resort boundary, captured a ram on a timelapse photograph along steep rock outcroppings. The rock outcroppings were positioned too far from the game camera for motion to activate a photograph, so sheep use of this area might have been more frequent but not captured by camera footage. The captured photographs confirm bighorn sheep usage of the area during late fall/early winter and spring, when the ski area is not operating, and snow is thin. Additional detections of bighorn sheep in South Bowl were

documented by GPS collar data during the summers of 2008 and 2009, reinforcing that the area provides valuable summer habitat for bighorn sheep.[250]

Backcountry skiing currently occurs in the South Bowl area and may alter use of bighorn sheep habitat there and in the vicinity in the winter. Skiers can access the slopes of South Bowl from the current southern boundary of GTR or by skinning up from Teton Canyon. Game camera detections captured frequent backcountry skier activity within South Bowl and just east of South Bowl between December 2020 and April 2021. Photographs documented ski tracks in this area that persisted through most of the winter season between late November 2020 and mid-April 2021. Skier use was documented more frequently just east of the South Bowl expansion area and south of the Jedidiah Smith Wilderness boundary. Skier activity increased substantially in March when skiers were documented visiting the area once every few days. Backcountry skiing has increased in popularity in recent years and the uptick in winter recreation that has been documented in other parts of the Teton Range in the last few decades has likely influenced the western slopes of the Tetons too, including the South Bowl area and Teton Canyon. The construction of the previously approved Colter Lift in 2021-2022 is anticipated to influence recreational use patterns within southwest slopes of Peaked Mountain. Access to the area has not changed with the inclusion of the Colter Lift; however, there are now areas of higher and more concentrated use most proximate to the existing GTR SUP boundary. Use is not anticipated to increase further into the eastern extents of South Bowl and beyond as a result of the Colter Lift. The extent of changes in use patterns associated with this project are currently being studied. Game cameras were installed in the South Bowl expansion area in January of 2023 to monitor skier use and survey for bighorn sheep and land management agencies are strategizing additional monitoring efforts and management actions. Research suggests that Teton Range bighorn sheep avoid winter recreation routes even at low levels of intensity.[251] Bighorn sheep might, therefore, avoid using the South Bowl area for winter habitat given the existing and potentially increasing backcountry skiing activity. However, observations of sheep at Apostle Cliffs mineral lick in the winters of 2018 and 2022 indicate that bighorn sheep might travel through South Bowl even when backcountry skiing is intermittently occurring in the area.

Data also suggests that the South Bowl area is used as a movement corridor to access the Apostle Cliffs mineral lick, which is southwest of South Bowl on the north side of Teton Canyon.[252] Bighorn sheep and other ungulates often use mineral licks to access nutrients that are lacking in their forage diet. The National Park Service has maintained three game cameras around the Apostle Cliffs mineral lick since 2017. This data indicates consistent, year-round usage of the mineral lick by bighorn sheep rams. GPS data from collared ewes, captured a collared ewe passing from the Apostle Cliffs mineral lick through the western and northern sections of South Bowl and into the JSW to the east. The mineral lick is positioned between the existing southern boundary of GTR and Teton Canyon which is heavily used by motorized and non-motorized recreationists. Therefore, to access the Apostle Cliffs mineral lick, bighorn sheep likely travel from the east along the south facing slopes above Teton Canyon which includes South Bowl, avoiding areas with heavy human activity. Bighorn sheep also select open areas with little tree cover where they can easily detect predators, and the South Bowl area is more open than the densely forested

[250] WGFD 2013
[251] Courtemanch 2014
[252] WGFD 2013

slopes below.[253] These factors, and the observation data described previously, implicate South Bowl as an important movement corridor for bighorn sheep to access the Apostle Cliffs mineral lick.

There are five distinct populations of bighorn sheep found within the CTNF, the South Beaverhead herd, the South Lemhi herd, the Targhee herd (also called the Teton Range herd), Palisade herd, and Lionhead herd. The herd of bighorn sheep that occurs in the Teton Range is known as the Teton Range herd. This herd was historically part of a much larger bighorn sheep complex, but habitat fragmentation has isolated the herd. The Teton Range herd consists of two sub-herds, one occupying northern territory and the other in southern territory. Based on 2020 trend counts and DNA studies, the Teton Range herd population is estimated at between 125 and 175 individuals. The state of Wyoming recognizes the Teton Range herd as one of Wyoming's core, native herds, defined by its ability to persist without augmentation from outside populations. The Teton Range herd was historically migratory with a summer range high in the mountains at elevations around 9,800 feet and winter ranges in valleys and canyons at lower elevations of 6,500 feet. However, given recent human development, domestic sheep grazing, hunting, and repressed wildfire regimes, habitat availability and fractured movement corridors have caused the Teton Range herd to significantly adjust migration patterns. Research estimates that migration to low elevation habitat in the winter might have ceased as early as 1900, approximately 65 years ago.[254] The small size and isolated nature of the Teton Range bighorn sheep population means that access to suitable habitat during difficult winter months, as well as during the summer fat gain, is vital to ensure that the population can persist. Habitat modeling by Courtemanch (2014) based on GPS collar data from Teton bighorn sheep indicates that high-quality winter habitat exists in the proposed South Bowl expansion area and high-quality summer habitat exist in South Bowl and in the existing SUP boundary. In total, 45,278 acres of high-quality winter habitat were modeled within the Teton Range.[255] About 7,085 acres (16 percent) are within the CTNF, 54 acres of which are located within the proposed South Bowl expansion area, which represents 0.12 percent of the total high quality winter habitat in the Teton Range and 0.76 percent of the total in CTNF.

A total of 122,468 acres of high-quality summer bighorn sheep habitat are mapped within the Teton Range, including 45,293 acres (37 percent) in the CTNF.[256] The proposed project contains 932 acres of modeled high quality summer habitat, representing 0.76 percent of the total for the Teton Range and two percent of the total in the CTNF. The proposed South Bowl expansion area contains 195 acres of modeled high-quality summer habitat (0.43 percent for the CTNF), with 17 acres of that overlapping with modeled high-quality winter habitat. About 737 acres of modeled high-quality summer habitat for bighorn sheep is also mapped within the Dreamcatcher/Crazy Horse, Colter, and Blackfoot Pods (1.6 percent of total in CTNF). About 55 acres of modeled high quality summer habitat, that lies southeast and down-canyon from the South Bowl expansion area and includes the Apostle Cliffs mineral lick, might typically be accessed by bighorn sheep by traveling through the South Bowl area.

More recently it has been reported in the Idaho Department of Fish and Game 2022 Bighorn Sheep Management Plan, that the South Lemhi herd has increased to 110 individuals while the South Beaverhead herd has declined to 17 individuals. It should also be noted that the Lionhead herd primarily

[253] Courtemanch 2014
[254] Courtemanch et al. 2017 and Whitfield and Keller 1984
[255] Courtemanch et al. 2017
[256] Courtemanch 2014

resides in Montana and consists of transient individuals, which may not contribute to population dynamics within the CTNF. The severe conditions of the 2022 and 2023 winter season impacted the Targhee herd. The Department conducted aerial surveys in February 2023 and February 2025, which counted 71 sheep and 80 sheep, respectively. The herd declined from an observed 104 sheep in 2022 to 71 sheep in 2023 over the severe winter (32 percent decline). The neighboring Jackson Bighorn Sheep Herd also underwent a similar population decline of approximately 30 percent during the 2022 and 2023 winter season.[257]Mountain goats, who pose a threat of disease transmission and competition to bighorn sheep, have been observed in the South Bowl expansion area and on the north side of Teton Canyon. Project related surveys between June 2019 and June 2021 documented several mountain goats within the proposed South Bowl expansion area, as well as extensive sign of goats including scatt and fur. However, land management agencies conducted mountain goat removal efforts between 2019-2022 to protect the native sheep population as addressed above. Removal efforts were successful and mountain goats likely no longer pose a substantial threat to bighorn sheep.[258]

Great Gray Owl

In Wyoming, great gray owls occur primarily in the northwest portion of the state where they utilize lodgepole pine, Douglas fir, aspen, and cottonwood/spruce between 5,000 and 9,840 ft elevation.[259] Great gray owls generally nest in snags or existing stick nests near open areas or meadows that provide foraging habitat.[260] Approximately 674 acres of late seral or late seral/potential old growth forests within the project area provide suitable habitat for great gray owls.[261] From March 21 to April 11, 2019, automated recording units were placed at 18 locations across Mono Trees and the existing SUP for week-long periods to survey for great gray owls. The automated recording units were placed to coincide with great gray owl observations recorded in the Wyoming Natural Diversity Database. South Bowl was not surveyed as no suitable great gray owl habitat is present in that area. Two call-playback surveys were also conducted along Ski Hill Road on March 25 and April 11, 2019. Great gray owls were not detected during either the recording unit or call playback surveys.

In 2020, additional automated recording units were placed at 12 locations to the west of the Mono Trees for week-long periods from March 31 to April 21, 2020, to survey for great gray owls. Great gray owl calls were detected at one location approximately 1.4 miles west of Mono Trees. Data from the Wyoming Natural Diversity Database WYNDD between 1985 and 1994 documented great gray owl activity near and potentially within the project area, indicating that great gray owls may have historically occurred more frequently in the project vicinity.

Boreal Owl

Boreal owls prefer the structurally complex spruce/fir forests of northwest Wyoming during the breeding season.[262] Within Wyoming, boreal owls are typically found above 6,500 ft elevation where they utilize tree cavities for nesting during the breeding season.[263] Boreal owl detections occurred within the project

[257] Wyoming Game and Fish Department 2023
[258] Correspondence with A. Courtemanche , 2022
[259] WGFD 2017a
[260] Bedrosian et al. 2015
[261] See definition in Table 1 of the GIS Late Seral and Old Growth Forest Assessment
[262] Anderson and Clark 2002
[263] WGFD 2017a

area during the breeding season in 2019, during which CTNF biologists identified two 30-acres nesting areas. From March 21 to April 11, 2019, automated recording units were placed at 18 locations across Mono Trees and the existing SUP for week-long periods to survey for boreal owls. The automated recording units were placed to coincide with the two identified nesting areas. South Bowl was not surveyed as no suitable boreal owl habitat is present in that area. Boreal owl calls were detected at six of those locations at varying call intensities. Two call-playback surveys were also conducted along Ski Hill Road on March 25 and April 11, 2019. One boreal owl was heard calling during the March 25th call-playback survey along Ski Hill Road about a half mile from the project area. Based on detection timing and call intensities, one boreal owl territory is centered in the area at the base of Peaked Mountain, and a separate boreal owl territory is located between the edge of the Sacajawea Lift and the proposed Mono Trees expansion area.

Additional boreal owl surveys were conducted from March 31 to April 21, 2020 to the west of the Mono Trees area. Automated recording units were placed in 12 locations in the vicinity of Dry Creek, Bustle Creek, and Mill Creek drainages. Boreal owl calls were detected at four of those locations, the closest location occurring approximately 0.5 miles west of the Mono Trees area, indicating that at least one boreal owl has a territory encompassing the survey area west of the project area.

Flammulated Owl

Within the Rocky Mountain Region, flammulated owls prefer old growth and late seral forest habitats and are often associated with ponderosa pine or Douglas fir.[264] Flammulated owls are an obligate cavity nesting species that typically utilize cavities created by northern flickers and pileated woodpeckers.[265] About 674 acres of late seral or late seral/potential old growth forests provide suitable nesting habitat for flammulated owls in the project area.[266] Recent surveys completed in Teton County, Wyoming detected 18 flammulated owls in conifer and conifer/aspen forests. For this project, flammulated owl detections occurred within the Mono Trees, South Bowl, and existing SUP portions of the project area during pre-project surveys, the locations of which were informed by previous surveys. From May 14 to June 5, 2019, automated recording units were placed at 18 locations across the project area for week-long periods to survey for flammulated owls. Flammulated owl calls were detected at eight of those locations at varying call intensities. One call-playback survey was also conducted along Ski Hill Road on June 11, 2019. Based on detection timing and call intensities during the 2019 surveys, it was determined that flammulated owl territories are located south of the base of the Sacajawea Lift, near the base of Peaked Mountain, and within the proposed Mono Trees expansion area.

American Goshawk

Within the Rocky Mountains, American goshawk nesting habitat is described as forests with mature to old age structure, and dense forested stands with high canopy cover (75 percent-85 percent). Nests are often located within proximity (~1 km) to a forest opening, water source, or open meadow for foraging. Within the CTNF, American goshawks most commonly nest in Douglas fir and lodgepole pine trees with a mean age of 143 and 96 years respectively. During breeding season, American goshawks generally occupy large

[264] Defined in Table 1, Grand Targhee Master Development Plan Projects: GIS Late Seral and Old Growth Forest Assessment. Wright et al. 1997.
[265] Bull et al. 1990, Arsenault 1999
[266] See definition in Table 1 of the GIS Late Seral and Old Growth Forest Assessment

home ranges between 1,400 – 13,000 acres and large areas of mature and old growth forests within these home ranges are associated with higher breeding success.

The Forest Service monitors 64 American goshawk nesting territories throughout the Targhee Planning Area, 36 of which have been occupied in the past 10 years. Territory R04F15D56T17 occurs within and adjacent to the project area. This territory reflects about 2.7 percent of the American goshawk territories that have been occupied across the Targhee Planning Area over the last 10 years.

Automated recording units that were placed northwest of Mill Creek in the Mono Trees area for owl surveys, from April 4 to April 11, 2019, also recorded American goshawk activity. An American goshawk was detected calling at three locations with consistent pre-dawn vocalizations documented at one location. Automated recording units that were placed in the same location for additional owl monitoring surveys detected American goshawk calling activity again from May 14-22, 2019.

Biologists conducted call playback surveys from June 17-19, 2019, around the April and May 2019 detections. Call playback surveys resulted in a response from an adult American goshawk that flew into the survey point silently. Nest searching was conducted in the vicinity where it flew to, and an active nest with nestlings was located on June 17, 2019. Habitat assessments were conducted at additional calling stations located about 0.5 mile from the nest location after the nest was located to determine additional suitable nesting and foraging habitat for the pair in the nest area. The nest was checked again on July 11, 2019, by two wildlife biologists with the Forest Service, and it was determined that one chick had fledged, and one chick remained in the nest. In 2020, a second active American goshawk nest location was found in the vicinity of the first nest, serving as an alternate nest location for the American goshawk pair. In 2021, Forest Service biologists identified a third nest adjacent to the 2019 nest. Two young successfully fledged from this nest in 2021. Forest Service biologists also documented successful fledging from Nest B in 2022. The three nest sites are located within 300 feet of the boundary of the proposed Mono Trees expansion area. The only other American goshawk detected during survey efforts was a juvenile goshawk located near the base of Peaked Mountain.

Peregrine Falcon

Peregrine falcons nest in both natural cliff habitat as well as manmade structures across North America. In Wyoming, they generally select cliffs for nest sites and forage in nearby open areas.[267] Cliff outcroppings in the proposed South Bowl expansion area provide suitable nesting habitat for peregrine falcons and herbaceous and open habitat types in the project area provide potential foraging habitat. Peregrine falcons are known to nest in Teton Canyon, which is located just south of the project area, closest to the proposed South Bowl and Mono Trees expansion areas. Forest Service surveys from as early as 1989 document breeding and nesting activity at multiple eyrie locations among cliffs on the southern side of the canyon above the Treasure Mountain Boy Scout Camp, with the most recent activity documented in 2018. Less frequent breeding and nesting activity has been documented among the Apostle Cliffs on the north side of Teton Canyon, just south of the project area, with the most recent nesting activity documented in 2008. In 2018, a Forest Service biologist observed a hunting peregrine falcon 1.4 miles south of the proposed South Bowl expansion area.

[267] WGFD 2017a

Four pre-project surveys for peregrine falcons were conducted in 2019 from May-June along the northside of Teton Canyon Road and throughout the proposed South Bowl expansion area where potential habitat exists. Surveys involved using binoculars and a spotting scope to scan suitable habitat for peregrine falcon nesting activity (e.g., peregrine falcon observations, whitewash on cliffs, nesting ledges) during early morning hours consistent with methods provided in General Guidelines for Wildlife Surveys.[268] On May 3, 2019, suitable habitat within the proposed South Bowl expansion area visible from Teton Canyon Road was surveyed, with particular focus on a previous eyrie location. On June 7, 2019, this area was resurveyed for peregrine falcon activity or sign of nesting. On June 27, 2019, the southwest end of South Bowl was surveyed for potential habitat and peregrine falcon sign. On July 10, 2019, the South Bowl area was surveyed from the northern edge looking south; one soaring raptor had the wing shape and flight form that resembled a falcon but was flying high in a southwesterly direction towards the southern side of Teton Canyon. No additional peregrine falcon sign was observed during survey efforts.

Three-Toed Woodpecker

Three-toed woodpeckers nest and forage within high elevation coniferous forests with dead and dying trees.[269] The species is a cavity nester and typically excavates cavities in dead trees. Within the existing SUP, Mono Trees, and South Bowl, about 1,694 acres of aspen/conifer, Douglas fir, lodgepole pine, mixed conifer, and spruce/fir forest provide suitable nesting and foraging habitat for three-toed woodpeckers. Snags have not been quantified within the project area but were observed during pre-project surveys in 2019 throughout forested areas, particularly in the proposed Mono Trees expansion area where development and skier use does not currently occur. Three-toed woodpeckers have been observed occasionally within the project area at GTR in 2012, 2014, and 2016.[270] Three-toed Woodpeckers were not detected during project surveys in 2019; however, they are expected to occur within the project area based on habitat availability.

Western Toad

Western toads occur throughout many areas of the Teton Range. The breeding habitat of western toads typically consists of wetlands near other waterbodies and within less densely forested areas.[271] Western toads select pools of slow-moving streams or shallow areas of ponds, lakes, or reservoirs as egg-laying sites.[272] The toads hibernate in burrows under the frost line during the winter. They have been detected within 10 miles north, south, and east of the project area in the past, as recently as 2014. Western toads were not observed within the project area in 2019; however, 47.32 acres of wetlands and riparian areas within the project area may provide suitable habitat for the species. Most of these acres (42.26) are in the existing SUP area, with 1.35 acres located in the South Bowl expansion area and 3.71 acres in the Mono Trees expansion area. The current species distribution in Wyoming includes Teton County, with the closest known occurrence to the proposed project being about 6.6 miles to the southeast.

[268] Provided by C. Kula, CTNF, 2019
[269] NatureServe 2017
[270] Bird 2019
[271] Keinath and McGee 2005
[272] NatureServe 2023

Columbia Spotted Frog

Columbia spotted frogs are associated with wet areas (e.g., pooled to flowing wetlands, small streams, lake margins, moist areas, and moist meadows) in both the foothill and montane zones.[273] Following winter emergence, in which the timing can occur anywhere from February to July depending on elevation, latitude, and local conditions, adults will head to breeding areas.[274] Columbia spotted frogs select sites that contain shallow and stagnant or slow- moving water (e.g., ponds, marshes, small springs, lake edges, and slow-moving streams) for breeding. Columbia spotted frogs tend to stay in close proximity to water during the breeding season but may wander to other areas that may have more food resources and/or fewer predators and competitors after breeding is concluded.[275] Columbia spotted frogs have been detected throughout the Teton Range. In 1992, Columbia spotted frogs were observed in Teton Canyon in a pond located 0.6 miles south of the project area. Columbia spotted frogs were not detected within the project area during vegetation and aquatic resource surveys in 2019; however, 47.32 acres of wetlands and riparian areas within the project area may provide suitable habitat for the species. Most of these acres (42.26) are in the existing SUP area, with 1.35 acres located in the South Bowl expansion area and 3.71 acres in the Mono Trees expansion area.

Yellowstone Cutthroat Trout

Yellowstone cutthroat trout are not known to occur within Mill Creek, the primary stream located within the project area, but are present in Teton Creek, located downstream of the project area.[276] Mill Creek runs for approximately 15,000 feet through the project area, including along the proposed Mono Trees expansion zone and flows into Teton Creek 9,000 feed southwest of the project area, which is one of the primary spawning and rearing streams for cutthroat in the Teton River.[277] While survival of cutthroat trout fry is comparable in Teton Creek to other streams, overwinter survival of young cutthroat trout in Teton Creek is low and may be due to competition with introduced rainbow and brook trout.

Townsend's Big-Eared Bat

No caves or cave-like structures (e.g., mines) that bats could use as a hibernaculum or maternity roost are known to occur within the project area.[278] Further, Idaho Natural Heritage, Wyoming Natural Heritage, and Forest Service Natural Resource Information System databases do not show any Townsend's big-eared bat occurrence records in or near the project area. The closest incidental observation to the project area is about 10.1 miles to the southeast from 2004.[279] However, the project area does contain suitable foraging habitat/movement corridors.

Western Bumble Bee

Western bumble bee occurrences have not been documented in the project area by the Wyoming National Heritage and Forest Service databases; however, certain areas in the project area and vicinity have the potential to provide habitat for the species. Approximately 3,225 acres of habitat in the project area consists of forest, shrubland or herbaceous cover with a diversity of flowering plant species that may

[273] WGFD 2017b
[274] Patla and Keinath 2005
[275] Patla and Keinath 2005
[276] IDFG 2007
[277] Koenig 2006
[278] Comments from C. Kula, CTNF, March 14, 2022
[279] C. Kula, CTNF

provide suitable foraging or nesting habitat for western bumble bees. 2,360 of these acres occur in the existing SUP boundary, while 599 are in the Mono Trees expansion area, and 266 are in the South Bowl expansion area. Forest cover makes up 2,510 acres of the project area which may represent the most valuable habitat for western bumble bees.[280] 1,742 acres of this forest cover is in the existing SUP while the Mono Trees expansion area contains 584 acres and the South Bowl expansion area contains 185 acres.

SPECIES OF LOCAL CONCERN

Moose

The entire proposed project area is located within spring, summer, and fall range for moose. Wyoming Game and Fish Department (WGFD) designated crucial winter-yearlong range for moose, which is located approximately 0.4 miles north of the project area in the South Leigh Creek drainage. WGFD designated crucial winter range for moose is about 0.8 miles west of the project area in the Bustle Creek drainage.[281] The moose present within the project area are a part of the Targhee Herd, which is estimated to have a population of 150 - 200 based on 2009 survey data, with a population decline likely occurring in the early 2000s.[282] Current population estimates for the population are not available due to a lack of mid-winter surveys for the Targhee Herd.

Winter range for the Targhee Herd primarily consists of mountain shrub and aspen communities; however, many of those habitats are in an old and decadent stages. The 2017 Teton County Focal Species Habitat Mapping also identifies potential winter habitat within the Mill Creek drainage in the proposed Mono Trees expansion area. Approximately 325 acres of forest and shrub habitat have the potential to provide value for moose, most of which lies in the existing SUP (238 acres). Areas south of the project area along Teton Canyon Road, and west of the project area in the Mill Creek, Bustle Creek, and Dry Creek drainages, are also identified as potential moose winter habitat.

Extensive sign of moose (scat, tracks) was observed throughout and adjacent to the Mono Trees expansion area during work completed from March through July 2019, particularly within the Mill Creek drainage. Moose signs were also observed in the southwest corner of the South Bowl expansion area in July. Additionally, moose were regularly observed in the Teton Canyon area during June and July surveys in 2019, and two moose were observed on game cameras set up 0.14 mile south of the project area in December 2020.

Mule Deer

The proposed project area is located within spring, summer, and fall range for mule deer. The southern tip of the Mono Trees expansion area also includes a portion of WGFD designated crucial winter yearlong range for mule deer, which extends south towards Teton Canyon Road and west past Ski Hill Road.[283] A mule deer migration route is also located west of the project area between Bustle Creek and Dry Creek and extends westward to the valley floor. The 2017 Teton County Focal Species Habitat Mapping Project also documents additional areas of potential mule deer winter habitat within the existing SUP.

[280] Graves et al. 2020, Goulson et al. 2015, Liczner and Colla 2020, Eckerter et al. 2021
[281] WGFD 2012
[282] WGFD 2018
[283] WGFD 2012

The mule deer that are present within the project area are a part of the Targhee Herd. Although recent population estimates are not available for the Targhee herd, the population is likely declining.[284] Much of the historical winter range for the Targhee Herd of mule deer has been converted to agriculture and residential development in Idaho. The remaining winter range for mule deer primarily consists of mountain shrub and aspen communities, with many of those communities being old and decadent or encroached upon by conifers.[285]

Within the project area, approximately 715 acres of aspen forest and mountain shrubland provide suitable winter habitat for mule deer. 535 of these acres are in the existing SUP, 124 are in the South Bowl expansion area, and 56 acres are in the Mono Trees expansion area. The mapped winter range for mule deer that is located within and south of the project area is primarily comprised of south facing slopes dominated by mountain shrub and aspen communities. A portion of this winter range area also has a Forest Service seasonal closure to protect wintering mule deer in the area. The mule deer winter range in Teton Canyon is also located within the Teton Canyon Hazardous Fuels project area (approved in 2018 and initiated in 2019) where hand thinning and prescribed burning have been approved to improve habitat, (by promoting regeneration of mountain shrubs and aspen trees and removing encroaching conifers and old and decadent shrubs).

Mule deer were commonly observed during summer surveys for other species in 2019, including at the base of GTR where development is present. Game camera data documented heavy mule deer use of a game trail in the western part of the proposed South Bowl expansion area in October and November 2020 and May and June of 2021. Often in groups of up to 11 individuals, mule deer moved in a northwesterly direction throughout day and nighttime in the fall of 2020 which suggests this area could be used as a migration route. Extensive signs of mule deer (scat, tracks) was also observed throughout the current SUP area and proposed expansion areas. Mule deer were also commonly seen along Ski Hill Road in the vicinity of the turnoff for Teton Canyon and further north up Ski Hill Road within WGFD designated mule deer crucial winter/yearlong range.

Elk

Elk that occur within the proposed project area are a part of the Targhee Herd. The project area is located entirely within spring, summer, and fall range for elk.[286] Occasional sign of elk (scat, tracks) was observed throughout the Mono Trees expansion area, particularly in the southern and western portions. WGFD designated winter range for elk is located at lower elevations west of the project area near the Idaho/Wyoming border. Based on the 2017 Teton County Focal Species Habitat Mapping Project, potential winter habitat for elk is mapped in a couple of small areas within Mono Tress, as well as south of the project area in north Teton Canyon. Winter range for the Targhee Herd of elk primarily consists of mountain shrub and aspen communities with conifer encroachment, as well as riparian areas along the Teton River in Idaho.[287]

[284] WGFD 2018
[285] Ibid
[286] WGFD 2012
[287] WGFD 2017c

American Pika, Pacific Marten, and Gray Wolf

Three additional species of local interest that occur within the vicinity of the project area and could be impacted by the proposed project are the American pika, American pine marten, and gray wolf.

The American pika occurs within subalpine and alpine talus fields where rocky habitats provide cover and nearby mountain meadows or patches dominated by grasses and forbs provide forage.[288] American pika is at risk of decline due to changes in temperature and precipitation, and are listed as a Species of Greatest Conservation Need in Wyoming with an NSS2 Status. Approximately 881 acres of high elevation sparsely vegetated areas or alpine and subalpine herbaceous meadows provide suitable habitat for American pika in the project area. Most of this (820 acres) are located in the existing SUP while the remaining 61 acres are in the South Bowl expansion area. Direct impacts to suitable habitat types would occur to 147 acres in the existing SUP and 4 acres in the South Bowl expansion area. Within the project area, South Bowl contains the highest quality habitat for the species, with undeveloped talus slopes and montane grasslands.

The American marten utilizes mature spruce-fir forests and old growth coniferous forests with ample coarse woody debris and snags for foraging, cover, and den sites.[289] The proposed project occurs within coniferous forests that provide suitable habitat for martens. 325 acres of spruce/fir forest provide potential American marten habitat in the project area with 283 of these acres located in the existing SUP, 41 acres in South Bowl, and 1 acre in the Mono Trees area. Late seral or late seral-potential old growth forest cover makes up 401 acres within the existing SUP, 197 acres in the Mono Trees expansion area, and 76 acres in South Bowl which may serve as habitat for American martens. Direct impacts are proposed in 233 acres of spruce/fir forest in the project area, 207 acres of which are in the existing SUP. The Mono Trees expansion area contains the most suitable habitat for pine martens, due to the amount of late seral conifer forests and ample snags and woody debris. A marten was observed on a game camera 0.20 miles south of the project area in February 2021, while another individual was captured in the western end of the South Bowl Area in June 2021, indicating that they are present in the project area. The Mono Trees expansion area contains the most suitable habitat for pine martens, due to the amount of late seral conifer forests and ample snags and woody debris.

Gray wolves also occur within the vicinity of the project area and are habitat generalists occupying a variety of areas including coniferous forests.[290] The Chagrin Wolf Pack is located along the Idaho/Wyoming border between Alta, Wyoming and Victor, Idaho in the vicinity of the project area. Wolf calls were detected on audio recorders in April 2020, west of the project area in the Bustle Creek drainage, which may be from individuals of the Chagrin wolf pack. Although wolves are no longer listed under the ESA, their populations are still monitored for game management and over 300 wolves were estimated to be within Wyoming as of December 31, 2019.[291]

MIGRATORY BIRDS

No breeding and/or nesting activities for USFWS Birds of Conservation Concern (for BCR 10) were detected in the project area during field surveys (other than flammulated owls which were previously

[288] WGFD 2017a
[289] Ruggiero et al. 1998
[290] Meaney and Beauvais 2004
[291] WGFD 2019

discussed in detail under the discussion of Forest Service Region 4 Sensitive Species); however, some birds of conservation concern were detected, and suitable habitat is present for many of them in the project area. USFWS Birds of Conservation Concern and/or PIF watch list species detected in the project area include flammulated owl, olive-sided flycatcher, Cassin's finch, and Williamson's sapsucker. [292] Additionally, calliope hummingbird, rufous hummingbird, broad-tailed hummingbird, evening grosbeak, and black rosy-finch have the possibility to occur in the project area.

The **Wildlife BE** provides a complete list of USFWS Birds of Conservation Concern for BCR 10 and PIF watch list species, as well as information about potential occurrences in the project area.

In addition to the USFWS Birds of Conservation Concern and PIF watch list species, there are dozens of migratory bird species that are expected to occur within the project area and may be impacted by the proposed development. Golden eagles are one migratory bird species that have the potential to be impacted by the project, due to the presence of potential nesting habitat within the mountainous cliff habitat and rock outcrops in high elevations within and in the vicinity of the project area.[293] Additional migratory birds that were observed in the project area in 2019 and 2020 include yellow-rumped warbler, ruby-crowned kinglet, red-naped sapsucker, golden-crowned kinglet, hermit thrush, Swainson's thrush, dusky flycatcher, western tanager, black-headed grosbeak, western wood-pewee, white-crowned sparrow, chipping sparrow, tree swallow, warbling vireo, house wren, and American pipit. These species were detected throughout the project area in forest, shrubland, and meadow habitats while conducting fieldwork for sensitive species.

3.13.4 Direct and Indirect Environmental Consequences

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Threatened and Endangered Species

The No Action Alternative reflects a continuation of existing operations and management practices at GTR. Aside from natural vegetative cover changes caused by succession, forest fire, or disease, the project areas would remain unimpacted by any new on-site development associated with GTR. However, over the next 10 years, winter and summer visitation at GTR is projected to increase by 24 percent. Ongoing recreation continues to affect wildlife (such as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species*), while projected growth in GTR visitation, as well as increased recreation and traffic in the vicinity, would further impact wildlife (such as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species*) in the area into the future.

Regular maintenance that occurs on an annual basis is required to ensure safety, functionality, and environmental sustainability of GTR facilities. The following activities are typically conducted and are used a baseline for effects analysis to wildlife:

Vegetation Management to maintain clear and safe ski runs, trails, and lift lines:

[292] USFWS 2008, Rosenburg et al. 2016
[293] WYNDD 2020

- Selective tree cutting: removal of trees that encroach on ski trails, lift lines, summer trails, and other infrastructure.
- Thinning: reducing tree density in certain areas to maintain existing openness in existing ski runs.
- Pruning: trimming branches or snags that pose a hazard to skiers, summer users, or equipment.

Slash Management to manage debris resulting from tree cutting and other vegetation management activities:

- Chipping: Slash (branches, small trees, bushes) is chipped on-site. Wood chips are used for erosion control or as mulch.
- Pile burning: In some cases, slash is collected into piles and burned under controlled conditions.
- Removal: transporting slash to designated areas for composting or disposal, especially if chipping or burning is not feasible.

Grading to maintain existing ski terrain and other recreational infrastructure:

- Slope grading: reshaping of slopes to ensure they meet safety standards and provide a consistent skiing surface.
- Trail maintenance: smoothing and leveling trails for skiing, or summer use. Includes filling in ruts and holes created by erosion or heavy use.
- Infrastructure support: grading around lift bases, lodges, and other structures to ensure stable and safe access for guests and maintenance vehicles.

Erosion Control to prevent soil erosion and protect water quality:

- Silt fences and straw wattles: installing barriers to capture sediment and prevent it from washing into waterways or damaging recreational areas.
- Revegetation: planting native vegetation on disturbed slopes and areas prone to erosion to stabilize the soil.
- Terracing and water bars: creating terraces and installing water bars on trails and slopes to slow water runoff and reduce erosion.

Mowing and Brush Clearing to maintain open and sage areas for skiing and other recreational activities:

- Slope mowing: regular mowing of grassy and brushy areas on ski slopes to keep vegetation at manageable levels and ensure clear sight lines.
- Brush clearing: removing dense brush and undergrowth that can obstruct trails and pose fire hazards.

Weed Control to manage invasive weeds that can harm native ecosystems and hinder resort operations:

- Chemical treatment: applying herbicide to control the spread of invasive weeds in accordance with environmental regulations and best practices.
- Mechanical removal: hand-pulling or using machinery to remove weeds from critical areas such as ski runs and around infrastructure.

Environmental Considerations: all maintenance activities are conducted with attention to minimizing environmental impacts:

- Timing: scheduling activities during periods that minimize disruption to wildlife and plant communities, avoiding sensitive breeding or nesting seasons per USFS standards and guidelines.
- Best Management Practices: implementing BMPs to reduce soil disturbance, control erosion, and protect water quality.
- Permitting and compliance: ensuring all activities comply with local, state and federal regulations, including obtaining necessary permits and adhering to NEPA guidelines and agreements with the USFS under the existing Special Use Permit.

Canada Lynx

Ongoing recreation associated with GTR continues to impact wildlife (such as lynx if they are present) while projected growth of GTR visitation, as well as increased recreation and traffic in the vicinity, would further impact wildlife (such as lynx if they were present) in the area into the future. Recreation associated with GTR may cause decreased prey availability or alter lynx movement within and between LAUs. The cumulative effect of increased traffic on Teton Pass and Ski Hill Road would play a small role in increasing habitat impairment for Canada lynx. Although GTR would not construct any new on-site development under this alternative, increasing recreation use in the future associated with the current infrastructure at GTR has the potential to have minor additional effects on lynx and its habitat that are above current baseline conditions. Ongoing maintenance and management activities that occur annually to ensure safety, functionality, and environmental sustainability of GTR facilities have had and will continue to have minor impacts to potential Canada lynx habitat and habitat of their primary prey, snowshoe hares. Removal of trees and brush and mowing to maintain ski terrain, facilities, and summer trail may modify lynx habitat from year to year but continual regrowth likely keeps value and availability of lynx habitat in the project area steady under current practices. Ongoing maintenance activities at GTR may also deter use of the area during certain times of year due to noise or heavy machinery when trails are being groomed, mowed, etc. to ensure safety and quality recreation. Therefore, a determination of *may affect, but is not likely to adversely affect*, was reached for the Canada lynx under the No Action Alternative. Any potential effects under this alternative would be far less than any of the action alternatives.

Grizzly Bear

Although GTR would not construct any new on-site development under this alternative, increasing recreation use in the future associated with the current infrastructure at GTR has the potential to have minor additional effects on grizzly bears and their habitats that are above current baseline conditions. Ongoing maintenance and management activities that occur annually to ensure safety, functionality, and environmental sustainability of GTR facilities have had and will continue to have minor impacts to potential grizzly bear habitat and use of the area. Removal of trees and brush and mowing to maintain ski terrain, facilities, and summer trail may modify suitable grizzly bear habitat from year to year but continual regrowth likely keeps value and availability of grizzly bear habitat in the project area steady under current practices. Maintenance activities may also deter use or disturbed bears in the area due to noise or heavy machinery. However, these activities have been ongoing for the duration of the resort's operations; therefore, grizzly bears may be accustomed to it or already avoid the area during certain times of year. Given the large ranges occupied by grizzly bears and that higher value habitat provides more

suitable habitat for denning and reproduction outside the existing SUP, effects are not likely to be detectable at the population scale. Therefore, the No Action Alternative *may affect, but is not likely to adversely affect*, the grizzly bear. Any potential effects under this alternative would be far less than any of the action alternatives.

Wolverine

Although GTR would not construct any new on-site development under this alternative, increasing recreation use in the future associated with the current infrastructure at GTR has the potential to have minor additional effects on wolverines and their habitat that are above current baseline conditions. Ongoing maintenance and management activities that occur annually to ensure safety, functionality, and environmental sustainability of GTR facilities have had and will continue to have minor impacts to potential wolverine habitat and use of the area. Removal of trees and brush and mowing to maintain ski terrain, facilities, and summer trail may modify suitable wolverine habitat or occasionally remove potential denning habitat from year to year but continual regrowth likely keeps value and availability of wolverine habitat in the project area steady under current practices. Maintenance activities may also deter use or disturbed wolverines in the area due to noise or heavy machinery. However, these activities have been ongoing for the duration of the resort's operations; therefore, wolverines may be accustomed to it or already avoid the area during certain times of year. Although GTR would not construct any new on-site development under this alternative, increasing recreation use in the future and ongoing maintenance and operations associated with the current infrastructure at GTR has the potential to have minor additional effects on wolverines and their habitat that are above current baseline conditions. Effects are likely to be undetectable due to continuous forest regeneration within the project area and because high value habitat outside the project area will remain unimpacted. Therefore, the No Action Alternative *May Affect But is Not Likely to Adversely Affect.* Any potential effects under this alternative would be far less than any of the action alternatives.

Monarch Butterfly

There would be no direct, indirect, or cumulative effects to monarchs by selection of the No Action Alternative as substantial milkweed and monarch butterfly populations are not present in the project area. Records of plant observations including USFS databases, the Wyoming Natural Diversity Database, and the Monarch Milkweed Mapper supported by the Xerces Society do not document milkweed or monarch observations in the project area. Recorded observations of milkweed species in the region appear to generally occur at lower elevations than most of the terrain within the project area. It may be that the climate, soil conditions, moisture and elevations are not suitable in the project area to support substantial milkweed populations and monarch breeding. Ongoing maintenance and management activities that occur annually to ensure safety, functionality, and environmental sustainability of GTR facilities have had and will continue to impact monarch butterfly habitat and nectar sources. Mowing or grading to maintain ski terrain, facilities, and summer trails may result in removal of nectar sources; however, this regular disturbance also maintains open areas and forest and likely promotes growth of flowering plants. Therefore, it is possible that ongoing maintenance results in a net positive impact for monarch butterflies. Since selection of this alternative would not add to direct, indirect, or cumulative effects for monarchs, selection of the No Action Alternative would have the determination of *not likely to jeopardize the continued existence of the species or result in destruction or adverse modification to proposed critical habitat* for the monarch butterfly.

Suckley's Cuckoo Bumble Bee

There would ne no direct, indirect, or cumulative effects to suckley's cuckoo bumble bee by selection of the No Action Alternative, the amount and availability of habitat is anticipated to be maintained. Ongoing maintenance and management activities that occur within GTR's existing SUP would continue to impact suckley's cuckoo bumble bee habitat, host habitat, and nectar sources. Removal of trees and brush or mowing to maintain ski terrain, facilities, and summer trails may modify suitable habitat from year to year but continual regrowth likely maintains value and availability of bumble bee habitat in the project area under current practices. Since selection of this alternative would not add to direct, indirect, or cumulative effects for suckley's cuckoo bumble bee, selection of the No Action Alternative would have the determination of *not likely to jeopardize the continued existence of the species or result in destruction or adverse modification to proposed critical habitat* for the monarch butterfly.

Region 4 Sensitive Species

Bighorn Sheep

The Teton Range bighorn sheep herd is generally avoidant of human activity in the winter[294] and increasing skier use of the South Bowl expansion area, in part attributable to the new Colter Lift, could alter bighorn sheep use of the area and habitat in the vicinity. Land managers have identified shrinking access to viable winter habitat as a primary threat to the small and isolated Teton Range bighorn sheep herd and current conditions with the Colter Lift and backcountry access points may contribute to constraints on bighorn sheep winter habitat.[295]

Backcountry skiing has increased in popularity in recent years and the significant uptick in winter recreation that has been documented in other parts of the Teton Range in the last few decades has likely influenced the western slopes of the Tetons too, including the South Bowl area and Teton Canyon. Research suggests that Teton Range bighorn sheep avoid winter recreation routes even at low levels of intensity.[296] Bighorn sheep might, therefore, avoid using the South Bowl area for winter habitat given the existing and potentially increasing backcountry skiing activity. However, observations of sheep at Apostle Cliffs mineral lick in the winters of 2018 and 2022 indicate that bighorn sheep might travel through South Bowl even when backcountry skiing is intermittently occurring in the area. The Teton Range Bighorn Sheep Working Group's January 2022 news release requested that backcountry skiers voluntarily avoid the South Bowl area and the south facing slopes of Teton Canyon surrounding South Bowl in order to encourage bighorn sheep use of this valuable winter habitat. Construction of the Colter lift improved access to backcountry terrain in the South Bowl area beginning in the 2022/2023 winter operational season. New backcountry access points and ease of access has resulted in a recent increase in skier use of the area and may be impacting bighorn sheep movement and winter habitat selection.

This increase in winter activity may be affecting wildlife species movement and habitat use. Habitat modeling by Courtemanch (2014) based on GPS collar data from Teton bighorn sheep identifies 54 acres of high-quality bighorn sheep winter habitat in the South Bowl expansion area. The Apostle mineral lick, an important nutrition source used by bighorn sheep in winter months, is less than 900 feet south of the new Colter lift-access terrain. Monitoring data and the nature of surrounding terrain suggest that bighorn

[294] Courtemanch 2014
[295] Teton Range Bighorn Sheep Working Group 2020
[296] Courtemanch 2014

sheep travel through the South Bowl area to access the mineral lick. The Teton Range bighorn sheep herd is generally avoidant of human activity in the winter and increased skier use of the South Bowl expansion area with the new Colter lift could alter bighorn sheep use of the area and habitat in the vicinity. Land managers have identified shrinking access to viable winter habitat as a primary threat to the small and isolated Teton Range bighorn sheep herd[297] and current conditions with the Colter lift and backcountry gates may contribute to constraints on bighorn sheep winter habitat. The extent of the impacts of increased activity are not yet known. Game cameras were installed in the South Bowl expansion area in January of 2023 to monitor skier use and survey for bighorn sheep and land management agencies are strategizing additional monitoring efforts and management actions.

In summary, due to the projected increase in recreation use associated with GTR, and increasing participation in backcountry skiing, the No Action Alternative *may impact individuals or their habitat, but not likely contribute to a trend toward federal listing or loss of population viability*.

Great Gray Owl, Boreal Owl, Flammulated Owl, American Goshawk, Peregrine Falcon, Three-Toed Woodpecker, Western Toad, and Columbia Spotted Frog

Ongoing recreation associated with GTR continues to impact great gray owls, boreal owls, flammulated owls, American goshawks, peregrine falcons, three-toed woodpeckers, western toads, and Columbia spotted frogs, while projected growth of GTR visitation, as well as increased recreation in the vicinity, would further impact these species in the area into the future. Ongoing maintenance and management activities that occur annually to ensure safety, functionality, and environmental sustainability of GTR facilities have had and will continuously affect habitat for these species in the project area. Removal of trees and brush to maintain ski terrain, facilities, and summer trails may result in removal of suitable habitat. However, continual regrowth likely keeps suitable habitat in the project area steady under current practices. Management activities also help maintain more open forests is some areas which could provide valuable foraging habitat. Mowing and grading for maintenance may harm rodents and rodent nest that provide prey for great gray owls in the area; however, impacts to overall prey availability are likely minimal and temporary. Therefore, the No Action Alternative *may impact individuals or their habitat, but would not likely contribute to a trend toward federal listing or loss of population viability.*

Yellowstone Cutthroat Trout

The existing development, operations, and maintenance of GTR, including snow making have ongoing effects on the watersheds downstream from the resort. Research indicates that watersheds associated with ski resort developments typically see increased sediment and solutes than comparable watersheds where ski resorts are absent.[298] Current management practices at GTR include sediment and erosion control which help minimize impacts to the watershed. However, water quality in downstream waterways that provide cutthroat trout habitat are impacted by the existence and maintenance of the ski resort. Therefore, the No Action Alternative *May Impact Individuals or Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability* for the species.

Townsend's Big-Eared Bat

Although winter and summer visitation at GTR is projected to increase by 24 percent over the next 10 years, no additional impacts to Townsend's big-eared bats above baseline conditions are anticipated (since

[297] Teton Range Bighorn Sheep Working Group 2020
[298] Wemple et al. 2007

there are no known cave or cave-like structures capable of supporting a maternity colony or hibernacula). Ongoing maintenance and management activities that occur annually to ensure safety, functionality, and environmental sustainability of GTR facilities have had and will continue to affect potential Townsend's big-eared bat foraging or roosting habitat. Removal of trees and brush or mowing to maintain ski terrain, facilities, and summer trail may modify suitable habitat from year to year but continual regrowth likely maintains value and availability of bat habitat in the project area under current practices. Maintenance activities may also deter use or disturbed bats in the area due to noise or heavy machinery. As a result of the limited habitat, the No Action *May Impact Individuals or their habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability* to Townsend's big-eared bats.

Western Bumble Bee

No additional impacts to the western bumble bee above baseline conditions are anticipated as the amount and availability of habitat is anticipated to be maintained. Ongoing maintenance and management activities that occur annually to ensure safety, functionality, and environmental sustainability of GTR facilities have had and will continue to affect potential western bumble bee habitat. Removal of trees and brush or mowing to maintain ski terrain, facilities, and summer trail may modify suitable habitat from year to year but continual regrowth likely maintains value and availability of western bumble bee habitat in the project area under current practices.

Species of Local Concern

Ongoing recreation associated with GTR continues to impact species of local concern (e.g., mule deer, elk, moose, American pika, American pine marten, and gray wolf, while projected growth in GTR visitation (associated with existing infrastructure), as well as increased recreation and traffic in the vicinity would further impact these species in the area into the future.

Ongoing maintenance and management activities that occur annually to ensure safety, functionality, and environmental sustainability of GTR facilities have had and will continue to have minor impacts to potential habitat and use of the area. Removal of trees and brush and mowing to maintain ski terrain, facilities, and summer trail may modify suitable habitat from year to year but continual regrowth likely keeps value and availability of habitat in the project area steady under current practices. Maintenance activities may also deter use or disturbed in the area due to noise or heavy machinery. However, these activities have been ongoing for the duration of the resort's operations; therefore, some species may be accustomed to it or already avoid the area during certain times of year. The No Action Alternative *May Impact Individuals or Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability*.

Migratory Birds

Ongoing recreation associated with GTR continues to impact migratory birds, while projected growth in GTR visitation, as well as increased recreation and traffic in the vicinity, would further impact migratory birds in the area into the future.

Ongoing maintenance and management activities that occur annually to ensure safety, functionality, and environmental sustainability of GTR facilities have had and will continue to have minor impacts to potential habitat and use of the area. Removal of trees and brush and mowing to maintain ski terrain, facilities, and summer trail may modify suitable habitat from year to year but continual regrowth likely keeps value and availability of habitat in the project area steady under current practices. Maintenance

activities may also deter use or disturbed in the area due to noise or heavy machinery. However, these activities have been ongoing for the duration of the resort's operations; therefore, some species may be accustomed to it or already avoid the area during certain times of year.

ACTION ALTERNATIVES

Threatened and Endangered Species

For the *federally listed endangered, threatened, proposed, or candidate species* considered in this analysis, Alternatives 2-5 were determined to:

- *Not Likely to Jeopardize the Continued Existence of the Species OR Result in Destruction OR Adverse Modification of Proposed Critical Habitat*
    - Determination made for monarch butterfly and suckley's cuckoo bumble bee, all action alternatives
- *May affect, but is not likely to adversely affect*
    - Determination made for Canada lynx, all action alternatives and wolverine, Alternative 3 and 5.
- *May affect, and is likely to adversely affect*
    - Determination made for grizzly bear, all action alternatives and wolverine the Proposed Action and Alternative 4.

The following paragraphs provide a summary of the rationale used to the make the aforementioned determinations for each *federally listed endangered, threatened, proposed, or candidate species* and highlight the different project components associated with each alternative that are attributable to different levels of effects and/or determinations. For a complete description of effects by species/project component the reader is referred to the **Wildlife BA**.

Canada Lynx

Activities proposed under all action alternatives would have the following effects on lynx:

- Convert currently mapped suitable lynx habitat to linkage areas or non-habitat within the Teton Creek and Badger Creek LAUs. Both Mono Trees and South Bowl currently do not function as quality foraging habitat for lynx, since the horizontal cover is low and there were minimal snowshoe hare detections. Decreased effectiveness would continue with expansion of the operational boundary into these areas. Both areas would continue to provide for lynx movements within and between LAUs.
- Noise and human disturbance associate with construction activities and ongoing recreation use could temporarily displace lynx or alter habitat use within and adjacent to the project area and these impacts could extend beyond the immediate footprint of development activities.
- The consequences to lynx habitat would be greatest under Alternatives 2 and 5.
- Add cumulatively to the net effects of habitat conversion that has occurred within both LAUs.
- Increase traffic volumes on Ski Hill Road and Teton Pass but would not be expected to lead to a measurable increase in the probability of lynx mortality on either road.

Although the proposed project components would reduce the availability of lynx habitat, they would not compromise the ability of either LAU to support foraging, denning, or traveling lynx. Impacts will not

result in take of lynx and loss of habitat will not be detectable at the LAU scale given that the habitat is not the highest quality and ample higher quality habitat remains elsewhere in the LAU. As a consequence, for all action alternatives, the proposed project *may affect, but is not likely to adversely affect*, the Canada lynx. Please see **Table 6 in Wildlife BA** and text from **Section 5.1.2** for more information regarding this determination.

All action alternatives were determined to be consistent with relevant NRLMD standards and guidelines applicable to ski areas. The standards and guidelines relevant to this analysis were directed by the GTR Expansion NRLMD Briefing Paper, which is cited in the **Wildlife BA** and available for review in the project file.[299]

Grizzly Bear

Activities proposed under all action alternatives would have the following effects on grizzly bears:

- Convert current secure grizzly bear habitat to nonsecure habitat within the Teton BAU. Secure habitat is most abundant in the proposed Mono Trees and South Bowl expansion areas due to their distance from existing roads, while most of the existing SUP currently consists of nonsecure habitat due to existing roads associated with current resort operations. Expanding the GTR SUP boundary into Mono Trees under Alternatives 2 and 5 would entail constructing an administrative route through the center of the area to the proposed lift base, which would eliminate most of the secure habitat in the area. Expanding the GTR SUP boundary into South Bowl under Alternatives 2 and 4 would entail constructing an administrative route along the southern boundary of the South Bowl expansion area which would eliminate almost all of the secure habitat in the area and secure habitat outside of the expansion area in Teton Canyon. Administrative routes proposed in the existing SUP under all alternatives would reduce secure habitat in the existing SUP and impact secure habitat outside the SUP Boundary to the east. Existing secure habitat is likely most valuable in the proposed expansion areas where little development and activity currently occurs; therefore, impacts under Alternatives 2, 4, and 5 would be most severe.
- Noise and human disturbance associate with construction activities and ongoing recreation use could temporarily displace grizzly bear or alter habitat use within and adjacent to the project area and these impacts could extend beyond the immediate footprint of development activities.
- Add cumulatively to the net effects of habitat conversion that has occurred within the Teton BAU.
- Modify grizzly bear behavior and habitat use, due to increased development density and human activity, both during construction and once improvements are implemented (particularly improvements that would increase summer activity). On mountain facilities and food and beverage vendors could also modify grizzly bear behavior. Increased summer recreation activity, facilities, and associated bear attractants would increase the likelihood of bear-human conflicts which have the potential to lead to individual mortality if a problem bear is removed.
- Effects to grizzly bear habitat would be greatest under the Proposed Action, followed by Alternative 4, followed by Alternative 5, with lowest impacts under Alternative 3.

The proposed projects have the potential to adversely affect individual grizzly bears and potentially cause mortality of individual bears, through human-bear conflicts into the future. However, over 101,000 acres

[299] Kula and Yorgason 2023

of secure habitat would remain in the Teton BAU and continue to provide habitat for grizzly bears. Though population growth has slowed in recent years, the population of grizzly bears in the Greater Yellowstone Ecosystem has increased from approximately 200-300 bears in 1975 to an estimated 1,030 bears in 2024 (with a 95 percent credible interval of 865 to 1,230 individuals) [300] Given the regional population status of grizzly bears and widespread availability of secure grizzly bear habitat and valuable vegetative cover types for grizzly bears throughout the Teton BAU, the proposed projects under all action alternatives are not expected to impact the viability of the grizzly bear population in the Teton BAU or Targhee Planning Area.[301] However, as described the proposed projects have the potential to modify grizzly bear behavior via habitat fragmentation and attracting bears to developed areas in the Teton BAU which could cause adverse effects including mortality of individual bears through human-bear conflicts increasing into the future when coupled with loss of habitat beyond the project area. Mitigation measures in **Table 2.4-1** require coordination with Forest Service wildlife biologist if a grizzly bear den is found during the project construction/implementation period. Overall, because incidental take of individuals would become more likely under all action alternatives (over the life of the projects), the proposed project *may affect, and is likely to adversely affect*, the grizzly bear.

Standards and guidelines from *1997 Forest Plan* related to grizzly bear include measures designed for management of grazing allotments, which are not applicable to the proposed projects. Additional standards and guidelines include provisions for educational programs, habitat management, problem bears, and cross-country travel. Consistency with relevant standards and guidelines would occur under all action alternatives. A detailed description of *1997 Forest Plan* consistency as it relates to potential impacts to grizzly bear can be found in the Wildlife BA and is tracked through **Appendix B** of this document.

Wolverine

Implementation of any of the four action alternatives within the current operational boundary is not expected to have substantial direct or indirect effects to wolverine. Wolverines would be expected to continue to avoid foraging within the SUP Area due to their documented avoidance of winter recreation, utilizing it rather for the purposes of traveling within their home range. While wolverines have been observed within the SUP Area, it is most likely that they were traveling rather than foraging or denning.

Implementation of Alternative 2 would directly impact 242.37 acres of suitable cover, travel, and foraging habitat outside of the existing SUP Area, which equates to 0.32 percent of the habitat in the theoretical 303 km2 range. Implementation of Alternative 3 would have no impact outside of the existing SUP Area. Implementation of Alternative 4 would impact 38.35 acres outside of the existing SUP Area, which equates to 0.05 percent of the habitat in the theoretical 303 km2 range. Implementation of Alternative 5 would impact 204.02 acres outside of the existing SUP Area, which equates to 0.27 percent of the habitat in the theoretical 303 km2 range. This habitat conversion would be insignificant at the scale of the 303 km2 home range of a female wolverine. Furthermore, adequate forested terrain exists surrounding the existing and proposed SUP Areas for wolverines to travel around the SUP Area if they so choose. Wolverines have also been documented traveling within the existing SUP Area and would be expected to continue to do so following implementation of any Action Alternative. Consequently, none of the Action

[300] IGBST 2024
[301] The Targhee Planning Area is the Targhee National Forest, where the wildlife viability requirement strictly refers to the Forest Plan area.

Alternatives would prevent dispersal, seasonal, or daily movements for wolverines within their home range. Nor would they be expected to have significant effects on foraging.

Implementation of Alternative 3, therefore, would not alter the habitat effectiveness of the SUP Area; wolverines would be expected to continue to avoid foraging or denning within the SUP Area but would continue to utilize the area for travel to and from more suitable habitat surrounding the SUP Area.

Direct effects to wolverine habitat within the Mono Trees and South Bowl, would alter the current effectiveness of suitable cover, travel and forage habitat within each area; however, this habitat conversion would be insignificant at the scale of the home range of a male wolverine. Furthermore, adequate forested terrain exists surrounding the existing and proposed SUP Areas for wolverines to travel around the SUP Area if they so choose. Wolverines have also been documented traveling within the existing SUP Area and would be expected to continue to do so following implementation of any action alternative. Consequently, none of the action alternatives would prevent dispersal, seasonal, or daily movements for wolverines within their home range. Nor would they be expected to have substantial effects on foraging.

All four action alternatives would have direct effects on modeled wolverine denning habitat. However, wolverines are not likely to den within the existing SUP Area. Eliminating the SUP Area denning habitat from consideration, the impacts to modeled denning habitat beyond the limits of the current SUP Area would be 23.42 acres for the Proposed Action, zero acres for Alternative 3, 14.47 acres for Alternative 4, and 8.94 acres for Alternative 5. Increased development density and human activity in the proposed expansion area would indirectly impact modeled denning habitat beyond the direct impacts of vegetation removal. It is possible the South Bowl and Mono Trees expansion areas would no longer provide viable denning habitat. The impact of this lost habitat could cause increased fragmentation on denning habitat in the surrounding area.

Implementation of the projects proposed under Alternative 3 *may affect but are not likely to adversely affect individual wolverines.*

Alternatives 2 and 4 each add South Bowl to the SUP boundary. the Proposed Action also includes Mono Trees. The noise and commotion associated with winter recreation in these expanded SUP Areas would be expected to preclude use of habitat in these new parts of the SUP Area for wolverine life requisites other than travel to and from more suitable habitat.

Both of these action alternatives would include direct avalanche control into South Bowl. Avalanches pose a threat to wolverines under both natural and controlled conditions. Avalanches currently occur in South Bowl and pose an existing threat of mortality to wolverines. If South Bowl is added to the SUP Area and control efforts begin, avalanches could be of less severity but could occur more frequently. Were a wolverine to be caught and killed by a management induced avalanche, this would no longer be considered a chance occurrence but would be directly induced by the addition of South Bowl to the SUP Area. Therefore, since an individual wolverine could be killed by a management-induced avalanche, implementation of Alternatives 2 or 4 *may affect and is likely to adversely affect* individual wolverines.

Similar to Alternatives 2 and 4, Alternative 5 would have direct, indirect, and cumulative effects on wolverines and their habitat outside of the existing SUP Area. Wolverine habitat in Mono Trees, outside the existing SUP Area, would be impacted by this alternative, but such impacts, at the scale of the home range of a male wolverine, would not be substantial. The noise and commotion associated with winter

recreation in Mono Tree would be expected to preclude use of habitat in this new part of the SUP Area for wolverine life requisites other than travel to and from more suitable habitat. Consequentially, implementation of Alternative 5 *may affect, but is not likely to adversely affect individual wolverines*.

Monarch Butterfly

Implementing the action alternatives would convert portions of forests and shrublands to grass/forb dominated ski trails, resulting in an overall decrease in canopy cover across the existing SUP Area and within the proposed expansion areas (depending on the alternative). The following table summarizes how each action alternative would convert forested habitat to grass/forbs. Alternatives 2 and 5 would result in the greatest increase in herbaceous cover.

Table 3.13-3. Forest Habitat Converted to Grass/Forb (acres)

Alternative	Existing SUP Area	Mono Trees	South Bowl	Total
Alt 2	65.82	62.50	27.08	155.39
Alt 3	65.82			65.82
At 4	65.82		27.08	92.89
Alt 5	65.82	62.50		128.31

Source: Alder Environmental, 2023

The action alternatives would decrease the amount of forest/shrub canopy coverage across the project area, thereby increasing edge habitat and the amount of herbaceous vegetation in the area. This conversion of forest and shrublands to herbaceous vegetation and decrease in canopy cover could benefit monarch butterflies by increasing available nectar sources as there would be an increased opportunity for milkweed to grow as well. Suitable roosting habitat would remain in the residual forest stands, included within proposed gladed areas.

There is the potential for a monarch butterfly to be killed as a result of colliding with a vehicle or from construction activities. This is unlikely, due to the mobility of the species, and the lack of milkweed for breeding activities (meaning the species would not be congregating in areas in high densities for long portions of time).

The CTNF currently utilizes targeted herbicide applications when necessary to control weed infestations. If herbicides are required due to weed invasions following project implementation, control would be targeted rather than large-scale broadcast applications. This method of weed control avoids indiscriminate destruction of insects, including monarch butterflies.

The project area lacks milkweed to support monarch breeding but does contain habitat with potential to support migrating/moving adult butterflies. Overall, the action alternatives would diversify the habitat within the SUP boundary, thereby likely increasing available nectar sources. The action alternatives would comply with all standards and guidelines in the *1997 Forest Plan* and hydrologic/wildlife PDC and BMPs as identified in **Table 2.4-1**. As a result, the proposed action alternatives are *Not Likely to Jeopardize the Continued Existence of the Species* OR *Result in Destruction* OR *Adverse Modification of Proposed Critical Habitat*.

Suckley's Cuckoo Bumble Bee

Implementation of the action alternatives would convert areas of forest and shrubland habitat to more open grass/forb conditions due to development of ski trails, glades, roads, lifts, and other infrastructure. Grading or combined grading and tree removal are proposed across approximately 301 acres within the project area for construction of roads, lifts, summer trails, and other infrastructure. Most of these activities would occur within the existing SUP Area (276 acres), where higher levels of disturbance and soil compaction are already present. Within the proposed expansion areas, approximately 16 acres of grading or grading and tree removal are proposed within the Mono Trees area and 10 acres within the South Bowl area. Removal of conifers would increase light penetration to the forest floor and may increase water and nutrient availability within the understory, which could promote shade-intolerant flowering plant species. Openings created along the edges of ski runs, gladed areas, and other disturbed areas may support flowering plant communities that provide additional foraging habitat adjacent to forested areas. Proposed ski runs may also revegetate over time with grasses and forbs that could provide nectar sources for bumble bees. Although some habitat types beneficial to foraging bumble bees may increase in the project area, forested habitat and adjacent meadow or shrub habitats may provide important habitat for host bumble bee colonies, or overwintering queens. Permanent conversion of habitat associated with roads, infrastructure, and the summer activity zone would reduce the availability of potentially suitable habitat within the project area. Although these disturbance areas are relatively small compared to the size of the overall project area, construction activities could affect potential host nesting habitat or overwintering habitat for queens if present. If host colonies or overwintering queens were present during implementation, ground disturbance activities could result in mortality of individual bees or destruction of nests. However, large areas of similar habitat would remain adjacent to and surrounding the project area, and the proposed activities are not expected to meaningfully reduce habitat availability for Suckley's cuckoo bumble bee or its host species on a regional scale. In addition, the likelihood of Suckley's cuckoo bumble bee occurring within the project area is considered low due to the absence of documented occurrences within and around the CTNF over the last 50 years. The CTNF currently utilizes targeted herbicide applications when necessary to control weed infestations. If herbicides are required due to weed invasions after project implementation, control would be targeted rather than large-scale broadcast applications in accordance with PDC as outlined in **Table 2.4-1**. This method of weed control avoids accidental destruction of insects like bumble bees, and nectar sources.

Although the action alternatives may affect some areas of potential habitat, implementation is not expected to result in measurable effects to the overall Suckley's cuckoo bumble bee population if the species were to occur in the future. The action alternatives would comply with all standards and guidelines in the *1997 Forest Plan* and hydrologic/wildlife PDC and BMPs as identified in **Table 2.4-1**. As a result, the action alternatives are *Not Likely to Jeopardize the Continued Existence of the Specie*s OR *Result in Destruction* OR *Adverse Modification of Proposed Critical Habitat*.

Region 4 Sensitive Species

For all 11 of the sensitive species discussed in this document in detail (bighorn sheep, great gray owl, boreal owl, flammulated owl, American goshawk, peregrine falcon, three-toed woodpecker, Columbia spotted frog, western toad, Yellowstone cutthroat trout, and Townsend's big-eared bat), Alternatives 2-5 *May Impact Individuals or Their Habitat, but Will Not Likely Contribute to a Trend Toward Federal Listing or Loss of Population Viability.* For all other sensitive species, there would be no impact associated with the proposed projects.

The following paragraphs provide a summary of the rationale used to the make the aforementioned determination for each Region 4 Sensitive species and highlight the different project components associated with each alternative that are attributable to different levels of impacts and/or determinations. For a complete description of impacts by species/project component the reader is referred to the Wildlife BE.

Bighorn Sheep

About 54 acres of high-quality bighorn sheep winter habitat are modeled in the South Bowl expansion area, and the Proposed Action would directly impact 11 acres due to tree removal and grading. Given Teton Range bighorn sheep's aversion to recreation activity, particularly in the winter, all 54 acres of high-quality winter habitat modeled in South Bowl could be rendered unusable by bighorn sheep upon commencement of construction followed by ongoing ski resort operation with the expansion.

Disturbance from avalanche control activities (e.g. use of explosives) particularly within the proposed South Bowl area is also likely to impact bighorn sheep. The effect of avalanche explosives on bighorn sheep or other ungulates has not been well studied but given that Teton Range bighorn sheep avoid human activity in the winter, noise-intensive avalanche mitigation activities are likely to further deter bighorn sheep from using habitat in South Bowl.[302] Mortality could potentially result from avalanches caused by control activities as well. Avalanche mitigation in South Bowl may also further restrict movement of bighorn sheep to the Apostle Cliffs mineral lick in Teton Canyon and potentially deter use of nearby habitat if the noise is a strong deterrent.

Expanded summer resort operations are not planned in South Bowl but increased summer operations in the existing SUP could result in recreationists traveling into the South Bowl area more frequently which, combined with intermittent summer maintenance in South Bowl, might deter bighorn sheep from using valuable summer habitat in the area. Increased attractions at GTR may stimulate a general uptick in summer and winter recreation activity in neighboring areas like Teton Canyon and JSW, with backcountry skiers and hikers using the resort amenities to access more remote terrain, which could put additional pressure on Teton bighorn sheep and their viable range.

Loss of habitat within and in the vicinity of the project area, particularly in South Bowl and in Teton Canyon, which is likely accessed through South Bowl, has the potential to harm the Teton Range herd viability. Although use of South Bowl by bighorn sheep during mid-winter months has not been officially documented, benefits of management actions aimed at improving habitat in the area (including suggested winter closures and the Teton Canyon Fuels Reduction Project-approved in 2018 and initiated in 2019) would not materialize if South Bowl were developed. Bighorn sheep may adjust movement patterns and habitat ranges to spend more time in the JSW adjacent to the project area; however, degradation of habitat in South Bowl and Teton Canyon due to the proposed development, combined with projected increases in recreation activity throughout the range of the Teton bighorn sheep herd, has the potential to substantially reduce access to adequate nutrition and protective habitat. As a result, this alternative has the potential to result in an overall decline in the population of the Teton or Targhee Herd. Specific PDC have been included in **Table 2.4-1** that would minimize human encroachment on modeled bighorn sheep habitat in Teton Canyon. This PDC states: "To minimize impacts to mule deer winter range and modeled bighorn sheep habitat, GTR shall establish and maintain a double-rope boundary around the Mono Trees and

[302] Courtemanch 2014

South Bowl SUP boundary expansions prior to construction in such areas and place backcountry access points in locations that minimize human encroachment on identified habitat. Placement of backcountry access points shall be done in coordination with the Forest Service Wildlife Biologist and shall be specified in GTR's Operation and Boundary Management Plan." Although the Proposed Action would impact the Teton Range bighorn sheep, across the overall Targhee Planning Area (which contains multiple herds), through incorporation of PDC the alternative *May Impact Individuals or Their Habitat but would Not Likely Contribute to a Trend Toward Federal Listing or Cause a Loss of Population Viability*. All but 2 acres of the modeled high quality bighorn sheep habitat within the total project area are within the South Bowl area and existing SUP boundary; therefore, impacts of Alternative 4 would be comparable to those of the Proposed Action.

Under Alternative 3, minimal habitat loss and fragmentation would occur for bighorn sheep from proposed development within the SUP boundary. Increased activity and development within the existing SUP could influence bighorn sheep use of neighboring habitat if recreationists travel more frequently into South Bowl, Teton Canyon, or the JSW for backcountry skiing or hiking. However, given that bighorn sheep currently travel through or near South Bowl despite intermittent backcountry skiing, it is likely that access to the Apostle Cliffs mineral lick and habitat in Teton Canyon would remain. Further, projects aimed at improving habitat in South Bowl and Teton Canyon for bighorn sheep, including potential winter closure areas suggested by the Teton Range Bighorn Sheep Working Group and the Teton Canyon Hazardous Fuels Reduction Project, would proceed under Alternative 3 and may provide benefits for the Teton herd.

Alternative 5 does not include any direct impacts to South Bowl, where the more valuable bighorn sheep is located and which provides an important movement corridor, and thus impacts to bighorn sheep under Alternative 5 would be lower compared to Alternatives 2 and 4. Similar to Alternative 3, projects aimed at improving habitat in South Bowl and Teton Canyon for bighorn sheep use, including potential winter closure areas suggested by the Teton Range Bighorn Sheep Working Group and the Teton Canyon Hazardous Fuels Reduction Project, would proceed under Alternative 5 and may provide benefits for bighorn sheep.

The *1997 Forest Plan* guidelines and standards pertain to the management and phasing out of domestic sheep grazing allotments and are not applicable to the proposed projects. Domestic sheep grazing allotments have been effectively phased out from the Teton Range Subsection, reducing the threat of disease to bighorn sheep in the region.

Great Gray Owl

Out of the 674 acres of late seral or late seral/potential old growth forests within the project area which provides suitable habitat for great gray owls, about 218.96 acres would be directly impacted under the Proposed Action. About 40 percent tree removal for ski glades is planned for 158 of these acres with grading and 100 percent tree clearing proposed for the remaining 60.96 acres. Removal of forested areas would reduce the amount of suitable nesting habitat for great gray owls and may disturb great gray owls if they were to occur in the project area. Areas impacted by 40 percent tree removal may still provide adequate nesting habitat and tree clearing may increase foraging habitat for great gray owls; however, disturbance due to construction activities or ongoing maintenance and recreation following implementation would likely deter great gray owls from using the remaining otherwise suitable habitat in the project area and resulting in functional loss of habitat due to these indirect impacts.

Prevalence of suitable habitat outside of the project area in the surrounding vicinity indicates that suitable habitat for great gray owls is not limiting. Within the Teton Creek LAU, 10,530 acres of late seral, late seral and old growth, or potential old growth forest is present. Under the Proposed Action, the proposed projects would impact 2.1 percent of these late-seral forested acres. Detection data from pre-project surveys, Idaho Fish and Game observations, Wyoming Game and Fish observations, and Forest Service route surveys indicates that great gray owls occur frequently outside of the project area throughout the Targhee Planning Area. The Proposed Action would reduce suitable great gray owl nesting habitat in the project area, could increase foraging habitat in some areas, and may modify owl behavior due to increased activity, but ample suitable habitat in the vicinity and frequent occurrence elsewhere in the vicinity of the project indicates that the Proposed Action *May Impact Individuals or Their Habitat, but Will Not Likely Contribute to a Trend Toward Federal Listing or Loss of Population Viability*. Impacts under Alternative 5 are like those under the Proposed Action, described previously, because expansion into the Mono Trees area would impact valuable potential great gray owl habitat.

Impacts under Alternative 3 are less severe than the Proposed Action and Alternative 5 because no SUP boundary expansion is proposed, and valuable habitat in the Mono Trees area would remain undeveloped. Alternative 3 would reduce suitable great gray owl nesting habitat in the project area and may modify owl behavior due to increased activity; however, habitat in the existing SUP is less valuable than undisturbed habitat in the adjacent Mono Trees area. Impacts under Alternative 4 are like those under Alternative 3, because valuable habitat in the Mono Trees area would remain undeveloped.

The proposed projects are consistent with relevant standards and guidelines from the *1997 Forest Plan*, as described in **Appendix B** of this document. Specifically, this includes standards around timber harvest and the maintenance of 40 percent of the forested acres in late seral age classes within a 1,600-acre area around all known great gray owl nest sites. Great gray owls were not detected in the project area during pre-project surveys and no known active or historic nest sites occur in the area. The nearest great gray owl detection during 2019 and 2020 survey efforts was located 1.4 miles west of the project area. Forested acres were analyzed in a 1,600-acre area encompassing the 2020 detection (this included a portion of the proposed Mono Trees expansion area). This was done to better understand how forest age class would likely change around the detection across the various alternatives. About 958 acres of the 1,600-acre area consist of late seral or late seral/potential old growth forests or 59.9 percent. Impacts in the proposed Mono Trees expansion area under Alternatives 2 and 5 would reduce the percentage of late-seral forest in the 1,600-acre area to 58.3 percent, which is well over the 40 percent threshold required by Great Gray Owl Habitat Standard 2.

Boreal Owl

Boreal owl detections occurred within the project area during the breeding season in 2019, and based on survey data, CTNF biologists identified two 30-acre nesting areas. The Proposed Action would directly impact a total of 25.2 acres within these two nesting areas, which would include 2.3 acres of complete tree clearing (and grading) and 22.9 acres of 40 percent tree thinning for ski glades. More specifically, 1.1 acres of grading and tree clearing for a summer trail is proposed in the southern-most 30-acre nesting territory. While in the second nesting area, 22.9 out of 24.1 acres of proposed impacts are for ski glades, where only 40 percent forest cover would be removed. A project specific amendment to the *1997 Forest Plan* would be required for both nesting areas to exempt the proposed projects from Boreal Owl Habitat Standard 1. PDC prohibiting vegetation clearing/construction activities associated with the action alternatives within the boreal owl designated 30-acre territories from March 1 to August 15 would help

prevent individual mortality during project construction. Vegetation clearing could occur during other times of the year and within the period of March 1 to August 15, so long as it was related to vegetation clearing or construction of project components outside the designated 30-acre nest areas (refer to Table 2.4-1). Tree removal and increased activity in and near active nesting territories would adversely modify boreal owl habitat and could displace individual owls from current territories. There is also the chance that boreal owls may continue to use at least the southern-most nest site, since the Proposed Action would impact such a low percentage of the area.

The proposed projects would impact boreal owl nesting sites, reduce the amount of suitable nesting habitat in the project area, may displace individual owls from current nesting territories, and potentially deter use of habitat in and near the proposed projects for the life of the ski resort permit. It is feasible that implementation would result in abandonment of one or more nesting territories. This risk is higher under Alternatives 2 and 5, because proposed expansion into the Mono Trees areas involves removal of more vegetation in the nesting areas and will bring ongoing recreation activity closer to both nesting territories. These impacts have the potential to reduce breeding and nesting success of individual owls in the project area. However, PDC as identified in **Table 2.4-1** would minimize impacts and help prevent mortality to nesting boreal owls. Within the delineated 3,600-acre boreal owl home range, approximately 2,189 acres, or 61 percent, consists of late seral or late seral/potential old growth forest stands. Impacts of the Proposed Action would reduce the percentage of late-seral forest in the home range to 59 percent, maintaining the 40 percent threshold required by the *1997 Forest Plan*. Habitat modeling for the Targhee Species Viability Study estimates that approximately 358,302 acres of potential boreal owl habitat (habitat classified as very good, good, or moderate) exists within the Targhee Planning Area.[303] Detection data from pre-project surveys, Idaho Fish and Game observations, and Forest Service route surveys indicate that boreal owls occur outside of the project area throughout the Targhee Planning Area. Because the Proposed Action may affect the success of individual boreal owls in the project area, but the forest level population is likely to remain viable, the determination for the Proposed Action is *May Impact Individuals or Their Habitat, but Will Not Likely Contribute to a Trend Toward Federal Listing or Loss of Population Viability*. Impacts to boreal owls under Alternative 5 are similar to those under the Proposed Action. Due to its inclusion of the proposed Mono Trees projects, the same impacts would occur to the two nesting areas under Alternative 5. A project specific amendment to the *1997 Forest Plan* would be required for both nesting areas to exempt proposed projects from Boreal Owl Habitat Standard 1.

The proposed projects under Alternative 3 and Alternative 4 would impact a boreal owl nesting territory, reduce the amount of suitable nesting habitat in the project area, and may displace individual owls from a current nesting territory and deter use of habitat in or near the proposed projects. However, impacts under these alternatives are less severe than those under Alternatives 2 and 5, which proposes expansion into the Mono Trees area where additional valuable habitat is currently undisturbed. Under Alternatives 3 and 4, which exclude expansion into Mono Trees, only one of the 30-acre boreal owl nesting territories would be impacted by proposed projects, where 1.1 acres of grading and tree clearing are proposed for a summer trail. A project specific amendment to the *1997 Forest Plan* would be required for the nesting area to exempt proposed projects from Boreal Owl Habitat Standard 1. Alternatives 3 and 4 would impact the success of individual boreal owls to a lesser degree than Alternatives 2 and 5.

[303] Miller et al. 2022

Flammulated Owls

Based on survey data, CTNF biologists identified five nesting areas within the Mono Trees, Colter, and Sacajawea terrain areas. A total of 46 acres within these nesting areas would be impacted by the Proposed Action and would include 11 acres of tree clearing and/or grading with the remaining 35 acres occurring as 40 percent tree thinning for ski glades. Direct impacts in the 3 southern most nesting areas will be minimal and similar forest cover will be maintained with most of the impacts concentrated in the 2 northern most nesting areas, which are both inside the existing SUP. A project specific amendment to the *1997 Forest Plan* would be required to exempt proposed projects from Flammulated Owl Habitat Standard 1, which prohibits timber removal in 30-acre nesting areas. PDC prohibiting vegetation clearing/construction activities associated with the action alternatives within the flammulated owl designated 30-acre territories from May 1 to August 15 would help prevent individual mortality during project construction. Vegetation clearing could occur during other times throughout the year and within the period of May 1 to August 15, so long as it was related to vegetation clearing or construction of project components outside the designated 30-acre nest areas (refer to **Table 2.4-1**).

The proposed projects would reduce the amount of suitable flammulated owl nesting habitat in the project area and may displace individual owls from current nesting territories and deter use of habitat in and near the proposed projects for the life of the ski resort permit. Since modified forest cover and increase in human activity would be maintained for the duration of the ski resort permit, it is likely that several of the existing nesting territories could be abandoned. This risk is particularly high under Alternatives 2 and 5 which include expansion into Mono Trees and significant impacts in two of the northern most nesting territories. The Teton Creek LAU contains 10,530 acres of late seral, late seral and old growth, and late seral/potential old growth forests and only 2 percent would be impacted by the Proposed Action. Further, the Targhee Species Viability Study estimates that about 290,533 acres of habitat (habitat classified as very good, good, or moderate) with potential to support flammulated owls occurs in the Targhee Planning Area.[304] Detection data from Idaho Fish and Game and observations from Forest Service route surveys indicates that flammulated owls occur outside of the project area, particularly in the Palisade Ranger District south of the project area. The Proposed Action would impact active flammulated owl nesting territories, reduce suitable habitat in the project area, and potentially reduce nesting or foraging success of individual owls, but ample suitable habitat in the vicinity and occurrences elsewhere in the *1997 Forest Plan* area indicates that the Proposed Action *May Impact Individuals or Their Habitat, but Will Not Likely Contribute to a Trend Toward Federal Listing or Loss of Population Viability*. Impacts to flammulated owls under Alternative 5 are similar to those under the Proposed Action, because most of the flammulated owl habitat for the proposed project occurs in the existing SUP and Mono Trees expansion area. All five of the designated 30-acre nesting territories would also be impacted under Alternative 5.

Under Alternative 3, approximately 45.7 acres of impacts, including 10.7 acres of grading and tree clearing, and 40 percent tree removal for ski glades on 35 acres are proposed. Specifically, the Teton Creek LAU contains 10,530 acres of late seral, late seral and old growth, or potential old growth forests and less than 2 percent would be impacted under Alternative 3. Impacts under Alternative 3 are less severe than Alternatives 2 and 5 that contain Mono Trees. Impacts to flammulated owls under Alternative 4 are similar to those under Alternative 3, as Mono trees is not included in this Alternative and South

[304] Miller et al. 2022

Bowl contains limited late seral or late seral/potential old growth. Please refer to the Wildlife BE for more information.

American Goshawk

American goshawks require large areas of mature forest with high canopy cover for nesting and fledging. Removal of forest habitat within the identified nesting and fledging areas has the potential to impact nesting success and foraging behavior of individual goshawks that are known to nest in the vicinity of the proposed project (territory R04F15D56T17). Under the Proposed Action, about 1.7 percent of the nesting area would be directly impacted by tree removal or thinning and habitat within the remaining 98.3 percent may be degraded due to increased noise and activity in the vicinity. Noise and human activity in the nesting area or vicinity, during construction or due to ongoing maintenance or recreation, could modify nesting and/or foraging behavior of American goshawks. Specifically, avoidance flights may increase and cause higher energy expenditures, otherwise suitable habitat might be avoided, and adults may temporarily or permanently abandon nests which could result in failed reproduction.

The removal of forest cover may impact the fitness and nesting success of American goshawks in the confirmed territory R04F15D56T17. The Proposed Action would also limit future options for new nest locations in the area due to removal of suitable habitat elsewhere in the project area. An estimated 1,431 acres of suitable American goshawk nesting habitat currently exists in the project area, and about 522 acres of impacts would occur in these areas under the Proposed Action. Most of these proposed impacts (309 acres) are within the Mono Trees expansion area where habitat is more valuable because the area is currently undeveloped. About 909 acres of suitable habitat would remain after project implementation, which constitutes 28 percent of the total project area. However, remaining habitat may be affected by increased noise and activity in the vicinity and could render portions of the habitat functionally unsuitable. Goshawk nesting and foraging behavior could be adversely modified.

Within the delineated American goshawk foraging area, approximately 84 percent currently consists of mature or late seral forest which provide potential nesting habitat for goshawks. Under the Proposed Action, 269 acres of this forest would be impacted. Mature or late seral forest cover would be reduced to 79 percent of the total foraging area, which is well over the 40 percent threshold required under *1997 Forest Plan*. Habitat modeling for the Targhee Species Viability Study mapped about 266,224 acres (habitat classified as very good, good, or moderate) of potential goshawk habitat across the Targhee Planning Area.[305] Documentation of 64 American goshawk nesting territories throughout the Targhee Planning Area, more than half of which have been occupied in the past 10 years, further illustrates that American goshawk habitat in the Targhee Planning Area is not limiting. The Proposed Action could result in the abandonment of territory R04F15D56T17; however, sufficient forest habitat would remain in the Targhee Planning Area to support the viability of the species. Therefore, the determination for the Proposed Action is *May Impact Individuals or Their Habitat, but Will Not Likely Contribute to a Trend Toward Federal Listing or Loss of Population Viability*. Effects of Alternative 5 for American goshawks are similar to those under Alterative 2, the Proposed Action, because expansion into the Mono Trees area would impact nesting and other valuable habitat for territory R04F15D56T17.

Under Alternative 3, no direct impacts would occur in the nesting area for territory R04F15D56T17 as there would be no expansion into Mono Trees. As a result, the documented nesting sites would be

[305] Miller et al. 2022

insulated from impacts in the existing SUP by over 0.5 mile. High intensity noise and activity from construction has the potential to temporarily disturb goshawk behavior (if they were to use the existing SUP), but territory R04F15D56T17 would be preserved. Impacts under Alternative 4 would be similar to those under Alternative 3 because the Mono Trees area would not be developed, and habitat in the nesting area for territory R04F15D56T17 would be preserved.

Under Alternatives 2 and 5, some of the proposed activities would not be consistent with *1997 Forest Plan* standards and guidelines for American goshawks and a project specific amendment to the *1997 Forest Plan* would be needed. Alternatives 3 and 4, which do not include expanding into the Mono Trees area, would have no direct impacts on the known American goshawk territory; therefore, a project specific amendment to the *1997 Forest Plan* would not be required for these alternatives. PDC included in **Table 2.4-1** states that there would be no vegetation clearing/construction activities within the American goshawk designated nest area from April 1 to August 15). This would ensure that proposed disturbances in the western extent of the Mono trees pod (for developed ski terrain and the bottom terminal of the proposed lift) would not cause undue impacts to nesting goshawk. For clarity, vegetation clearing, and construction could proceed in all other areas that do not overlap the designated 200-acre nest area during the period April 1 to August 15. Additionally, another PDC states, "Tree clearing for construction of a segment of proposed summer trail along the western extent of the existing SUP area within the designated American goshawk post fledging area shall only occur between October and February" (refer to **Table 2.4-1**). This PDC is specific to the proposed summer trail overlapping the post fledging area in the western extent of the existing SUP area, between the Sacajawea and Colter lifts. Please refer to **Appendix B** and **Appendix C** to review amendments to the *1997 Forest Plan* related to the American goshawk.

Peregrine Falcon

Cliff outcroppings in the proposed South Bowl expansion area provide suitable nesting habitat for peregrine falcons and herbaceous and open habitat types in the project area provide potential foraging habitat. Peregrine falcon breeding or nesting activity has not been detected in the project area, but direct and indirect impacts to these habitats may deter falcons from using otherwise suitable nesting habitat or modify nesting or foraging behavior. Grading and vegetation clearing in foraging habitat may remove some habitat or impact prey availability; however, clearing of forested areas for the proposed projects would increase open areas and could result in a net gain of potential foraging habitat for peregrine falcons in portions of the project area. Noise and activity during construction activities or ongoing disturbance from new recreation-related activities (e.g., skier use, grooming, avalanche control, hiking, mountain biking, and maintenance activity) could adversely modify peregrine falcon nesting and/or foraging behavior. However, recreation activity is currently high year-round in Teton Canyon, and peregrine falcon use of habitat in the area indicates that the falcons in the canyon might be somewhat tolerant of human activity.

Two cliff sites within two miles of the proposed projects have served as nesting sites for peregrine falcons in past years: an eyrie located about one mile south of the project area on the southern side of the Teton Canyon and an eyrie among the Apostle Cliffs on the north side of Teton Canyon, about 0.12 miles south of the project area. The most recent known activity at the Apostle Cliffs was in 2008, and activity at the further site was in 2018. The proposed projects under the Proposed Action would bring increased noise and activity closer to these known eyries and have the potential to deter or disrupt nesting peregrine falcons. However, the abundance of cliff habitat in nearby Teton Canyon suggests that nesting habitat is not limited, and numerous eyries have been documented throughout the *1997 Forest Plan* area. Idaho Fish

and Game, Wyoming Game and Fish, and the Forest Service observation data also shows that peregrine falcons are widespread throughout the Targhee Planning Area. Additionally, through the incorporation of PDC as identified in **Table 2.4-1** prevention of vegetation removal during the migratory bird nesting period would minimize impacts, and nesting surveys would be completed prior to construction to minimize impacts. Inclusion of these PDC would minimize impacts to peregrine falcon. Overall, impacts of the proposed projects have the potential to disturb peregrine falcon nesting and foraging behavior in and near the project area, but nesting habitat outside the impact area and widespread occurrence of falcons Forest-wide indicates that the Proposed Action *May Impact Individuals or Their Habitat, but Will Not Likely Contribute to a Trend Toward Federal Listing or Loss of Population Viability*. The impacts to peregrine falcons from Alternative 4 would be similar to that of the Proposed Action because the proposed South Bowl expansion area contains suitable nesting habitat for falcons and disturbance outside the current SUP boundary would bring development, noise, and activity further into Teton Canyon where valuable nesting habitat exists. Conversely, impacts to peregrine falcons under Alterative 3 would be less severe than those under all other action alternatives (Alternatives 2, 4, and 5) because no SUP boundary expansion is included. Impacts associated with Alternative 5, would more closely resemble those under Alternative 3 as the proposed Mono Trees area does not provide suitable nesting habitat. Under Alternatives 3 and 5, suitable nesting habitat in South Bowl would remain isolated from development. Under Alternative 3 development and increased activity associated with GTR would not expand as far into Teton Canyon where peregrine falcon habitat is most valuable. This is also true for Alternative 5 but to a lesser extent than Alternative 3, as the proposed Mono Trees area would still encroach on Teton Canyon.

1997 Forest Plan standards and guidelines related to peregrine falcon include (page 111-20):

Guidelines:

1. For proposed projects within two miles of known falcon nests consider such items as 1) human activities (aircraft, ground and water transportation, high noise levels, and permanent facilities) which could cause disturbance to nesting pairs and young during the nesting period March 15 to July 31, 2) activities or habitat alterations which could adversely affect prey availability.

There are no known peregrine falcon nest sites within the project area; however, the project area contains suitable nesting habitat for the species. In the past the species has nested and fledged its young in the Apostles eyrie, which is located in Teton Canyon only 0.12 miles south of the project area. The Apostles eyrie was last occupied by nesting peregrine falcon in 2008. However, the proposed projects would bring increased noise and activity closer to potential and historical nesting habitat in Teton Canyon which could deter or disrupt nesting behavior of Peregrine Falcons during March 15 to July 31. However, the abundance of cliff habitat in nearby Teton Canyon suggests that nesting habitat is not limited, and numerous eyries have been documented throughout the *1997 Forest Plan* area. Idaho Fish and Game, Wyoming Game and Fish, and the Forest Service observation data also shows that peregrine falcons are widespread throughout the Targhee Planning Area. Additionally, through the incorporation of PDC as identified in **Table 2.4-1** prevention of vegetation removal during the migratory bird nesting period would minimize impacts, and nesting surveys would be completed prior to construction to minimize impacts. Inclusion of these PDC would minimize impacts to peregrine falcon. **Standards:**

1. Within 15 miles of all known nest sites, prohibit all use of herbicides and pesticides which cause eggshell thinning as determined by risk assessment.[306]
2. Restrict climbing and other human disturbances from March 15 through July 31 to avoid adverse impacts at known falcon nest sites.

Consistency with Standard 1 would be maintained under the proposed Alternatives. Herbicides and pesticides which cause eggshell thinning are not permitted on the Forest.

As described in the previous paragraph, the proposed activities (across Alternatives 2-5) are within two miles of known peregrine falcon eyries. The proposed projects would bring increased noise and activity closer to the eyries and have the potential to deter or disrupt nesting and foraging peregrine falcons. Specifically, activity between March 15 and July 31 close to the known Apostle Cliffs eyrie could disturb or even prevent future nesting activity. A project specific amendment to the *1997 Forest Plan* would be needed to exempt the projects from Peregrine Falcon Standard 3. As described in the previous paragraphs, effects would be most severe under alternatives which include expansion of the SUP boundary because the expansion areas encroach further into Teton Canyon.

Three-Toed Woodpecker

The Proposed Action would impact 618.93 acres, or 36.5 percent, of the conifer forest cover in the project area. About 145.17 acres of which would occur as tree clearing and/or grading, and about 366.47 acres where 40 percent tree removal for ski glades is planned. Complete removal of vegetation for ski trails, summer activities, and infrastructure would reduce the amount of suitable habitat in the project area (existing SUP, Mono Trees, and South Bowl) for three-toed woodpeckers, particularly because snags and standing dead trees would likely be removed. Glading activities that only remove 40 percent of vegetation may still provide suitable habitat in forested areas, particularly where snags and dying trees remain for forage and nesting habitat. PDC states that, where practicable and deemed safe, snags would be left in place to preserve biological potential and habitat for woodpeckers and other species. This would help minimize impacts to woodpecker nesting habitat; however, where skier safety is a concern or where grading and vegetation clearing occurs, snag cover would be reduced. Vegetation mapping and habitat modeling in the surrounding area and Targhee Planning Area indicates that conifer forest habitat is widespread. Further, the Teton Canyon Hazardous Fuels Reduction Project, approved in 2018, concluded that snag habitat is abundant in and around the area that encompasses GTR. Therefore, the Proposed Action *May Impact Individuals or Their Habitat, but Will Not Likely Contribute to a Trend Toward Federal Listing or Loss of Population Viability.* Impacts to the three-toed woodpecker from Alternative 5 would be similar to those of the Proposed Action because expansion into Mono Trees would impact habitat that is of higher value because it provides undeveloped, dense forest cover. Under Alternatives 3 and 4, valuable habitat in the Mono Trees expansion area, where no development is proposed and limited human activity currently occurs, would be maintained.

Refer to **Appendix B** for a detailed analysis of *1997 Forest Plan* standards and guidelines under the proposed projects.

Under the *1997 Forest Plan*, Management Prescription – *4.2 Special Use Permit Recreation Sites* prevails over other Management Prescriptions. This Management Prescription does not have any standards and

[306] USDA-Forest Service, September 1992

guidelines that dictate snag requirements for habitat and currently encompasses the existing SUP. The proposed South Bowl (Alternatives 2 and 4) and Mono Trees (Alternatives 2 and 5) expansions currently contain Management Prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 – *Aquatic Influence Zone*. There are no standards and guidelines pertaining to snags for Management Prescription 2.1.2 – *Visual Quality Maintenance*, but the requirement for Management Prescription 2.8.3 – *Aquatic Influence Zone* is to maintain dead and defective tree habitat at a 100 percent biological potential for woodpeckers. Since Alternatives 2, 4, and 5 would amend the *1997 Forest Plan* to change the Management Prescription 2.8.3 – *Aquatic Influence Zone* in the expansion areas to Management Prescription 4.2 – *Special Use Permit Recreation Sites,* snag requirements on up to 61.9 acres (about 56 acres in Mono Trees and 5.9 acres in South Bowl) would be dropped. The 5.9 acres of three-toed woodpecker habitat existing within the AIZ, within South Bowl, were not included in the 1997 Forest Plan Management Prescription acreages, but rather were mapped during field surveys. Therefore, these acreages are not included in the total acres of *Management Prescription 2.8.3 – Aquatic Influence Zone* (125 acres) that would be amended to *Management Prescription 4.2 – Special Use Permit Recreation Sites*. However, given the standards and guidelines for *Management Prescription 2.8.3 – Aquatic Influence* Zone applies to all streams, wetlands, and water bodies on the CTNF, the snag requirements would still be dropped given the proposed programmatic Forest Plan amendment.

Although individual woodpeckers (including three-toed woodpeckers) would likely be impacted from not retaining the 100 percent Biological Potential requirement on up to 61.9 acres in the current AIZ(within Mono Trees and South Bowl), the project would not cause a loss of viability for populations in the vicinity of the project area or the Teton Creek Principal Watershed. The rationale for this is that PDC would ensure impacts to snag nesting habitat is minimized, the proposed project would impact a very small percentage of the available AIZ within the Teton Creek Principal Watershed (about one percent), snags and live trees are not limiting in the vicinity of the proposed project area, and habitat (particularly for three-toed woodpeckers) is widespread. Sufficient snags would still exist within the vicinity of the project area to support woodpecker populations. For example, the Teton Canyon Hazardous Fuels Reduction Project (decision signed in 2018) analyzed snags and live trees at the project level (which encompassed Teton Canyon) and at the Teton Creek Principal Watershed Level. At both levels, the number of snags and live trees in all the Management Prescriptions (including Management Prescription 2.8.3 – *Aquatic Influence Zone*) far exceeded the 100 percent biological potential. For three-toed woodpeckers, the Targhee Forest Species Viability Report estimates that there are approximately 446,736 acres of potentially suitable habitat (habitat classified as very good, good, or moderate) for the species across the Targhee Planning Area (across all Management Prescriptions).[307] Not maintaining the snag requirements on 61.9 acres of the AIZ would not threaten population viability of woodpeckers (including three-toed woodpeckers) across the Targhee Planning Area.

Western Toad

The Proposed Action has the potential to impact western toad habitat. Changes to aquatic habitats have the potential to result in the direct mortality of western toads in their aquatic stages and an overall impact on recruitment (if the species were to occur). A total of 70.65 acres within the AIZ where aquatic habitat and adjacent uplands may provide suitable western toad habitat will be impacted due to grading and/or vegetation removal for the proposed development. 66.78 of these acres are in the existing SUP, with most

[307] Miller et al. 2022

of the remaining acres lying within the Mono Trees expansion area and only 0.01 acres in the South Bowl expansion area. PDC and standards and guidelines from the *1997 Forest Plan* would reduce negative impacts to riparian and aquatic habitats with some potential to support western toads. Although clear cut tree removal for lifts and ski runs would result in a loss of habitat, the presence of suitable upland foraging habitat would remain in the project area, particularly within the AIZs. Selective thinning of trees for ski glades may result in improved habitat (in some areas) by partially opening the canopy, providing needed solar radiation for toads.[308] Additionally, the **Wildlife Biological Evaluation** and **Wetland Technical Report** demonstrate that small wetlands and potential amphibian breeding habitat in South Bowl and Mono Trees have been systematically identified, mapped, functionally evaluated, and addressed through specific PDC, BMPs, and regulatory permitting requirements. The analysis emphasizes the ecological importance of small wetland features as habitat patches, but concludes that there is a limited extent of these features within the project area, therefore determining they have marginal hydrological suitability as amphibian breeding habitat. Potential indirect effects on downstream aquatic habitat is analyzed within the **Hydrology Technical Report** under impacts to water quality and quantity. These effects would be mitigated by strict adherence to PDCs and BMPs as identified in **Table 2.4-1**, which are effectively designed to minimize sedimentation and maintain hydrological stability in receiving waters. As a result, the Proposed Action *May Impact Individuals or Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability*.

Alternatives 4 and 5 would be similar to the Proposed Action in their impacts to the western toad. Alternative 3 has the potential to impact western toad upland habitat and to a lesser extent riparian and aquatic breeding habitat.

The *1997 Forest Plan* does not contain standards or guidelines specific to western toads. Analysis of consistency with standards and guidelines related to aquatic and riparian areas is included in **Appendix B**.

Columbia Spotted Frog

The impacts to the Columbia spotted frog from the action alternatives are similar to those described for the western toad. A total of 70.65 acres within the AIZ where aquatic habitat and adjacent uplands may provide suitable western toad habitat will be impacted due to grading and/or vegetation removal for the proposed development. 66.78 of these acres are in the existing SUP, with most of the remaining acres lying within the Mono Trees expansion area and only 0.01 acres in the South Bowl expansion area. The exception is that there are less potential direct and indirect impacts to Columbia spotted frogs from vegetation/construction activities in the upland habitats. Additionally, the **Wildlife Biological Evaluation** and **Wetland Technical Report** demonstrate that small wetlands and potential amphibian breeding habitat in South Bowl and Mono Trees have been systematically identified, mapped, functionally evaluated, and addressed through specific PDC, BMPs, and regulatory permitting requirements. The analysis emphasizes the ecological importance of small wetland features as habitat patches, but concludes that there is a limited extent of these features within the project area, therefore determining they have marginal hydrological suitability as amphibian breeding habitat. Potential indirect effects on downstream aquatic habitat is analyzed within the Hydrology Technical Report under impacts to water quality and quantity. These effects would be mitigated by strict adherence to PDCs and BMPs as identified in **Table 2.4-1**, which are effectively designed to minimize sedimentation and maintain hydrological stability in

[308] Bartelt et al. 2004

receiving waters. As a result, the Proposed Action *May Impact Individuals or Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability*.

The *1997 Forest Plan* does not contain a guideline or standard that is specific to Columbia spotted frogs or amphibians in general. See the hydrology specialist report and project file for specific standards and guidelines pertaining to riparian areas and streams.

Yellowstone Cutthroat Trout

All of the action alternatives have the potential to indirectly impact Yellowstone cutthroat trout habitat outside of the project area (existing SUP, Mono Trees, and South Bowl). Proposed snowmaking, which is included in all of the alternatives, would increase snowmaking within the existing SUP. However, the proposed indirect impacts would not alter peak flows or water yields to a large enough degree that they would impact channel morphology function or cause additional erosion downstream in Teton Creek where Yellowstone cutthroat trout habitat exists.

The chairlift base proposed within Mono Trees under Alternatives 2 and 5, is located within the AIZ of Mill Creek. However, Design Criteria would be followed to minimize impacts to Mill Creek. There are no anticipated impacts to waterways within South Bowl. PDC and standards and guidelines from the *1997 Forest Plan* would reduce negative impacts within the AIZ and adjacent water bodies. Downstream Yellowstone cutthroat trout habitat outside of the project area in Teton Creek would continue to support the species and provide spawning areas. As a result, the Proposed Action *May Impact Individuals or Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability*.

All alternatives would comply with Guideline 3 in the *1997 Forest Plan*, which applies to Yellowstone cutthroat trout. This guideline states: Within subwatersheds occupied by native cutthroat trout or designated as vital to meeting recovery goals, avoid management activities that are found, through interdisciplinary site-specific analysis, to either reduce habitat features below the expected values described previously or retard the rate of recovery of degraded habitat features. Refer to **Appendix B**. The action alternatives (Alternatives 2-5) may have limited indirect impacts to cutthroat trout habitat, which exists downstream of the project area. PDC, such as erosion mitigation practices and avoidance of riparian habitats, would mitigate impacts to downstream habitat and populations.

Townsend's Big-Eared Bat

The Proposed Action has the potential to impact Townsend's big-eared bat foraging habitat. The Proposed Action would directly impact approximately 779 acres of potential foraging habitat, constituting about 33 percent of the potential foraging habitat in the project area (existing SUP, Mono Trees, and South Bowl). Townsend's big-eared bat foraging habitat would likely be maintained in areas (about 505 acres) experiencing 40 percent vegetation removal for ski glades (due to the increase in edge habitat and the maintenance of the forest canopy). Areas experiencing 100 percent vegetation clearing or grading (274 acres) would most likely be lost as Townsend's big-eared bat habitat. Standards and guidelines from the *1997 Forest Plan* and PDC would reduce the likelihood of negative impacts to riparian habitats and from light pollution. As a result, the Proposed Action *May Impact Individuals or Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability*. Outside of foraging habitat within the existing SUP area, the proposed Mono Trees SUP area has the greatest amount of Townsend's big-eared bat foraging habitat. As such, Alternative 5 would have very similar impacts to the Proposed Action, while Alternative 4 (excluding Mono Trees) would have measurably less impacts, and

Alternative 3 would have the least amount of impacts to Townsend's big-eared bat foraging habitat. All of the Action Alternatives would reach the same determination.

There are multiple standards and guidelines in the *1997 Forest Plan* (TNF 1997, pages 111-7,8; 111-23) that relate specifically to caves and abandoned mines that may contain suitable habitat for bats. The standards and guidelines do not apply to the proposed project since these caves and mines do not exist within the project area.

Western Bumble Bee

The Action Alternatives have the potential to create new foraging habitat and increase habitat heterogeneity in some areas, while also reducing potentially valuable forest cover in other areas. Tree clearing would create openings among forest habitat in some areas and promote growth of flowering plants, which could increase nectar availability for foraging bees. However, in other areas grading and clearing of large swaths of forest would result in an overall reduction in forest cover, where habitat for western bumble bees might be most valuable. Grading and construction activities could also potentially lead to mortality of hibernating queens or bumble bee nests. Alternative 2, the proposed action, has the highest potential to negatively impact western bumble bees because it would involve the most grading and removal of forest cover. However, proposed grading and clearing of large, forested areas in the Mono Trees and South Bowl expansion areas are minimal, and much of the proposed terrain development in these areas would clear small areas of trees and potentially diversify habitat availability and stimulate growth of flowering plants. Therefore, the action alternative involving the two proposed expansion areas (Alternative 2, 4, or 5) are not expected to be significantly more detrimental to western bumble bees than Alternative 3 (existing SUP only). Ample forest habitat and plant diversity in the vicinity of the project area will remain available for use by western bumble bees and is expected to persist into the future. Therefore, all alternatives *May Impact Individuals of Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability.*

Species of Local Concern

Moose

The proposed project would reduce suitable moose habitat in the project area and potentially degrade remaining habitat due to increased activity. Habitat is of higher value in the proposed Mono Trees and South Bowl expansion area than the existing SUP; therefore, impacts under Alternatives 2, 4, and 5 would be more severe. A small amount of potential moose winter habitat is mapped in the Mono Trees expansion area by the Teton County Focal Species Habitat Mapping project. Winter ranges and suitable winter habitat, however, are mapped throughout the Teton Creek and Leigh Creek watersheds in the vicinity surrounding the project. Given the small reduction in available habitat that would occur due to the proposed project compared to widespread availability of habitat in the vicinity and mobility of the species, all the action alternatives *would likely impact individuals, but not have significant impacts to the overall population.*

Mule Deer

Based on the direct, indirect, and cumulative impacts of the Action Alternatives across the project area, it is likely that proposed developments would result in a decrease in mule deer habitat and increased disturbance to mule deer in crucial winter-yearlong ranges within the vicinity of the project area. Impacts would be most substantial under the Proposed Action due to the extent of development and vegetation

clearing proposed in the Mono Trees and South Bowl expansion areas (which contain higher quality, undeveloped habitat on south facing slopes that may be used by mule deer in difficult winter months or during migration). Alternative 3 would result in the lowest impacts of the action alternatives because the current SUP has existing, high density development and human activity. Additionally, under Alternative 3, the Teton Canyon Hazardous Fuels Project, approved in 2018, may help offset habitat loss by improving habitat nearby in South Bowl and Teton Canyon. Development in South Bowl and/or Mono Trees under Alternatives 2, 4, and 5 would reduce the benefits of the Teton Canyon Hazardous Fuels Project because development and increased human activity would occur in or near treatment areas. The Mono Trees expansion area contains mule deer crucial winter-yearlong range indicating that Alternative 5 might be more impactful for mule deer than Alternative 4. However, game camera surveys indicate use of South Bowl as a movement corridor and impacts under Alternative 4 could alter movement patterns. Winter ranges and suitable winter habitat are mapped throughout the Teton Creek and Leigh Creek watersheds in the vicinity surrounding the project. Impacts under the proposed alternatives could impact individual survivability. To minimize human encroachment on mule deer winter range habitat, a PDC has been included in **Table 2.4-1** that states: "To minimize impacts to mule deer winter range and modeled bighorn sheep habitat, GTR shall establish and maintain a double-rope boundary around the Mono Trees and South Bowl SUP boundary expansions prior to construction in such areas and place backcountry access points in locations that minimize human encroachment on identified habitat. Placement of backcountry access points shall be done in coordination with the Forest Service Wildlife Biologist and shall be specified in GTR's Operation and Boundary Management Plan." Through incorporation of the identified PDC and given the small reduction in available habitat that would occur due to the proposed project, compared to widespread availability of habitat in the surrounding areas, the proposed action alternatives *would likely not have significant impacts to overall populations*.

Elk

Based on the direct, indirect, and cumulative impacts of the Action Alternatives across the project area, there would be a decrease in habitat for elk. Impacts would be most substantial under the Proposed Action, due to the extent of development and vegetation clearing proposed in the Mono Trees and South Bowl expansion areas, which contain higher quality, undeveloped habitat. Alternative 3 would result in the lowest impacts of the action alternatives because the current SUP has existing, high density development and human activity. Additionally, under Alternative 3, the previously approved Teton Canyon Hazardous Fuels Project may help offset habitat loss by improving habitat nearby in South Bowl and Teton Canyon for ungulates. Development in South Bowl and/or Mono Trees under Alternatives 2, 4, and 5 would reduce the benefits of the Teton Canyon Hazardous Fuels Project because development and increased human activity would occur in or near treatment areas (for the vegetation project). Alternative 5 would likely be more impactful for elk than Alternative 4 because more suitable elk habitat exists in the Mono Trees expansion area. Winter ranges and suitable winter habitat are mapped throughout the Teton Creek and Leigh Creek watersheds in the vicinity surrounding the project. Impacts under the proposed alternatives could impact individual survivability. However, given the small reduction in available habitat that would occur due to the proposed project, compared to widespread availability of habitat in the surrounding areas, the proposed action alternatives *would likely not have significant impacts to overall populations*.

American Pika, Pacific Marten, and Gray Wolf

The Action Alternatives would directly impact alpine and subalpine talus fields and associated meadows through habitat removal, disturbance, or habitat degradation from increased recreational use. Pika are

already at risk due to increases in temperature and shifts in precipitation, thus cumulative effects of new trail development and/or increased recreation within their limited habitat in the project area and the adjacent JSW could directly impact individuals. Within the project area, South Bowl contains the highest quality habitat for the species, with undeveloped talus slopes and montane grasslands. Therefore, of the Proposed Action and Alternative 4, which include proposed ski area expansion into the South Bowl area, would most substantially impact American pika. Minimal impacts would occur under Alternatives 3 and 4 because the Mono Trees area is unlikely to provide valuable habitat for American pika, and the existing SUP has existing development and regular recreational use.

Habitat removal from clearing trees for trails and glades and increased human disturbance (associated with all of the action alternatives) may directly impact individual martens occurring within the project area. Cumulative impacts of any future timber harvest, firewood cutting, and development activities in the surrounding area could also impact martens. A marten was observed on a game camera 0.20 miles south of the project area in February 2021, while another individual was captured in the western end of the South Bowl Area in June 2021, indicating that they are present in the project area. The Mono Trees expansion area contains the most suitable habitat for pine martens, due to the amount of late seral conifer forests and ample snags and woody debris. Therefore, Alternatives 2 and 5, which include expansion into the Mono Trees area, have the highest potential to impact martens.

Proposed activities within the project area could cause disturbance that reduces the suitability of habitat for wolves in the area. A limitation in food sources in the project area for wolves could also occur if ungulate species are reduced in number or relocate outside of the project area. Alternative 3, no SUP expansion, would likely have minimal effects on wolf habitat usage because the existing SUP is heavily developed and sees high levels of human activity, which wolves tend to avoid. Impacts to wolves would be most substantial if expansion of the SUP were to occur under Alternatives 2, 4, or 5.

For the American pika and Pacific marten the Action Alternatives *could impact individuals, but is not likely to impact at the population scale*. For the gray wolf the Action Alternatives *May Impact Individuals of Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability.*

Migratory Birds

All the Action Alternatives would result in a decrease in habitat available for nesting migratory birds. Construction activities associated with the Action Alternatives during the spring and summer nesting season could disturb nesting adults, if nests occur within the zone of influence of the projects. If disturbance occurs prior to fledging of the nestlings, it may result in abandonment of the nest by adults, and subsequent mortality of nestlings. The clearing and thinning of forest habitat for trails, lifts, and glades may also result in the removal of nest sites. Specifically, under Alternative 4, rock outcrops within South Bowl may provide potential nesting habitat for golden eagles, while alpine meadows near rock talus and cliff could support other migratory birds such as the black rosy-finch. PDC would minimize the likelihood of impacts to nesting birds: *"Vegetation clearing activities are generally planned to occur outside of the migratory bird nesting period, which is typically from May 15 to July 15. If vegetation clearing activities must occur during the nesting period, U.S. Forest Service personnel (or individuals deemed qualified by the Forest Service) would conduct nest searches in appropriate habitats prior to the commencement of the vegetation clearing activities. The exact area to be surveyed would be based on the scope of the surface disturbance activities, the habitat to be disturbed, and the potential species to be impacted. If nesting migratory birds occur, the Forest Service would delineate appropriate buffers and halt construction within the buffers until the nesting is complete."* However, some bird species may cease nesting within areas of the proposed projects (after implementation) due to disturbance and habitat

loss/degradation. Therefore, all the action alternatives have the potential to impact individuals at the local level; however, all action alternatives are unlikely to substantially impact populations. Alternative 2 would impact the largest acreage of suitable nesting habitat including forested habitat in the existing SUP, Mono Trees, and South Bowl; meadow habitat in the existing SUP and South Bowl; and talus and cliff areas in South Bowl. Alternative 4, with proposed expansion into South Bowl, would likely be less impactful than Alternative 5 (with the proposed Mono Trees expansion) because the Mono Trees expansion area is larger, and more acres of suitable habitat would be impacted than in South Bowl. Alternative 3, no SUP expansion, would cause the least amount of disturbance to migratory bird populations out of the action alternatives. Please refer to Section 6 within the **Wildlife BE** for more specifics on impacts to migratory birds as the result of the Action Alternatives.

3.13.5 Cumulative Effects

SCOPE OF THE ANALYSIS

Effects analyzed in the Cumulative Effects discussion apply to all alternatives, including the No Action Alternative. Projects identified in **Appendix A** are expected to cumulatively have short- and long-term effects on wildlife habitat overlapping the project area as indicated by species.

Temporal Bounds

The temporal bounds for this cumulative effects analysis for wildlife and fish resources extend from GTR's founding as a ski area in 1966 through the foreseeable future in which GTR can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis of fish and wildlife resources varies by species and is further described in the Wildlife BE for each species.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects study area, the reader is referred to **Appendix A** in the FEIS. Past ski area, TNF, and other local or county projects have been incorporated and analyzed in this document as part of the Affected Environment discussion. Projects that could have cumulative impacts on wildlife are analyzed in the following discussion.

Species specific cumulative effects analyses are contained within the Wildlife BA and Wildlife BE, the following discussion is intended to summarize how various types of cumulative effects projects relate to the overall wildlife resource.

Increased development on private lands in Idaho and Wyoming in Teton County has caused habitat fragmentation or reduced the availability of habitat for some species considered in this analysis. Teton Valley and the cities of Victor and Driggs have seen substantial growth in recent years, and though most development has occurred on the valley floor, reduction of riparian, grassland, shrubland, ranchland, and forested habitats has occurred. Increased development of homes and some municipal facilities in the foothills and mountain slopes of the Tetons, both in Teton County, Idaho and Wyoming, has increased the fragmentation of shrubland and forested habitats (e.g., aspen, Douglas fir, and spruce-fir) that may have previously provided habitat or movement corridors for some wildlife species. Additionally, increased

traffic on highways and high-speed roadways, including Highway 33 and Ski Hill Road, further fragment wildlife habitat and result in more frequent wildlife-vehicle collisions. Teton Valley is expected to continue to grow with private land development increasing into the foreseeable future and more vehicles and recreationists are expected to occur in areas abutting the GTR SUP.

Past development of GTR as a ski area and summer recreation destination converted forested habitats (including aspen/conifer, Douglas fir, and spruce-fir) into grassland and forb cover within the existing SUP. Forest conversion and increased development density have reduced the availability of suitable habitat for some wildlife species and potentially contributed to population declines, while for other species, habitat conversions may have had little impact.

Current recreation activity within the existing GTR SUP, and on National Forest System and National Park lands in the vicinity, causes certain wildlife species to avoid areas of suitable habitat. Other species that are not as averse to human activity remain less impacted. Likely increases in future recreation within the GTR SUP, and neighboring National Forest System and National Park lands, would result in greater habitat loss/displacement for a variety of sensitive species.

Some of the currently proposed projects would occur within the existing SUP where habitat is already fragmented due to ski area development and human activity. The action alternatives would result in additional removal of forested habitats within the existing SUP, but projects within the SUP are not expected to substantially add to the cumulative impacts for many wildlife species. Removal of forested habitats and increased presence of human activity that would result from proposed expansions into the South Bowl and Mono Trees areas have the potential to contribute to cumulative effects for several wildlife species. Please refer to the Wildlife BE for a more in-depth analysis of cumulative effects in both the winter and summer by specific species.

Forest Health and Fuels treatment projects, such as Teton Canyon Hazardous Fuels Reduction Project, which was approved in 2018 and initiated in 2019, have the potential to impact species behavior and habitat. The previously approved project aims to reduce fuel loadings and the risk of severe wildfire and to improve wildlife habitat by increasing forest age class diversity within a 5,325-acre area in the Teton Creek drainage.[309] This particularly pertains to various avian species that were studied as part of this analysis, as well as big game species. These types of projects may result in the enhancement of some habitat and loss of other habitat. No cumulative projects have been identified that would result in insufficient habitat to support a species considered in this analysis.

3.13.6 Irreversible and Irretrievable Commitments of Resources

Tree removal related to the proposed projects would represent an irretrievable effect to some habitat for some *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species*, and species of local concern, as well as migratory birds within the SUP area. However, this is not considered an irreversible commitment because habitat (vegetation) is a renewable resource.

[309] USDA Forest Service 2018d

3.14 Geology and Soils

3.14.1 Scope of the Analysis

This analysis summarizes the *Geology and Soils Technical Report for the Grand Targhee Master Development Plan Environmental Impact Statement* (Geology and Soils Technical Report), which is located in the project website. The **Geology and Soils Technical Report** utilized information from the *Rockfall and Landslide Hazards to the Proposed South Bowl Lift, Grand Targhee Resort, Teton County, Wyoming Report* (Rockfall and Landslide Hazards Report), the *Impacts on Groundwater From the Proposed 2021 Expansion, Grand Targhee Resort, Teton County, Wyoming Report* (Groundwater Report), the *Custom Soil resource Report for Targhee National Forest, Idaho and Wyoming* (Soil Report), the *Granite Basin Quadrangle*, and the *Tetonia Quadrangle*, which are also available in the project website.[310]

The project area for geology and soil resources corresponds to areas within the GTR SUP area and the proposed SUP expansion areas where approximately 935.6 acres of ground disturbance would occur as a result of the proposed projects. Disclosed in this section are soil types, estimates of existing and future soil erosion and compaction characteristics, and an assessment of slope instability in the project area.

3.14.2 Federal, State, and Local Policy and Guidance

The *1997 Forest Plan* identifies the following goals and guidelines for the geology and soils resource that are relevant to this analysis.[311] Refer to the *1997 Forest Plan* for a complete list of standards, guidelines, and goals.

Forest-Wide Soil Goals

- Long-term soil productivity is sustained by retaining fine organic matter and woody residue on activity areas.

Forest-Wide Guidelines - Soil Quality/Forested Ecosystems

- Generally strive to maintain fine organic matter over at least 50 percent of the area. The preference is for fine organic matter to be undisturbed, but if disturbed, it should be of sufficient quantity and quality to avoid detrimental nutrient cycle deficits. If the soil and potential adjust minimum amounts to reflect potential soil and vegetation capability.
- Woody Residue Requirements for Materials three inches in Diameter or larger - Sustain site productivity by providing the [following] minimum amounts of woody residue dispersed on the site [from the Woody Residue Requirement for Woody Materials >= 3 Inches in Diameter table in the *1997 Forest Plan*].
- During site preparation treatments, strive to avoid disturbing concentrated areas of soil wood.

Prescription 4.2 Special Use Permit Recreation Sites – Physical Elements/Soil and Water

- Avoid new construction on unstable or highly erodible soils.

[310] Geo-Haz Consulting, Inc. 2021a; NRCS 2022; Phillips et al. 2013; Reed and Love 1972
[311] USDA Forest Service 1997

3.14.3 Affected Environment

GEOLOGY

The project area lies on sedimentary rocks (limestones and shales) deposited during the Paleozoic Era (541 million years ago to 251 million years ago, or 541 to 251 Ma). To the east lie PreCambrian metamorphic and igneous rocks of the Teton Range core. To the west much younger volcanic rocks lie atop the Paleozoic limestone and shales, deposited by volcanic eruptions associated with the Island Park caldera. Almost all of GTR lies on the Madison Limestone (early Mississippian Period of the late Paleozoic Era), however the base area lies on a much younger paleochannel deposit (Hominy Peak Formation) eroded into the Madison during the Eocene Period (ca. 34-59 Mas). The channel that was formed was filled with volcanic debris from the Absaroka Mountains. The sedimentary rocks have an aggregate thickness of 2,700 feet, with an additional 900 feet of younger volcanics atop them.[312]

Geologic maps of the project area are available in the Rockfall and Landslide Hazards Report, which is included in the project file. South of the project area and Teton Creek, the Madison Limestone (Mm, Mississippian) is overlain by the Permo-Pennsylvanian Tensleep and Amsden Formations (iPta). Therefore, the entire thickness of the Mm is preserved. Conversely, the GTR ridge between Teton Creek and South Leigh Creek has experienced erosion that has removed iPta and the upper half of Mm. Similarly, north of South Leigh Creek, erosion of the Paleozoic section has been even more severe, removing almost all of Mm, Darby Formation, and Bighorn Dolomite, uncovering a large outcropping of Cambrian rocks. This process suggests that the west flank of the Teton Range north of Teton Canyon, including the project area, has been warped upward relative to the rest of the Range. This upwarp caused erosion of the uppermost Paleozoic strata (iPta), and partial erosional planing off of Mm.

The Rockfall and Landslide Hazards Report also contains a review of existing mapping and imagery, coupled with field reconnaissance, that was used to examine slope stability within the project area. This includes an assessment of mapped landslide deposits and rockfalls within the South Bowl area. Refer to the Rockfall and Landslides Hazards Report for additional information.

SOILS

Soil Map Units and Characteristics

There are 5 soil map units and one rock outcrop within the analysis area.[313] All of the soil map units were identified from the **Soil Report**. The acreages of the map units and their corresponding classifications that occur within the analysis area are listed in **Table 3.14-1.**

[312] Geo Haz Consulting Inc. 2021b
[313] NRCS 2022

Table 3.14-1. Acreages of Map Units within the Analysis Area

Map Unit Symbol	Map Unit Name	Erosion Hazard (Kw Factor)	Soil Compaction Hazard	Area (acres)	
				NFS Lands	Private
34	Rock outcrop	Not rated	Not rated	3	0
1170	ABLA/Tall Forb Yodal, 4 to 35 percent slopes	Moderate (0.28)	Medium	62.5	0
1172	ABLA/ACGL Gany-ABLA/THOC Katpa-PSMEG/BERE,SYOR2 Fritz complex, 40 to 70 percent slopes	Slight (0.05)	Medium	302.2	0.7
1216	ABLA/ACGL Koffgo-ABLA/ACGL Rhylow-ARTRV-SYOR2/FEID Povey complex, 35 to 60 percent slopes	Slight (0.17)	Medium	421.8	0.1
1315	Edgway-Koffgo-Povey association, 15 to 50 percent slopes	Moderate (0.43)	Medium	254.8	10.4
1593	ABLA/VAGL,PAMY Koffgo, 30 to 60 percent slopes	Moderate (0.37)	Medium	0.2	0
Total				**1,044.5**	**11.2**

Note: Table 3.14-1 includes map units where proposed disturbance would occur. Map units within the GTR SUP area and proposed SUP expansion areas that do not contain proposed disturbance were excluded (Map Unit 1106).
Source: SE Group 2022

All soil map units listed above would be affected by the action alternatives. Soil types overlapping the proposed project locations and areas where disturbance would occur are classified as predominantly finer, loamy soils. For both NFS and Private lands, the interpretations for soil erosion factors and soil compaction potential were taken from the online Web Soil Survey of the Targhee National Forest.[314]

The soil erosion factor used in this analysis is the Kw Factor, which indicates the erodibility of the whole soil and the susceptibility of a soil to sheet and rill erosion by water. The estimates are modified by the presences of rock fragments. Kw Factor values range from 0.02 to 0.69. Generally, a higher rating means a soil is more susceptible to erosion. This analysis has organized the ratings into slight, moderate, and severe erosion hazards. A slight rating (0.02-0.20) means little, or no erosion is likely; moderate (0.21-0.49) means some erosion is likely, occasional maintenance may be needed, and simple erosion control measures are needed; severe (0.50-0.69) means substantial erosion can be expected, and costly erosion control measures are needed. Soils in the project area range from Kw Factors of 0.05 to 0.43 which are slight to moderate ratings, with the majority of the soil units being rated as moderate. Approximately 724.8 acres (68.7 percent) of the soil within the analysis area are rated as slight and 327.9 acres (31.1

[314] NRCS 2022

percent) are rated as moderate. Approximately 3 acres (0.2 percent), in areas with rock outcrops, are not rated.

Soil compaction rating describes the risk of inducing soil compaction through timber harvest or recreation activities. The physical, chemical, and biological effects of compaction tend to restrict plant growth, reduce infiltration, and increase surface runoff, all of which encourages erosion. Nearly all map units have a medium potential for compaction (1052.7 acres, 99.7 percent). The remaining soil map unit (3.0 acres, 0.3 percent), in areas with rock outcrops, is not rated.

3.14.4 Direct and Indirect Environmental Consequences

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Under the No Action Alternative, none of the new winter and multi-season recreation projects included in the action alternatives would occur. GTR would continue to operate under its current design and capacity. Soil losses from erosion due to rainfall, runoff, and wind would continue to occur at existing rates. Most soil erosion would likely continue to be from existing administrative routes and from areas with a low vegetative cover. These impacts could be direct, such as effects on the freeze/thaw cycles of the uppermost soil layers, or indirect, such as impacts on hydrology that could affect erosion.

Geology and soil resources on NFS lands would continue to be managed as under current conditions. The Forest Service would continue to be responsible for managing the soil resources so that the physical, chemical, and biological processes and functions of the soil are maintained or enhanced.

ALTERNATIVE 2 – PROPOSED ACTION

Direct Impacts

Direct impacts to soil characteristics under the Proposed Action would include a permanent loss of soil resources due to ground disturbing activities, an increase in soil erosion and sedimentation, and changes to soil physical and chemical characteristics reducing soil productivity. **Table 3.14-2** displays the overall acres of disturbance for each soil map unit.

Table 3.14-2. Acreages of Map Units and Disturbance – Proposed Action

Map Unit	Map Unit Name	Acres Disturbed by Grading/Veg Clearing and Grading	Acres Disturbed by Vegetation Clearing Only	Total Disturbance
1170	ABLA/Tall Forb Yodal, 4 to 35 percent slopes	27.4	31.7	**59.1**
1172	ABLA/ACGL Gany-ABLA/THOC Katpa-PSMEG/BERE,SYOR2 Fritz complex, 40 to 70 percent slopes	81.9	157.8	**239.7**
1216	ABLA/ACGL Koffgo-ABLA/ACGL Rhylow-ARTRV-SYOR2/FEID Povey complex, 35 to 60 percent slopes	45	323.7	**368.7**
1315	Edgway-Koffgo-Povey association, 15 to 50 percent slopes	144.5	120.2	**264.7**
1593	ABLA/VAGL,PAMY Koffgo, 30 to 60 percent slopes	0.2	0	**0.2**
34	Rock outcrop	2.5	0.7	**3.2**
Total		**301.5**	**634.1**	**935.6**

Source: SE Group 2022

Soil map units 1216, 1172, and 1315 would be the most impacted by disturbance associated with the proposed projects. The soil disturbance by grading and by both vegetation removal and grading would displace the organic layer and the soil surface layer, at a minimum. All soil map units in the project area would be impacted by this type of disturbance (refer to **Table 3.14-2**). The construction of administrative routes and facilities, all utility construction, alternative winter activities, lift construction, installation of snowmaking, temporary and permanent mountain construction administrative routes, summer activities, avalanche mitigation infrastructure, and some ski trails would require grading in some capacity. Topsoil, organic material, and forest floor material would be displaced and negatively impacted as a result of grading. These impacts would be permanent in areas with permanent proposed infrastructure (e.g., lifts, permanent mountain construction administrative routes, guest facilities, etc.). Under the Proposed Action, up to 301.5 acres of topsoil and/or organic material would be directly impacted by grading or vegetation removal and grading. However, PDC detailed in **Table 2.4-1** would help minimize these impacts. Specifically, this includes the following PDC: 1) During construction, maintenance and operations, stockpile topsoil to the extent possible to maintain organic matter; and 2) Prior to construction, soil surveys and measurements of thicknesses of A or organic horizons would be completed within the disturbance area to ensure no net loss of soil organic matter. GTR would hire a qualified soil scientist to complete soil surveys and measurements. Reports would be submitted as specified in the Construction Plan.

Under the Proposed Action, up to 634.1 acres of topsoil and/or organic material could be directly impacted by vegetation clearing only, specifically this includes the implementation of glades, groomable glades, and terrain development projects without grading. It is important to note that areas where

vegetation removal without grading is proposed would experience substantially less soil disturbance than graded areas. As described in **Section 2.3**, tree removal methods may require burning in gladed terrain if alternative vegetation removal methods are not possible. This could further damage the topsoil, organic material, and forest floor material in addition to changing the soil physical and chemical properties. However, with implementation of PDC, including locating areas of chipping and burning over packed snow and/or frozen ground when feasible and stockpiling organic matter prior to burning, these impacts would be lessened.

The proposed projects would have direct impacts on soil map units with both slight and moderate erosion hazard through grading and a combination of grading and tree removal. Implementation of the Proposed Action would require approximately 172.1 acres of grading in areas with moderate erosion hazard and approximately 126.9 acres of grading in areas with slight erosion hazard. This does not include disturbance that would occur within the rock outcrop soil unit. The areas with soils rated with a moderate erosion hazard rating are primarily located in Rick's Basin and the proposed South Bowl expansion. Soil losses and sedimentation due to erosion would occur for as long as the area is disturbed but would return to natural rates once vegetation is re-established and stabilizes reclaimed areas, in about two to five years following reclamation. Steep and south- and west-facing cut slopes may require more than five years for the vegetation ground cover to reach pre-disturbance levels without soil amendments.

Lastly, due to mixing of soil horizons, soil profile characteristics and soil productivity would be drastically changed over pre-construction conditions. The loss of soil resources would be long-term and permanent.

Indirect Impacts

Indirect impacts to soil characteristics under the Proposed Action would include a loss of soil from erosion associated with an increase in mountain biking and hiking activities, year-round vehicle traffic on new administrative routes, additional snowmaking infrastructure and snowmelt (refer to the **Hydrology Technical Report**) and from maintenance of these trails, administrative routes, and other facilities. The additional traffic on administrative routes and new mountain biking, hiking, and multi-use trails would most likely be the major indirect contributors to the increase in soil erosion. Further, trail building and administrative route construction activities in the 1216, 1170, and 1315 soil types, which overlap the Darby and Hominy Peak formations, could result in the release of fine sediment into streams. As described under the Affected Environment discussion, the composition of these formations and their proximity to waterways within the project area have the potential to exacerbate erosion impacts. These areas would need to be stabilized quickly before the next rain or snowmelt season and would require additional PDC. Please refer to **Section 3.15 Hydrology** for more information on these specific PDC and refer to **Table 2.4-1** for all of the soils, geohydrology, hydrology, and wetlands PDC.

Consistency with the 1997 Forest Plan

Refer to **Section 3.14.2** for relevant guidelines that apply to the geology and soils resource. Soils PDC are intended to minimize soil impacts so that projects under the Proposed Action comply with applicable *1997 Forest Plan* guidelines. As previously stated, the *1997 Forest Plan* does not contain standards for the geology and soils resource that are relevant to this analysis. The following PDC have been included in order to comply with Soils Guidelines 1, 2, and 3: 1) During construction, maintenance and operations, stockpile topsoil to the extent possible to maintain organic matter; 2) Prior to construction, soil surveys and measurements of thicknesses of A or organic horizons would be completed within the disturbance

area to ensure no net loss of soil organic matter. GTR would hire a qualified soil scientist to complete soil surveys and measurements. Reports would be submitted as specified in the Construction Plan; 3) A post-construction revegetation and restoration plan that includes methodology, locations, vegetative mixes and soil amendments; and 4) During site preparation treatments, avoid disturbing concentrated areas of soil wood[315] to the greatest degree feasible. These measures have been assigned to maintain fine organic matter in disturbed areas and avoid detrimental nutrient cycle deficits (Guideline 1). These measures would also ensure that disturbed areas sustain woody residue requirements for materials three inches in diameter or larger (Guideline 2). Lastly, these measures would help avoid disturbing concentrated areas of soil wood (Guideline 3). With the implementation of PDC, the proposed projects under the Proposed Action are expected to comply with the relevant guidelines from the *1997 Forest Plan*. As previously stated, the *1997 Forest Plan* does not contain standards for the geology and soils resource that are relevant to this analysis.

ALTERNATIVE 3 – NO SUP EXPANSION

Direct Impacts

Direct impacts to soil characteristics under Alternative 3 would include a permanent loss of soil resources due to ground disturbing activities, an increase in soil erosion and sedimentation, and changes to soil physical and chemical characteristics reducing soil productivity. **Table 3.14-3** displays the overall acres of disturbance for each soil map unit.

Table 3.14-3. Acreages of Map Units and Disturbance – Alternative 3

Map Unit	Map Unit Name	Acres Disturbed by Grading/Veg Clearing and Grading	Acres Disturbed by Vegetation Clearing Only	Total Disturbance
1170	ABLA/Tall Forb Yodal, 4 to 35 percent slopes	20.6	24.8	**45.4**
1172	ABLA/ACGL Gany-ABLA/THOC Katpa-PSMEG/BERE,SYOR2 Fritz complex, 40 to 70 percent slopes	76.1	138.1	**214.2**
1216	ABLA/ACGL Koffgo-ABLA/ACGL Rhylow-ARTRV-SYOR2/FEID Povey complex, 35 to 60 percent slopes	20.5	121.3	**141.8**
1315	Edgway-Koffgo-Povey association, 15 to 50 percent slopes	140.5	79.1	**219.6**
1593	ABLA/VAGL,PAMY Koffgo, 30 to 60 percent slopes	0.2	0	**0.2**
34	Rock outcrop	2.5	0.7	**3.2**
Total		**260.4**	**364**	**624.4**

[315] When wood becomes incorporated into the soil and forest floor. It can be described as the brown, crumbly decaying wood.

Map Unit	Map Unit Name	Acres Disturbed by Grading/Veg Clearing and Grading	Acres Disturbed by Vegetation Clearing Only	Total Disturbance

Source: SE Group 2022

Soil map units 1170, 1172, 1216, and 1315 would be the most impacted by activities resulting in disturbance. The soil disturbance by grading and by both vegetation removal and grading would displace the organic layer and the soil surface layer, at a minimum. These areas would include all project components. The construction of administrative routes and facilities, all utility construction, alternative winter activities, lift construction, installation of snowmaking, temporary and permanent mountain construction administrative routes, summer activities, avalanche mitigation infrastructure, and some ski trails would require grading in some capacity. Topsoil, organic material, and forest floor material would be displaced and negatively impacted as a result of grading. These impacts would be permanent in areas with permanent proposed infrastructure (e.g., lifts, permanent mountain construction administrative routes, guest facilities, etc.). Under Alternative 3, up to 260.4 acres of organic material would be directly impacted by grading or vegetation removal and grading. However, PDC detailed in **Table 2.4-1** and described under the Proposed Action would help minimize these impacts.

Under the Alternative 3, up to 364 acres of topsoil and/or organic material could be directly impacted by vegetation clearing only, specifically this includes the implementation of glades, groomable glades, and terrain development projects without grading. It is important to note that areas where vegetation removal without grading is proposed would experience substantially less soil disturbance than graded areas. As described in **Section 2.3**, tree removal methods may require burning in gladed terrain if alternative vegetation removal methods are not possible. This could further damage the topsoil, organic material, and forest floor material in addition to changing the soil physical and chemical properties. However, with implementation of PDC described under the Proposed Action and in **Table 2.4-1**, these impacts would be lessened.

The proposed projects would have direct impacts on soil map units with both slight and moderate erosion hazard through grading and a combination of grading and tree removal. Implementation of Alternative 3 would require approximately 161.3 acres of grading in areas with moderate erosion hazard and approximately 96.6 acres of grading in areas with slight erosion hazard. This does not include disturbance that would occur within the rock outcrop soil unit. Soil losses and sedimentation due to erosion would occur for as long as the area is disturbed but would return to natural rates once vegetation is re-established and stabilizes reclaimed areas, in about two to five years following reclamation. Steep and south- and west-facing cut slopes may require more than five years for the vegetation ground cover to reach pre-disturbance levels without soil amendments.

Lastly, due to mixing of soil horizons, soil profile characteristics and soil productivity would be drastically changed over pre-construction conditions. The loss of soil resources would be long-term and permanent.

Indirect Impacts

Indirect impacts to soil characteristics under the Alternative 3 would include a loss of soil from erosion associated with an increase in mountain biking and hiking activities, year-round vehicle traffic on new administrative routes, additional snowmaking infrastructure and snowmelt (refer to the **Hydrology**

Technical Report) and from maintenance of these trails, administrative routes, and other facilities. The additional traffic on administrative routes and new mountain biking, hiking, and multi-use trails would most likely be the major indirect contributors to the increase in soil erosion. Further, trail building and administrative route construction activities in the 1216, 1170, and 1315 soil types, which overlap the Darby and Hominy Peak formations, could result in the release of fine sediment into streams. As described under the Affected Environment discussion, the composition of these formations and their proximity to waterways within the project area have the potential to exacerbate erosion impacts. These areas would need to be stabilized quickly before the next rain or snowmelt season and would require additional PDC. Potential impacts associated with disturbances over these formations are further described in the **Groundwater Report** and site specific PDC have been developed to address this potential issue.

Consistency with the 1997 Forest Plan

With the implementation of geology and soils PDC discussed under the Proposed Action previously, the proposed projects under Alternative 3 are expected to comply with all relevant guidelines addressed in the *1997 Forest Plan*. As previously stated, the *1997 Forest Plan* does not contain standards for the geology and soils resource that are relevant to this analysis. Refer to the **Soils Technical Report** and **Table 2.4-1** for additional information about PDC intended to address *1997 Forest Plan* guidelines for geology and soils.

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

Direct Impacts

Direct impacts to soil characteristics under the Alternative 4 would include a permanent loss of soil resources due to ground disturbing activities, an increase in soil erosion and sedimentation, and changes to soil physical and chemical characteristics reducing soil productivity. **Table 3.14-4** displays the overall acres of disturbance for each soil map unit.

Table 3.14-4. Acreages of Map Units and Disturbance – Alternative 4

Map Unit	Map Unit Name	Acres Disturbed by Grading/Veg Clearing and Grading	Acres Disturbed by Vegetation Clearing Only	Total Disturbance
1170	ABLA/Tall Forb Yodal, 4 to 35 percent slopes	20.6	24.8	**45.4**
1172	ABLA/ACGL Gany-ABLA/THOC Katpa-PSMEG/BERE,SYOR2 Fritz complex, 40 to 70 percent slopes	81.9	157.8	**239.7**
1216	ABLA/ACGL Koffgo-ABLA/ACGL Rhylow-ARTRV-SYOR2/FEID Povey complex, 35 to 60 percent slopes	28.6	130.3	**158.9**
1315	Edgway-Koffgo-Povey association, 15 to 50 percent slopes	140.5	79.1	**219.6**
1593	ABLA/VAGL,PAMY Koffgo, 30 to 60 percent slopes	0.2	0	**0.2**

Map Unit	Map Unit Name	Acres Disturbed by Grading/Veg Clearing and Grading	Acres Disturbed by Vegetation Clearing Only	Total Disturbance
34	Rock outcrop	2.5	0.7	**3.2**
Total		**260.4**	**364**	**667**

Source: SE Group 2022

Soil map units 1172, 1216, and 1315 would be the most impacted by disturbance associated with the proposed projects. The soil disturbance by grading and by both vegetation removal and grading would displace the organic layer and the soil surface layer, at a minimum. All soil map units in the project area would be impacted by this type of disturbance (refer to **Table 3.14-4**). The construction of administrative routes and facilities, all utility construction, alternative winter activities, lift construction, installation of snowmaking, temporary and permanent mountain construction administrative routes, summer activities, avalanche mitigation infrastructure, and some ski trails would require grading in some capacity. Topsoil, organic material, and forest floor material would be displaced and negatively impacted as a result of grading. These impacts would be permanent in areas with permanent proposed infrastructure (e.g., lifts, permanent mountain construction administrative routes, guest facilities, etc.). Under Alternative 4, up to 260.4 acres of organic material would be directly impacted by grading or a combination of vegetation removal and grading. However, PDC detailed in **Table 2.4-1** and described under the Proposed Action would help minimize these impacts.

Under the Alternative 4, up to 364 acres of topsoil and/or organic material could be directly impacted by vegetation clearing only, specifically this includes the implementation of glades, groomable glades, and terrain development projects without grading. It is important to note that areas where vegetation removal without grading is proposed would experience substantially less soil disturbance than graded areas. As described in **Section 2.3**, tree removal methods may require burning in gladed terrain if alternative vegetation removal methods are not possible. This could further damage the topsoil, organic material, and forest floor material in addition to changing the soil's physical and chemical properties. However, with implementation of PDC, including locating areas of chipping and burning over packed snow and/or frozen ground when feasible and stockpiling organic matter prior to burning, these impacts would be lessened.

The proposed projects would have direct impacts on soil map units with both slight and moderate erosion hazard through grading and a combination of grading and tree removal. Implementation of the Proposed Action would require approximately 161.3 acres of grading in areas with moderate erosion hazard and approximately 110.5 acres of grading in areas with slight erosion hazard. This does not include disturbance that would occur within the rock outcrop soil unit. Soil losses and sedimentation due to erosion would occur for as long as the area is disturbed but would return to natural rates once vegetation is re-established and stabilizes reclaimed areas, in about two to five years following reclamation. Steep and south- and west-facing cut slopes may require more than five years for the vegetation ground cover to reach pre-disturbance levels without soil amendments.

Lastly, due to mixing of soil horizons, soil profile characteristics and soil productivity would be drastically changed over pre-construction conditions. The loss of soil resources would be long-term and permanent.

Indirect Impacts

Indirect impacts to soil characteristics under Alternative 4 would include a loss of soil from erosion associated with an increase in mountain biking and hiking activities, year-round vehicle traffic on new administrative routes, additional snowmaking infrastructure and snowmelt (refer to the **Hydrology Technical Report**) and from maintenance of these trails, administrative routes, and other facilities. The additional traffic on administrative routes and new mountain biking, hiking, and multi-use trails would most likely be the major indirect contributors to the increase in soil erosion. Further, trail building and administrative route construction activities in the 1216, 1170, and 1315 soil types, which overlap the Darby and Hominy Peak formations, could result in the release of fine sediment into streams. As described under the Affected Environment discussion, the composition of these formations and their proximity to waterways within the project area have the potential to exacerbate erosion impacts. These areas would need to be stabilized quickly before the next rain or snowmelt season and would require additional PDC. Potential impacts associated with disturbances over these formations are further described in the **Groundwater Report** and site specific PDC have been developed to address this potential issue.

Consistency with the 1997 Forest Plan

With the implementation of geology and soils PDC discussed under the Proposed Action previously, the proposed projects under Alternative 4 are expected to comply with all relevant guidelines addressed in the *1997 Forest Plan*. As previously stated, the *1997 Forest Plan* does not contain standards for the geology and soils resource that are relevant to this analysis. Refer to the **Soils Technical Report** for additional information about PDC intended to address *1997 Forest Plan* guidelines for geology and soils.

ALTERNATIVE 5 – MONO TREES, NO SOUTH BOWL

Direct Impacts

Direct impacts to soil characteristics under the Alternative 5 would include a permanent loss of soil resources due to ground disturbing activities, an increase in soil erosion and sedimentation, and changes to soil physical and chemical characteristics reducing soil productivity. **Table 3.14-5** displays the overall acres of disturbance for each soil map unit.

Table 3.14-5. Acreages of Map Units and Disturbance – Alternative 5

Map Unit	Map Unit Name	Acres Disturbed by Grading/Veg Clearing and Grading	Acres Disturbed by Vegetation Clearing Only	Total Disturbance
1170	ABLA/Tall Forb Yodal, 4 to 35 percent slopes	27.4	31.7	**59.1**
1172	ABLA/ACGL Gany-ABLA/THOC Katpa-PSMEG/BERE,SYOR2 Fritz complex, 40 to 70 percent slopes	76.1	138.1	**214.2**
1216	ABLA/ACGL Koffgo-ABLA/ACGL Rhylow-ARTRV-SYOR2/FEID Povey complex, 35 to 60 percent slopes	36.8	314.6	**351.4**

Map Unit	Map Unit Name	Acres Disturbed by Grading/Veg Clearing and Grading	Acres Disturbed by Vegetation Clearing Only	Total Disturbance
1315	Edgway-Koffgo-Povey association, 15 to 50 percent slopes	144.5	120.2	**264.7**
1593	ABLA/VAGL,PAMY Koffgo, 30 to 60 percent slopes	0.2	0	**0.2**
34	Rock outcrop	2.5	0.7	**3.2**
Total		**287.5**	**605.3**	**892.8**

Source: SE Group 2022gl

Soil map units 1170, 1172, 1216, and 1315 would be the most impacted by disturbance associated with the proposed projects. The soil disturbance by grading and by both vegetation removal and grading would displace the organic layer and the soil surface layer, at a minimum. All soil map units in the project area would be impacted by this type of disturbance (refer to **Table 3.14-5**). The construction of administrative routes and facilities, all utility construction, alternative winter activities, lift construction, installation of snowmaking, temporary and permanent mountain construction administrative routes, summer activities, avalanche mitigation infrastructure, and some ski trails would require grading in some capacity. Topsoil, organic material, and forest floor material would be displaced and negatively impacted as a result of grading. These impacts would be permanent in areas with permanent proposed infrastructure (e.g., lifts, permanent mountain construction administrative routes, guest facilities, etc.). Under Alternative 5, up to 287.5 acres of organic material would be directly impacted by grading or vegetation removal and grading. However, PDC detailed in **Table 2.4-1** and described under the Proposed Action would help minimize these impacts.

Under Alternative 5, up to 605.3 acres of topsoil and/or organic material could be directly impacted by vegetation clearing only, specifically this includes the implementation of glades, groomable glades, and terrain development projects without grading. It is important to note that areas where vegetation removal without grading is proposed would experience substantially less soil disturbance than graded areas. As described in **Section 2.3**, tree removal methods may require burning in gladed terrain if alternative vegetation removal methods are not possible. This could further damage the topsoil, organic material, and forest floor material in addition to changing the soil physical and chemical properties. However, with implementation of PDC, including locating areas of chipping and burning over packed snow and/or frozen ground when feasible and stockpiling organic matter prior to burning, these impacts would be lessened.

The proposed projects would have direct impacts on soil map units with both slight and moderate erosion hazard through grading and a combination of grading and tree removal. Implementation of Alternative 5 would require approximately 172.1 acres of grading in areas with moderate erosion hazard and approximately 112.9 acres of grading in areas with slight erosion hazard. This does not include disturbance that would occur within the rock outcrop soil unit. Soil losses and sedimentation due to erosion would occur for as long as the area is disturbed but would return to natural rates once vegetation is re-established and stabilizes reclaimed areas, in about two to five years following reclamation. Steep

and south- and west-facing cut slopes may require more than five years for the vegetation ground cover to reach pre-disturbance levels without soil amendments.

Lastly, due to mixing of soil horizons, soil profile characteristics and soil productivity would be drastically changed over pre-construction conditions. The loss of soil resources would be long-term and permanent.

Indirect Impacts

Indirect impacts to soil characteristics under Alternative 5 would include a loss of soil from erosion associated with an increase in mountain biking and hiking activities, year-round vehicle traffic on new administrative routes, additional snowmaking infrastructure and snowmelt (refer to the **Hydrology Technical Report**) and from maintenance of these trails, administrative routes, and other facilities. The additional traffic on administrative routes and new mountain biking, hiking, and multi-use trails would most likely be the major indirect contributors to the increase in soil erosion. Further, trail building and administrative route construction activities in the 1216, 1170, and 1315 soil types, which overlap the Darby and Hominy Peak formations, could result in the release of fine sediment into streams. As described under the Affected Environment discussion, the composition of these formations and their proximity to waterways within the project area have the potential to exacerbate erosion impacts. These areas would need to be stabilized quickly before the next rain or snowmelt season and would require additional PDC. Potential impacts associated with disturbances over these formations are further described in the **Groundwater Report** and site specific PDC have been developed to address this potential issue.

Consistency with the 1997 Forest Plan

With the implementation of geology and soils PDC discussed under the Proposed Action previously, the proposed projects under Alternative 5 are expected to comply with all relevant guidelines addressed in the *1997 Forest Plan*. As previously stated, the *1997 Forest Plan* does not contain standards for the geology and soils resource that are relevant to this analysis. Refer to the **Soils Technical Report** and **Table 2.4-1**for additional information about PDC intended to address *1997 Forest Plan* guidelines for geology and soils.

3.14.5 Cumulative Effects

SCOPE OF THE ANALYSIS

The effects analyzed in this discussion apply to all Alternatives. The following projects are expected to cumulatively have short- and long-term effects on soil resources within the GTR SUP area and on adjacent NFS and private lands.

Temporal Bounds

The temporal bounds for this cumulative effects analysis for soil resources extend from 1969 when GTR first opened as a ski area through the foreseeable future in which GTR can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis for soil resources are limited to public and private lands in the vicinity of the GTR SUP area.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects project area, the reader is referred to **Appendix A** in the document. Past ski area and county development projects have been incorporated and analyzed in this document as part of the Affected Environment.

The GTR 2018 MDP projects could have cumulative impacts on soil resources and are analyzed in the following discussion. Past actions of development of GTR trails and terrain have increased erosion rates and sedimentation and reduced soil productivity in comparison to undisturbed areas in the project area. In addition, ski development and mountain biking, hiking, and multi-use trails within the project area have increased impermeable surfaces and soil compaction.

Changes in erosion rates, sediment yield, and compaction from temporary disturbances associated with construction activities would be short-term once restored following project completion; however, permanent structures, such as administrative routes, buildings, and multi-use trails would result in increased impermeable surfaces causing higher runoff and higher mass movement potential.

The Forest Service requires the implementation of PDC and BMPs to minimize impacts to soil resources and sedimentation to waterways. Impacts to soil productivity reflect changes in land use, management, and vegetation cover between pre-development and present conditions. If PDC and BMPs as identified in **Table 2.4-1** are properly implemented and maintained, onsite erosion and potential increases in sedimentation to waterways would be minimized. Similarly, the incremental additional effects on local slope stability would be negligible.

3.14.6 Irreversible and Irretrievable Commitments of Resources

There would be an irreversible and irretrievable loss of soil from erosion entering streams and exiting the watershed, but with the proper implementation of PDC and BMPs this loss would be minimal.

3.15 Hydrology

3.15.1 Scope of the Analysis

This analysis summarizes the *Impacts on Groundwater from the Proposed 2021 Expansion, Grand Targhee Resort, Teton County, Wyoming* (Groundwater Report) and the **Hydrology Technical Report**, *Grand Targhee Resort Master Development Plan* (Hydrology Report) which are both available on the project website.[316] The scope of this hydrology analysis focuses on surface water and groundwater flows located within the existing and proposed GTR SUP areas. The project area includes several watersheds containing various un-named ephemeral, intermittent, and perennial channels. There are also multiple aquifers below GTR that are influenced by activities at GTR. For purposes of this analysis, the study watersheds are identified based on the stream to which they are tributary.

[316] Geo Haz Consulting Inc. 2021; Alder Environmental 2022

3.15.2 Federal, State, and Local Policy and Guidance

The *1997 Forest Plan* provides guidance for all natural resource management activities including Forest-wide and Management Prescriptions specific standards and guidelines. The *1997 Forest Plan* identifies various standards and guidelines for water resources.[317]

FOREST-WIDE WATER GOALS

- Maintain or improve water quality to meet water quality standards for the States of Idaho and Wyoming.
- Water quality would improve on stream segments on the Forest identified by the States of Idaho and Wyoming as having water quality concerns and they are removed from the Water Quality Limited list.
- Maintain or restore water quality, to a degree that provides for stable and productive riparian and aquatic ecosystems.
- Maintain or restore stream channel integrity, channel processes, and the sediment regime (including the elements of timing, volume, and character of sediment input and transport) under which the riparian and aquatic ecosystems naturally developed.
- Maintain or restore instream flows to support healthy riparian and aquatic habitats, the stability and effective function of stream channels, and the ability to route discharges.
- Maintain or restore the natural timing and variability of the water table elevation in meadows and wetlands.

FOREST-WIDE STANDARDS AND GUIDELINES

- Not more than 30 percent of any of the principal watersheds and their subwatersheds should be in a hydrologically disturbed condition at any one time.

MANAGEMENT PRESCRIPTION DIRECTION

The *1997 Forest Plan* only contains one goal for this resource within Management Prescription 4.2 – *Special Use Permit Recreation Sites:* "Improve stream channel stability ratings to good or excellent by 2007 where natural conditions allow on Teton Creek, N Leigh, S leigh, Moose Creek, Trail Creek, Fox Creek, and Kiln Creek where instability is management-caused." Additionally, some of the project area is within the Management Prescription 2.8.3 – *Aquatic Influence Zone*. The AIZ is associated with surface waters, wetlands, and riparian areas that provide unique functions and values to hydrologic, geomorphic, and ecological processes. These areas are important areas of biodiversity and have specific standards and guidelines.

According to the Management Prescription 2.8.3 – *Aquatic Influence Zone* description in the *1997 Forest Plan*, this Management Prescription prevails over other Management Prescriptions except for the following "…Special Use Permit Recreation Sites (4.2)." The proposed project area is either within Management Prescription 4.2 – *Special Use Permit Recreation Sites* (e.g., projects within the existing GTR SUP area) or would be in Management Prescriptions that would be converted to Management Prescription 4.2 – *Special Use Permit Recreation Sites* under the programmatic *1997 Forest Plan*

[317] USDA Forest Service 1997

amendment. Standards and guidelines identified for Management Prescription 2.8.3 – *Aquatic Influence Zone* would not be applicable under proposed conditions, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*.. However, under proposed conditions, adherence to Management Prescription 2.8.3 – *Aquatic Influence Zone* standards and guidelines for hydrology would still be achieved to the greatest extent possible through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**. Refer to the discussion below for a description of the various BMPs and PDC that are included in the project.

CLEAN WATER ACT

The CWA was enacted in 1948 but revised in 1972. The 1972 revision highlighted specific programs and initiatives related to water quality improvement that are still being used and refined today.[318] The 1972 revision of the CWA set various goals and requirements, including requiring municipal and industrial wastewater to be treated before being discharged into waterways, increased the federal assistance for municipal treatment plant construction, strengthened and streamlined enforcement, and expanded the federal role while maintaining states responsibility for day-to-day implementation of the Act. Section 303(d) of the CWA requires that states prepare a list of water quality-limited, or impaired, stream segments. Additionally, the January 18, 2023, Revised Definition of *Waters of the United States* has been considered and included in this analysis. This revised definition advances objectives of the CWA and ensures vital protections for the nation's water resources.

Furthermore, BMPs for project design, implementation, and monitoring are necessary to comply with the CWA. The following documents were consulted to determine appropriate BMPs.

- *1997 Forest Plan*[319]
- Ski Area BMPs – Guidelines for Planning, Erosion Control, and Reclamation[320]
- National BMPs for Water Quality Management on NFS Lands[321]

Specifically, according to the *1997 Forest Plan*, Management Prescription 4.2 – *Special Use Permit Recreation Sites* prevails over 2.8.3 – *Aquatic Influence Zone*. "In cases of overlap, this prescription [AIZ] prevails over all other prescriptions except the following: Special Use Permit Recreation Sites (4.2)," page III-107. Therefore, within the SUP, AIZ BMPs should be taken into consideration; however, the area is already subject to high human activity and impacts to the AIZ within the SUP are allowed. However, outside of the SUP, in Mono Trees and South Bowl, the following proposed BMPs should be applied. Along with this, numerous PDC as identified in **Table 2.4-1** are also included to mitigate impacts to hydrologic resources.

BMP #1 – Aquatic Influence Zone (AIZ) Protection Measures

Where Proposed Actions impact the AIZ (outside of the existing SUP), site-specific BMPs should be applied in the field in close coordination with a hydrologist or fish biologist.

[318] Copeland 2016
[319] USDA Forest Service 1997
[320] USDA Forest Service 2001
[321] USDA Forest Service 2012

BMP #2 – Administrative route and Trail Construction

Administrative routes should be located on stable, well-drained locations, as far from riparian areas, and with as few crossings as possible. The permanent administrative route system should be designed to be fully functional while avoiding unnecessary administrative route segments. Temporary administrative routes used for construction projects should be decommissioned properly.

Similarly, increased runoff and erosion can occur due to construction and use of trails, potentially impacting nearby waterbodies. Trail placement and design is integral to reducing erosion and degradation.

BMP #3 – Ski Runs and Lifts

Grading and trail creation proposed on steep slopes can expose and compact soils, leading to increased runoff and erosion. The steep and alpine nature of ski areas can increase the sensitivity of the land and create a challenge for restoration. Despite these challenges, stabilization and revegetation of disturbed slopes are necessary to meet forest guidelines and protect water resources. Recommended BMPs include practicable avoidance of wetlands and riparian areas, limiting the amount of exposed soil, and maintaining as much natural ground cover, overland flow, and channel function as possible. Successful revegetation is also needed and may require multiple plantings of native ground cover.

BMP #4 – Ski Area Facilities

Construction of ski area facilities would rely on site-specific and construction BMPs. Guidance provided by the FS National Core BMPs – April 2012 (pages 101-102) includes:

- Locate ski area facilities on stable geology and soils to minimize risk of slope failures.
- Avoid wetlands and riparian areas to the extent practicable when locating ski area facilities outside of the existing SUP.

BMP #5 – Ski Area Snowmaking

Snowmaking can alter runoff patterns across the mountain. Withdrawals can exacerbate stream dewatering and transfer of water can alter runoff regimes affecting channel morphology, erosion and headward channel extension. Increased runoff from altered snowpacks can overwhelm current water infrastructure so infrastructure would need to be monitored to ensure it can withstand any potential changes to water movement.

As stated previously, various PDC would also be implemented to mitigate impacts to hydrologic resources. These include, but are not limited to, avoiding sensitive areas such as wetlands, riparian areas, bogs, meadows, and fens; decommissioning unnecessary administrative route segments and implementing measures to establish natural hydrologic patterns; locating stream crossings at the narrowest point; using suitable measures to avoid or minimize scour or erosion; and monitoring revegetation to avoid increases in erosion.

3.15.3 Affected Environment

PROJECT AREA DESCRIPTION

Hydrogeology

There are multiple aquifers that underlay the western flank of the Teton Range. The deepest (oldest) being fractured-rock aquifers, partly karstified in Paleozoic limestone and dolomite formations. The shallower fractured-rock aquifer exists in the Huckleberry Ridge Tuff. The youngest and shallowest aquifer is made up of a porous-medium in unconsolidated Quaternary deposits like stream gravels, alluvial fans, and glacial deposits.

The oldest aquifer lies 0.9 to 1.6 miles east of and 440 to 920 feet below the summit of Fred's Mountain. It is known as the Death Canyon Limestone aquifer. Due to the aquifer being surrounded by two impermeable formations, groundwater has dissolved the sidewalls of the limestone creating larger passages and sinkholes, a process known as karstification. This aquifer has little effect on the hydrogeology of the GTR area, as the top of the aquifer is 1200 feet below the base area. Additionally, the top of the aquifer is overlain with Park Shale, effectively sealing it off from the higher aquifers used for water supply at GTR.

Along with the Death Canyon Limestone aquifer, the other oldest aquifers include the Bighorn Dolomite aquifer, Darby Formation aquifer, and the Madison Limestone aquifer. The Darby Formation is composed primarily of limestones, dolomites, and sandstones. The karst Bighorn Dolomite aquifer forms cliff bands on the northern wall of Teton Creek valley between Fred's Mountain and Beard's Wheatfield. The Madison-Limestone aquifer is one of the most common aquifers in Wyoming and the most substantial one at GTR. It is known for its karst dissolution features and its large spring discharges; however, the whole aquifer is not karstified. A karst formation can be seen at GTR on the cutslope at the upper terminal of the Dreamcatcher Lift.

The shallower Tertiary-Quaternary Volcanic aquifer consists of Huckleberry Ridge rhyolitic tuff. This Tuff contains cooling fractures, consolidation fractures, and shear fractures. The rock fractures easily when folded or faulted, which provides an easy avenue for water flow. This specific Tuff contains primary fractures even where it is not faulted or folded. This provides easy access for groundwater, and easy irrigation for the eastern side of Teton Basin.

The shallowest aquifer is the Quaternary unconsolidated aquifer. This aquifer consists of stream channel deposits, floodplain deposits, terrace gravels, and moraine deposits. The permeability of this aquifer is greatly reduced as the finer silt and clay matrix has filled the spaces between the large boulders found in the moraine deposits.

Please refer to **Figure 15** in the **Impacts to Groundwater Report** and the report itself for more information on location of aquifers across GTR.

Groundwater Flow

Lateral Groundwater Flow

Lateral groundwater flow in and around GTR has shifted and changed from when it was first mapped in 1964. In 2002, Rendezvous Engineering created a new water table map for the Targhee Towne area, Wyoming. The map extends from Teton Creek two miles north and from the Idaho-Wyoming border three

miles eastward. This 2002 map shows the water table sloping west, 33 percent steeper than shown on the 1964 map. This is due to many private and municipal wells being drilled in the Targhee Towne area. The new wells started to dewater the aquifer below the mouth of Teton Canyon, which has in turn lowered the water table to the west and steepened the water table contours as compared to the 1960s.

Vertical Groundwater Flow

Vertical groundwater flow is dependent on the location of the recharge and discharge zones of an aquifer. Recharge zones occur where the aquifer formation outcrops at the surface or is covered by a more permeable surface like stream gravels. The discharge zone is normally found on the downslope where the aquifer meets the surface or is overlain by a permeable cover sediment.

The recharge zone for one of the oldest aquifers, the Death Canyon Limestone aquifer, is located 0.7 to 1.5 miles east of Fred's Mountain. The recharge zone of the Bighorn Dolomite occurs in two places, a narrow outcrop east of GTR on very steep slopes and cliffs and in a 2,000-foot-long stretch of lower Papoose Creek, which drains the southern portion of the existing SUP area which is served by the Peaked Lift. A possible discharge point for the Bighorn Dolomite is Alta Spring, which lies 0.7 miles west of lower Papoose Creek. This spring provides water to the community of Alta, Wyoming and has the potential to impact the Alta Community Water System. In previous high rain events, Alta Spring has experienced high turbidity levels as water moves through the Papoose Creek watershed and over the Bighorn Dolomite. Given the large cavities, the Bighorn Dolomite does not filter water as effectively, and thus turbid water at Alta Spring can occur.

The recharge zone for the shallower and shallowest aquifers, like the Madison Limestone aquifer, consists of a huge outcrop roughly 5 square miles that overlaps most of the existing and proposed SUP areas of GTR. On the other hand, the Huckleberry Ridge Tuff aquifer receives recharge from an outcrop roughly 1 mile west of the GTR base area, which then extends another 3 miles west onto the floor of Teton Basin. Recharge to the Huckleberry Ridge Tuff aquifer can also occur where the streamflow crosses the outcrop band in Dry Creek and Mill Creek. The discharge zone for the Huckleberry Ridge Tuff aquifer is located far west outside of the project area.

Discharge zones for the Death Canyon Limestone aquifer and the Madison Limestone aquifer consist of three small springs. Two of these springs emerge at the contact between the Madison Limestone and the overlying Huckleberry Ridge Tuff. An epikarst[322] aquifer has developed in the upper part of the Madison Limestone. This epikarst aquifer has formed due to groundwater in the Madison Limestone flowing west until it encounters the less permeable Huckleberry Ridge Tuff which does not have the capacity to take the full groundwater flow. Groundwater then "stacks up" on the uphill side of the contact, causing the water table to rise creating a spring. The other discharge point of the Madison Formation would be at its exposed bottom contact with the less permeable Darby Formation, which occurs at the bottoms of Dry Creek and Mill Creek.

STREAM HEALTH AND WATERSHED CONDITION

The hydrologic areas that were analyzed were the TPW and the sixth level HUC subwatersheds within the Forest Service boundary (see **Hydrology Technical Report Figure 1**). Within the TPW, two areas

[322] Young, incipient karst that has developed during Quaternary time while the mountains have been simultaneously eroding. Mills and Huntoon 1989

overlap with the GTR SUP: Teton Creek (TPW 019) and Leigh Creeks (TPW 020). Within the sixth HUC, three subwatersheds exist in the GTR SUP: Dry Creek, South Leigh Creek, and Teton Creek. The hydrologic areas that were analyzed were selected to be consistent with hydrologic disturbance standards and guidelines within the *1997 Forest Plan*.[323] Similarly, these five hydrologic areas were specifically analyzed for stream health and watershed condition.

Potential Effects to Water Quality

Various water quality standards were taken into account for this analysis. One possible water quality contaminant is sediment from erosion of disturbed areas. With the potential to clear trees and create new ski and mountain biking trails, erosion becomes more likely. Specifically, runoff that flows through the Papoose Creek watershed over erodible Hominy Creek and Darby Formations could transport sediments to Mill Creek and Dry Creek and through the Madison Limestone. Further, projects adjacent to Mill Creek and Dry Creek have a high probability of contributing sediment to the two creeks.

The other threat to water quality is nutrient loading and contamination to the nearby public water system (PWS) from the proposed wastewater treatment for on-mountain facilities. The City of Driggs PWS, along with the Alta Community Pipeline, are approximately 4.5 miles from the proposed wastewater treatment plants. As stated under the *Groundwater Flow* heading, the project area lies on Karst topography, which is composed of soluble rocks like limestone. Additionally, these areas are characterized by springs and underground caves in which the hydrogeology can be vulnerable to contamination due to runoff being transported through subsurface channels.

Potential Management Effects to Stream Health

Streams within the project area are similar to channels found in higher elevation sub-alpine environments. These channels are often steep with step-pool energy dissipation. Most of the channels within GTR's existing and proposed SUP area are in proper functioning condition (refer to **Table 3.15-1**). Specifically, there are no fish bearing streams within the project area (refer to **Section 3.13** for more information).

Table 3.15-1. Functional Rating of Linear Surface Water and Seasonal Drainages by Project Area.

Functional Rating	Linear Surface Water & Seasonal Drainages by Project Area (ft)		
	Existing SUP	South Bowl	Mono Trees
Proper Functioning Condition	40,438	626	7,825
Functional - At Risk	12,876	0	1,386
Constructed Channel	1,846	0	0
Ephemeral	1,914	5,298	859
Total	**57,074**	**5,924**	**10,070**

Source: Dickard et al. 2015

[323] USDA Forest Service 1997

There is only one waterbody within the project area, a man-made water treatment lagoon. It is located near the base of the mountain (refer to **Table 3.15-2**).

Table 3.15-2. Non-linear Surface Water by Project Area.

Surface Water Type	Surface Waters (non-linear) by Project Area (ac)		
	Existing SUP	South Bowl	Mono Trees
Lagoon	0.89	0	0

Hydrologically Disturbed Areas

HD is measured over the scale of an entire watershed. The project area exists within two TPWs (Teton Creek and Leigh Creeks) and three HUC6 level subwatersheds (South Leigh Creek, Dry Creek, and Teton Creek). The existing SUP encompasses a smaller portion of each of these watersheds. Wherever ski area operations currently take place, HD is present. Specifically, the hydrologically disturbed condition consists of changes in natural canopy cover or a change in surface soil characteristics that may alter natural streamflow quantities and character. This includes presence of bare soil and places where active erosion takes place. Outside of the project area, HD areas can include administrative routes, hiking and biking trails, and prescribed burn areas.

The analysis of HD by watershed includes HD that was previously approved by the Forest Service. [324] **Table 3.15-3** and **3.15-4** summarize the existing HD areas in the TPWs and HUC6 subwatersheds.

Table 3.15-3. Estimate of Existing HD in TPWs

Targhee Principal Watershed (TPW)	Existing HD Area (acres)	TPW Area (acres)	Existing HD (%) within TPW*
TPW 019 – Teton Creek	3,211	33,177	10%
TPW 020 – Leigh Creeks	800	29,326	3%

* Note that the existing HD has been approved by Brad Higginson, TNF Hydrologist.

Table 3.15-4. Estimate of Existing HD in HUC6 Subwatersheds

Subwatersheds	Existing HD Area (acres)	HUC Area on NFS Lands (acres)	Existing HD (%) within HUC6 Subwatersheds

[324] Approved and existing HD shapefiles, that were used to determine HD to TPWs were confirmed by Brad Higginson, Caribou-Targhee National Forest Hydrologist, on February 18, 2021, during a call with Alder Environmental. The shapefiles were used to establish existing conditions and existing HD of the TPWs within the project area.

170402040204 – Dry Creek	517	4,404	12%
170402040303 – South Leigh Creek	84	12,349	1%
170402040201 – Teton Creek	1,166	25,549	5%

SNOWMAKING

Current snowmaking infrastructure serves beginner terrain off of the Shoshone Lift. Specifically, snowmaking only exists on the *Big Horn* trail. GTR has proposed an additional 57 acres of snowmaking on various trails within their existing SUP (refer to **Figure 6**). Average snowmaking at GTR amounts to a snow depth of 18 inches across the existing snowmaking area per year. Snowmaking snow is unique in that, it is 50 percent water and 50 percent air, thus 18 inches of machine-made snow contains 9 inches of water[325].

Natural snowfall was determined by using the Natural Resources Conservation Services snow survey products. A snow telemetry (SNOTEL) weather station is located within the GTR SUP area. It was determined that the peak of a set of median values of snow water equivalence at GTR was 47.8 inches on April 30th. These data were obtained from a dataset of snow water equivalence reported from 1991 to 2020.[326] Therefore, it was determined that the highest snow water equivalence is expected to occur in late April.

The additional water for the increased snowmaking coverage could come from additional groundwater wells on private lands. Prior to the expansion of snowmaking, it is anticipated that additional groundwater wells would be developed. The timing of which these wells would be dependent on the pace of ongoing base area development, as approved under the 2019 First Amended Master Plan – Planned Unit Development for Planned Resort Additional wells would need to be permitted by the Wyoming State Engineer's Office.

CLEAN WATER ACT COMPLIANCE

Currently within the existing and proposed GTR SUP area there are no federally listed impaired or threatened streams.

3.15.4 Direct and Indirect Environmental Consequences

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Under the No Action Alternative, new winter and multi-season recreation projects would not occur at GTR. GTR would continue to operate under its current design. And there would be no direct or indirect effects on hydrology resources, and soil erosion initiated by proposed construction activities would not be allowed on NFS lands. Transportation of sediment through groundwater due to rainfall, runoff, trail maintenance/construction, and wind would continue to occur at existing rates. Most soil erosion would

[325] There is variability within the composition of machine-made snow and percentages of air and water it contains. This composition is based on accepted ski industry standards and used as an assumption for the purpose of this analysis.
[326] USDA Natural Resources Conservation Service (NRCS) 2020

likely continue to be from existing administrative routes and from areas with a low vegetative cover. Ongoing and expected effects from changes in temperature and precipitation, such as the timing and duration of rainfall, snowfall, and snowpack, would continue to have impacts on hydrology resources. These impacts could be direct, such as effects on aquifer and water table levels, or indirect, such as impacts on hydrology that could affect erosion.

ALTERNATIVE 2 – PROPOSED ACTION

Groundwater Impacts

Most existing actions at GTR occur on Madison Limestone, a non-erodible rock made up of silt and clay. There are no weak clay seams in the Madison Limestone to generate larger slides and slumps, even on steep slopes. As a result, the existing operations have few problems from erosion and sediment deposition. Some Proposed Actions such as new snowmaking would remain concentrated in the core of GTR, on the resistant Madison Limestone, and are not anticipated to cause any new problems.

However, there are Proposed Actions that would occur on finer grained, more erodible rock units like the Hominy Peak and Darby Formations. Tree clearing, glading, and grading within these areas could cause erosion to occur. This creates more sediment transport over these rock units and then through the karstified Madison Limestone and Bighorn Dolomite, thus increasing turbidity throughout groundwater. To prevent on-site and off-site erosion and sedimentation problems, these new areas would require a more aggressive application of BMPs than have been applied previously to the core areas on the Madison Limestone.

A similar situation could occur in Rick's Basin at the north end of the existing SUP. The same erodible formations (Hominy Peak and Darby Formation) underlie the Proposed Action in Rick's Basin. A total of seven new trails (totaling 31 acres of disturbance) in Rick's Basin would lie on steep slopes in the Hominy Peak Formation. Controlling erosion and sediment transport here would require specific BMPs not normally required on Madison Limestone.

Most critical hydrologic effects could occur in the Papoose Creek watershed at the south end of the existing SUP. This watershed, along with others that flow over more erodible Hominy Peak and Darby Formations and into the Bighorn Dolomite and Madison Limestone aquifer, contributes groundwater to Alta Spring, which serves as a community water source for the Town of Alta, Wyoming. The creek is also a tributary to Teton Creek which provides water to numerous wildlife species downstream. Ground-disturbing actions in this watershed could cause more fine, highly mobile sediment to mobilize and increase the turbidity of both Papoose Creek, Teton Creek, and Alta Spring. This aquifer has large cavities which minimizes its ability to filter groundwater, thus contributing to sediment transportation and turbidity. This is a challenge not present in portions of the project area underlaid by Madison Limestone, which is more resistant to erosion.

PDC and BMPs would be required for actions that occur over the Hominy Peak and Darby Formations that are not normally required for the operations that occur over Madison Limestone. These include, but are not limited to, developing an aggressive BMP plan to protect public water systems by avoiding sensitive areas or highly erosive soils, minimizing runoff, erosion, and sediment delivery to streams; implementing more aggressive sediment slope-stabilization like contour-felled logs, contour trenches, and straw bales placed in staggered tiers on the slope; mulch treatments like dry mulches and hydromulches to prevent the movement of fine sediment through the Bighorn Dolomite; vegetative buffers would be

maintained adjacent to intermittent or perennial drainages and wetlands, to the extent possible; soil disturbing activities would be avoided during periods of rain or wet soils; and including cross drains and drain dips for mountain biking trails and administrative routes to disperse runoff and erosion. Please refer to **Table 2.4-1** for more information on these PDC.

Impacts to Water Quality

The Proposed Action within the GTR SUP area and South Bowl and Mono Trees areas has the potential to introduce two primary water pollutants, sediment and nutrient contamination, to the Dry Creek and Mill Creek watersheds. These pollutants could have impacts on downstream water and PWS systems.

As far as sediment transport, due to increased erosion, Forest Service BMPs and PDC would be put in place as identified in **Table 2.4-1**. BMPs put in place during both construction and operation would mitigate impacts of erosion and thus decrease the possibility of impacts to water quality. Therefore, the likelihood of sediment becoming a threat to water quality is low.

Similarly, as stated before, due to the Proposed Action taking place over Karst topography, there is little filtration of water runoff resulting in a possibility of nutrient contamination to downstream PWS systems. However, it has been determined that due to the large distance between the possible nutrient contamination area and the downstream PWS, the nutrients would likely be taken up by the plants, air, natural bacteria, and soils along the water runoff pathway. These nutrients would then be converted to different forms of nitrates and phosphates that are not threats to water quality and are considered part of the natural nitrogen and phosphorus cycles. Therefore, the likelihood of nutrient contamination being a threat to water quality downstream of the existing and proposed GTR SUP area is low.

Impacts to Stream Health

As stated previously, most channels within the project area are in proper functioning condition. Functional – At Risk channels are typical of a ski area due to increased erosion and delivery of excessive fine sediment, which slightly alters the watershed health. The Proposed Action includes various glading, tree clearing, grading, and construction of new administrative routes and some of these actions occur within the AIZ (refer to **Section 3.16** for more information). However, due to *At Risk* channels being typical of a ski area, potential impacts to streams can be managed and are expected to be low with the implementation of proper BMPs and PDC. BMPs and PDC contained in **Table 2.4-1** are intended to reduce impacts to aquatic resources, maintain water quality and stream channel health, and meet the regulatory goals of environmental quality agencies at the federal and state level. With the combination of various BMPs and most channels being in proper functioning condition, impacts to channel stability and increased erosion are expected to be negligible.

Hydrologically Disturbed Areas

HD within GTR is measured over five watersheds, two within the TPW and three HUC6 subwatersheds. **Table 3.15-5, and 3.15-6** below summarize the proposed HD as a result of the Proposed Action in TPW and HUC6 subwatersheds. Specifically, the Proposed Action would generate an additional 1 percent HD in both Teton and Leigh Creeks. Along with this the subwatersheds would also experience HD. As a result of the proposed projects, Dry Creek would experience an additional 3 percent HD, South Leigh Creek would experience an additional 3 percent HD, and Teton Creek would experience an additional 2 percent HD.

Table 3.15-5. Estimate of the Project Generated HD in the TPWs for Alternative 2

Targhee Principal Watershed (TPW)	Project Generated HD (acres)	TPW Area (acres)	Project Generated HD (%)
TPW 019 – Teton Creek	471	33,177	1%
TPW 020 – Leigh Creeks	179	29,326	1%

Table 3.15-6. Estimate of the Project Generated HD in the HUC6 Subwatersheds for Alternative 2

HUC6 Subwatershed	Project Generated HD (acres)	HUC6 Area (acres)	Project Generated HD (%)
170402040204 – Dry Creek	135	4,404	3%
170402040303 – South Leigh Creek	50	12,349	3%
170402040201 – Teton Creek	465	25,549	2%

Furthermore, the tables below summarize the combined (total mapped project generated, existing, and previously approved) HD in the TPW and HUC6 subwatersheds. As shown in **Table 3.15-7**, the Proposed Action has a 13 percent combined HD for Teton Creek and a 3 percent combined HD for Leigh Creeks. In relation to Teton Creek, this is the highest combined HD out of all alternatives.

There is a similar change in combined HD in HUC6 subwatersheds (refer to **Table 3.15-8**). The Proposed Action creates a 13 percent combined HD for Dry Creek, a 1 percent combined HD for South Leigh Creek, and a 10 percent combined HD for Teton Creek. Once again, in relation to Teton Creek, the Proposed Action creates the most combined HD as compared to the other alternatives.

Table 3.15-7. Estimate of the Combined HD in the TPWs for Alternative 2

Targhee Principal Watershed (TPW)	Project Generated HD (%)	Existing HD (%)	Previously Approved Projects HD (%)	Combined HD (%)[a]
TPW 019 – Teton Creek	1%	10%	9%	13%
TPW 020 – Leigh Creeks	1%	3%	<1%	3%

a. Combined HD accounts for overlapping layers and therefore is not a sum of the project generated, existing and approved HD, but a total of the combined shapefiles

Table 3.15-8. Estimate of the Combined HD in the HUC6 Subwatersheds for Alternative 2

HUC6 Subwatershed	Project Generated HD (%)	Existing HD (%)	Previously Approved Projects HD (%)	Combined HD (%)[a]
170402040204 – Dry Creek	3%	12%	1%	13%
170402040303 – South Leigh Creek	3%	1%	<1%	1%
170402040201 – Teton Creek	2%	5%	8%	10%

a. Combined HD accounts for overlapping layers and therefore is not a sum of the project generated, existing and approved HD, but a total of the combined shapefiles.

Overall, it was determined that the combined disturbances from all existing, previously approved, and Proposed Actions within the TPWs and HUC6 subwatersheds are well below the threshold of 30 percent hydrologic disturbance identified in the *1997 Forest Plan*.[327] Therefore, impacts are expected to be minimal.

Impacts from Snowmaking

Snowmaking impacts were analyzed by comparing anticipated volumes of snowmaking across the permit area to natural snowfall experienced within GTR.

GTR has proposed 57 acres of snowmaking on lower-mountain circulation routes and high use trails (refer to **Figure 6**). As previously described, additional groundwater wells on private lands are anticipated to be necessary to provide sufficient water to the snowmaking system when considered with ongoing base area development. These wells would be permitted by the Wyoming State Engineer's Office Proposed snowmaking infrastructure would be located within the existing SUP in both the Teton Creek and Dry Creek, HUC 6 subwatersheds. Of the 1,435 acres of permitted boundary within the Teton Creek watershed, 22.6 of those acres are proposed to have snowmaking. Of the 571 acres of permitted boundary within the Dry Creek watershed, 34.4 acres are proposed to have snowmaking.

The annual median peak snow water equivalence was determined to be 47.8 inches, thus the volume of water GTR receives from natural snowfall is around 5,711 acre-feet within the Teton Creek watershed and 2,273 acre-feet in the Dry Creek watershed per year. Since GTR accumulates a snow depth of 18 inches from its snowmaking infrastructure, and snowmaking snow is 50 percent water and 50 percent air, a total of nine inches of water accumulates. Therefore, within the 22.6 acres of snowmaking on the Teton Creek watershed, an average water volume of 16.95 acre-feet would accumulate. Within the 34.4 acres of the Dry Creek watershed, an average water volume of 25.8 acre-feet would accumulate.

[327] USDA Forest Service 1997

The 22.6 acre-feet of water within the Teton Creek watershed would represent a 0.40 percent increase in volume as compared to naturally recorded precipitation volumes. Similarly, the 34.4 acre-feet of water in the Dry Creek watershed would represent a 0.60 percent increase in volume compared to naturally recorded precipitation volumes. These changes in volume would contribute to melt and runoff during the spring but are not anticipated to alter peak flows or water yields to a degree that would impact channel morphology function or cause additional erosion.

Impacts from Onsite Wells Associated with Proposed Facilities

Proposed onsite wells associated with the proposed Sacajawea Restaurant and Guest Facility and the Shoshone Guest Facility are not anticipated to adversely impact existing groundwater supply in the GTR area as the diversions are minimal. It is anticipated that diversions associated with these facilities would be limited to a combined diversion of less than 3 acre-feet per year for consumptive and sanitary uses. As these proposed facilities and wells are spread out throughout the existing SUP area it is anticipated that there would be sufficient water available. All proposed onsite wells would be subject to permitting from the Wyoming State Engineer's Office. The proposed onsite wells are common to all action alternatives and are not discussed further due to their limited anticipated impact.

Clean Water Act Compliance

The Proposed Action aligns with proposed BMPs 1, 4, and 5, but does not align with 2 and 3. Further BMPs have been created related to project design, implementation, and monitoring in order to achieve compliance with the CWA. Refer to the following headings for further discussion.

BMP #2 – Administrative route and Trail Construction

Within Rick's Basin there is a proposed administrative route running parallel an intermittent stream. Similarly, another administrative route is proposed on the southern end of the existing SUP which also runs parallel to an intermittent stream and its AIZ. Within the Mono Trees area, a administrative route is proposed to overlap with a perennial stream (Mill Creek). Additionally, one of the avalaunchers within the South Bowl area is located next to an intermittent stream and within its corresponding AIZ. The proposed administrative route in South Bowl also crosses an ephemeral stream. This does not align with the CWA as administrative routes and facilities are proposed to be located in sensitive areas including riparian areas, wetlands, meadows, bogs, and fens. The various BMPs, identified in the **Section 3.15.2** discussion previously, would need to be implemented to protect these sensitive areas. Additionally, PDC identified in **Table 2.4-1** would require GTR to receive a Clean Water Act 404 permit prior to construction, and wetlands, seeps, and springs would be delineated by a certified professional prior to construction to mitigate impacts.

BMP #3 – Ski Runs and Lifts

Throughout the existing SUP ski trails, lifts, and gladed areas are proposed. Within Rick's Basin and at the southern end of the SUP there are proposed glades, ski runs, and lifts that infringe on the AIZ of two intermittent streams (refer to Hydrology Report). The proposed bottom terminal of the Mono Trees lift and associated ski runs are also located within the AIZ. The proposed ski runs in South Bowl also cross an ephemeral stream. This does not align with the CWA, and various BMPs, that have been identified previously, and PDC within **Table 2.4-1. Project Design Criteria** would need to be implemented in order to avoid impacts to sensitive areas.

ALTERNATIVE 3 – NO SUP EXPANSION

Groundwater Impacts

Since most of the potential groundwater impacts occur within the existing SUP, Alternative 3 would have similar effects as described in the Proposed Action (refer to Alternative 2 – Proposed Action for more information).

Impacts to Water Quality

Due to most of the potential water quality impacts occurring within GTR's existing SUP, potential impacts to water quality from Alternative 3 are similar in effect as the Proposed Action (refer to Alternative 2 – Proposed Action for more information).

Impacts to Stream Health

Alternative 3 could have similar effects as described in the Proposed Action. Although effects would be similar, Alternative 3 would have a lesser effect overall as compared to the Proposed Action. This is due to Alternative 3 not including the South Bowl and Mono Trees expansion. With the implementation of specific BMPs, impacts to stream health is expected to be low.

Hydrologically Disturbed Areas

Similar to the Proposed Action, Alternative 3 would have similar effects on HD, although it would be a lesser effect overall. Since, Alternative 3 does not include the South Bowl and Mono Trees expansion, both the project generated and combined impact on HD would be less (refer to **Table 3.15-9, 3.15-10, 3.15-11, and 3.15-12**).

Table 3.15-9. Estimate of the Project Generated HD in the TPWs for Alternative 3

Targhee Principal Watershed (TPW)	Project Generated HD (acres)	TPW Area (acres)	Project Generated HD (%)
TPW 019 – Teton Creek	346	33,177	1%
TPW 020 – Leigh Creeks	179	29,326	1%

Table 3.15-10. Estimate of the Project Generated HD in the HUC6 Subwatersheds for Alternative 3

HUC6 Subwatershed	Project Generated HD (acres)	HUC6 Area (acres)	Project Generated HD (%)
170402040204 – Dry Creek	135	4,404	3%
170402040303 – South Leigh Creek	50	12,349	3%

170402040201 – Teton Creek	301	25,549	1%

Table 3.15-11. Estimate of the Combined HD in the TPWs for Alternative 3

Targhee Principal Watershed (TPW)	Project Generated HD (%)	Existing HD (%)	Previously Approved Projects HD (%)	Combined HD (%)[a]
TPW 019 – Teton Creek	1%	10%	9%	12%
TPW 020 – Leigh Creeks	1%	3%	<1%	3%

a. Combined HD accounts for overlapping layers and therefore is not a sum of the project generated, existing and approved HD, but a total of the combined shapefiles

Table 3.15-12. Estimate of the Combined HD in the HUC6 Subwatersheds for Alternative 3

HUC6 Subwatershed	Project Generated HD (%)	Existing HD (%)	Previously Approved Projects HD (%)	Combined HD (%)[a]
170402040204 – Dry Creek	3%	12%	1%	13%
170402040303 – South Leigh Creek	3%	1%	<1%	1%
170402040201 – Teton Creek	1%	5%	8%	9%

a. Combined HD accounts for overlapping layers and therefore is not a sum of the project generated, existing and approved HD, but a total of the combined shapefiles.

Impacts from Snowmaking

As described in the Proposed Action, all of the proposed snowmaking would occur within the existing SUP. Therefore, Alternative 3 would have the same impacts from snowmaking as the Proposed Action (refer to Alternative 2 – Proposed Action for more information).

Clean Water Act Compliance

As described in the Proposed Action, impacts from development in Rick's Basin and the southern portion of the SUP would overlap intermittent streams and their corresponding AIZs (refer to **Section 3.16** for more information). Alternative 3 would not align with proposed BMPs 2 and 3 and would have the same effect as the Proposed Action. This is anticipated to be to a lesser extent, due to this Alternative not including the South Bowl and Mono trees area. Various PDCs and BMPs would need to be implemented in order to comply with the CWA and to avoid sensitive areas as identified in **Table 2.4-1**.

ALTERNATIVE 4 – SOUTH BOWL, NO MONO TREES

Groundwater Impacts

Since most of the potential groundwater impacts would occur within the existing SUP, Alternative 4 would have similar effects as described in the Proposed Action (refer to Alternative 2 – Proposed Action for more information).

Impacts to Water Quality

Due to most of the potential water quality impacts occurring within GTR's existing SUP, impacts to water quality from Alternative 4 would be similar in effect as the Proposed Action (refer to Alternative 2 – Proposed Action for more information).

Impacts to Stream Health

Alternative 4 would have similar effects as described in the Proposed Action. Although effects are similar, Alternative 4 would have a lesser effect overall as compared to the Proposed Action. This is due to Alternative 4 not including the Mono Trees expansion. With the implementation of specific BMPs, impacts to stream health is expected to be low.

Hydrologically Disturbed Areas

Similar to the Proposed Action, Alternative 4 could have similar effects on HD, although it would be a lesser extent overall. Alternative 4 would have the same effects as Alternative 3 on HD areas (refer to **Table 3.15-13, 3.15-14, 3.15-15, and 3.15-16**)

Table 3.15-13. Estimate of the Project Generated HD in the TPWs for Alternative 4

Targhee Principal Watershed (TPW)	Project Generated HD (acres)	TPW Area (acres)	Project Generated HD (%)
TPW 019 – Teton Creek	346	33,177	1%
TPW 020 – Leigh Creeks	179	29,326	1%

Table 3.15-14. Estimate of the Project Generated HD in the HUC6 Subwatersheds for Alternative 4

HUC6 Subwatershed	Project Generated HD (acres)	HUC6 Area (acres)	Project Generated HD (%)
170402040204 – Dry Creek	135	4,404	3%
170402040303 – South Leigh Creek	50	12,349	3%

170402040201 – Teton Creek	340	25,549	1%

Table 3.15-15. Estimate of the Combined HD in the TPWs for Alternative 4

Targhee Principal Watershed (TPW)	Project Generated HD (%)	Existing HD (%)	Previously Approved Projects HD (%)	Combined HD (%)[a]
TPW 019 – Teton Creek	1%	10%	9%	12%
TPW 020 – Leigh Creeks	1%	3%	<1%	3%

a. Combined HD accounts for overlapping layers and therefore is not a sum of the project generated, existing and approved HD, but a total of the combined shapefiles

Table 3.15-16. Estimate of the Combined HD in the HUC6 Subwatersheds for Alternative 4

HUC6 Subwatershed	Project Generated HD (%)	Existing HD (%)	Previously Approved Projects HD (%)	Combined HD (%)[a]
170402040204 – Dry Creek	3%	12%	1%	13%
170402040303 – South Leigh Creek	3%	1%	<1%	1%
170402040201 – Teton Creek	1%	5%	8%	9%

a. Combined HD accounts for overlapping layers and therefore is not a sum of the project generated, existing and approved HD, but a total of the combined shapefiles.

Impacts from Snowmaking

As described in the Proposed Action, all of the proposed snowmaking would occur within the existing SUP. Therefore, Alternative 4 would have the same impacts from snowmaking as the Proposed Action (refer to Alternative 2 – Proposed Action for more information).

Clean Water Act Compliance

As described in the Proposed Action, impacts from development in Rick's Basin, the southern portion of the SUP, and the location of an avalauncher within the South Bowl would overlap intermittent streams and their corresponding AIZs (refer to **Section 3.16** for more information). Alternative 4 would not align with proposed BMPs 2 and 3 and would have the same effect as the Proposed Action. This is anticipated to be to a lesser extent, due to this Alternative not including the Mono trees area. Various PDCs and

BMPs would need to be implemented in order to comply with the CWA and to avoid sensitive areas as identified in **Table 2.4-1**.

ALTERNATIVE 5 – MONO TREES, NO SOUTH BOWL

Groundwater Impacts

Since most of the potential groundwater impacts would occur within the existing SUP, Alternative 5 would have similar effects as described in the Proposed Action (refer to Alternative 2 – Proposed Action for more information).

Impacts to Water Quality

Due to most of the potential water quality impacts occurring within GTR's existing SUP, potential impacts to water quality from Alternative 5 are similar in effect as those described under the Proposed Action (refer to Alternative 2 – Proposed Action for more information).

Impacts to Stream Health

Alternative 5 would have similar effects as described in the Proposed Action. Although potential effects are similar, Alternative 5 would have a lesser effect overall as compared to the Proposed Action, but more effect as compared to Alternative 4. This is due to Alternative 5 having a proposed administrative route overlap with a perennial stream in the Mill Creek drainage. Implementation of specific PDC and BMPs would be needed to mitigate impacts to stream health as identified in **Table 2.4-1**. Overall, impacts to stream health are expected to be low.

Hydrologically Disturbed Areas

Similar to the Proposed Action, Alternative 5 would have similar effects on HD, although it would be a lesser extent overall. Alternative 5 would have the same effects as Alternative 3 on HD areas (refer to **Table 3.15-17, 3.15-18, 3.15-19, and 3.15-20**).

Table 3.15-17. Estimate of the Project Generated HD in the TPWs for Alternative 5

Targhee Principal Watershed (TPW)	Project Generated HD (acres)	TPW Area (acres)	Project Generated HD (%)
TPW 019 – Teton Creek	432	33,177	1%
TPW 020 – Leigh Creeks	179	29,326	1%

Table 3.15-18. Estimate of the Project Generated HD in the HUC6 Subwatersheds for Alternative 5

HUC6 Subwatershed	Project Generated HD (acres)	HUC6 Area (acres)	Project Generated HD (%)

170402040204 – Dry Creek	135	4,404	3%
170402040303 – South Leigh Creek	50	12,349	3%
170402040201 – Teton Creek	426	25,549	2%

Table 3.15-19. Estimate of the Combined HD in the TPWs for Alternative 5

Targhee Principal Watershed (TPW)	Project Generated HD (%)	Existing HD (%)	Previously Approved Projects HD (%)	Combined HD (%)[a]
TPW 019 – Teton Creek	1%	10%	9%	12%
TPW 020 – Leigh Creeks	1%	3%	<1%	3%

a. Combined HD accounts for overlapping layers and therefore is not a sum of the project generated, existing and approved HD, but a total of the combined shapefiles

Table 3.15-20. Estimate of the Combined HD in the HUC6 Subwatersheds for Alternative 5

HUC6 Subwatershed	Project Generated HD (%)	Existing HD (%)	Previously Approved Projects HD (%)	Combined HD (%)[a]
170402040204 – Dry Creek	3%	12%	1%	13%
170402040303 – South Leigh Creek	3%	1%	<1%	1%
170402040201 – Teton Creek	2%	5%	8%	9%

a. Combined HD accounts for overlapping layers and therefore is not a sum of the project generated, existing and approved HD, but a total of the combined shapefiles.

Impacts from Snowmaking

As described in the Proposed Action, all of the proposed snowmaking would occur within the existing SUP. Therefore, Alternative 5 would have the same impacts from snowmaking as the Proposed Action (refer to Alternative 2 – Proposed Action for more information).

Clean Water Act Compliance

As described in the Proposed Action, potential impacts from development in Rick's Basin, the southern portion of the SUP, and the proposed administrative route within Mill Creek Drainage in the Mono Trees

area would overlap intermittent streams and their corresponding AIZs (refer to **Section 3.16** for more information). Alternative 5 would have more of an impact as compared to Alternative 4, due to a proposed administrative route being located within the Mill Creek drainage. Similar to the other action alternatives, Alternative 5 would also not align with proposed BMPs 2 and 3. Various PDC and BMPs would need to be implemented in order to comply with the CWA and avoid sensitive areas as identified in **Table 2.4-1**.

3.15.5 Cumulative Effects

SCOPE OF THE ANALYSIS

Effects analyzed in the Cumulative Effects discussion apply to all alternatives, including the No Action Alternative. The following projects are expected to cumulatively have short- and long-term effects on overall recreational opportunities in the GTR SUP area and on adjacent NFS and private lands, as well as throughout Teton County, Wyoming.

Temporal Bounds

The temporal bounds for this cumulative effects analysis for hydrology resources extend from GTR's founding as a ski area in 1966 through the foreseeable future in which GTR can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis for hydrology resources are limited to public and private lands in the vicinity of GTR's operational area.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future project within the cumulative effects study area, the reader is referred to **Appendix A**. Past ski area and county development projects have been incorporated and analyzed in this document as part of the Affected Environment discussion.

Many of the projects that have the potential to cumulatively impact hydrology resources are construction of lifts such as the Colter Lift, construction of mountain biking and hiking trails, and development of additional ski terrain. Additionally, future projects that have yet to be implemented and are included in these documents and analyses would be expected to impact the watershed quality within the GTR SUP area. Not only future projects located within the GTR's SUP, but adjacent projects like residential construction, increased traffic, and others have cumulative effects to hydrological resources.

The expansion of GTR's SUP boundary and development of lift-served skiing in the Mono Trees and South Bowl area specifically would impact areas not previously influenced by ski area operations, impinging further on hydrological resources when considered cumulatively with other projects.

3.15.6 Irreversible and Irretrievable Commitments of Resources

The addition of ski trails, lifts, and associated infrastructure would represent irretrievable effects to hydrological resources within GTR's SUP. However, the implementation of the proposed projects are not considered irreversible commitments of these resources because operations could be discontinued, returning GTR to its natural state. No additional irreversible and/or irretrievable commitment of resources have been identified that may impact hydrological resources in association with the alternatives analyzed in this document.

3.16 Wetlands and Riparian Areas

3.16.1 Scope of the Analysis

The project area for wetlands encompasses GTR's existing SUP and both the South Bowl and Mono Trees SUP expansion areas, totaling approximately 3,146 acres. This analysis summarizes the **Wetland Technical Report** (Wetland Report) which can be found in the project website.[328]

3.16.2 Federal, State, and Local Policy and Guidance

1997 FOREST PLAN DIRECTION

The *1997 Forest Plan* does not contain Forest-wide or Management Prescription-specific goals, standards, or guidelines specific to wetlands; however, some of the project area is within the Management Prescription 2.8.3 – *Aquatic Influence Zone*. The AIZ is associated with surface waters, wetlands, and riparian areas that provide unique functions and values to hydrologic, geomorphic, and ecological processes. These areas are important areas of biodiversity and have specific standards and guidelines.

According to the Management Prescription 2.8.3 – *Aquatic Influence Zone* description in the *1997 Forest Plan*, this Management Prescription prevails over other Management Prescriptions except for the following "…Special Use Permit Recreation Sites (4.2)." The proposed project area is either within Management Prescription 4.2 – *Special Use Permit Recreation Sites* (e.g., projects within the existing GTR SUP area) or would be in Management Prescriptions that would be converted to Management Prescription 4.2 – *Special Use Permit Recreation Sites* under the programmatic *1997 Forest Plan* amendments. The programmatic *1997 Forest Plan* amendment would convert both Management Prescription 2.8.3 – *Aquatic Influence Zone* and Management Prescription 2.1.2 – *Visual Quality Maintenance* to Management Prescription 4.2 – *Special Use Permit Recreation Sites*. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* standards and guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to Management Prescription 2.8.3 – *Aquatic Influence Zone* standards and guidelines for wetlands would still be achieved to the greatest extent possible through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**. Outside the existing SUP, in Mono Trees and South Bowl, the following BMPs should be applied:

BMP #1 – Aquatic Influence Zone (AIZ) Protection Measures

Where Proposed Actions impact the AIZ outside of the existing SUP, site-specific BMPs should be applied in the field in close coordination with a Forest Service hydrologist or fish biologist.

BMP #2 – Administrative route and Trail Construction

Administrative routes should avoid sensitive areas such as riparian areas, wetlands, meadows, bogs, and fens, to the extent practicable outside of the existing SUP.

BMP #3 – Ski Runs and Lifts

[328] Alder Environmental 2023f

Ski runs and lifts should avoid wetlands and riparian areas wherever practicable outside of the existing SUP.

Along with the BMPs listed previously there are also numerous PDC identified in **Table 2.4-1**. Specific PDC include but are not limited to, avoiding wetlands, bogs, fens, and meadows; designing administrative route surface draining systems to removed water from the administrative route surface and surrounding slopes; locating stream crossings where the channel is narrow, straight, and uniform; and burn piles should be located outside of the AIZ, along with others.

CLEAN WATER ACT AND EXECUTIVE ORDERS 11990 AND 11988

Wetlands within the project area are subject to regulations under Section 401 and 404 of the CWA, Executive Order 11990, *Protection of Wetlands*, and Executive Order 11988, *Floodplain Management*. Specific Nationwide Permits (NWPs) and certifications may be required for the proposed impacts to wetlands. The applicable regulatory agencies are the United States Army Corps of Engineers (USACE) and the Wyoming DEQ. Additionally, the January 18, 2023, Revised Definition of *Waters of the United States* has been considered and included in this analysis. This revised definition advances objectives of the CWA and ensures vital protections for the nation's water resources.

Executive Order 11990 requires federal agencies to avoid to the extent practicable, short- and long-term adverse impacts associated with the destruction or modification of wetlands. Additionally, Executive Order 11990 directs federal agencies to avoid construction in wetlands unless there is no reasonable alternative, further stating that where wetlands cannot be avoided, the Proposed Action must include all practicable measures to minimize harm to wetlands. As required by the CWA and Executive Order 11990, avoidance and minimization measures were considered through the planning process for the proposed projects. As described in the sections below, there would be new and improved wetland crossings necessary to accomplish the proposed projects; although most impacts would be mitigated by PDC and BMPs, any proposed impacts to wetland would require a more detailed site analysis and NWPs. More specifically, Executive Order 11988 defines floodplain as "the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent or great chance of flooding in any given year." Floodplains in the project area are relatively small and associated with Mill and Dry Creeks and other intermittent streams. Finally, the USACE's policy of no net loss of wetlands requires mitigation for wetland impacts, which can include the construction of new wetlands to replace those that were lost, the purchase of credits in a wetland mitigation bank, the restoration of a degraded wetland, or a combination thereof. The type and amount of wetland mitigation for these projects would be determined during a future CWA 404 permit process.

3.16.3 Affected Environment

Mapping of wetlands and riparian areas was completed based on field surveys completed during the 2019 season. Wetland mapping was based on vegetation common to wetland areas, previous knowledge and wetland delineations within the project area, and indicators of hydrology, such as surface water or saturation, drainage patterns, and geomorphic positioning (e.g., depressional wetland areas, wetland seeps). Formal wetland delineations according to USACE manuals were not performed. When activities are implemented, site specific wetland delineations (including analyses of soil indicators) would be completed to inform site planning, permitting, and mitigation. **Table 3.16-1** provides a summary of the various wetlands that mapped within the project area.

Table 3.16-1. Wetlands within the Project Area

Wetland & Riparian Type	Acres of Wetlands and Riparian Areas in Existing SUP	Acres of Wetlands and Riparian Areas in Proposed South Bowl SUP Area	Acres of Wetlands and Riparian Areas in Proposed Mono Trees SUP Area
Emergent	7.7	0.81	1.76
Emergent & Scrub-Shrub	0.24	0	0
Emergent & Riparian	16.78	0	0.27
Scrub-Shrub	0.05	0	0.21
Scrub-Shrub & Riparian	11.98	0	0
Riparian	5.51	0.54	1.47
Total	42.26	1.35	3.71

* Note that the total is a sum of the areas, and the cumulative total does not include overlapping areas.

THE AQUATIC INFLUENCE ZONE

As defined in the *1997 Forest Plan*, AIZ is associated with surface waters, wetlands, and riparian areas that provide unique functions and values to hydrologic, geomorphic, and ecological processes. These areas are important reservoirs of biodiversity and likewise are subject to specific standards and guidelines.

The AIZ is comprised of a buffer zone around surface waters and wetlands. The streams, wetlands, and corresponding AIZs are influenced by intermittent mountain tributaries, seeps, snowmelt, and perennial streams (Dry Creek and Mill Creek). There is one man-made waterbody within the project area, the water treatment lagoon located near the base of the mountain. AIZ areas in the south part of the project area are comprised of steeper drainages and confined channels. The AIZ areas in the northern part of the project area within the existing SUP are lower in elevation and slope. These areas have more extensive wetlands, influenced by natural mountain springs and Dry Creek (refer to **Table 3.16-2**).

Table 3.16-2 AIZ Boundary Widths (from high water mark) by Water Type

Water & Wetland Type	Surface Water Names	AIZ Width for Teton Range Subsection	Area (ac)
Perennial non-fish bearing stream reaches	Mill Creek, Dry Creek	150 feet, each side	124
Reservoir (lagoon)	unnamed wastewater lagoon	150 feet	5
Wetlands (> 1ac)	wetlands	150 feet	110

Intermittent reaches	unnamed reaches	100 feet, each side	198
Wetlands (< 1ac)	wetlands	100 feet	47
Total			**484**
Cumulative Total			**390**

* Note that the total is a sum of the areas, and the cumulative total does not include overlapping areas.

Additionally, there are impacts that are previously approved by the Forest Service but have not been implemented yet and existing impacts to the AIZ that are located predominantly within the existing SUP area. Existing impacts outside of the existing SUP are trails and grading for a power line within the Mono Trees SUP expansion areas. The previously approved impacts to the AIZ outside of the existing SUP are limited to burn areas located within South Bowl and Mono Trees (refer to **Table 3.16-3** below for more information).

Table 3.16-3. Existing and Previously Approved Impacts to AIZs by Project Area and Impact Activity

Impact Type	Existing Impacts			Previously Approved Impacts		
	Existing SUP	South Bowl	Mono Trees	Existing SUP	South Bowl	Mono Trees
Burn Areas					5.90	9.72
Glades	19.06					
Grading	4.82		0.20			
Administrative route or Trail	5.77		0.17	0.98		
Lagoon	0.91					
Mountain Bike Trails				1.27		
Ski Trails	63.31					
Total	**93.87**	**No Impacts**	**0.37**	**2.25**	**5.90**	**9.72**

QUALITATIVE WETLAND FUNCTIONS AND VALUES ASSESSMENT

To assess the ecological functions and values of the wetlands within the project area, a qualitative wetland functional assessment was completed, using the Montana Department of Transportation – *Montana Wetland Assessment Method*.[329]

Wetland functions are self-sustaining properties of a wetland ecosystem that exist in the absence of society and relate to ecological significance without regard to subjective human values. For example, the amount of groundwater discharge is a wetland function. Values of wetlands are benefits that derive from either one or more functions and the physical characteristics associated with a wetland. The value of a given wetland function is based on human judgement of the worth, importance or quality attributed to those functions.[330] For example, possessing waterfowl habitat is an example of a wetland value. Further descriptions of functions and values of wetlands are available in the Wetland Report, refer to this report for more information.

Using the *Montana Wetland Assessment Method*, the wetlands within the project area were analyzed as a whole and assigned applicable functions and values ratings of low, moderate, or high (refer to **Table 3.16-4** for more information). Refer to the Wetland Report for more information.

Table 3.16-4. Montana Wetland Assessment Method Qualitative Rating of Wetland Functions and Values

Wetland Functions & Values	Qualitative Rating
General Wildlife Habitat	High
General Fish Habitat	Low
Flood Attenuation	Moderate to Low
Short- and Long-term Surface Water Storage	Moderate
Sediment/Nutrient/Toxicant Retention and Removal	High
Sediment/Shoreline Stabilization	High
Production Export/Terrestrial and Aquatic Food Chain Support	High
Groundwater Discharge	High
Uniqueness	High
Recreation/Education Potential	High

The wetlands in the project area are predominantly hydrologically influenced by mountain seepage and snowmelt-dominated ephemeral tributaries. There is a mixture of emergent, scrub-shrub, and forested

[329] Berglund and McEldowney 2008
[330] USACE 1995

wetlands. Specifically, higher alpine wetlands are present as small pockets, while those in lower elevations are larger mosaic riparian habitats.

3.16.4 Direct and Indirect Environmental Consequences

This section identifies and discusses the direct and indirect impacts of the alternatives on wetlands and riparian areas within the project area. Direct impacts are caused by the action and occur at the same time and place (36 CFR § 1508.8). Direct impacts to wetlands can take many forms. Examples of direct wetland impacts include but are not limited to filling in a wetland, driving through a wetland, or manipulating the boundaries of a wetland. Indirect impacts are caused by the action but occur later in time or are farther removed in distance and are also reasonably foreseeable (36 CFR § 1508.8). Indirect impacts can occur as a result of shading of wetland vegetation by boardwalks, forest or shrubby overstory removal, or snow compaction.

Under the Proposed Action, and other Action Alternatives, there is a potential that projects could cause direct and indirect impacts to wetlands and other waters of the USACE Nationwide Permit number 42 (NWP 42) – Recreational Facilities, authorizes the discharge of dredged or fill material into waters of the United States for the construction or expansion of recreational facilities including ski areas. The discharge may not cause the loss of greater than 0.5 acres of non-tidal water of the United States. Temporary impacts to waters of the United States are calculated separately from permanent losses of waters of the United States, and do not contribute to loss thresholds. Discharges resulting in the loss of greater than 0.5 acres require authorization under an Individual Permit. Indirect impacts are considered by the USACE district engineer when making minimal adverse environmental effects determinations on a case-by-case basis. Refer to the headings below for a description of the direct and indirect impacts on wetlands and riparian areas as a result of the proposed projects.

ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Under the No Action Alternative, there would be a continuation of existing management practices. Some minor indirect impacts to wetlands are likely occurring within the existing GTR SUP area as a result of ongoing ski area operations (i.e., snow compaction, increased hydrologic budgets from snowmaking, and vegetation removal). However, under the No Action Alternative there would be no new ski terrain, no new or upgraded lifts, no additional snowmaking, and no new recreational or multi-season facilities or activities. There are no new anticipated direct effects to wetlands or other waters of the United States from the No Action Alternative. Ongoing changes in temperature and precipitation may impact the extent, distribution, and functions of the wetlands within the existing GTR SUP area. These impacts may be minor and would likely occur over an extended period of time and could be additive to indirect impacts like overstory removal and shading of wetland vegetation.

ALL ACTION ALTERNATIVES

Aquatic Influence Zone

Based on an overlay of the documented hydrologic resources and the projects included in the Action Alternatives, there are various impacts to AIZ areas and linear streams. Several larger impact areas do not follow specific BMPs to avoid sensitive areas such as riparian areas, wetlands, meadows, bogs, and fens. These sensitive areas include an unnamed drainage in Rick’s Basin, an unnamed drainage in South Bowl, and an unnamed drainage in the southern portion of the existing SUP. Additionally, maintenance and administrative routes are currently located within valley bottoms near AIZ areas. Furthermore, proposed

glading and new ski runs overlap with the AIZ. Most of the impacts to AIZs, from the Proposed Action, occur within the existing SUP (refer to **Table 3.16-5**). These impacts are similar to the existing and previously approved impacts; however, they include updates to guest service facilities, snowmaking activities, avalanche safety measures, and new ski lifts. Overall, impacts to the AIZ is nominal in South Bowl (0.01 acre), a little more intensive in Mono Trees (3.86 acres), and the most intensive in the existing SUP area (66.78 acres).[331] The Proposed Action would result in 178.96 acres of cumulative impacts to the AIZ. Overall, the No Action Alternative and Alternative 3 have the least direct impacts to the AIZ followed by Alternative 4 (refer to **Table 3.16-6**). The Proposed Action and Alternative 5 have the most direct impacts, with many being associated to ski trails and glades. Even though impacts are expected, specific PDC would be implemented to mitigate these impacts. PDC are identified in **Table 2.4-1.**

Table 3.16-5. Proposed Impacts Within the AIZ.

Impact Type	Proposed Impacts to AIZs by Project Area (ac)			Required/Potentially Required CWA Section 404 Nationwide Permits
	Existing SUP	South Bowl	Mono Trees	
All Guest Service Facilities	0.25			NWP 39 or 42
All Lifts	2.30		0.30	NWP 42 - Recreational Facilities
Avalauncher	-	0.01		NWP 42
Cat/Construction Maintenance Access Route	<0.00			NWP 42
Fat Bike Trails	1.05			NWP 42
Glades (assumes 100% in AIZ)	15.86		0.80	NWP 42
Hiking Trails	0.03			NWP 42
Multi-Use Trail/Mountain Biking Trail	3.79			NWP 42
Colter Terrain Improvements	0.28			NWP 42
Administrative route	11.28		0.19	NWP 14 - Linear Transportation Projects
Ski Trails	21.3		2.57	NWP 42
Snowmaking Pipe	4.99			NWP 58 - Utility Line Activities for Water and Other Subsurfaces

[331] Alder Environmental 2022

Summer Activities Zone	5.64			NWP 42
Total	**66.78**	**0.01**	**3.86**	

Table 3.16-6. Cumulative Impacts to the AIZ Under the Proposed Action

Alternative	Existing AIZ Impact (acres)	Previously Approved AIZ Impact (acres)	Proposed AIZ Impact (acres	Cumulative AIZ Impact (acres)
Alternative 1 – No Action	94.24	17.87	0.00	111.23
Alternative 2 – Proposed Action	94.24	17.87	70.65	178.96
Alternative 3 – No SUP Expansion	94.24	17.87	66.78	158.12
Alternative 4 – South Bowl, no Mono Trees	94.24	17.87	66.79	164.01
Alternative 5 – Mono Trees, no South Bowl	94.24	17.87	70.64	173.07

Qualitative Wetland Functions and Values Assessment

Under the Action Alternatives, wetland functions and values would be impacted. Functions and values like general wildlife habitat, groundwater discharge, uniqueness, and recreation/education potential would be directly impacted as construction of project aspects would disturb wetland boundaries and extent. These direct impacts would occur in both the short-term and long-term, as construction of project aspects occur and as the project aspects become permanent and are located within the AIZ and within wetland boundaries. Indirect impacts in the form of removing vegetation/stabilizing bank material or shading of vegetative material would occur to functions and values like flood attenuation, short- and long-term surface water storage, sediment/nutrient/toxicant retention and removal, sediment/shoreline stabilization, and production export/terrestrial and aquatic food chain support. These indirect impacts would occur in both the short-term and long-term as projects are implemented. Furthermore, given the existing recreation within GTR's existing SUP, wetlands that are within the existing SUP area are already often directly or indirectly impacted by human activity. Additional impacts to wetlands, within the existing SUP area, as a result of this project would not add to existing impacts substantially. Although both direct and indirect impacts are expected to occur to functions and values of wetlands within the project area, these impacts would be mitigated with specific PDC and BMPs identified for this project (refer to **Table 2.4-1** for more information). Impacts to wetland functions and values would be the most intensive under the Proposed Action, followed by Alternative 4, and then Alternative 5 and Alternative 3.

Clean Water Act and Executive Order Compliance

Under the Proposed Action, adherence to specific PDC and BMPs for project design, implementation, and monitoring are necessary to comply to the CWA and Executive Orders 11990 and 11988. Refer to **Table 2.4-1** for more information on PDC. A list of specific BMPs would be established prior to construction of the projects in coordination with TNF resource specialists and a TNF hydrologist. If PDC and specific BMPs are followed, adherence to the CWA and Executive Orders 11990 and 11988 would be achieved.

3.16.5 Cumulative Effects

SCOPE OF THE ANALYSIS

Effects analyzed in the Cumulative Effects discussion apply to all alternatives, including the No Action Alternative. The following projects are expected to cumulatively have short- and long-term effects on overall recreational opportunities in the GTR SUP area and on adjacent NFS and private lands, as well as throughout Teton County, Wyoming.

Temporal Bounds

The temporal bounds for this cumulative effects analysis for wetland and riparian area resources extend from GTR's founding as a ski area in 1966 through the foreseeable future in which GTR can be expected to operate.

Spatial Bounds

The spatial bounds for this cumulative effects analysis for wetland and riparian area resources are limited to public and private lands in the vicinity of GTR's operational area.

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECTS

For a detailed description of past, present, and reasonably foreseeable future project within the cumulative effects study area, the reader is referred to **Appendix A** in the FEIS. Past ski area and county development projects have been incorporated and analyzed in this document as part of the Affected Environment discussion. Projects that could have cumulative impacts on wetland and riparian areas are analyzed in the following discussion.

Under the No Action Alternative, cumulative effects to wetlands would continue to occur. Prior to implementation of the CWA, GTR and the recreational activities present within their existing SUP likely directly impacted wetlands. However, since the CWA implementation and over the past few decades, ski areas across the nation, including GTR have worked closely with the USACE to avoid, minimize, and mitigate direct impacts to wetlands. As stated previously, some minor indirect impacts to wetlands are likely occurring within GTR's existing SUP and are expected to continue. These indirect impacts can range anywhere from overstory removal to snow compaction. Additionally, past disturbance to wetlands has likely occurred within the GTR SUP as well as the general vicinity where proposed SUP expansion would occur. However, considering the existing laws protecting wetlands on both private and federal lands, cumulative impacts to wetlands from past, present, and reasonably foreseeable projects within the project area would be insignificant.

Under the Proposed Action and other Action Alternatives, cumulative impacts would be similar as described for the No Action Alternative; however, the magnitude would be slightly greater under the Proposed Action. With the combination of existing, previously approved, and proposed impacts to

wetlands, there is a potential to cumulatively impact 178.96 acres of wetlands through temporary disturbances. However, when combined with all past, present, and reasonably foreseeable future actions, and considering the existing laws and guidance, as well as the PDC and BMPs identified in **Table 2.4-1**, with the implementation of mitigation measures the cumulative impact to wetland would meet the intent of the *1997 Forest Plan*, CWA, and Executive Orders 11990 and 11988.

3.16.6 Irreversible and Irretrievable Commitments of Resources

There are no permanent wetland impacts associated with the Proposed Action; therefore, there would be no irreversible commitment of wetland resources. The proposed temporary impacts to wetlands associated with the installation of the proposed projects is considered to be an irretrievable commitment of wetland resources and would likely last for approximately three to five years or until the disturbed wetlands are fully restored to their pre-disturbance condition.

Chapter 4. Consultation and Coordination

4.1 Preparers

Table 4.1-1 and **Table 4.1-2** detail those who participated in initial scoping, were members of the ID Team or NA-LA staff, Consultant Team and/or provided direction and assistance during the preparation of this EIS.

Table 4.1-1. Forest Service Interdisciplinary Team

Team Member	Project Responsibility
Mel Bolling	Forest Supervisor, CTNF (Project inception till July 2025)
Kim Pierson	Forest Supervisor, CTNF (July 2025 till present)
Jessica Taylor	Staff Officer for Recreation, Heritage, Lands, and Minerals, CTNF
Robbert Mickelsen	Ecosystem Branch Chief, CTNF
Jay Pence	District Ranger, CTNF
Doug Herzog	Forest Planner, CTNF
Chris Kula	Wildlife Biologist, CTNF
Rose Lehman	Botanist, CTNF
Sarah Wheeler	Public Affairs Officer, CTNF
Ashly Kula	NEPA Coordinator, CTNF
Brad Higginson	Hydrologist, CTNF
David Marr	Soil Scientist, CTNF
Joseph McFarlane	Recreation Manager, CTNF
Deborah Flowers	Assistant Fire Management Officer, CTNF
Wes Stumbo	Branch Chief, CTNF
Avery Beyer	Targhee Zone Forester, CTNF
Steve Armstrong	Archaeologist, CTNF
Lee Mabey	Fisheries Biologist, CTNF
Cheryl Beck	Geographic Information Systems (GIS), CTNF

Team Member	Project Responsibility
Rachel Franchina	IDT Lead, Region 2 MRT
Don Dressler	Program Manager, Region 2 MRT
Bryan West	Environmental Coordinator, Region 2 MRT
Sean McGinness	Mountain Resorts Coordinator, CTNF & BTNF
Isaac Sims	Landscape Architect, Region 2 MRT
Curt Panter	National Ropeway Service Team Engineer, Regions 1 and 5
Seth Wallace	Assistant Regional Bridge Engineer, Region 4
Allison Borchers	Economist, Enterprise Program

Table 4.1-2. Consultant Team

Team Member	Project Responsibility
Kent Sharp	Principal
Scott Prior	Senior Project Manager
Catherine Winnop	Assistant Project Manager
Melanie McKenzie	Environmental Analyst
Jake Van Duersen	Environmental Analyst
Michael Clawson	Environmental Analyst
Ayden Eickhoff	Analyst and Planner
Amelya Ingram	Team Coordination and Document Processing

4.2 Governments, Agencies, and Organizations Contacted

4.2.1 Tribal Governments

- Shoshone Bannock Tribe

4.2.2 Federal Agencies

- United States Fish and Wildlife Service (USFWS)
- United States Army Corps of Engineers (USACE)

- Environmental Protection Agency (EPA)
- National Park Service

4.2.3 State Agencies

- Wyoming Department of Transportation
- State Historic Preservation Office (SHPO)
- Wyoming Department of Natural Resources
- Wyoming Pollution Control Agency
- Teton Conservation District

4.2.4 Local Government & Agencies

- Teton County, ID
- Teton County, WYCity of Alta, Wyoming

4.3 Agencies and Organizations Who Commented During the NEPA Process

The following agencies and organizations commented during the scoping period:

Federal Government

- National Park Service
- United States Environmental Protection Agency, Region 8

State Government and Organization

- Wyoming Game and Fish Department
- Wyoming Department of Environmental Quality

County/Local Government and Organizations

- Alta Advisory Committee
- Amphibian Refuge
- Backcountry Hunters and Anglers
- City of Driggs
- City of Tetonia
- City of Victor
- Davidson Bacy II LLC
- Friends of the Teton River
- Friends of the Wheeler Peak Wilderness
- Great Old Broads for Wilderness
- Greater Yellowstone Coalition
- Idaho Backcountry Hunters and Anglers
- Idaho Conservation League
- Idaho Wild Sheep Foundation Inc.
- Jackson Hole Conservation Alliance
- Jackson Hole Wildlife Foundation
- Jackson Workforce Center
- Mountain Bike the Tetons
- National Parks Conservation Alliance
- No Targhee X
- Protect Our Water Jackson Hole
- Sierra Club Wyoming Chapter

- Teton Backcountry Alliance
- Teton Conservation District
- Teton County, Wyoming Board of County Commissioners
- Teton County, Idaho Board of County Commissioners
- Teton Range Bighorn Sheep Working Group
- Teton Valley Trails and Pathways
- Valley Advocates for Responsible Development
- Wild Sheep Foundation
- Wilderness Watch
- Winter Wildlands Alliance
- Wyoming Outdoor Council
- Wyoming Wilderness Association
- Wyoming Wild Sheep Foundation
- Wyoming Wildlife Advocates and Sierra Club Wyoming

Chapter 5. References

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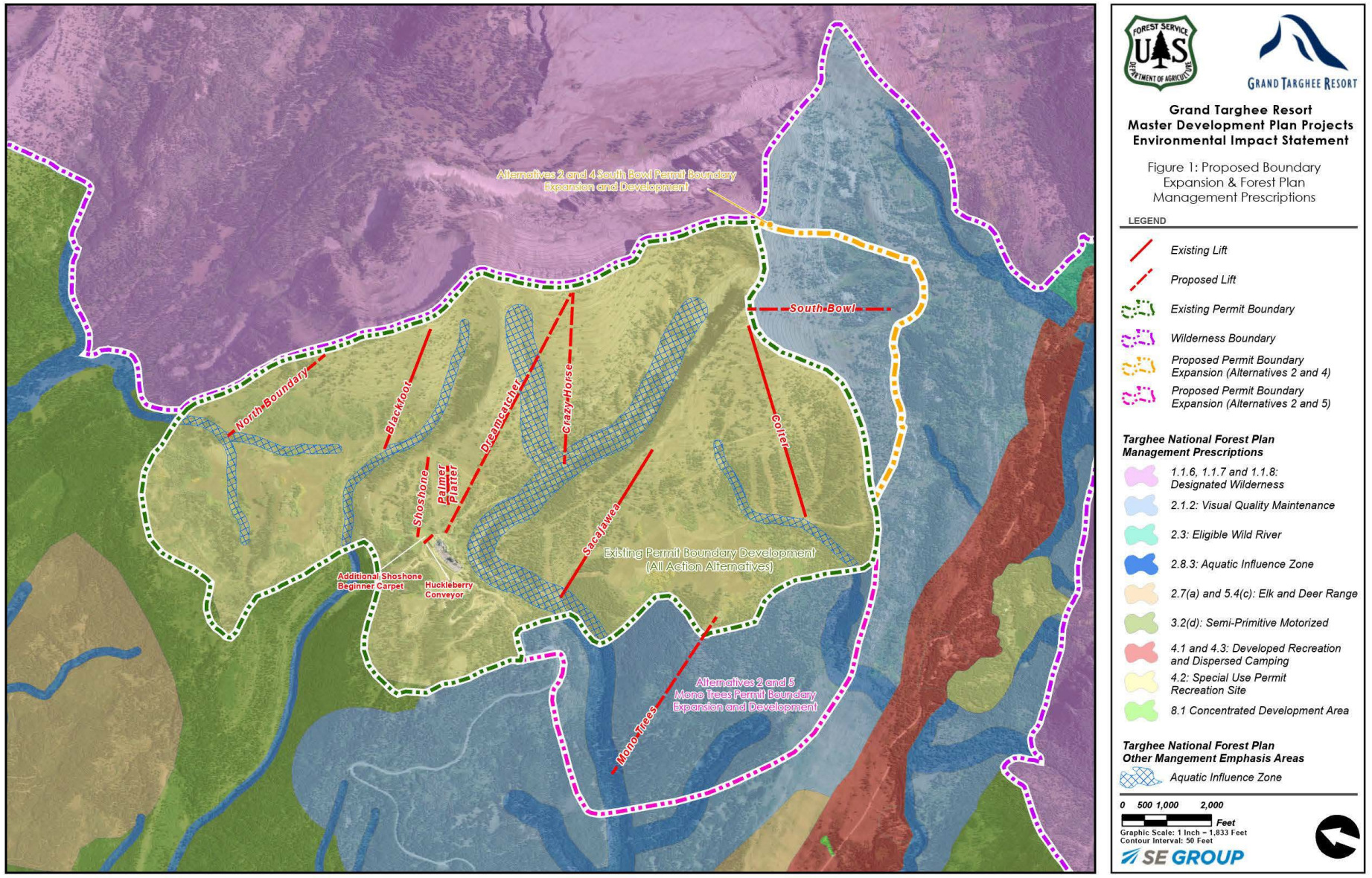
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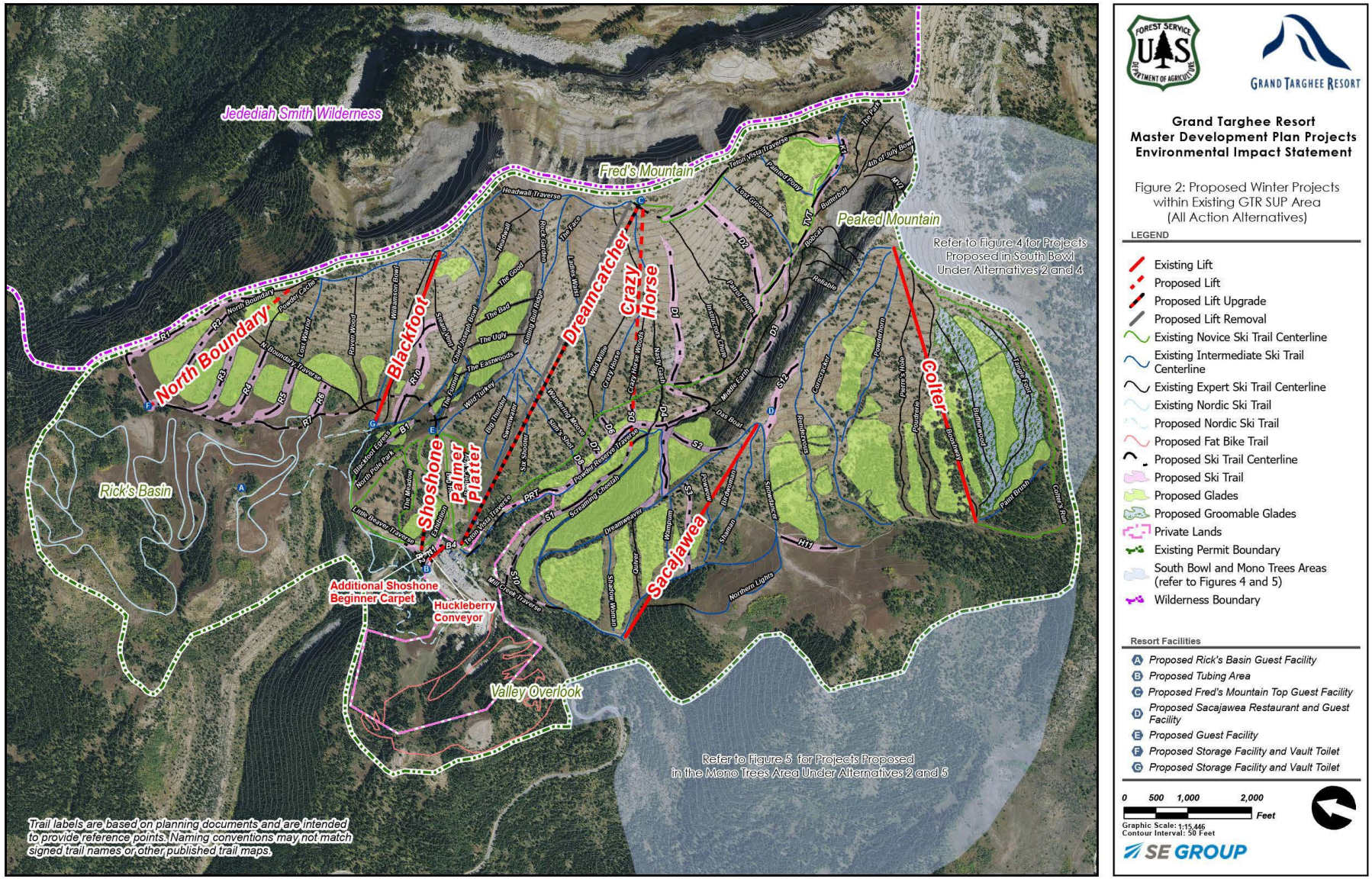
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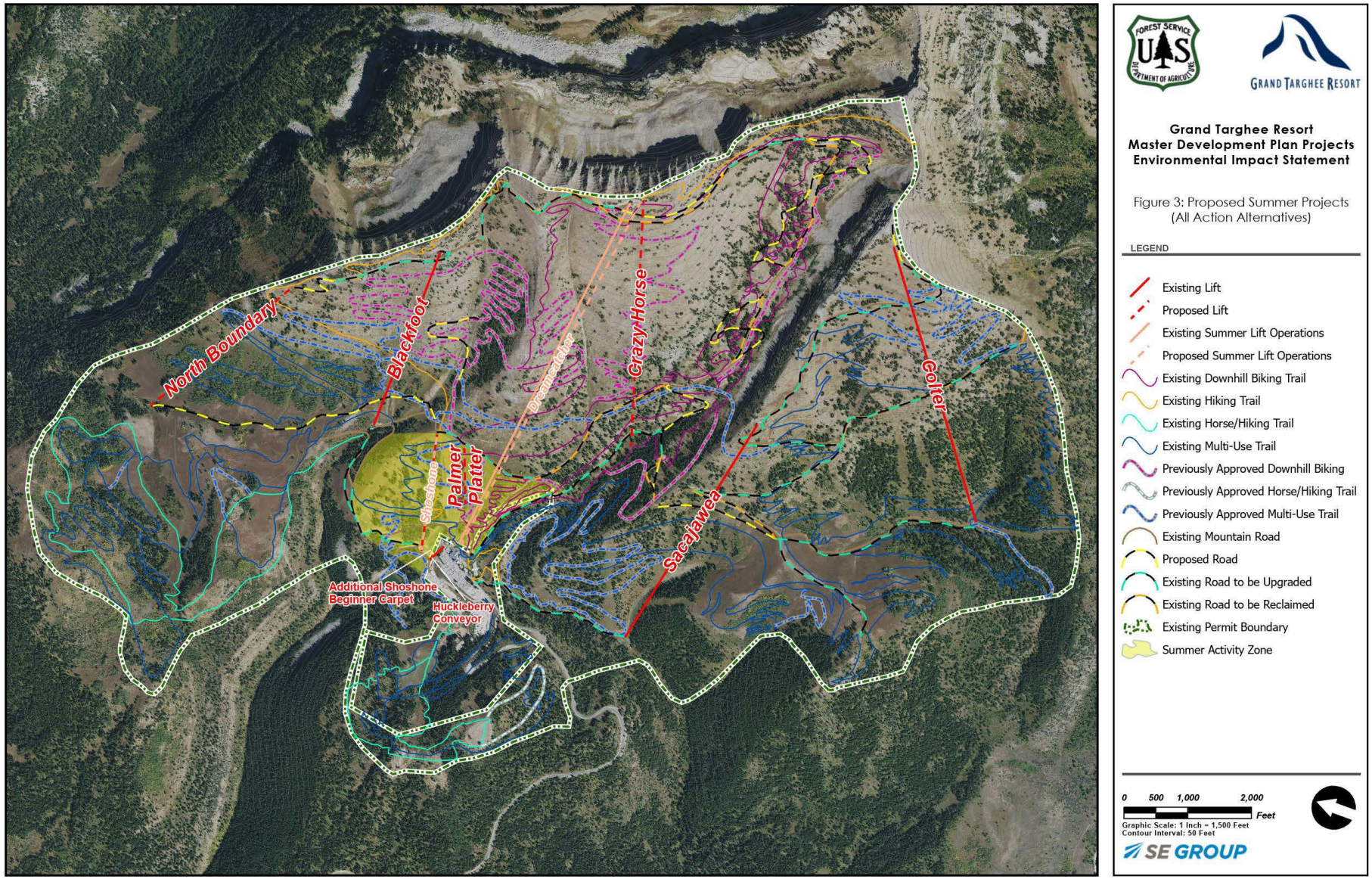
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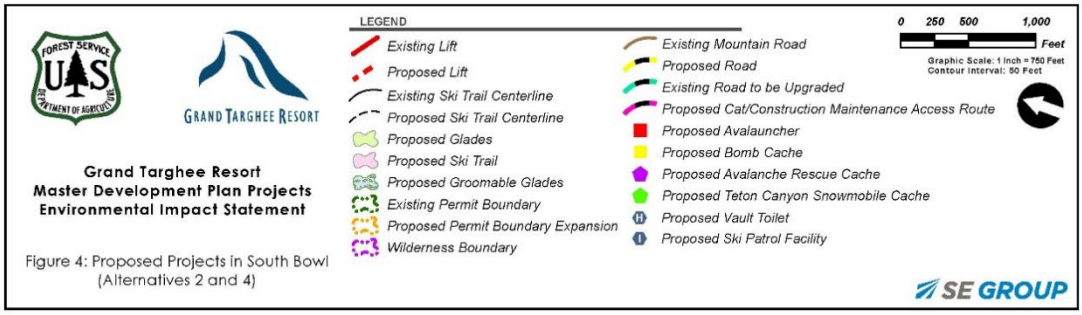
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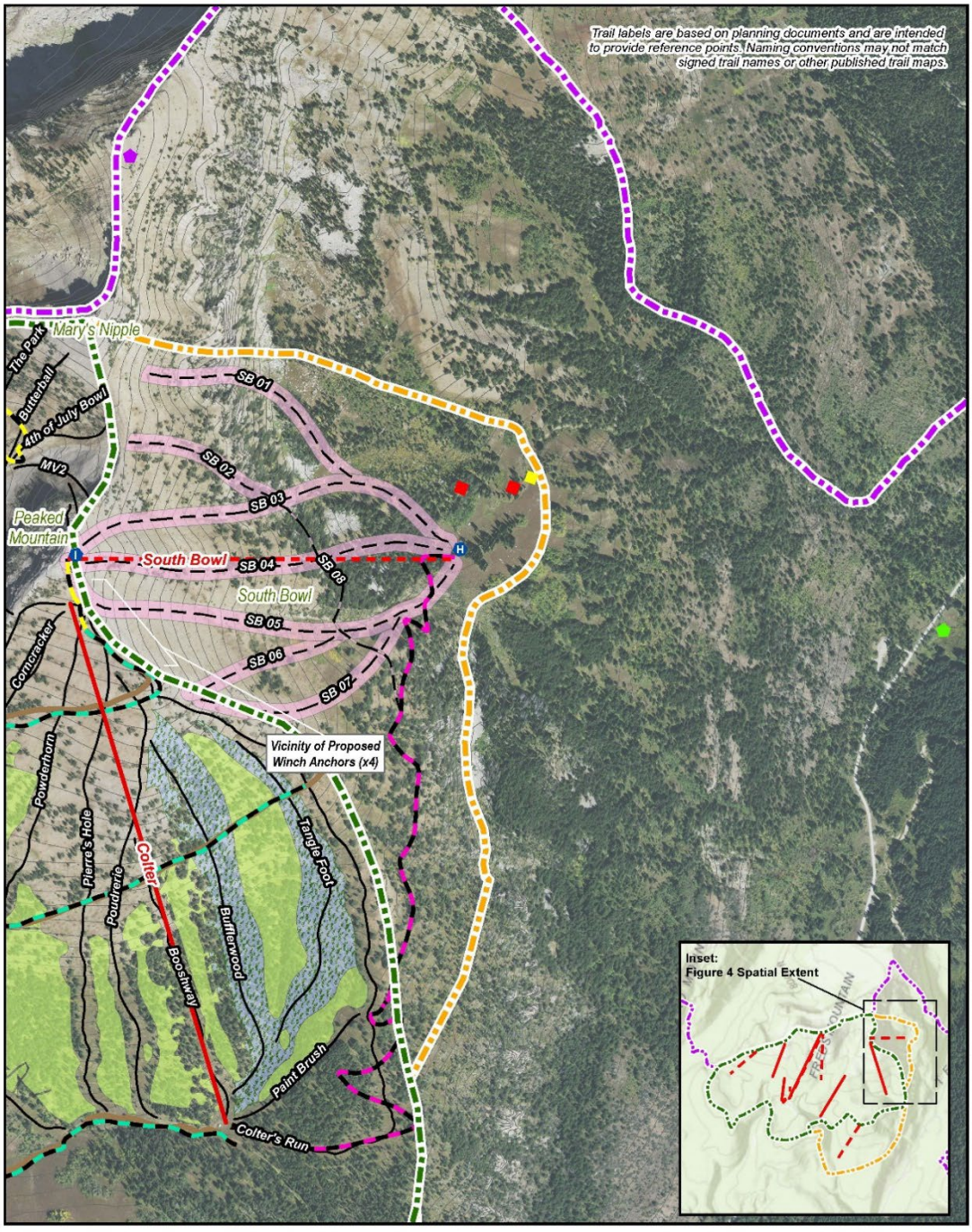
Chapter 6. Figures

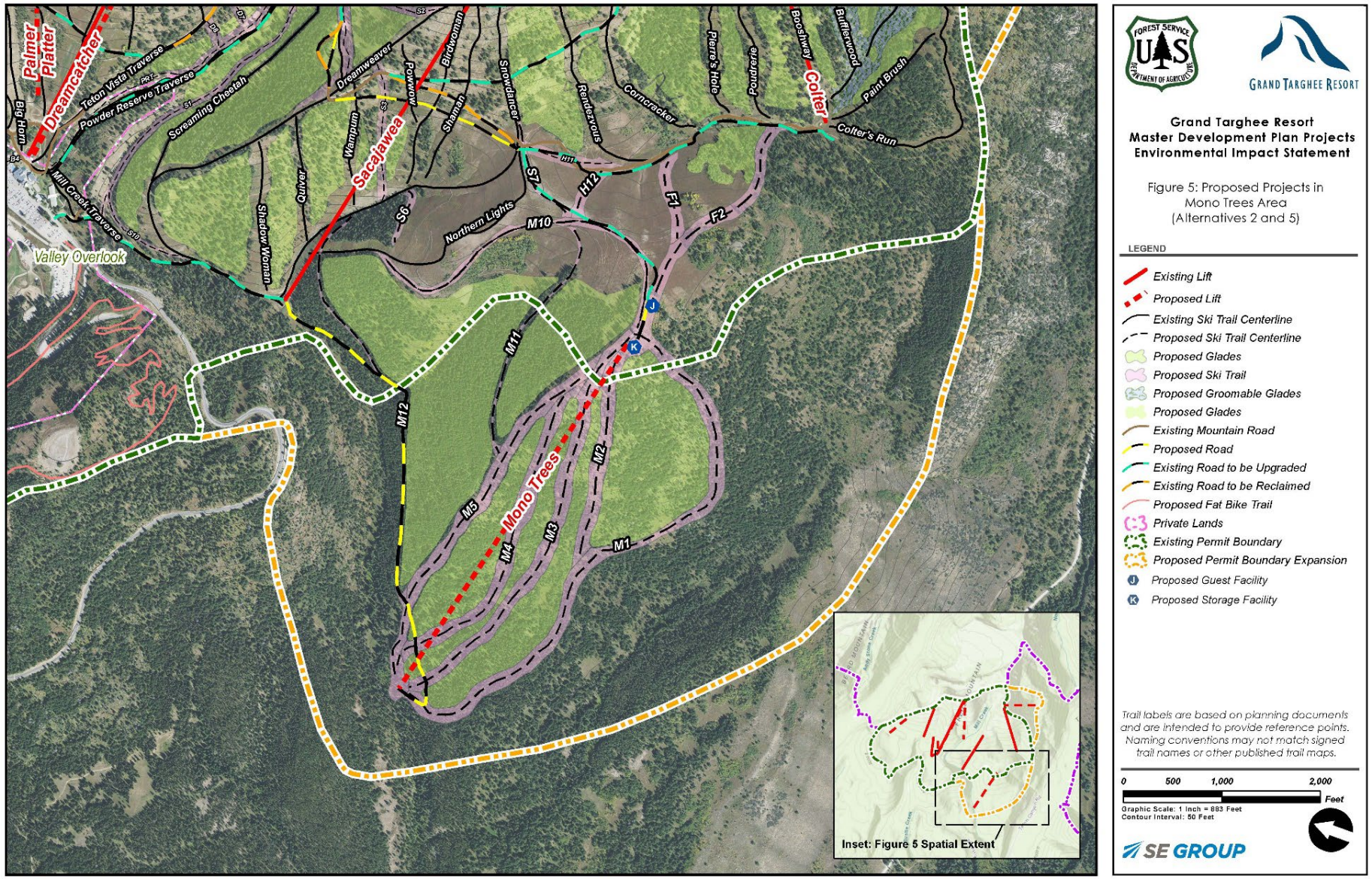

Alternatives 2 and 4 South Bowl Permit Boundary Expansion and Development
South Bowl
North Boundary
Blackfoot
Dreamcatcher
Crazy Horse
Shoshone
Palmer
Platter
Sacajawea
Golter
Existing Permit Boundary Development (All Action Alternatives)
Additional Shoshone Beginner Carpet
Huckleberry Conveyor
Alternatives 2 and 5 Mono Trees Permit Boundary Expansion and Development
Mono Trees
Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Figure 1: Proposed Boundary Expansion & Forest Plan Management Prescriptions
LEGEND
Existing Lift
Proposed Lift
Existing Permit Boundary
Wilderness Boundary
Proposed Permit Boundary Expansion (Alternatives 2 and 4)
Proposed Permit Boundary Expansion (Alternatives 2 and 5)
Targhee National Forest Plan Management Prescriptions
1.1.6, 1.1.7 and 1.1.8: Designated Wilderness
2.1.2: Visual Quality Maintenance
2.3: Eligible Wild River
2.8.3: Aquatic Influence Zone
2.7(a) and 5.4(c): Elk and Deer Range
3.2(d): Semi-Primitive Motorized
4.1 and 4.3: Developed Recreation and Dispersed Camping
4.2: Special Use Permit Recreation Site
8.1 Concentrated Development Area
Targhee National Forest Plan Other Mangement Emphasis Areas
Aquatic Influence Zone
0 500 1,000 2,000
Feet
Graphic Scale: 1 Inch = 1,833 Feet
Contour Interval: 50 Feet
SE GROUP

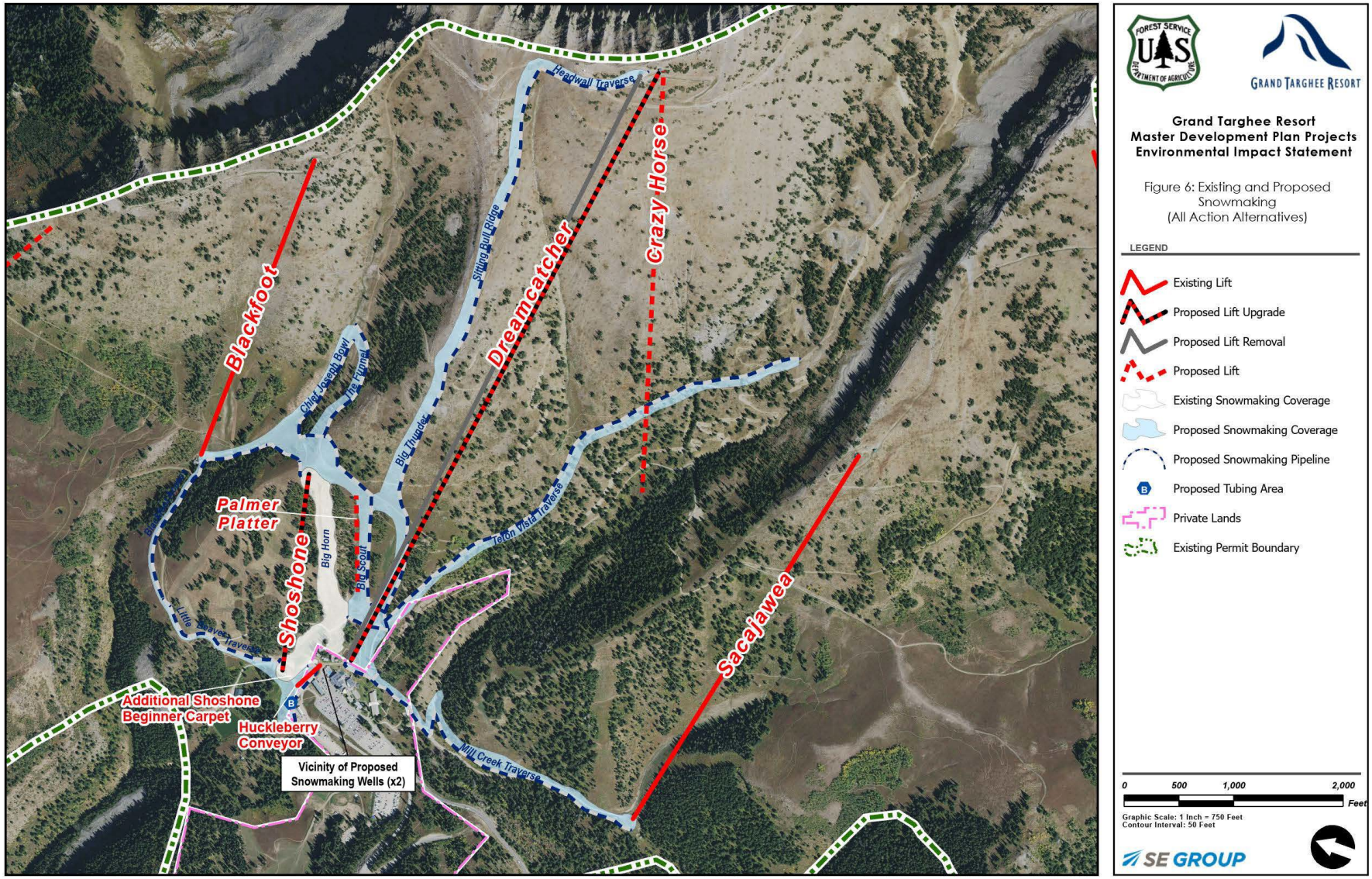

Jedediah Smith Wilderness
Fred's Mountain
Peaked Mountain
Rick's Basin
Valley Overlook
North Boundary
Blackfoot
Dreamcatcher
Crazy Horse
Shoshone
Palmer
Platter
Sacajawea
Colter
Additional Shoshone Beginner Carpet
Huckleberry Conveyor
Refer to Figure 4 for Projects Proposed in South Bowl Under Alternatives 2 and 4
Refer to Figure 5 for Projects Proposed in the Mono Trees Area Under Alternatives 2 and 5
Trail labels are based on planning documents and are intended to provide reference points. Naming conventions may not match signed trail names or other published trail maps.
Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Figure 2: Proposed Winter Projects within Existing GTR SUP Area (All Action Alternatives)
LEGEND
Existing Lift
Proposed Lift
Proposed Lift Upgrade
Proposed Lift Removal
Existing Novice Ski Trail Centerline
Existing Intermediate Ski Trail Centerline
Existing Expert Ski Trail Centerline
Existing Nordic Ski Trail
Proposed Nordic Ski Trail
Proposed Fat Bike Trail
Proposed Ski Trail Centerline
Proposed Ski Trail
Proposed Glades
Proposed Groomable Glades
Private Lands
Existing Permit Boundary
South Bowl and Mono Trees Areas (refer to Figures 4 and 5)
Wilderness Boundary
Resort Facilities
A Proposed Rick's Basin Guest Facility
B Proposed Tubing Area
C Proposed Fred's Mountain Top Guest Facility
D Proposed Sacajawea Restaurant and Guest Facility
E Proposed Guest Facility
F Proposed Storage Facility and Vault Toilet
G Proposed Storage Facility and Vault Toilet
0 500 1,000 2,000 Feet
Graphic Scale: 1:15,446
Contour Interval: 50 Feet
SE GROUP

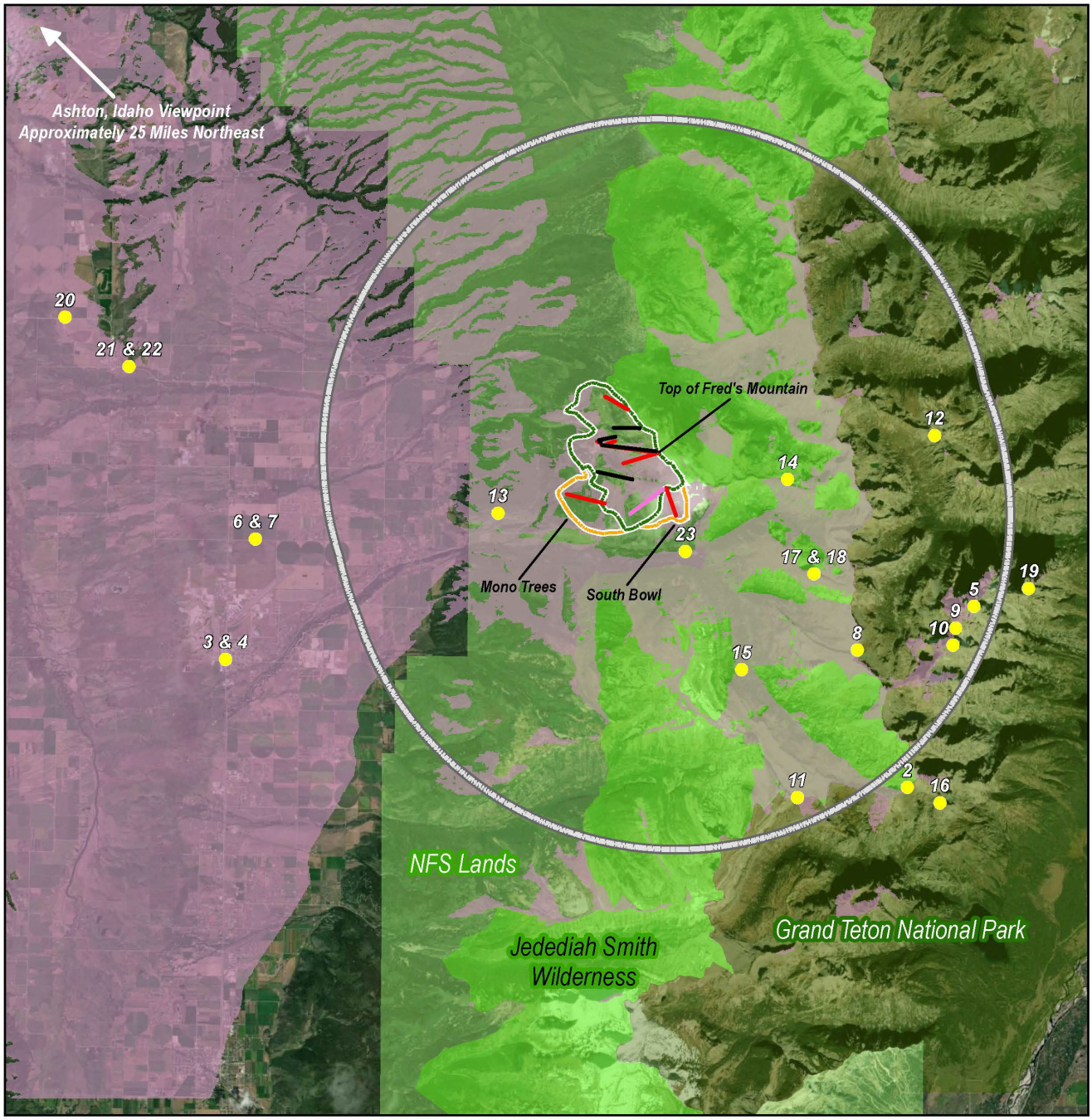

North Boundary
Blackfoot
Crazy Horse
Colter
Sacajawea
Shoshone
Palmer
Platter
Additional Shoshone Beginner Carpet
Huckleberry Conveyor
FOREST SERVICE
USDA
DEPARTMENT OF AGRICULTURE
GRAND TARGHEE RESORT
Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Figure 3: Proposed Summer Projects
(All Action Alternatives)
LEGEND
Existing Lift
Proposed Lift
Existing Summer Lift Operations
Proposed Summer Lift Operations
Existing Downhill Biking Trail
Existing Hiking Trail
Existing Horse/Hiking Trail
Existing Multi-Use Trail
Previously Approved Downhill Biking
Previously Approved Horse/Hiking Trail
Previously Approved Multi-Use Trail
Existing Mountain Road
Proposed Road
Existing Road to be Upgraded
Existing Road to be Reclaimed
Existing Permit Boundary
Summer Activity Zone
0 500 1,000 2,000
Feet
Graphic Scale: 1 Inch = 1,500 Feet
Contour Interval: 50 Feet
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Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Figure 4: Proposed Projects in South Bowl
(Alternatives 2 and 4)
LEGEND
Existing Lift
Proposed Lift
Existing Ski Trail Centerline
Proposed Ski Trail Centerline
Proposed Glades
Proposed Ski Trail
Proposed Groomable Glades
Existing Permit Boundary
Proposed Permit Boundary Expansion
Wilderness Boundary
Existing Mountain Road
Proposed Road
Existing Road to be Upgraded
Proposed Cat/Construction Maintenance Access Route
Proposed Avalauncher
Proposed Bomb Cache
Proposed Avalanche Rescue Cache
Proposed Teton Canyon Snowmobile Cache
Proposed Vault Toilet
Proposed Ski Patrol Facility
0 250 500 1,000
Feet
Graphic Scale: 1 inch = 750 Feet
Contour Interval: 50 Feet
SE GROUP


Trail labels are based on planning documents and are intended to provide reference points. Naming conventions may not match signed trail names or other published trail maps.
Mary's Nipple
The Peak
Butterball
4th of July Bowl
MV2
Peaked Mountain
South Bowl
South Bowl
SB 01
SB 02
SB 03
SB 04
SB 05
SB 06
SB 07
SB 08
Cornucracker
Powderhorn
Pierre's Hole
Colter
Poudrerie
Boosiway
Bufflerwood
Tangle Foot
Paint Brush
Colter's Run
Vicinity of Proposed Winch Anchors (x4)
Inset:
Figure 4 Spatial Extent


Palmer
Platter
Dreamcatcher
Teton Vista Traverse
Powder Reserve Traverse
Screaming Cheetah
Big Horn
Mill Creek Traverse
Valley Overlook
Shadow Woman
Dunvar
Wampum
Dreamweaver
Powwow
Birdwoman
Shaman
Sacajawea
Snowdancer
Rendezvous
Cornicracker
Pierre's Hole
Pronghorn
Boostway
Colter
Buffalerwood
Paint Brush
Colter's Run
S7
H12
F1
F2
S6
Northern Lights
M10
M11
M12
M5
M4
M3
M2
M1
Mono Trees
Inset: Figure 5 Spatial Extent
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GRAND TARGHEE RESORT
Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Figure 5: Proposed Projects in Mono Trees Area (Alternatives 2 and 5)
LEGEND
Existing Lift
Proposed Lift
Existing Ski Trail Centerline
Proposed Ski Trail Centerline
Proposed Glades
Proposed Ski Trail
Proposed Groomable Glades
Proposed Glades
Existing Mountain Road
Proposed Road
Existing Road to be Upgraded
Existing Road to be Reclaimed
Proposed Fat Bike Trail
Private Lands
Existing Permit Boundary
Proposed Permit Boundary Expansion
Proposed Guest Facility
Proposed Storage Facility
Trail labels are based on planning documents and are intended to provide reference points. Naming conventions may not match signed trail names or other published trail maps.
0
500
1,000
2,000
Feet
Graphic Scale: 1 Inch = 883 Feet
Contour Interval: 50 Feet
SE GROUP


Blackfoot
Dreamcatcher
Crazy Horse
Sacajawea
Shoshone
Palmer
Platter
Headwall Traverse
Sitting Bull Bridge
Chief Joseph Bowl
Ice Funnel
Big Thunder
Big Horn
Big Scout
Teton Vista Traverse
Little Beaver Traverse
Mill Creek Traverse
Additional Shoshone
Beginner Carpet
Huckleberry
Conveyor
Vicinity of Proposed
Snowmaking Wells (x2)
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GRAND TARGHEE RESORT
Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Figure 6: Existing and Proposed
Snowmaking
(All Action Alternatives)
LEGEND
Existing Lift
Proposed Lift Upgrade
Proposed Lift Removal
Proposed Lift
Existing Snowmaking Coverage
Proposed Snowmaking Coverage
Proposed Snowmaking Pipeline
Proposed Tubing Area
Private Lands
Existing Permit Boundary
0
500
1,000
2,000
Feet
Graphic Scale: 1 Inch = 750 Feet
Contour Interval: 50 Feet
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GRAND TARGHEE RESORT

Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement

Figure 7: Viewshed Associated with South Bowl Top and Bottom Lift Terminals

Legend

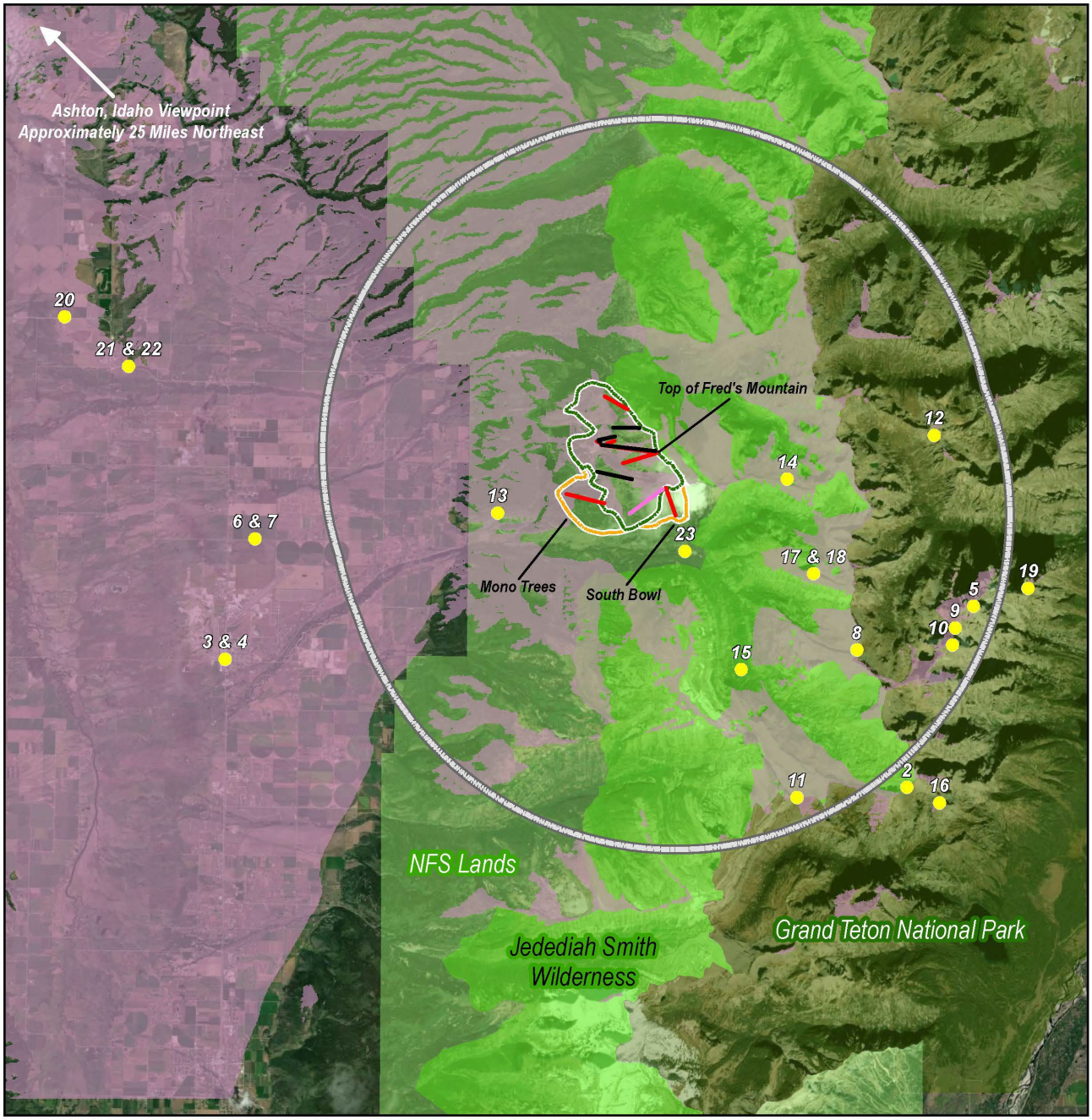
- Existing Lift
- Proposed Lifts
- Previously Approved Lift
- Existing Permit Boundary
- Proposed Permit Boundary Expansion
- Visibility
- View Locations
- Zone of Potential Visibility

Public Lands

- National Forest System Lands
- Jedediah Smith Wilderness
- Grand Teton National Park

0 2.5 5 Miles

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GRAND TARGHEE RESORT

Grand Targhee Resort Master Development Plan Projects Environmental Impact Statement

Figure 8: Viewshed Associated with Fred's Mountain Top Guest Facility

Legend

- Existing Lift
- Proposed Lifts
- Previously Approved Lift
- Existing Permit Boundary
- Proposed Permit Boundary Expansion
- Visibility
- View Locations
- Zone of Potential Visibility

Public Lands

- National Forest System Lands
- Jedediah Smith Wilderness
- Grand Teton National Park

0 2.5 5 Miles

Prepared by: SE GROUP

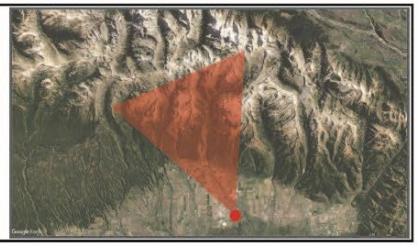


Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Scenary Technical Report

Figure 9a. Colter Building Rooftop (View 3)
Existing Conditions Visual Simulation

Viewpoint Details
Viewpoint Elevation: 6,187'
Approximate Distance to Grand Targhee Resort
Special Use Permit Area: 10 Miles

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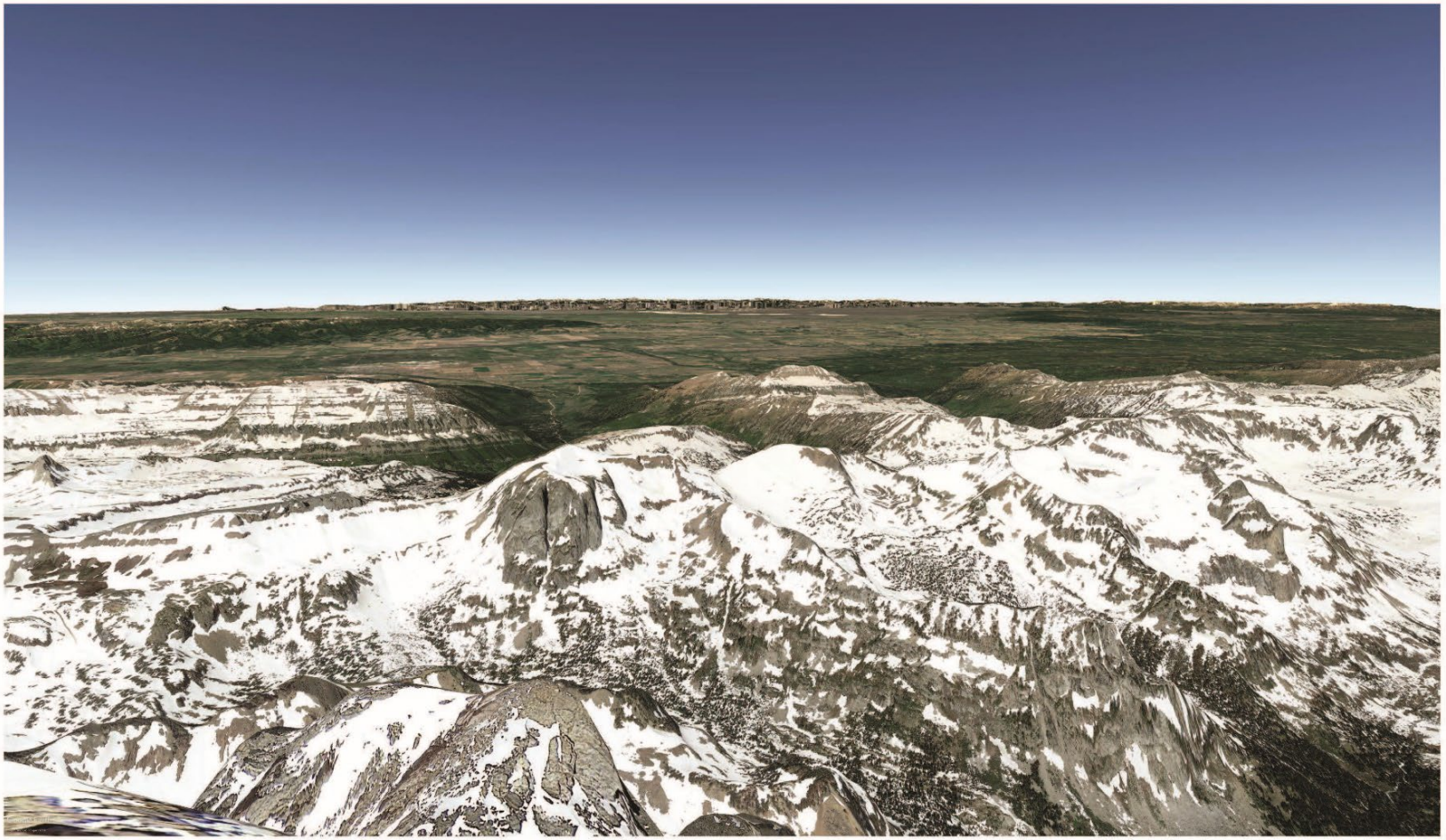
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Master Development Plan Projects
Environmental Impact Statement
Scenary Technical Report

Figure 9b. Colter Building Rooftop (View 3)
Proposed Conditions Visual Simulation

Viewpoint Details
Viewpoint Elevation: 6,187'
Approximate Distance to Grand Targhee Resort
Special Use Permit Area: 10 Miles

Prepared by
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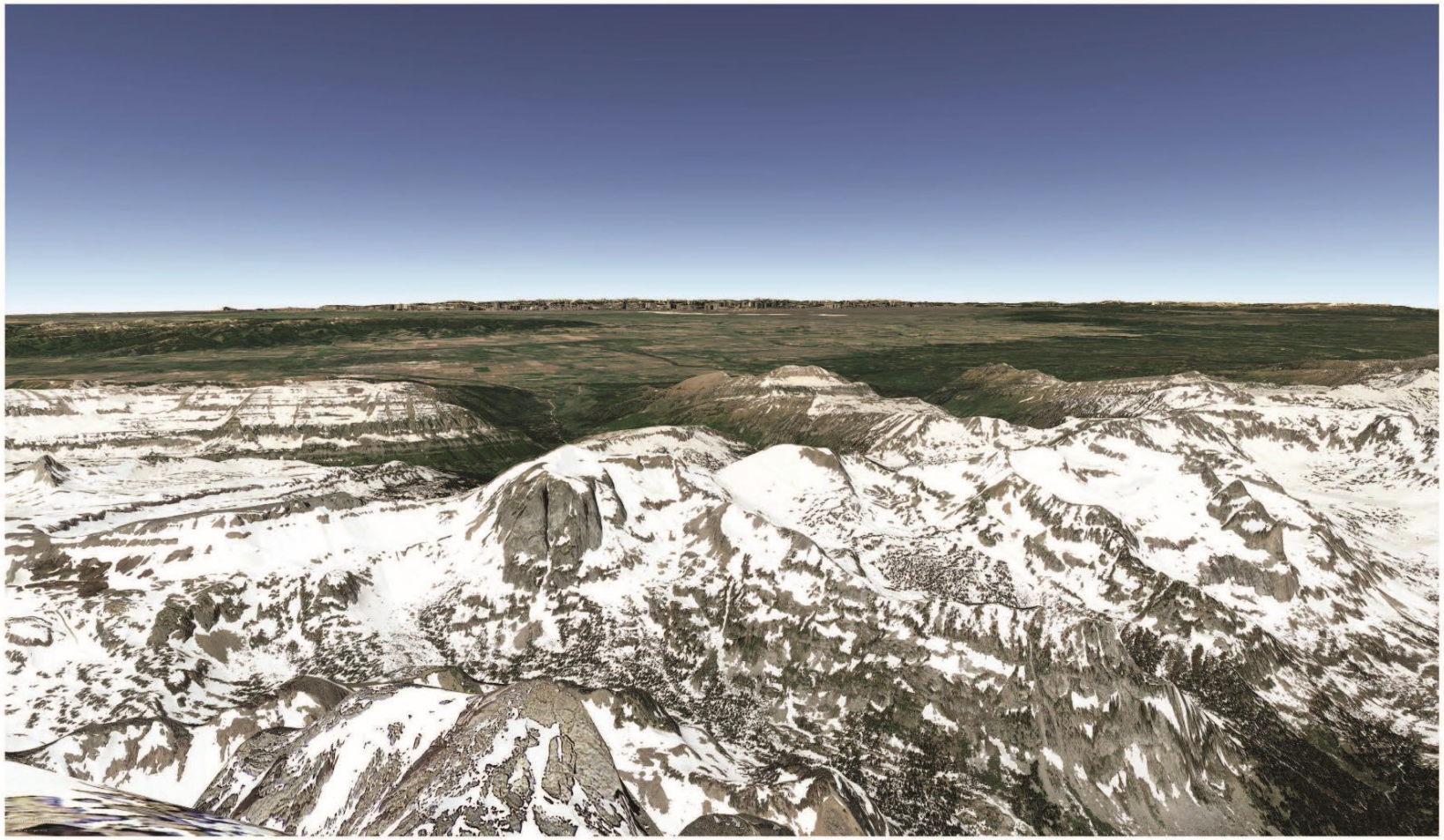
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Master Development Plan Projects
Environmental Impact Statement
Scenery Technical Report

Figure 10a. Grand Teton Summit (View 5)
Existing Conditions Visual Simulation

Viewpoint Details
Viewpoint Elevation: 6,187'
Approximate Distance to Grand Targhee Resort
Special Use Permit Area: 6.5 Miles

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Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Scenery Technical Report

Figure 10b. Grand Teton Summit (View 5)
Proposed Conditions Visual Simulation

Viewpoint Details
Viewpoint Elevation: 6,187'
Approximate Distance to Grand Targhee Resort
Special Use Permit Area: 6.5 Miles

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Master Development Plan Projects
Environmental Impact Statement
Scenery Technical Report

Figure 11a. Table Mountain (View 17)
Existing Conditions Visual Simulation

Viewpoint Details
Viewpoint Elevation: 6,187'
Approximate Distance to Grand Targhee Resort
Special Use Permit Area: 10 Miles

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Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Scenery Technical Report

Figure 11b. Table Mountain (View 17)
Proposed Conditions Visual Simulation

Viewpoint Details
Viewpoint Elevation: 6,187'
Approximate Distance to Grand Targhee Resort
Special Use Permit Area: 3 Miles

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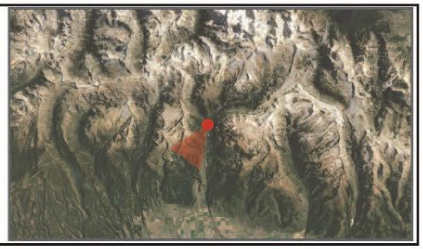


Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Scenery Technical Report

Figure 12a. Teton Canyon Campground (View 23)
Existing Conditions Visual Simulation

Viewpoint Details
Viewpoint Elevation: 6,187'
Approximate Distance to Grand Targhee Resort
Special Use Permit Area: 1 Miles

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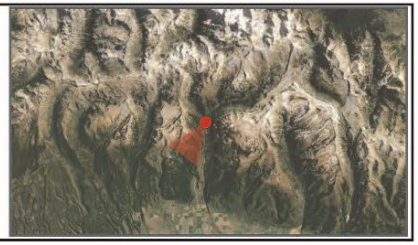


Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Scenery Technical Report

Figure 12b. Teton Canyon Campground (View 23)
Proposed Conditions Visual Simulation

Viewpoint Details
Viewpoint Elevation: 6,187'
Approximate Distance to Grand Targhee Resort
Special Use Permit Area: 1 Miles

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Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Scenary Technical Report

Figure 13. Fred's Mountain Top Restaurant (View from backside within the Jedediah Smith Wilderness) - Proposed Conditions Visual Simulation

Viewpoint Details
This is an artistic simulation intended for illustrative purposes only and does not constitute a final design. Design elements depicted, including but not limited to materials, dimensions, landscaping, and finishes, are subject to change upon final architectural and engineering review.

Prepared by SE GROUP





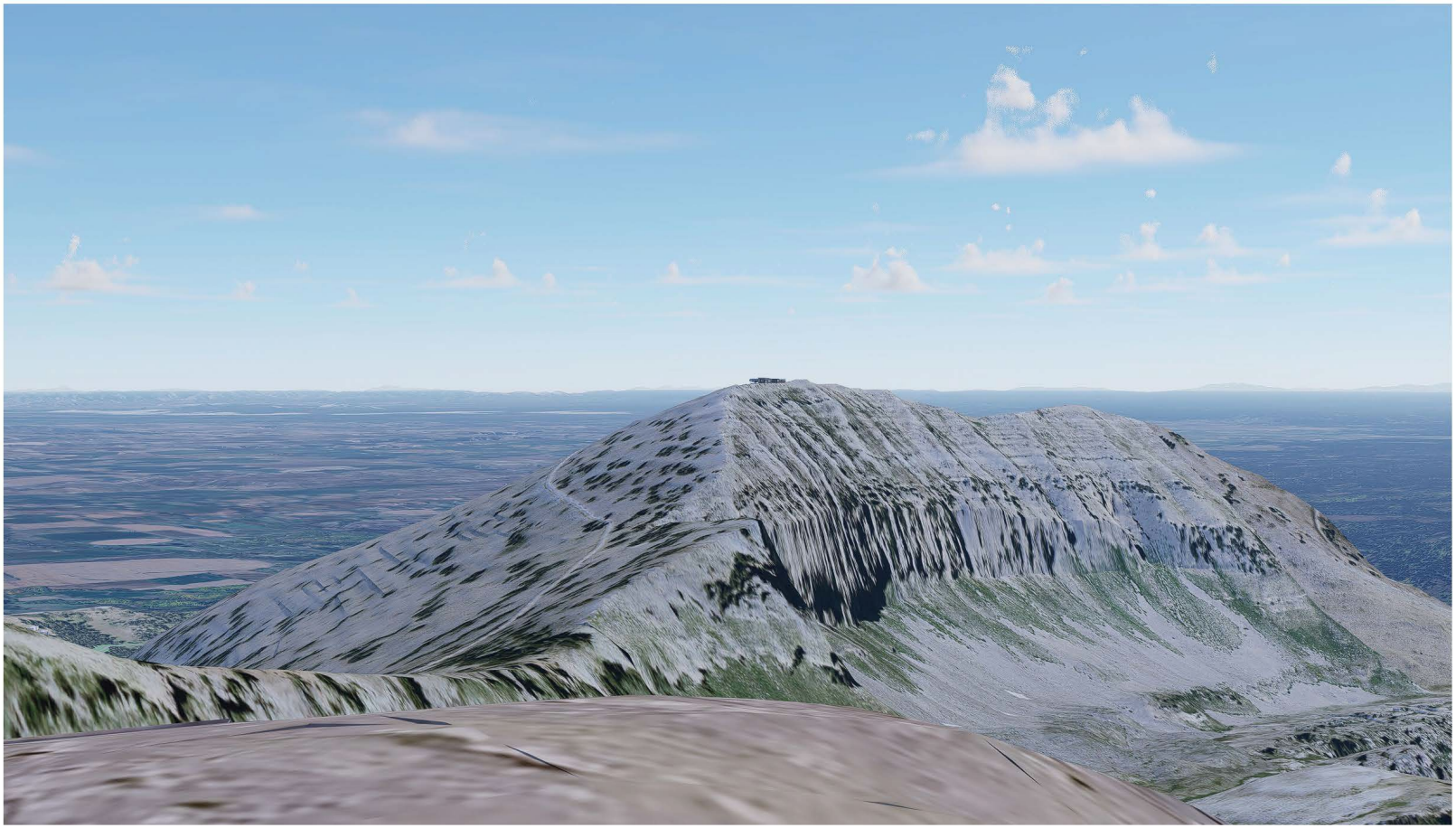
Grand Targhee Resort
Master Development Plan Projects
Environmental Impact Statement
Scenary Technical Report

Figure 14. Fred's Mountain Top Restaurant (View from an oblique angle to see placement of Dreamcatcher and Crazy Horse Lifts) - Proposed Conditions Visual Simulation

Viewpoint Details
This is an artistic simulation intended for illustrative purposes only and does not constitute a final design. Design elements depicted, including but not limited to materials, dimensions, landscaping, and finishes, are subject to change upon final architectural and engineering review.

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Master Development Plan Projects
Environmental Impact Statement
Scenary Technical Report

Figure 15. Fred's Mountain Top Restaurant (View from Southwest of Peaked Mountain on the ridgeline) - Proposed Conditions Visual Simulation

Viewpoint Details
This is an artistic simulation intended for illustrative purposes only and does not constitute a final design. Design elements depicted, including but not limited to materials, dimensions, landscaping, and finishes, are subject to change upon final architectural and engineering review.

Prepared by
SE GROUP



Chapter 7. Glossary

Ability level: The relative rank of a skier or snowboarder, or the relative rank given to alpine terrain or summer trails. The six ability levels are as follows: beginner, novice, low-intermediate, intermediate, advanced-intermediate, and expert. The three ability levels for mountain biking and hiking trails are as follows: easier, more difficult, and most difficult.

Action alternatives: Any alternative that includes upgrading and/or expansion of existing recreational development within the area.

Administrative Routes: On-mountain primary and secondary administrative routes that provide summertime access to mountain buildings and lift terminal locations.

Affected environment: The physical, biological, social, and economic environment that would or may be changed by actions proposed and the relationship of people to that environment.

Airshed: A geographical area that, because of topography, meteorology, and climate, shares the same air.

Alternative: One of several conceptual development plans described and evaluated in the EIS.

Analysis area: The geographical area and/or physical, biological, and social environments that are analyzed for specific resources in the EIS.

Annual Average Daily Traffic (AADT): Annual average two-way daily traffic volume represents the total traffic on a section of roadway for the year, divided by 365. It includes both weekday and weekend traffic volumes.

Army Corps of Engineers (USACE): The federal agency charged with enforcing the Clean Water Act by regulation of dredge and fill activities in waters of the United States, including wetlands.

Average Vehicle Occupancy (AVO): Average number of occupants in a vehicle. Rate of 2.5 guests per car was used in this EIS.

Backcountry terrain: All terrain that is beyond the ski area operational boundary (defined below). Within this Final EIS, backcountry terrain is described beyond the ski area SUP boundary (defined below). Backcountry terrain offers an undeveloped, unmaintained experience with the feeling of solitude.

Baseline condition: The existing dynamic conditions prior to development, against which potential effects are judged.

Best Management Practices (BMPs): Methods, measures, and practices specifically adopted for local conditions that minimize or avoid impacts to resources. BMPs include, but are not limited to, construction practices, structural and nonstructural controls, operations protocol, and maintenance procedures.

Biological Assessment (BA): An evaluation conducted to determine the potential effects of the action on federally listed and proposed species and designated and proposed critical habitat and determine whether any such species or habitat are likely to be adversely affected by the action.

Biological Evaluation (BE): An evaluation conducted to determine whether a proposed action is likely to affect any species which are listed as sensitive (Forest Service), candidate (Forest Service), or other special designations.

Built Environment Image Guide (BEIG): The guide describes an approach to designing recreation and administrative facilities fits facilities within the context of their ecological, physical, and cultural settings.

Canopy: The more-or-less continuous cover of leaves, needles and/or branches collectively formed by the crowns of adjacent trees in a stand or forest.

Class I Airsheds: As designated by the Clean Air Act (see below), these are areas designated for the most stringent degree for protection from future degradation of air quality.

Class II Airsheds: As designated by the Clean Air Act (see below), these are areas where a moderate amount of development could occur.

Clean Air Act (CAA): An act that was enacted by the U.S. Congress in 1963 to control air pollution. The act established a federal program with the U.S. Public Health Service and authorized research into techniques for monitoring and limiting air pollution.

Clean Water Act (CWA): An act that was enacted by the U.S. Congress in 1977 to maintain and restore the chemical, physical, and biological integrity of the waters of the United States. This act was formerly known as the Federal Water Pollution Control Act (33 U.S.C. § 1344).

Comfortable Carrying Capacity (CCC): Comfortable Carrying Capacity is a planning tool used to determine the optimum level of utilization that facilitates a pleasant recreational experience. This metric is for planning purposes only and does not represent a regulatory cap on visitation. CCC is used to ensure that different aspects of a resort's facilities are designed to work in harmony, that capacities are equivalent across facilities, and that these capacities are sufficient to meet anticipated demand. CCC is based on factors such as vertical transport and trail capacities.

Connected Disturbed Areas (CDAs): High runoff areas like roads and other disturbed sites that have a continuous surface flow path into a stream or lake. Hydrologic connection exists where overland flow, sediment, or pollutants have a direct route to the channel network. CDAs include roads, ditches, compacted soils, bare soils, and areas of high burn severity that are directly connected to the channel system. Ground disturbing activities located within the water influence zone should be considered connected unless site-specific actions are taken to disconnect them from streams.

Corridor: A linear strip of land identified for the present or future location of transportation or utility rights-of-way within its boundaries. Also, a contiguous strip of habitat suitable to facilitate animal dispersal or migration.

Cover: Vegetation used by wildlife for protection from predators and weather conditions, or in which to reproduce.

Critical habitat: A formal designation pursuant to the Endangered Species Act that may be applied to a particular habitat that is essential to the life cycle of a given species, and if lost, would adversely affect that species. Critical habitat can have a less formal meaning when used outside of the context of the Endangered Species Act.

Cubic feet per second (cfs): Unit measure of streamflow or discharge, equivalent to 449 gallons per minute or about 2-acre feet per day.

Cultural resource: Cultural resources are the tangible and intangible aspects of cultural systems, living and dead, that are valued by a given culture or contain information about the culture. Cultural resources include, but are not limited to sites, structures, buildings, districts, and objects associated with or representative of people, cultures, and human activities and events.

Cumulative impact: The impact on the environment that results from the incremental impact of the action when added to other past, present and reasonable foreseeable future actions regardless of what agency or person undertakes such other actions. Each increment from each project may not be noticeable but cumulative impacts may be noticeable when all increments are considered together.

Day visitor: Visitors that arrive in the morning and drive back home at the end of the day (as opposed to a "destination visitor").

Designated critical habitat: A formal designation pursuant to the Endangered Species Act which may be applied to a particular habitat that is essential to the life cycle of a given species, and if lost, would adversely affect that species. Critical habitat can have a less formal meaning when used outside the context of the Endangered Species Act.

Destination visitor: A visitor that stays overnight within the resort community (as opposed to a "day visitor").

Developed terrain network: Consists of its named, defined, lift-served, maintained (groomed) ski trails. These trails represent the baseline of the terrain at any resort, as they are where the majority of guests ski, and are usually the only place to ski during the early season, periods of poor or undesirable snow conditions, avalanche closures, and certain weather conditions.

Direct effect: An effect which occurs as a result of an action associated with implementing the proposal or one of the alternatives, including construction, operation, and maintenance.

Dispersed recreation: Recreation that occurs outside of a developed recreation site and includes such activities as mountain biking, hiking, backpacking, and recreation activities in primitive environments.

Distance zone: One of three categories used in the visual management system to divide a view into near and far components. The three categories are (1) foreground, (2) middleground, and (3) background. See individual entries.

District Ranger: The official responsible for administering the National Forest System lands on a Ranger District.

Diversity: The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan.

Ecosystem: The system formed by the interaction of a group of organisms and their environment, for example, marsh, watershed, or lake.

Effects: Results expected to be achieved from implementation of the alternatives relative to physical, biological, economic, and social factors. Effects can be direct, indirect, or cumulative and may be either beneficial or detrimental.

Endangered species: An official designation for any species of plant or animal that is in danger of extinction throughout all or a significant portion of its range. An endangered species must be designated in the Federal Register by the appropriate Federal Agency Secretary.

Environmental analysis: An analysis of alternative actions and their predictable short- and long-term environmental effects, which include physical, biological, economic, social and environmental design factors and their interactions.

Environmental Impact Statement (EIS): A disclosure document required by the National Environmental Policy Act that documents the anticipated environmental effects of a proposed action that may significantly affect the quality of the human environment.

Environmental Protection Agency (EPA): The federal agency charged with lead enforcement of multiple environmental laws, including review of Environmental Impact Statements.

Ephemeral Stream: A stream that flows only in direct response to precipitation in the immediate locality (watershed or catchment basin), and whose channel is at all times above the zone of saturation.

Erosion control: Materials, structure, and techniques designed to reduce erosion. Erosion control may include rapid revegetation, avoiding steep or highly erosive sites, and installation of cross-slope drainage structures.

Erosion hazard: Soil ratings to predict the erosion hazard or potential to be eroded.

Erosion: The detachment and movement of soil from the land surface by wind, water, ice, or gravity.

Evaporation: The process by which water changes from a liquid to a gas or a vapor as atmospheric water vapor.

Forage: All browse and non-woody plants used for grazing or harvested for feeding livestock or game animals.

Forb: Any non-grass-like plant having little or no woody material on it. A palatable, broadleaved, flowering herb whose stem, above ground, does not become woody and persistent.

Foreground distance zone: The landscape area visible to an observer from the immediate area to 0.5 mile.

Forest Plan: A comprehensive management plan prepared under the National Forest Management Act of 1976 that provides standards and guidelines for management activities specific to each National Forest.

Forest Service: The agency of the United States Department of Agriculture responsible for managing National Forests and Grasslands.

Forest Supervisor: The official responsible for administering the NFS lands in a Forest Service administrative unit who reports to the Regional Forester.

Full-Time Equivalent (FTEs): Sufficient work to keep one person employed full-time for one year. In seasonal industries one FTE may be represented by several employment positions.

Glades: Trees stands that are naturally thin or have been thinned specifically in varying degrees to improve the skiing experience by increasing the spacing between individual trees.

Grading: The practice of moving or re-contouring earthen materials to achieve a specified slope in the landform.

Grooming: The preparation and smoothing of the developed trail network's snow surface, using large over-the-snow vehicles (commonly referred to as "snow cats" or "groomers"). Groomers are equipped with front-mounted blades to push snow and rear-mounted implements to flatten and/or till the snow to the desired consistency.

Groundwater: Subsurface water in the part of the ground that is wholly saturated.

Guest services facilities or guest services: Facilities or services that are supplied by a resort—both on-mountain and at the base area—to accommodate guests' needs and to enhance the quality of the recreational experience. Examples of guest services facilities include: restaurants, warming huts, general information desks, resort lost and found departments, restrooms and lounges, ski school, daycare, public lockers and ticketing facilities, patrol, first aid clinics, etc.

Guideline: A preferred course of action designed by policy to achieve a goal, respond to variable site conditions, or respond to an overall condition.

Gully: An erosion channel greater than 1 foot deep.

Habitat: The sum of environmental conditions of a specific place that is occupied by an organism, a population, or a community.

Habitat type: A classification of the vegetation resource based on dominant growth forms. The forested areas are more specifically classified by the dominant tree species.

Hydrologic function: The ability of a watershed to infiltrate precipitation and naturally regulate runoff so streams are in dynamic equilibrium with their channels and floodplains.

Impacts: See effects.

Indicator species: An animal species used to represent a group of species that utilize the same habitat. For monitoring purposes, the well-being of the indicator species is assumed to reflect the general health of the community.

Indirect effect: Secondary consequences to the environment resulting from a direct impact. An example of an indirect impact is the deposition of sediment in a wetland resulting from surface disturbance in the upland.

Interdisciplinary Team (ID Team): A group of individuals each representing specialty resource areas assembled to solve a problem or perform a task through frequent interaction so that different disciplines can combine to provide new solutions.

Intermittent stream: A stream or reach of stream channel that flows, in its natural conditions, only during certain times of the year or in several years. It is characterized by interspersed, permanent surface water areas containing aquatic flora and fauna adapted to the relatively harsh environmental conditions found in these types of environments.

Long-term: In this analysis, long-term describes the period after five years from project completion.

Lynx Analysis Unit (LAU): The area of at least the size used by an individual lynx, from about 25 to 50 square miles. It is the unit for which the effects of a project would be analyzed.

Management Area Prescription: According to the Forest Plan, specific land areas that are categorized into management areas based off the general management direction, the location of the area, how the area will look and the opportunities available in the future, and distinct standards and guidelines that apply to the particular area.

Management direction: A statement of multiple-use and other goals and objectives, the associated management prescriptions, and standards and guidelines for attaining them.

Management measures: environmental goals to protect aquatic and riparian measures outlined in the Watershed Conservation Practices Handbook.

Management practice: A specific activity, measure, course of action, or treatment.

Master Development Plan (MDP): A document that is required as a condition of the ski area term special use permit, designed to guide resort planning and development in the long- and short-term – typically across both public and private lands.

Middleground distance zone: The landscape area visible to a viewer from 0.5 mile to about 3 to 5 miles.

Mitigation: Actions taken to avoid, minimize, or compensate for adverse environmental impacts.

Multi-season recreation: Additional recreation uses of ski areas operating on NFS lands that provide other seasonal or year-round natural resource-based recreational activities and associated facilities, which extend beyond traditional snow-sports and winter operations.

National Ambient Air Quality Standards (NAAQS): Established under the Clean Air Act of 1963, there are primary standards, designed to protect public health, and secondary standards, designed to protect public welfare from known or anticipated air pollutants.

National Environmental Policy Act (NEPA): A law enacted by Congress in 1969 that requires federal agencies to analyze the environmental effects of all major federal activities that may have a significant impact on the quality of the human environment.

National Forest System (NFS) lands: National Forests, National Grasslands, and other related lands for which the Forest Service is assigned administrative responsibility.

National Historic Preservation Act (NHPA): An act that was enacted by the U.S. Congress in 1966 to protect historic sites and artifacts (16 U.S.C. 470). Section 106 of the Act requires consultation with members and representatives of Indian tribes.

National Register of Historic Places: A listing maintained by the National Park Service of areas that have been designated as historically significant. The register includes places of local and state significance, as well as those of value to the nation in general.

Natural Resource Conservation Service (NRCS): An agency of the U.S. Department of Agriculture that works to improve, protect, and conserve natural resources on private lands. Formerly known as the Soil Conservation Service (SCS).

No Action Alternative: The management direction, activities, outputs, and effects that are likely to exist in the future if the current trends and management would continue unchanged. Under NEPA, it means following the current approved Forest Plan management direction and guidance.

Objective: A concise, time-specific statement of measurable planned results that respond to pre-established goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals.

Overstory: The more-or-less continuous cover of leaves, needles and/or branches collectively formed by the crowns of adjacent trees in a stand or forest.

Partners in Flight (PIF) Species Prioritization: The PIF Conservation Plan identifies species that have conservation priority in each of its planning units. Species are ranked based on vulnerability from factors such as breeding distribution, relative abundance, threats to breeding, and population trend.

Peak Day Visitation: Days during which skier visitation exceeds the CCC by as much as 25 percent.

Perennial Stream: A stream or reach of a channel that flows continuously or nearly so throughout the year and whose upper surface is generally lower than the top of the zone of saturation in the areas adjacent to the stream.

Pod: A lift and all of the terrain that is serviced by that lift.

Project area: The area encompassed by the development proposal including base area and the permit area.

Project Design Criteria (PDC): Specific measures designed to minimize or avoid impacts anticipated to occur as a result of implementation of the action alternatives. PDC are incorporated within the proposal of specified action alternatives.

Record of Decision (ROD): A document prepared within 30 days after the final EIS is issued which states the agency's decision and why one alternative was favored over another, what factors entered into the agency's decision, and whether all practicable means to avoid or minimize environmental harm have been adopted, and if not, why not.

Revegetation: The re-establishment and development of self-sustaining plant cover. On disturbed sites, this normally requires human assistance such as seedbed preparation, reseeding, and mulching.

Rill: An erosion channel less than 1 foot deep.

Riparian habitat or area: Land situated along the bank of a stream or other body of water and directly influenced by the presence of water (e.g., streamsides, lakeshores, etc.).

Scenery management: The art and science of arranging, planning and designing landscape attributes relative to the appearance of places and expanses in outdoor settings.

Scenery Management System (SMS): A systematic approach for determining the relative value and importance of scenery in a national forest first codified in 1995. Unlike the Visual Management System, the SMS recognizes the positive scenic values associated with some human modified features and settings. The analysis can go beyond NFS land into adjacent communities.

Scenic integrity: State of naturalness or, conversely, the state of disturbance created by human activities or alteration. Integrity is stated in degrees of deviation for the existing landscape character in a national forest.

Scoping process: A process that determines the issues, concerns, and opportunities that should be considered in analyzing the impacts of a proposal by receiving input from the public and affected agencies. The depths of analysis for these issues identified are determined during scoping.

Sediment: Solid material, both organic and mineral, that has been transported from its site of origin by air, water, or ice.

Sensitive species: Species which have appeared in the Federal Register as proposed additions to the endangered or threatened species list; those which are on an official State list or are recognized by the Regional Forester to need special management in order to prevent them from becoming endangered or threatened.

Short-term: In this analysis, short-term describes the period from construction up to five years after project completion.

Significant impact: A somewhat subjective judgment based on the context and intensity of the impact. Generally, a significant impact is one that exceeds a standard, guideline, law, or regulation.

Skier: At ski areas, one may see people using alpine, snowboard, telemark, cross-country, and other specialized ski equipment, such as that used by disabled or other skiers. Accordingly, the terms "ski, skier, and skiing" in this document encompass all lift-served sliding sports typically associated with a winter sports resort.

Skier circulation: How guests navigate throughout a ski area; specifically, how a guest would migrate from one side of the ski area to the other and potentially back again.

Skier visit: One skier utilizing the ski area for any length of time; a skier visit is typically recorded as a ticket scan. Regardless of how many times a single ticket is scanned, it counts a one skier visit.

Snowmaking coverage: The acreage of the mountain that has the infrastructure nearby for snowmaking operations.

Soil: A dynamic natural body on the surface of the earth in which plants grow, composed of mineral and organic materials and living forms.

Soil productivity: The capacity of a soil for producing plant biomass under a specific system of management. It is expressed in terms of volume or weight/unit area/year.

Special Use Permit (SUP): A legal document, similar to a lease, issued by the Forest Service. These permits are issued to private individuals or corporations to conduct commercial operations on National Forest System lands. They specify the terms and conditions under which the permitted activity may be conducted.

Stand: A community of trees or other vegetation, which is sufficiently uniform in composition, constitution, age, spatial arrangement, or condition to be distinguishable from adjacent communities and to thus, form a management entity.

Standard: a course of action which must be followed; adherence is mandatory.

SUP area: That area of NFS lands encompassed within the permit boundary held by Lutsen Mountains and designated for recreational use (e.g., downhill skiing and Nordic skiing). Excludes private land.

SUP boundary: The extent of the special use permit area, within which Lutsen Mountains is permitted to provide operational facilities and guest services.

Threatened species: Any species which is likely to become an endangered species within the foreseeable future and which has been designated in the Federal Register as a threatened species.

Trail density: The number of skiers per acre on any trail at one time.

U.S. Fish and Wildlife Service (USFWS): The agency of the Department of the Interior responsible for managing wildlife, including non-ocean going species protected by the Endangered Species Act.

Understory: Low-growing vegetation (herbaceous, brush or reproduction) growing under a stand of trees. Also, that portion of trees in a forest stand below the overstory.

Undeveloped terrain: Areas within the SUP that do not have infrastructure, maintenance, or grooming. This terrain type is primarily used by more experienced skiers.

Vehicle trips: The number of times vehicles use a segment of road.

Vertical transport: The vertical rise of a chairlift, usually measured in feet.

Visual resource: The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.

Watershed: The entire area that contributes water to a drainage system or stream.

Wilderness: Under the 1964 Wilderness Act, wilderness is undeveloped federal land retaining its primeval character and influence without permanent improvements of human habitation. It is protected and managed so to preserve its natural conditions.

Chapter 8. Index

1

1997 Revised Forest Plan for the Targhee National Forest (1997 Forest Plan) . 1, 2, 3, 8, 11, 12, 13, 14, 16, 17, 18, 19, 26, 27, 34, 36, 37, 41, 43, 44, 52, 57, 58, 83, 84, 97, 101, 102, 103, 104, 105, 113, 145, 193, 199, 201, 202, 214, 215, 216, 217, 257, 263, 270, 275, 277, 279, 280, 281, 282, 283, 287, 288, 314, 316, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 333, 338, 341, 343, 345, 347, 348, 352, 358, 367, 369, 376

2

2018 Grand Targhee Master Development Plan (2018 GTR MDP) 1, 2, 3

A

Airshed 215, 231
Annual Average Daily Traffic (AADT) ix, 146, 147, 148, 149
Average Vehicle Occupancy (AVO) ..... ix, 151, 167

B

Backcountry skiing 3, 7, 12, 25, 30, 34, 37, 42, 55, 62, 63, 64, 65, 66, 67, 72, 73, 81, 83, 85, 91, 92, 184, 185, 186, 187, 188, 189, 190, 191, 192, 203, 204, 207, 208, 212, 272, 295, 309, 310, 317, 318, 379, 383
BAU ..... ix, 12, 291, 387
Bear Analysis Unit ..... ix, 291, 313, 314
Best Management Practice (BMP) ii, ix, 21, 42, 46, 50, 307, 348, 349, 355, 359, 367, 392, 393
Biological Assessment (BA) ... 257, 260, 286, 288, 291, 381
Biological Evaluation (BE) 257, 286, 288, 381
Biological Evaluation for Botany (Botany BE) 257, 258
Botany 257, 258, 260
Botany BE 257, 381
Built Environment Image Guide (BEIG) .... ix, 8, 31, 41, 42, 83, 84, 85, 92, 96, 97, 98, 100, 101, 102, 103, 104, 392

C

Canada lynx. 12, 34, 36, 262, 263, 287, 290, 307, 312, 313, 390
Clean Air Act (CAA) ..... ix, 215, 216, 217
Clean Water Act (CWA) ix, 14, 22, 348, 354, 359, 361, 363, 365, 366, 368, 373, 375, 376, 383
Climate change 11, 66, 70, 75, 236, 238, 240, 243, 248, 249, 250, 251, 252, 253, 254, 255, 256, 265, 284, 329, 355, 385
Comfortable Carrying Capacity (CCC) ix, 7, 61, 69, 70, 75, 78, 80, 81, 130, 131, 146, 147, 148, 149, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 167, 168, 169, 170, 171, 172, 173
Connected Disturbed Areas (CDAs) 52
Cooperative Obeserver Program ..... ix, 238
Critical habitat 212, 258, 286, 288, 291, 292, 309
Critical viewpoints 8, 83, 87, 92
Cultural resource .. 174, 175, 178, 179, 180, 181, 182, 183

D

Developed terrain 58, 59, 65, 67, 105, 189

E

Endangered... ix, ii, 12, 22, 44, 48, 257, 258, 260, 265, 266, 275, 279, 282, 286, 288, 289, 294, 306, 312, 332
Environmental Protection Agency (EPA) 22, 215, 216, 218, 219, 220, 245, 252, 378, 379, 391, 392
Erosion . 13, 14, 29, 42, 44, 45, 49, 50, 51, 52, 53, 201, 208, 306, 307, 310, 327, 333, 334, 335, 336, 338, 339, 340, 341, 342, 343, 344, 345, 346, 349, 352, 353, 354, 355, 356, 359
Executive Order 11990 368

F

Forest health 285
Forest Service Region 4 Sensitive Species .. 11, 44, 48, 257, 259, 262, 266, 274, 278, 280, 282, 285, 288, 293, 294, 305, 316, 332
Fragmentation 12, 290, 296, 315, 318, 331

G

Gladed terrain ..... i, 2, 4, 13, 26, 28, 29, 39, 68, 72, 74, 79, 157, 225, 227, 229, 230, 253, 316, 338, 340, 342, 344, 359
Grand Targhee Master Development Plan Projects Biological Assessment (Wildlife BA) . 286, 287, 288, 312, 313, 314, 331
Grand Targhee Master Development Plan Projects Wildlife Biological Evaluation (Wildlife BE) 286, 288, 292, 294, 305, 317, 321, 331, 332

Grand Targhee Resort (GTR)..i, 1, 2, vii, viii, ix, 2, 3, 4, 7, 8, 9, 10, 11, 13, 14, 15, 16, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 36, 37, 39, 40, 41, 42, 44, 45, 46, 47, 49, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 121, 122, 123, 124, 126, 127, 129, 130, 131, 134, 135, 136, 137, 138, 139, 140, 141, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 175, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 206, 207, 208, 210, 211, 214, 215, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 238, 240, 243, 244, 248, 249, 250, 251, 252, 253, 254, 255, 256, 259, 260, 264, 265, 266, 269, 278, 284, 285, 286, 288, 290, 291, 292, 295, 296, 300, 303, 306, 307, 308, 309, 310, 311, 312, 313, 317, 324, 325, 331, 332, 333, 334, 335, 336, 337, 338, 345, 346, 347, 350, 351, 352, 354, 355, 356, 358, 360, 362, 364, 366, 367, 372, 374, 375, 381, 385, 386, 387, 388, 389, 390
Grand Teton National Park (GTNP) ix, 3, 7, 31, 37, 42, 62, 85, 86, 88, 89, 90, 91, 93, 94, 97, 99, 105, 114, 202, 217, 219, 394
Gray wolf 304, 305, 311, 330
Greater Yellowstone Area (GYA) ..... ix, 177, 389
Greater Yellowstone Ecosystem (GYE) .... ix, 259, 260, 314, 394
Greenhouse gas emissions (GHG)...11, 217, 221, 222, 224, 225, 226, 238, 248, 249, 250, 251, 256
Groundwater 13, 30, 35, 51, 251, 332, 338, 341, 343, 345, 346, 350, 351, 352, 354, 355, 358, 360, 362, 364, 371, 374, 385
GTR 2019 First Amended Master Plan – Planned Unit Development for Planned Resort (PUD-PR) .. ix, 82, 105, 126, 135, 140, 141, 142, 143, 166, 167, 168, 169, 171, 172, 173, 232, 385

H

Hydrology ... 13, 49, 56, 269, 327, 336, 338, 340, 343, 345, 346, 351, 354, 359, 366, 368, 381, 383

I

Idaho State Highway (SH) 31 ....8, 145, 146, 148, 149, 152, 153, 154, 155, 156, 158, 159, 161, 162, 164
Idaho State Highway (SH) 33 8, 9, 146, 147, 148, 149, 152, 154, 155, 156, 158, 159, 161, 162, 164
Invasive species 11, 12, 44, 45, 46, 205, 257, 258, 259, 264, 266, 275, 279, 281, 283, 285, 307, 383, 390

J

Jedediah Smith Wilderness.....200
Jedediah Smith Wilderness (JWS).... ix, 7, 85, 91, 201, 203

L

Listed species.....258, 286, 288
lynx analysis unit (LAU)ix, 12, 259, 290, 313, 318, 321

M

Master Development Plan (MDP)....1, i, 1, ix, 2, 3, 27, 33, 81, 83, 97, 105, 113, 141, 145, 174, 175, 207, 215, 232, 298, 332, 346, 381, 389
Migratory birds.....287
Multi-season recreation . 4, 33, 57, 59, 66, 71, 76, 78, 81, 107, 248, 253, 254, 336, 354

N

NAGPRA.....174
National Ambient Air Quality Standards (NAAQS)... ix, 215, 216, 217, 218, 219, 220, 222, 223, 225, 227, 228, 229, 230, 231, 253, 392
National Emissions Inventory ..... ix, 220
National Forest Management Act ix
National Forest System i, 1, 2, ix, 2, 3, 4, 7, 16, 19, 20, 25, 33, 34, 41, 45, 46, 47, 49, 51, 57, 58, 62, 63, 66, 70, 71, 72, 76, 78, 81, 82, 83, 84, 85, 86, 87, 92, 96, 98, 101, 102, 103, 104, 105, 107, 109, 111, 112, 113, 123, 124, 125, 134, 140, 151, 174, 192, 193, 194, 195, 196, 199, 200, 202, 203, 207, 208, 214, 221, 255, 284, 287, 290, 335, 336, 345, 348, 353, 354, 366, 375
National Historic Preservation Act (NHPA) ix, 22, 174, 175, 179
National Register of Historic Places (NRHP) ix, 10, 43, 174, 179, 180, 181, 182, 183
National Wilderness Preservation System..... ix, 200
Native Plant Communities 11, 12, 44, 264
NEI ..... ix, 220
NFS.....i, ix, 2, 46, 151, 332, 393
Northern Rockies Bird Conservation Region (BCR 10) ..... ix, 287, 305
Northern Rockies Lynx Management Direction (NRLMD)..... ix, 287, 313, 387, 393
Noxious weeds.... 11, 12, 44, 45, 46, 47, 50, 257, 258, 259, 264, 266, 275, 279, 281, 283, 285
NWPS ..... ix, 387

O

Old growth..... 12, 257, 259, 262, 263, 266, 274, 275, 278, 279, 280, 281, 283, 285, 294, 297, 298, 299, 304, 318, 319, 320, 321

P

PAix, 175
Parking..... 9, 10, 21, 41, 62, 134, 137, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 221
Particulate matter (PM) 215, 216, 218, 219, 220, 222, 223, 225, 227, 228, 229, 230, 232, 249
Partners in Flight..... ix, 287, 305
Peak flows.....14, 327, 359
PIF ..... ix, 287, 389
Programmatic Agreement ..... ix, 22, 175, 378
Project Area 8, 15, 40, 44, 45, 46, 48, 63, 83, 86, 105, 107, 111, 140, 175, 176, 177, 178, 179, 180, 183, 186, 199, 200, 202, 210, 219, 231, 238, 240, 246, 247, 256, 257, 259, 260, 261, 262, 263, 265, 266, 269, 273, 274, 275, 278, 279, 280, 285, 286, 288, 291, 292, 293, 294, 295, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 308, 309, 310, 311, 312, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 333, 334, 335, 337, 338, 341, 342, 343, 344, 345, 346, 347, 350, 351, 352, 353, 355, 356, 367, 368, 369, 370, 371, 372, 373, 374, 375
Project Design Criteria (PDC) ii, ix, 1, 6, 21, 23, 25, 26, 28, 41, 43, 44, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 196, 197, 206, 208, 209, 210, 211, 212, 213, 269, 270, 275, 276, 277, 279, 280, 281, 282, 284, 285, 319, 320, 321, 323, 325, 326, 327, 330, 337, 338, 340, 341, 342, 343, 344, 345, 346, 348, 349, 355, 356, 359, 367, 368, 373, 374, 375, 376

R

Record of Decision..... ix, 21, 26, 131, 287
Recreation Opportunity Spectrum (ROS) .... ix, 57, 63, 64, 72, 73, 201, 202, 392
Representative concentration pathway 4.5 (RCP 4.5) 239, 241, 242, 243, 244, 252
Representative concentration pathway 8.5 (RCP 8.5) .....viii, 239, 241, 242, 243, 244, 246, 247, 252
Revegetation... 41, 42, 44, 45, 46, 49, 50, 52, 95, 274, 275, 307, 339, 349
Riparian13, 14, 18, 19, 47, 49, 50, 51, 52, 53, 84, 194, 257, 289, 301, 304, 326, 327, 331, 347, 349, 359, 367, 368, 369, 372, 375, 389
Road density 12
ROD..... ix, 21, 393

S

Scenery Management System (SMS).....83
Scenic integrity 7, 93, 99, 102, 103, 104
Sediment.....50, 371
SHRED ..... ix, 125
Ski Hill Resources for Economic Development ix, 125, 134
SNOTEL ix
Snow Telemetry..... ix, 354
Snow Water Equivalent .....viii, ix, 245, 246
Snowmaking i, 2, 3, 4, viii, 2, 4, 13, 14, 24, 29, 30, 34, 35, 36, 37, 38, 40, 49, 82, 174, 180, 221, 232, 244, 245, 248, 249, 251, 252, 253, 256, 270, 327, 337, 338, 340, 342, 343, 344, 345, 349, 354, 355, 358, 361, 363, 365, 372, 373
Species of Local Concern (SOLC).... ix, 11, 12, 44, 257, 286, 302, 311, 328
Standards and guidelines.. 2, 8, 13, 17, 19, 42, 43, 44, 46, 54, 83, 106, 193, 201, 216, 222, 257, 287, 288, 300, 307, 313, 314, 316, 319, 323, 324, 325, 326, 327, 328, 333, 338, 347, 348, 352, 367, 369
Stream health 53, 352, 360, 362, 364
survey . 41, 44, 45, 217, 261, 290, 292, 295, 296, 297, 298, 299, 300, 302, 310, 319, 320, 354
SWE..... ix, 394

T

Targhee National Forest (TNF). i, 1, ix, ii, 3, 16, 27, 45, 58, 83, 84, 175, 202, 257, 259, 260, 262, 284, 328, 331, 333, 335, 353, 375, 387, 388, 392, 393
Targhee Principal Watershed ..... ii, 13, 257, 259, 263, 274, 278, 279, 280, 281, 283, 285, 286, 351, 353, 356, 357, 360, 361, 362, 363, 364, 365
TCISAR..... ix, 186
TCSR..... ix, 30, 186, 188, 189
Terrestrial Ecological Unit.....13
Teton County Idaho Search and Rescue ..... ix, 186
The Native American Grave Protection and Repatriation Act ..... ix, 174
Threatened or endangered species (TEP).....ii
TPW .....ii, 13, 257, 353, 357, 360, 361, 362, 363, 364, 365
Traditional terrain..... i, 2, 3, 4, 28, 35, 67
Traffic..... vii, ix, 9, 134, 145, 146, 147, 148, 149, 150, 151, 152, 154, 155, 157, 158, 160, 161, 162, 163, 165, 167, 169, 170, 171, 173, 220, 221, 222
Tribal.....175, 177

U

U.S. Army Corps of Engineers (USACE)..... ii, 368, 371, 372, 375, 378, 391

U.S. Fish and Wildlife Service (USFWS)..... ii, 123, 258, 260, 269, 287, 288, 291, 292, 305, 314, 378, 391, 392, 394
Undeveloped terrain 24, 26, 58, 59, 67, 68, 72, 74, 77, 79

V

Vehicle trips .. 110, 147, 151, 153, 154, 157, 158, 160, 163, 167, 169, 170, 171, 173, 221, 223, 224, 227, 228, 230, 232, 254
Visitation 3, 7, 9, 11, 34, 36, 37, 55, 60, 61, 65, 66, 67, 68, 69, 74, 75, 77, 78, 79, 80, 82, 109, 121, 122, 130, 131, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 146, 147, 148, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 189, 190, 191, 194, 198, 203, 204, 206, 208, 209, 210, 211, 213, 214, 221, 223, 224, 225, 226, 227, 228, 229, 230, 232, 248, 251, 253, 255, 256, 265, 266, 274, 280, 282, 306, 307, 310, 311, 312, 385, 389
Visual Management System ..... ii, 83, 84
VMS ..... ii, 83, 84

W

WAQSR ..... ii, 217
Water yield 14, 327, 359
Waters of the U.S..... 14
Wetland 14, 18, 52, 264, 367, 368, 369, 371, 372, 374, 375, 376, 381, 382, 391
Whitebark pine (WBP) .. ii, 46, 47, 257, 258, 259, 260, 261, 265, 266, 267, 268, 269, 270, 275, 276, 277, 279, 280, 282, 284, 285, 381, 386, 392, 394
Wilderness Stewardship Performance ..... ii, 205, 206
Wildlife BA 286, 381
Wildlife BE..... 286
Wyoming Air Quality Standards and Regulations..... ii, 217
Wyoming Natural Diversity Database (WYNDD) ..... ii, 257, 259, 261, 265, 270, 278, 280, 282, 285, 293, 294, 297, 298, 305, 309, 384, 395
Wyoming State Highway 22 (WY-22) ii, 114, 145, 146, 148, 149, 152, 153, 154, 155, 156, 158, 159, 161, 162, 164

Appendix A. Cumulative Effects Projects

Project	Project Location (Distance to GTR SUP)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	Resources Potentially Affected that Apply to this EIS
Grand Targhee Resort (GTR) Projects					
GTR 2018 Master Development Plan (MDP)	Within the GTR SUP and on adjacent private lands within the ski area operational boundary	In 2019, the United States Forest Service (Forest Service) accepted GTR's 2018 MDP. Projects in the MDP have the goal of improving GTR's recreational experience and addressing shortcomings in its offerings so that GTR can remain viable in the competitive destination skier/rider market. A majority of projects from the 2018 MDP are included in the action alternatives of this EIS. Projects not included in this EIS that are considered reasonably foreseeable future projects include: construction of new lifts, realignments of existing lifts, construction of additional guest services facilities, additional snowmaking and construction of facilities supporting ski area operations. Projects in the 2018 MDP that are not part of the action alternatives are subject to amendments in response to changes in GTR's market, the recreation industry, and technological innovations and will require site-specific National Environmental Policy Act of 1969 (NEPA) analysis prior to implementation (if located on NFS land).	Accepted 2019	Areas within the approximately 2,300-acre existing SUP included in the MDP as well as on adjacent Forest Service land	All resources

Project	Project Location (Distance to GTR SUP)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	Resources Potentially Affected that Apply to this EIS
2021 Peaked Lift Supplemental Information Report (SIR)	Within the GTR SUP boundary	Following the approval of the Peaked lift development projects in a 1994 ROD, 2004 DN/FONSI, and further documentation in a 2017 SIR, the Forest Service authorized GTR to proceed with implementation following review of a 2021 SIR for the Peaked lift documenting and reviewing changes to the project that may have occurred from the time of the previous approval. Specifically, the changed conditions from the 2017 SIR are: • The configuration of the Peaked lift as a six-person chair rather than a quad chair; • The routing of power in an overland route rather than being buried in roads; • Burial of the lift communication line rather than handing the line along lift towers; and • Retention of ski patrol cabin at the top of Sacajawea lift.	Approved	<5 acres	All resources
GTR 2019 First Amended Master Plan – Planned Unit Development for Planned Resort (PUD-PR)	On private lands adjacent the SUP boundary	In 2004, GTR submitted an application to Teton County for a Planned Unit Development District for Planned Resort (PUD-PR). This plan was amended in 2006 and approved in 2008, then amended again in 2017 and approved in 2018 by the Teton County Board of County Commissioners. The 2008 Plan included 450 units and 12,300 square feet for commercial and resort services on GTR's 120-acre area of private land at the base of the resort. The updated plan includes the same number of units, however, it was amended to better reflect GTR's operating conditions and to include an environmental mitigation plan addressing the environmental mitigation conditions included in the approval of the 2008 plan. Relevant projects within this plan include a Transportation Demand Management Program, affordable and employee housing standards, open space and trails guidance, and plans for capital improvements and public facilities.	Approved 2018	Approximately 120-acre area on private land	Air Quality Climate Change Hydrology Noise Recreation Socioeconomics Scenery Traffic and Parking Wildlife

Project	Project Location (Distance to GTR SUP)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	Resources Potentially Affected that Apply to this EIS
Teton Basin Ranger District Projects					
Packsaddle Lake Recreation Improvement Project Environmental Assessment (EA) (https://www.fs.usda.gov/r04/caribou-targhee/projects/archive/59531)	Approximately 19 miles	The Decision Notice and Finding of No Significant Impact (DN-FONSI) from 2021 approved of the reclamation of two roads, the construction of one new trail and one new road, and relocation of the Packsaddle Lake parking area to improve the recreation experience and decrease impacts to natural resources around Packsaddle Lake.	Approved 2021	2.6 miles of road improvements; <1 acre	Recreation
South Valley Hazardous Fuels Reduction Project EA (https://www.fs.usda.gov/r04/caribou-targhee/projects/archive/57758)	Approximately 18 miles	The 2021 DN-FONSI approved of various fuel treatment methods in the southern end of Teton Valley to improve wildfire management in the area. Proposed treatments include commercial timber sale, commercial thin, thin from below, Coppice and Coppice with Reserves, Shelterwood and Shelterwood with Reserves, ladder fuel treatments, and prescribed fire with hand/aerial ignition.	Approved 2021	Approximately 3,800 acres	Air Quality Wildlife and Fish Vegetation
Kirkham Hollow Aspen Retention Project Categorical Exclusion (CE) (https://www.fs.usda.gov/r04/caribou-targhee/projects/archive/55817)	Approximately 25 miles	The Forest Service approved the proposed action to remove conifer trees in aspen patches with significant conifer encroachment. Some removed conifer trees would be made available for Christmas tree sales to fund the rest of the project. The project would contribute to long-term retention of health aspen populations, which would benefit migratory birds and their habitats.	Approved 2019	40-70 acres	Vegetation Wildlife and Fish

Project	Project Location (Distance to GTR SUP)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	Resources Potentially Affected that Apply to this EIS
Nelson Spring–Pinnacle Road Trail Extension Project EA (https://www.fs.usda.gov/r04/caribou-targhee/projects/archive/46592)	Approximately 8 miles	A 2016 DN-FONSI approved a quarter-mile OHV connector trail from the Nelson Springs OHV trail (#051) to a connecting point along FS road 912. The western portion of the Nelson Springs OHV trail will be a designated motorized winter route. The proposed action is anticipated to reduce user-created OHV routes and improve wildlife habitat by establishing a summer and winter trail designation. It will also improve motorized recreation in the area.	Approved 2016	<1 mile	Recreation Wildlife and Fish
Red Creek Prescribed Fire CE (https://www.fs.usda.gov/r04/caribou-targhee/projects/archive/23545)	Approximately 20 miles	The Decision Memo (DM) for the Red Creek Prescribed Fire project approved controlled burns in 35-55% of the project area to create a diversity of age classes within the current vegetation and reduce hazardous fuels. The burning would occur to Douglas fir, grass, mountain brush, spruce-fir, and aspen populations.	Approved 2008	6,900 acres	Air Quality Climate Change Vegetation
Southern Valley Recreation Project EA (https://www.fs.usda.gov/r04/caribou-targhee/projects/archive/49317)	Approximately 17 miles	The 2017 DN-FONSI approved of recreation projects in the South Valley area south of Victor, ID. Projects include: a new trailhead with a vault restroom facility, approximately 20 miles of new trails and highway crossings, a parking lot, road improvements, decommissioning of user created routes, and construction of a bridge across Trail Creek in Idaho.	Approved 2017	20 miles of new trails and ancillary facilities	Recreation
Teton Canyon Hazardous Fuels Reduction Project EA (https://www.fs.usda.gov/r04/caribou-targhee/projects/archive/44176)	0-5 miles, bordering the southern boundary of the GTR SUP area	The 2018 DM approved of three hazardous fuels reduction methods: mechanical treatments, prescribed burning, and slashing treatments following by prescribed burning.	Approved 2018	Approximately 1,900 acres	Air Quality Climate Change Scenery Vegetation Wildlife and Fish

Project	Project Location (Distance to GTR SUP)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	Resources Potentially Affected that Apply to this EIS
Teton Canyon Trailhead, Campground, and Dispersed Recreation Improvement Project EA (https://www.fs.usda.gov/r04/caribou-targhee/projects/archive/52979)	Approximately 2 miles	The DN-FONSI approved recreation improvement projects in Teton Canyon. Projects include: construction of new or improved facilities at the Mill Creek and North and South Teton trailheads, improvements to dispersed campsites, construction of a new and more sustainable access route, installation of erosion control devices, designation of summer and winter trails, and decommissioning of user created routes.	Approved 2018	Approximately 2.5-mile section of Teton Canyon Road	Recreation
Teton Canyon Yurt CE	Approximately 2 miles	Approved construction of a 20' yurt to be operated by an existing outfitter and guide.	Approved 2013		
Caribou-Targhee National Forest Projects					
1997 Revised Forest Plan, Targhee National Forest	Forest-wide	The Forest Service has approved a Forest Plan for the Targhee portion of the Caribou-Targhee National Forest (CTNF). The Forest Plan establishes management standards and desired future conditions for the Targhee National Forest. The Forest Plan also describes goals and guidelines for specific management prescriptions, such as for Management Prescription 4.2 – *Special Use Permit Recreation Sites*, which apply to the GTR SUP area.	Approved 1997 Implementation: Ongoing	1.8 million acres	All resources
Caribou-Targhee National Forest Plan Monitoring Transition (https://www.fs.usda.gov/r04/caribou-targhee/projects/archive/49181)	Forest-wide	The Forest Service approved a modification to monitoring elements found in the Caribou Forest Plan, Targhee Forest Plan, and the Curlew Resource Management Plan to conform with the 2012 Forest Service Planning Rule. Monitoring items for elements listed in the 2012 rule were added to each plan that did not have them. None of the existing monitoring items in these plans were deleted.	Approved 2016	2.9 million acres in the Caribou-Targhee National Forest and Curlew National Grassland (CTCNG)	All resources

Project	Project Location (Distance to GTR SUP)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	Resources Potentially Affected that Apply to this EIS
Greater Sage-grouse Proposed Land Management Plan Amendments (LMPAs) and EIS for the Intermountain and Rocky Mountain Regions (https://www.usda.gov/about-usda/news/press-releases/2019/08/01/usda-releases-proposed-amendments-greater-sage-grouse-land-management-plans)	Forest-wide	Two 2019 RODs for Idaho and Wyoming National Forest System lands approved of LMPAs for forests containing Greater Sage-grouse habitat management areas, which includes the CTCNG. Amendments to the Targhee and Caribou Forest Plans are included in Table 2-6 in Chapter 2 of the FEIS.[332]	Approved 2019	5.4 million acres of habitat management areas	Wildlife and Fish
Caribou Prescribed Fire Restoration Project Environmental Assessment (EA) (https://www.fs.usda.gov/r04/caribou-targhee/projects/59025)	Approximately 40-130 miles	The EA proposes to increase the pace and scale of prescribed burning across portions of the Montpelier, Soda Springs, and Westside Ranger Districts in the CTNF. Prescribed burn methods include underburning, broadcast burning, jackpot burning, and pile burning in identified treatment areas.	Ongoing	266,000 acres	Air Quality Climate Change Vegetation Wildlife and Fish
Caribou-Targhee National Forest and Curlew National Grassland Integrated Weed Management Analysis Environmental Impact Statement (EIS) (https://www.fs.usda.gov/r04/caribou-targhee/projects/archive/57108)	Forest-wide	The 2021 Record of Decision (ROD) approved six methods for invasive species and noxious weed management in the Caribou-Targhee National Forest and Curlew National Grassland (CTCNG). The methods are biological control, herbicide control by ground-based application, herbicide control by aerial application, herbicide control by aquatic application, manual and mechanical methods, and rehabilitation and restoration projects. Notably, the project identifies invasive locations adjacent to GTR in the Teton Basin Ranger district.	Approved 2021	2.9 million acres in the CTCNG	Vegetation

[332] FEIS can be found at this link: https://cdxapps.epa.gov/cdx-enepa-II/public/action/eis/details?eisId=277706

Project	Project Location (Distance to GTR SUP)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	Resources Potentially Affected that Apply to this EIS
Targhee National Forest Lynx Analysis Units EIS (https://www.fs.usda.gov/r04/caribou-targhee/projects/40275)	Forest-wide	In 2018, the ROD for this project approved the proposed action to use the Targhee National Forest 2014 Lynx Analysis Unit (LAU) boundaries for all future projects to disclose project-level effects to lynx, its habitat, and the habitat of the snowshoe hare. As a result of this project, the CTNF will no longer need to delineate LAUs on a project-by-project basis.	Approved 2018	1.1 million acres	Wildlife
Big Hole Mountains Subsection Summer Travel Management Plan (TMP) EA (https://www.fs.usda.gov/r04/caribou-targhee/projects/archive/13594)	25-50 miles	The DN-FONSI for the Big Hole Mountains TMP approved a plan for a trails designed for all-terrain vehicles (ATVs), motorcycles, mountain bikes, and non-motorized uses. The DN also approved of allowing ATVs on select trails previously not recommended for ATVs and closing the entire subsection to off-trail use.	Approved 2008	357,779 acres	Recreation
Regional Projects					
Jackson / Teton County Comprehensive Plan	0-60 miles	The Jackson / Teton County Comprehensive Plan includes the following components: Town and County collaboration, wildlife management and scenery requirements, sustainability programs, development standards and zoning requirements, concentration of town resources into a central Complete Neighborhood, provision of affordable and workforce housing opportunities, transportation planning, and overall development of a strong local economy. Recommendations for GTR are to develop according to the master plan and create a pedestrian-oriented and year-round resort community with job opportunities for locals. The plan also includes development of community amenities in Alta, including completing the park in town.	Adopted 2012	County-wide	Recreation Socioeconomics

Project	Project Location (Distance to GTR SUP)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	Resources Potentially Affected that Apply to this EIS
Teton County, Idaho Comprehensive Plan	5-20 miles	The Teton County, Idaho Comprehensive Plan identifies a variety of desired future conditions. Specifically, the plan describes economic and tourism goals, promotion and development of agricultural and rural industries, economically and environmentally sustainable development standards, improvements to communications infrastructure, transportation plans for public transit, commuters, pedestrians, and visitors, provisional partnerships for natural resource management and recreation opportunities, and expansion of community events and facilities through better funding mechanisms and partnerships.	Plan dated 2012 Implementation: Ongoing[333]	County-wide	Recreation Socioeconomics Traffic and Parking
Teton County Transportation Plan Update 2020	5-20 miles	The Teton County Transportation Plan includes recommendations for transportation maintenance, capital improvements, pavement management, unpaved roadway maintenance, traffic control devices, bridges, and access management in Teton County, Idaho. Notably, the Plan proposes road connections, road treatments, sign upgrades, and intersection improvements.	Plan dated 2020	County-wide	Traffic and Parking
Jackson/Teton Integrated Transportation Plan (ITP) (https://jacksontetonplan.com/DocumentCenter/View/1711/Jackson-Teton-Integrated-Transportation-Plan-Technical-Update-Adopted-December-2020)	0-60 miles	The Jackson/Teton ITP includes suggestions for improving commuter services, improving winter and summer transit service, improving facilities along routes, creating a vehicle maintenance facility, and incorporating key elements of the 2020-2025 START Routing Plan (described below). The Plan also places a high priority on walking and biking infrastructure. The Plan focuses primarily on transit between Jackson and Teton Village, however, also includes a plan to increase commuter routes and implement commuter transportation demand strategies in Teton County.	Plan dated 2020	County-wide	Traffic and Parking

[333] For up-to-date information on the Plan's implementation, refer to the most recent Comprehensive Plan Annual Report here: https://www.tetoncountyidaho.gov/codePolicy.php?type=3

Project	Project Location (Distance to GTR SUP)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	Resources Potentially Affected that Apply to this EIS
START Bus 2020-2025 Route Plan (https://www.jacksonwy.gov/DocumentCenter/View/3932/START-2020-2025-Routing-Plan---Final-Report)	10-50 Miles	The START Bus Route Plan includes a series of route recommendations, new connectivity areas, micro transit services in East Jackson, and more direct Town Shuttles. This Plan and an associated Plan Scenario is also addressed in the Jackson/Teton ITP.	Plan dated 2020	Approximately 400,000 acres	Traffic and Parking Recreation Socioeconomics
Uniquely Driggs Comprehensive Plan (https://library.municode.com/id/driggs/munidocs/munidocs?nodeId=42d508e810005)	9 miles	The Uniquely Driggs Comprehensive Plan identifies a detailed vision for the future of Driggs as well as a land use and implementation and monitoring plan. Specific to this EIS, the Plan identifies areas along Ski Hill Road for new residential development, which may impact traffic or housing opportunities.	Adopted 2020	Approximately 2900 acres	Socioeconomics Traffic and Parking
City of Victor Comprehensive Plan (https://www.victorcityidaho.com/Departments/comprehensive%20plan/210224_ReEnvisionVictor_ComprehensivePlan_AdoptedDocument_LowRes.pdf)	15 miles	The City of Victor Comprehensive Plan presents visions, goals, and objectives for the future of Victor with the topics of land use, community design, housing, public services and facilities, agriculture, economic development, parks and recreation, natural resources, hazard mitigation, and transportation.	Adopted 2021	City of Victor and surrounding areas	Recreation Socioeconomics Traffic and Parking
Teton County, Idaho Affordable Housing Strategic Plan (https://www.tetoncountyidaho.gov/use_images/pdf/additionalInfo/tetoncountyidahoaffordablehousingplan-2-12-2019.pdf)	5-20 miles	There is a large number of cost-burdened households in Teton County, Idaho (i.e. households that spend more than 30 percent of their income on housing costs), and recently increases in housing prices have been outpacing increases in wages. The Affordable Housing Plan introduces tiered strategies for addressing issues with affordable housing in the county. Once implemented, these strategies would improve employee housing, short-term housing, housing education, and housing assistance programs, which would benefit local workers such as GTR employees.	Adopted 2019 Implementation: Ongoing	County-wide	Socioeconomics

Project	Project Location (Distance to GTR SUP)	Project Description	Project Approval/ Implementation	Project Area (acres/length)	Resources Potentially Affected that Apply to this EIS
Teton County, Idaho Economic Development Plan	5-20 miles	The Teton County, ID Economic Development Plan provides strategies and goals for economic development within Teton County, touching on business recruitment and development, physical asset development, tourism and marketing, and fostering community values. Relevant goals include developing improved recreation facilities, improving transportation infrastructure, and enhancing food, housing, and culture in Teton Valley.	Adopted 2013	County-wide	Recreation Socioeconomics Traffic and Parking
Ambient growth of Teton County, WY and Teton County, ID	0-60 miles	The populations of Teton County, WY and Teton County, ID are expected to grow in the coming years. Population growth and future development in both counties are likely to contribute to changes in conditions that will warrant new analyses. These changes could contribute to reasonably foreseeable future projects.	Ongoing	All of Teton County, WY and Teton County, ID	Air Quality Climate Change Hydrology Recreation Socioeconomics Traffic and Parking Wildlife
Guides and outfitters operating in Teton County, WY	0-60 miles	There are numerous guides and outfitters that operate within Teton Country and Teton Canyon. These organizations lead backcountry skiing, snowmobiling, rafting, horseback riding, and other adventure trips. Additional permits and operations may expand depending on future demands. These operations may contribute to recreational opportunities at GTR and in surrounding lands.	Ongoing	County-wide	Recreation

Appendix B: Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards and Guidelines

Appendix B presents Forest-wide and Management Prescription 4.2 standards and guidelines relevant to the Grand Targhee Resort EIS. Resources and species with associated goals and objectives in the 1997 Forest Plan have been omitted from this analysis. The Forest Plan states, Standards are "a condition of land, normally a maximum or minimum condition, that is measurable. A standard can also be expressed as a constraint on management activities or practices. Standards are established on forestwide, subsection, and management prescription area basis to promote achievement of the DFC and objectives. Deviation from compliance with a standard requires a Forest Plan amendment." The Forest Plan goes on to described guidelines as "a preferred or advisable course of action that is generally expected to be carried out. Deviation from compliance with a guideline does not require a Forest Plan amendment, but the rationale for such a deviation shall be documents in the project decision document. Guidelines are established on a forestwide, subsection, and management prescription area basis to promote achievement of the desired future condition and objectives in an operationally flexible manner that responds to such variations as changing site conditions or changed management circumstances."[334]

It is important to note that overarching any project specific forest plan amendment, an amendment to the 1997 Forest Plan would be required to accommodate the proposed South Bowl (Alternatives 2 and 4) and Mono Trees (Alternatives 2 and 5) areas located outside of GTR's existing SUP boundary on land that is currently designated as Management Prescription 2.1.2 – *Visual Quality Maintenance.* In the Mono Trees area, there is also an overlay of Management Prescription 2.8.3 – *Aquatic Influence Zone (AIZ)* . As shown in the table below, management direction of Management Prescription 2.1.2 - *Visual Quality Maintenance* is inconsistent with the management of a ski area and therefore, the proposed development of this ski terrain would require that the 1997 Forest Plan be amended to incorporate South Bowl and Mono Trees into the GTR SUP boundary and would result in the conversion of approximately 866 acres from Management Prescription 2.1.2 – Visual Quality Maintenance to Management Prescription 4.2 – *Special Use Permit Recreation Sites*. Approximately 125 acres of Management Prescription 2.8.3 – *Aquatic Influence Zone* would also be affected under this alternative. Per the 1997 Forest Plan, Management Prescription 2.8.3 - *Aquatic Influence Zone* overlaps other Management Prescription areas, therefore the 125 acres are accounted for in the 866 acres of Management Prescription 2.1.2 - *Visual Quality Maintenance* being converted to Management Prescription 4.2 - *Special Use Permit Recreation Sites*. No portion of the proposed SUP expansion would occur in areas classified as designated wilderness (management prescriptions 1.1.6, 1.1.7, and 1.1.8). Refer to **Figure 1** for a depiction of the proposed boundary expansion and Forest Plan management prescriptions.

[334] USDA Forest Service 1997

Forest-wide Standards and Guidelines

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
ECOLOGICAL PROCESSES AND PATTERNS					
Properly Functioning Condition					
Guidelines					
1. During landscape or watershed analyses, identify ecosystems in properly functioning condition and those at risk.	Consistent. Wetlands and streams were analyzed within GTR's existing and proposed SUP. Most streams are in proper functioning condition (refer to **Table 3.15-1**).				
2. Where appropriate, during project planning and implementation, identify and prioritize systems at risk for corrective treatment or action.	Consistent. All streams and wetlands were identified as being similar to channels found in higher elevations sub-alpine environments. There were 12,876 feet of Functional – At Risk streams present in the existing SUP. Proper PDC would be implemented to mitigate impacts to at risk streams (refer to **Table 2.4-1. Project Design Criteria**)	Consistent. All streams and wetlands were identified as being similar to channels found in higher elevations sub-alpine environments. There were 14,262 feet of Functional – At Risk streams identified within the Proposed Action project area. Proper PDC would be implemented to mitigate impacts to at risk streams (refer to **Table 2.4-1. Project Design Criteria**)	Consistent. All streams and wetlands were identified as being similar to channels found in higher elevations sub-alpine environments. There were 12,876 feet of Functional – At Risk streams present in the existing SUP. Proper PDC would be implemented to mitigate impacts to at risk streams (refer to **Table 2.4-1. Project Design Criteria**)	Consistent. All streams and wetlands were identified as being similar to channels found in higher elevations sub-alpine environments. There were 12,876 feet of Functional – At Risk streams present in the project area of Alternative 4. Proper PDC would be implemented to mitigate impacts to at risk streams (refer to **Table 2.4-1. Project Design Criteria**)	Consistent. All streams and wetlands were identified as being similar to channels found in higher elevations sub-alpine environments. There were 14,262 feet of Functional – At Risk streams identified within project area of Alternative 5. Proper PDC would be implemented to mitigate impacts to at risk streams (refer to **Table 2.4-1. Project Design Criteria**)
FIRE					
Guidelines					
1. When feasible and appropriate, use prescribed burning to dispose of slash in order to return the	Consistent. Under the No Action Alternative, there would be no	Consistent. All Alternatives include pile burning of slash when appropriate (refer to **Section 2.3.1** and **Table 2.4-1. Project Design Criteria**)			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
inorganic and organic chemicals in the foliage and small woody material to the soil, to reduce fire hazard and to provide seed beds for natural regeneration.	changes to the current potential use of prescribed burning of slash.				
SOILS					
Soil quality (current activity areas only)/forested ecosystems					
Guidelines					
1. Generally strive to maintain fine organic matter over at least 50 percent of the area. The preference is for fine organic matter to be undisturbed, but if disturbed, it should be of sufficient quantity and quality to avoid detrimental nutrient cycle deficits. If the soil and potential natural community are not capable of producing fine organic matter over 50 percent of the area, adjust minimum amounts to reflect potential soil and vegetation capability.	Consistent. No new ground disturbance would occur on NFS lands; therefore, thickness of mineral A and/or organic O horizons would continue to increase or decrease at existing rates.	Consistent. The following PDC have been included in order to be consistent with Soils Guidelines 1, 2, and 3: 1) During construction, maintenance and operations, stockpile topsoil and organic matter to the extent possible for redistribution, stabilization, and rehabilitation of the site after construction; 2) Prior to construction, soil surveys and measurements of thicknesses of A or organic horizons would be completed within the disturbance area to ensure no net loss of soil organic matter. GTR would hire a qualified soil scientist to complete soil surveys and measurements. Reports would be submitted as specified in the Construction Plan; 3) A post-construction revegetation and restoration plan that includes methodology, locations, vegetative mixes and soil amendments; and 4) During site preparation treatments, avoid disturbing concentrated areas of soil wood to the greatest degree feasible. These measures have been assigned to maintain fine organic matter in disturbed areas and avoid detrimental nutrient cycle deficits (Guideline 1). These measures would also ensure that disturbed areas sustain woody residue requirements for materials three inches in diameter or larger (Guideline 2). Lastly, these measures would help avoid disturbing concentrated areas of soil wood (Guideline 3).			
2. Woody Residue Requirements for Materials three inches in Diameter or larger Sustain site productivity by providing the following minimum amounts of woody residue dispersed on the site: (refer to **Table A** at the end of this Appendix)	Consistent. No new ground disturbance would occur on NFS lands under the No Action Alternative. Therefore, Woody Residue Requirements would be maintained.				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
3. During site preparation treatments, strive to avoid disturbing concentrated areas of soil wood.	Consistent. No new disturbance would occur on NFS lands in areas of soil wood under the No Action Alternative.				
Slope Stability for Mineral Activities					
Standards					
1. In areas of high mass instability, that have been ground verified, occupancy shall not be allowed.	Consistent. No new ground disturbance would occur on NFS lands of high mass instability under the No Action Alternative.	Consistent. Under all Alternatives, no new ground disturbance would occur on NFS lands of high mass instability.			
Guidelines					
2. In areas identified as having moderate instability, and that are ground verified, occupancy may be allowed provided it can be shown the project design can prevent unacceptable resource damage.	Consistent. No new ground disturbance would occur on moderate instability NFS lands under the No Action Alternative.	Consistent. The project area contains one area of moderate instability, South Bowl. The Rockfall and Landslide Hazards Report contains a review of existing landslide mapping and imagery, coupled with field reconnaissance, that was used to examine slope stability within the South Bowl area. It was determined that landslide movement is not a critical constraint to building the South Bowl Lift. Furthermore, PDC have been incorporated into Proposed Action to ensure	Consistent. Alternative 3 would occur within areas identified as having moderate instability; however, proper PDC would be implemented to mitigate impacts to soil resources.	Consistent. The project area contains one area of moderate instability, South Bowl. The Rockfall and Landslide Hazards Report contains a review of existing landslide mapping and imagery, coupled with field reconnaissance, that was used to examine slope stability within the South Bowl area. It was determined that landslide movement is not a critical constraint to building the South Bowl Lift. Furthermore, PDC have been incorporated into	Consistent. Alternative 5 would occur within areas identified as having moderate instability; however, proper PDC would be implemented to mitigate impacts to soil resources.

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		that soil stability and landslide hazards are minimized. Prior to implementation GTR shall submit grading plans for the proposed lift for agency review and authorization.		Alternative 4 to ensure that soil stability and landslide hazards are minimized. Prior to implementation GTR shall submit grading plans for the proposed lift for agency review and authorization.	
CAVES					
Standards					
4. Cave entrances will not be altered or used as disposal sites for slash or other refuse and no action will be taken to prevent or hinder ingress or egress of cave-dependent wildlife. Gating of cave entrances will be allowed as long as physical alteration of the entrance is not needed to construct the gate. Wilderness values will also be considered prior to installing such structures.	N/A				
5. Management activities will not be permitted within any area draining into a cave if they are likely to affect the cave ecosystem through sedimentation, soil sterilization, the addition of nutrients or other chemicals (including pesticides, herbicides, and fertilizers) or by changing the cave's natural hydrology.	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
6. Do not allow alteration of natural surface drainage into or away from caves.	N/A				
Guidelines					
1. Restrict logging, road construction, and other uses of heavy equipment above or in the vicinity of a cave with a thin roof, or the course of such a cave, if there is a potential for damage.	N/A				
2. Retain vegetation in the vicinity of a cave or cave course if it is required to protect the cave's microenvironment (habitat, climate, vegetation, etc.).	N/A				
3. Fell trees away from the cave and its course if timber harvesting is permitted in the vicinity of a cave.	N/A				
LANDS					
Standards					
1. Allow for essential access for repair and maintenance of facilities within energy corridors.	N/A				
Guidelines					
1. Avoid parallel corridors Consolidate facilities within existing energy corridors where feasible.	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
2. Bury new lines and upgrades/replacements when feasible.	N/A				
3. Proponents of new facilities within existing corridors, and new corridor routes, must demonstrate clearly that the proposal is in the public interest, and that no other reasonable alternative exists to public land routing.	N/A				
MINERALS					
Locatable and Mineral Materials					
Standards					
2. The Forest is open to exploration and development and production of locatable, leasable, and mineral material resources unless otherwise specified in the management prescriptions.	N/A				
Guidelines					
1. Common minerals give priority to use of currently developed common mineral (natural gravel and hard rock) material sources over undeveloped sources. Exceptions should be made when existing sources are unable to economically supply the quality and quantity of material needed or when conflicts with other resource uses are found to be unacceptable.	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
3. Oil and gas pipelines and other related utilities should share utility corridors except as needed to meet other resource objectives.	N/A				
FISHERIES, WATER, AND RIPARIAN RESOURCES					
Watershed General					
Guideline					
1. Not more than 30 percent of any of the principal watersheds and their subwatersheds should be in a hydrologically disturbed condition at any one time.	Consistent. Under the No Action Alternative, no ground disturbance would occur; thus, no impacts to principal watersheds and their subwatersheds would occur.	Consistent. All Alternatives would not cause more than 30 percent of any principal watershed and their subwatersheds to be in a hydrologically disturbed condition (refer to Section 3.15 – Hydrology).			
Fisheries and other aquatic resources					
Standards					
1. New special use permits or new Forest Service projects involving instream facilities (exclusive of facilities retrofitted to existing dams) must maintain minimum instream flows as specified by the Forest or State and, on fish-bearing streams provide for fish passage and include screening devices to prevent accidental loss of fish.	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Guidelines					
2. When reauthorizing existing special use permits or existing Forest Service projects involving instream facilities (exclusive of facilities retrofitted to existing dams), where feasible, provide for minimum instream flows as specified by the Forest or State and, on fish-bearing streams, where feasible, provide for fish passage and include screening devices to prevent accidental loss of fish.	N/A				
3. Within subwatersheds occupied by native cutthroat trout or designated as vital to meeting recovery goals, avoid management activities that are found, through interdisciplinary site-specific analysis, to either reduce habitat features below the expected values described above or retard the rate of recovery of degraded habitat features. Refer to **Table A** at the end of this Appendix.	Consistent. There would be no impacts to subwatersheds containing native cutthroat trout under the No Action Alternative.	Consistent. The action alternatives may have limited indirect impacts to Yellowstone cutthroat trout habitat, which exists downstream of the project area; however, these impacts are not likely to cause a trend towards federal listing or loss of population viability (refer to **Section 3.12 – Wildlife and Fish**). Additionally, PDC such as erosion mitigation practices and avoidance of riparian habitats would mitigate impacts to downstream habitat and populations.			
4. Emphasize watershed analysis or site-specific analysis to more accurately define fisheries habitat features when planning or conducting management activities within Native Trout Watersheds. Refer to **Table A** at the end of this Appendix.	Consistent. Under the No Action Alternative there would be no impacts to fish habitat.	Consistent. Watershed analysis was prepared and impacts to fisheries habitat features were considered in the design of proposed project elements. Habitat for Yellowstone Cutthroat is primarily located downstream of the project area, so field-based analysis was not prepared for the species.			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
5. Values for fish habitat features may be adjusted based on field analysis or literature review. A clear rationale supporting the expansion must be documented. Refer to **Table A** at the end of this Appendix.	Consistent. Under the No Action Alternative there would be no impacts to fish habitat.	Consistent. Teton Creek is a fish bearing stream for Yellowstone Cutthroat trout, but is downstream of the project area. However, Mill Creek, which is located within the project area, flows into Teton Creek. Although impacts to Mill Creek could impact fish habitat features in Teton Creek, PDC are included in **Table 2.4-1. Project Design Criteria** to protect fish habitat in Teton Creek.			
VEGETATION					
Standard					
2. Forest vegetation manipulation on lands not included in the ASQ will be accomplished to meet the individual management prescription direction. Production of wood products will not be the primary consideration. Harvest will be accomplished with sufficient mitigation to protect and maintain soil, wildlife, visual, and aquatic resources.	Consistent. Under the No Action Alternative there would be no vegetation manipulation.	Consistent. PDC included in **Table 2.4-1. Project Design Criteria** are intended to protect and maintain soil, wildlife, visual, and aquatic resources.			
4. Vegetation manipulation through timber harvest on lands not included in the ASQ will not exceed 20 million board feet (MMBF) per decade.	N/A				
6A3. Use the definition of old growth characteristics by forest type found in "Characteristics of Old-Growth Forests in the Intermountain Region" (USDA Forest Service 1993).	Consistent. Definition used throughout analysis.				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
9. Do not conduct management activities which alter canopy vegetation within 400 feet of a Natural Resources Conservation Service (NRCS) snow measuring site without first contacting NRCS Legal locations of these sites are in the Forest Geographic Information System (GIS).	Consistent. Unanalyzed canopy vegetation alteration would not occur under the No Action Alternative.	Consistent. NRCS snow measuring sites would not be affected by the proposed alterations to canopy vegetation.			
Guidelines					
1. Where appropriate, use methods of vegetation treatment that emulate natural ecological processes to maintain or restore properly functioning ecosystems.	Consistent. Vegetation treatment would not occur under the No Action Alternative.	Consistent. Project Design Criteria has been included in **Table 2.4-1** to reduce potential impacts of vegetation removal.			
3. Vegetation manipulation may include mechanical treatments, commercial or noncommercial timber harvest of wood products, prescribed fire, or other appropriate methods.	Consistent. Vegetation manipulation would not occur under the No Action Alternative.	Consistent. The discussion of construction practices related to tree removal are described in Section 2.3.1 of the *FEIS*.			
5. Treat aspen plant communities to reduce encroaching conifers and maintain a balance of age classes for these communities.	N/A	N/A			
6A. In each principal watershed, the combination of old growth and late seral forest stage acres will be 20 percent or more of the forested acres. Where it exists, at least half of this (ten percent of the forested acres) should meet old growth characteristics.	Consistent. Under the No Action Alternative, late seral and old growth forest would not change from existing conditions. Habitat and existing forest stands of late seral and old growth would	Consistent. The proposed project area includes Teton Creek (TPW 19) and Leigh Creek (TPW 20) watersheds. Resource analysis utilizing the best available data has determined that all action alternatives would impact less than a percent of the late seral and old growth stands in these watersheds. The 20 percent or more threshold of old growth and late seral stands within the study area TPWs would be maintained or negligibly impacted by the action alternatives under a variety of modeling scenarios utilizing the best available existing and reliable data; therefore, indicating compliance with this guideline for TPW 19 and TPW 20 as described in Vegetation Section Standards and Guidelines #6, Old Growth and Late Seral Forest Stages, Guideline A (page III-12).			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	remain the same, barring any impacts from insects, disease, or wildfire. Aspen and conifer saplings that would gradually change through natural succession to later seral stages could be impacted by the expected increase in visitation at GTR. Visitation during the summer and winter is expected to increase and operation in the form of grooming and mowing could directly impact saplings, and thus succession to later seral stages and old growth. Overall, these direct impacts would be minimal in the long-term and would not reduce the percent of late seral and old growth forest stands within the TPW19 and TPW20.	Refer to Section 3.12 of the *FEIS* for a specific discussion of old growth and late seral stand quantities within the study area watersheds and quantification of anticipated impacts by action alternative.			
6A1. For aspen and conifer forest types, acres classified as old growth and late seral should be in blocks over 300 acres in size (a block can consist of a combination of old growth and late successional forest types).	Consistent. Under the No Action Alternative, late seral and old growth forest would not change from existing conditions. Habitat and existing forest stands of late seral and old growth would	Consistent. Late seral and old growth data was organized into contiguous polygons (blocks) of 300 or more acres for one of the modeling scenarios that was considered in the analysis of this resource. For TPW 20, the only data available, the mid-level vegetation data was used. When merged and parsed into 300-acre polygons, there were not any late seral and old growth areas that met the qualifications within the existing SUP in TPW 20. For TPW 19, two existing data sets (i.e., lynx habitat old growth classification and mid-level vegetation data) were merged into one layer and parsed out the polygons under 300 acres. Based on this merged layer, late seral and old growth forest are present within the existing SUP, Mono Trees, and South Bowl. Proposed impacts			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Within these blocks a.) Maintain 80 percent or greater primary cavity nesting species habitat capability (see Wildlife Standards and Guidelines - Snag/Cavity Nesting Habitat) b.) Maintain the wildlife dead and down woody material guidelines (see Wildlife Standards and Guidelines - 1 Dead and Down Material) c.) Silvicultural techniques may be used to maintain or improve old growth and late successional characteristics	remain the same, barring any impacts from insects, disease, or wildfire. Aspen and conifer saplings that would gradually change through natural succession to later seral stages could be impacted by the expected increase in visitation at GTR. Visitation during the summer and winter is expected to increase and operation in the form of grooming and mowing could directly impact saplings, and thus succession to later seral stages and old growth. Overall, these direct impacts would be minimal in the long-term and would not reduce the percent of late seral and old growth forest stands within the TPW19 and TPW20.	were overlapped with the approximate late seral and old growth forest areas to determine forest impacts across all alternatives within TPW 19. PDC included in Table 2.4-1 are intended to promote the goals of a.) b.) and c.) as it relates to cavity nesting species habitat capability, dead and down woody material, and silvicultural techniques. Specifically, Table 2.4-1 states, "Where practicable and deemed safe, snags shall be left in place to preserve existing biological potential…" and "Where practicable and deemed safe, woody debris shall be left in place to preserve existing logs in size classes 1, 2 and 3. If logs are to be left consult with forest timber personnel to ensure material isn't left in a manner that shall encourage harmful insect infestation." As described in the previous cell, multiple data sets were considered to assess the project impacts to old growth and late seral stands. Parsing old growth and late seral stands into blocks over 300 acres in size was one way that data sets were considered; however, to understand the full scope of potential impacts to TPW 20, this approach was also excluded from certain modeling scenarios. PDC for nesting species habitat and woody material are provided for all action alternatives in **Table 2.4-1. Project Design Criteria** and discussed further in Chapter 3 Sections 3.12 and 3.13 – Vegetation and Wildlife.			
6A2. If a catastrophic event (such as fire) reduces the acres of old growth and late seral forest below 20 percent of the forested acres in a principal watershed, identify replacement forested acres to achieve the 20 percent. When necessary, use silvicultural	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
techniques to promote old growth and late seral characteristics in the replacement acres.					
6A3. Use the definition of late seral stages by forest type in **Table C** at the end of this Appendix.	Consistent. Definition used throughout analysis.				
6A7. Conduct vegetation manipulations in a cost-effective manner. Manipulations should emphasize desired ecological and multiple-use outcomes over being above cost.	Consistent. Under the No Action Alternative there would be no vegetation manipulation.	Consistent. The proponent would bear all costs of vegetation manipulation, which would be done in accordance with PDC included in **Table 2.4-1. Project Design Criteria**			
8. Maintain, and where possible, increase unique or difficult-to-replace elements or habitats such as whitebark pine, and areas of high species diversity, such as aspen, riparian zones, etc.	Consistent. Under the No Action Alternative there would be no vegetation manipulation.	Inconsistent. Despite PDC, the Proposed Action would not meet the intent of Vegetation Guideline 8, as described in **Section 3.12.2**. This is due to the direct impacts to WBP habitat that would occur under this alternative; however, at the scale of the *1997 Forest Plan* area, WBP population viability would not be threatened. Amendments to the *1997 Forest Plan* would not be pursued for this species as the aforementioned inconsistency is with a guideline rather than a standard (refer to the **Wildlife and Botany BA** for more information). Overall, the Proposed Action *may affect, likely to adversely affect* for WBP.			
10. Within big sagebrush (Artemisia fridenfata & varieties)/grassland habitats strive for canopy coverage distributions on a subwatershed basis (generally 2,000 to 6,000 acres in size) of - Less than five percent of a subwatershed in a less than five percent canopy coverage class	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
- Seventy-five percent of a subwatershed in a well distributed mosaic of canopy coverage ranging from 5-30 percent - Twenty percent of a subwatershed in a greater than 30 percent canopy coverage class					
Plant Species Diversity					
Standards					
4. Information on the presence of listed threatened, endangered or sensitive plant species will be included in all assessments for vegetation and/or ground disturbing management activities. Appropriate protection and mitigation measures will be applied to the management activities.	Consistent. All Alternatives considered threatened, endangered or sensitive plant species within their project areas.				
Guidelines					
1. Native plant species from genetically local sources will be used to the extent practicable for erosion control, fire rehabilitation, riparian restoration, forage enhancement, road right-of-way seeding, and other revegetation projects.	Consistent. The No Action Alternative would not require vegetation restoration.	Consistent. Under all Alternatives disturbed areas would be promptly revegetated after the site has been satisfactorily prepared. Repeat seeding would occur until satisfactory re-vegetation is accomplished. Reseeding would use a native seed mixture using a variety of native seed grasses, wildflowers and forbs.			
2. Areas planned for nonnative seedings or plantings of nonnative woody species need to be evaluated to determine the impacts	Consistent. The No Action Alternative would not require	Consistent. Under all Alternatives, native species would be used to the extent possible; however, to prevent soil erosion, non-persistent, non-native perennials or sterile perennials may be used while native perennials become established. A monitoring protocol for vegetative cover standards that would be implemented for a minimum of three years following seeding. Monitoring would document the plant species present, their likely origin (i.e.,			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
to the native flora within the analysis area and habitats adjacent to it.	seeding of nonnative plants.	seed mix, colonizer, residual), the presence of invasive non-native plants and noxious weeds, and any problems with erosion or sedimentation. Recommendations for site improvements, if necessary, would also be provided.			
3. Introduced species should be utilized in project seedings where native species would not meet the objectives of erosion control, such as in high use or impact areas, and where the effects on local, native flora is minimal, sites that are currently dominated by introduced species and use of nonnative species has not degraded the adjacent native flora; and sites where the management objective is to utilize nonnative species in one area to prevent degradation of other natural areas.	Consistent. The No Action Alternative would not require introduced species.	Consistent. Under all Alternatives, native species would be used to the extent possible; however, to prevent soil erosion, non-persistent, non-native perennials or sterile perennials may be used while native perennials become established. A monitoring protocol for vegetative cover standards that would be implemented for a minimum of three years following seeding. Monitoring would document the plant species present, their likely origin (i.e., seed mix, colonizer, residual), the presence of invasive non-native plants and noxious weeds, and any problems with erosion or sedimentation. Recommendations for site improvements, if necessary, would also be provided.			
Ute Ladies' Tresses					
Standards					
1. For known populations within livestock grazing allotments, provide appropriate protection, particularly during the flowering and seed-set periods (generally August and September)	Consistent. No Ute Ladies' Tresses would be impacted by the No Action Alternative.	Consistent. Ute Ladies' Tresses were not determined to be present within the project area; therefore, this species would not be impacted by any of the action alternatives.			
2. Allow no ground disturbing activities or changes in hydrology within occupied habitat without review by botanist and interdisciplinary team.	Consistent. No ground disturbing activities would occur in occupied Ute Ladies' Tresses habitat.	Consistent. Ute Ladies' Tresses were not determined to be present within the project area; therefore, this species would not be impacted by any of the action alternatives.			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
WILDLIFE					
Dead and Down Material					
Guidelines					
1A. On at least 60 percent of the forested acres of each analysis area an average of 21 logs per acre should be left consisting of logs in decomposition classes 1, 2 and 3 where they exist (USFS, 1979) (Note unmanaged stands or stands where management did not include the removal or piling of down material, meet forestwide standards and guidelines for down woody material). When this amount of down material is not present on at least 60 percent of the forested acres in an analysis area, an average of 42 logs per acre should be left in all activity areas (harvest units) consisting of logs in all decomposition classes where they exist. Fewer logs may be left if fuel loading would exceed 25 tons per acre.	Consistent. Under the No Action Alternative, no trees would be cleared or ground disturbed.	Consistent. Under all Alternatives, approximately 21 logs per acre would be left in each decomposition class.			
1A1. Logs should be at least seven inches in diameter at the small end, be at least 20 feet long, and have a volume of at least ten cubic feet (e g, a log averaging 9 5 inches in diameter and 20 feet	Consistent. Under the No Action Alternative, normal forest conditions would be maintained.	Consistent. Under All Alternatives, dead and downed logs would be within the appropriate size range.			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
long) a. Smaller size logs may only be used in meeting this volume criteria if the area is incapable of producing larger trees, or the stand is too young to produce these trees. In these cases, logs representing the largest tree diameter class present in the stand should be retained and at least 200 cubic feet (approximately 2 3 tons) per acre of down logs shall be retained. b. For every two-acre area in an activity area, a minimum of two logs should be left, where they exist, to maintain distribution of down woody material.					
Winter Feeding of Big Game					
Standards					
2. Allow no new permanent feed grounds for wintering big game animals	Consistent. Under all Alternatives, no new permanent feed grounds would be established.				
Animal Damage Management					
Standards					
3. Animal Damage management will be conducted in compliance with the 1996 "APHIS-ADC Predator Damage Management in Southern Idaho" Decision Notice	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
and FONSI, selected alternative "Current Program with Livestock Protection Collar. "					
3b. Problem wolves will be managed according to the Nonessential Experimental Population for Gray Wolves Final Rule (USDI, 1994b)			N/A		
3c. Problem grizzly bears will be addressed according to the Interagency Grizzly Bear Committee nuisance bear guidelines (IGBC, 1994).			N/A		
3d. Use of toxicants will not be allowed on the Forest.			N/A		
Guidelines					
3a. Annual ADC work plans will be prepared using the 1990 Targhee National Forest "Forest-Wide Predator Control Environmental Assessment" as a framework for conducting predator control activities on the Forest Deviations from the direction in the 1990 EA will be considered when necessary to deal with particular problem animals.			N/A		
Snag/Cavity Nesting Habitat					
Standards					
4. Public workforce and contractor safety will be considered and	Consistent. Under All Alternatives public and contractor safety would be assessed prior to selecting the arrangement of retained snags and trees.				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
provided for in selecting the arrangement of retained snags and trees.					
Guidelines					
1. Retain snags within all management prescription areas allowing timber harvest (refer to the **Tables D & E** at the end of this Appendix for snag requirements of cavity nesting species, refer to the wildlife standards and guidelines in each management prescription for the specific biological potential to be achieved)	Consistent. No cavity nesting species habitat is expected to be impacted through the No Action Alternative.	Inconsistent. Tables D and E identify the number of snags required to maintain biological potential in an area for woodpecker populations. The only woodpecker species with habitat within the project area is the Three-toed Woodpecker. Under the *1997 Forest Plan*, Management Prescription – *4.2 Special Use Permit Recreation Sites* prevails over other Management Prescriptions. This Management Prescription does not have any standards and guidelines that dictate snag requirements for habitat and currently encompasses the existing SUP. The proposed South Bowl (Alternatives 2 and 4) and Mono Trees (Alternatives 2 and 5) expansions currently contain Management Prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 – *Aquatic Influence Zone*. There are no standards and guidelines pertaining to snags for Management Prescription 2.1.2 – *Visual Quality Maintenance*, but the requirement for Management Prescription 2.8.3 – *Aquatic Influence Zone* is to maintain dead and defective tree habitat at a 100 percent biological potential for woodpeckers. Since Alternatives 2, 4, and 5 would amend the *1997 Forest Plan* to change the Management Prescription in the expansion areas to Management Prescription 4.2 – *Special Use Permit Recreation Sites,* which supersedes Management Prescription 2.8.3 – *Aquatic Influence Zone*, snag requirements on up to 61.9 acres (about 56 acres in Mono Trees and 5.9 acres in South Bowl) would be dropped. Although individual woodpeckers (including three-toed woodpeckers) would likely be impacted from not retaining the 100 percent Biological Potential requirement on up to 61.9 acres in the current Management Prescription 2.8.3 – *Aquatic Influence Zone* (within Mono Trees and South Bowl), the project would not cause a loss of viability for populations in the vicinity of the project area or the Teton Creek Principal Watershed. The rationale for this is that PDC included in **Table 2.4-1** would ensure impacts to snag nesting habitat is minimized, the proposed project would impact a very small percentage of the available Management Prescription 2.8.3 – *Aquatic Influence Zone* within the Teton Creek Principal Watershed (about one percent), snags and live trees are not limiting in the vicinity of the proposed project area, and habitat (particularly for three-toed woodpeckers) is widespread. Sufficient snags would still exist within the vicinity of the project area to support woodpecker populations. The reader is referred to Chapter 3, Section 3.16 Wildlife for a discussion of potential impacts to species that rely on snags and Appendix C for the Forest Plan amendments.			
2. Retain live trees for future snag recruitment using the guidelines outlined in **Table F** at the end of	Consistent. No cavity nesting species habitat is expected to be impacted	Consistent. Complete removal of vegetation for trails and grading would decrease the amount of snag habitat within the project area; however, PDC has been included under all Alternatives, requiring that to the extent possible, live trees meeting the necessary characteristics would be retained for future snag recruitment (refer to **Table 2.4-1. Project Design Criteria**). Additionally, glading activities that only remove 5-40% vegetation			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
this Appendix to achieve various percentages of biological potential.	through the No Action Alternative.	may still provide suitable habitat in forested areas that also have snags and dying trees left remaining for forage and nesting habitat as well as a significant amount of forest canopy remaining for cover. Furthermore, habitat modeling for the Targhee Forest Species Viability Report estimates that 74 acres of "very good" habitat and 29,309 acres of "good habitat" for the Three-toed Woodpeckers exists throughout the TNF. Therefore, reduction of suitable habitat due to the proposed project is not expected to impact the viability of the Targhee Forest Three-toed Woodpecker population given availability of alternate suitable habitat. The reader is referred to the Wildlife BE and Chapter 3, Section 3.16 Wildlife for a further discussion of potential impacts to species that rely on snags.			
3. In analysis areas where snag numbers are low (at or approaching management minimums), no dead standing trees should be harvested.	Consistent. No cavity nesting species habitat is expected to be impacted through the No Action Alternative.	Consistent. Complete removal of vegetation for trails and grading would decrease the amount of snag habitat within the project area; however, PDC has been included under all Alternatives, requiring that to the extent it does not compromise skier safety or operations, dead standing trees would remain in place (refer to **Table 2.4-1. Project Design Criteria**). Additionally, glading activities that only remove 5-40% vegetation may still provide suitable habitat in forested areas that also have snags and dying trees left remaining for forage and nesting habitat as well as a significant amount of forest canopy remaining for cover. Furthermore, habitat modeling for the Targhee Forest Species Viability Report estimates that 74 acres of "very good" habitat and 29,309 acres of "good habitat" for the Three-toed Woodpeckers exists throughout the TNF. Therefore, reduction of suitable habitat due to the proposed project is not expected to impact the viability of the Targhee Forest Three-toed Woodpecker population given availability of alternate suitable habitat.			
Grizzly bear habitat					
Standards					
2. Those areas shown as Management Situation 3 (MS3) habitat on Map #5 of the 1985 Forest Plan will continue to be managed as MS3 habitat.	Consistent. Management Situation 3 does not occur within the existing or proposed GTR SUP area.				
Guidelines					
1. The grizzly bear education program will focus on residents in residential and summer home areas, developed recreation site users, wilderness users, hunters,	Consistent. The grizzly bear education program would continue to occur with residents and GTR SUP users.				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
outfitters and guides, and permittees.					
Bald Eagle Habitat – In Occupied Nesting Zones (Zone 1) and Primary Use Areas (Zone 11) apply the following					
Standards					
1B. No new roads in Zone I.	N/A: There is no bald eagle habitat within the project area				
1D. No new developed recreation sites or facilities in Zone I.	N/A: There is no bald eagle habitat within the project area				
1E. Manage existing recreation use at levels which do not adversely affect use and productivity of the nest site.	N/A: There is no bald eagle habitat within the project area				
1F. Use the "No Surface Occupancy" stipulation for all mineral's activities.	N/A: There is no bald eagle habitat within the project area				
1H. Use silvicultural techniques which maintain or promote mature and old growth timber stand characteristics in both the short and long-term but reduce the risks of insects and disease epidemics.	N/A: There is no bald eagle habitat within the project area				
1I. Vegetation management can only occur between September 1 and January 31.	N/A: There is no bald eagle habitat within the project area				
1K. Prohibit new structures that have the potential to cause direct mortality to bald eagles (e.g., power lines).	N/A: There is no bald eagle habitat within the project area				
1M. Prohibit wildlife management or predator control activity with	N/A: There is no bald eagle habitat within the project area				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
the potential to cause mortality to bald eagles (such as exposed traps).					
2. Within Home Ranges (Zone Ill) follow existing site-specific management plans (when they exist) for each bald eagle territory, or Zone Ill management direction in the Bald Eagle Management Plan for the Greater Yellowstone Area when site-specific management plans do not exist.	N/A: There is no bald eagle habitat within the project area				
3. Within Zones I, 11, and 111, prohibit all use of herbicides and pesticides which cause eggshell thinning as determined by EPA labeling.	N/A: There is no bald eagle habitat within the project area				
Guidelines					
1A. Minimize all human activities from February 1 to August 1.	N/A: There is no bald eagle habitat within the project area				
1B. Avoid building new roads in Zone II.	N/A: There is no bald eagle habitat within the project area				
1C. Manage human use on existing roads at levels which do not adversely affect use and productivity of the nest site.	N/A: There is no bald eagle habitat within the project area				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
1D. Avoid building new recreation sites or facilities in Zone II.	N/A: There is no bald eagle habitat within the project area				
1G. If eagles choose to establish new nest sites and use areas in an area already receiving human use, the human activities may be restricted or modified. Expanded human activity, however, should be discouraged.	N/A: There is no bald eagle habitat within the project area				
1J. Use "control" as the appropriate suppression response for wildfires to minimize loss of habitat.	N/A: There is no bald eagle habitat within the project area				
1L. Permit historic levels of livestock use as long as no adverse impacts (such as abandonment of nest territory or reproduction failures) occur related to this activity. Manage livestock to allow successful reproduction of cottonwood where applicable.	N/A: There is no bald eagle habitat within the project area				
4. Recreation activities and developments will be designed to minimize conflicts with bald eagle wintering and migration habitat.	N/A: There is no bald eagle habitat within the project area				
5. New roads and trails will be located to avoid bald eagle wintering and migration habitat. Where these areas cannot be avoided the roads and trails will be	N/A: There is no bald eagle habitat within the project area				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
designed and located to minimize impacts to eagles.					
Gray Wolf Habitat					
Standards					
1. Restrict intrusive human disturbances (motorized access, vegetation management, livestock grazing, etc.) within one mile around active den sites and rendezvous sites between April 1 and June 30, when there are five or fewer breeding pairs of wolves in the Yellowstone Nonessential Experimental Population Area (applies to the portion of the Forest east of Interstate 15) or the Central Idaho Nonessential Experimental Population Area (applies to the portion of the Forest west of Interstate 15). After six or more breeding pairs become established in each experimented population area, land-use restrictions will not be needed (USDI Fish and Wildlife Service 1994 a and b).	Consistent. There are no known active den sites or rendezvous sites within the project area; however, the Chagrin wolf pack is located along the Idaho/Wyoming border between Alta, Wyoming and Victor, Idaho in the vicinity of the project area. Wolf calls were also detected on audio recorders in April 2020, west of the project area in the Bustle Creek drainage which may be from individuals of the Chagrin wolf pack. Proposed activities within the project area could cause disturbance that reduces the suitability of habitat for wolves in the area. A limitation in food sources in the project area for wolves could also occur if ungulate species are reduced in number or relocate outside of the project area. Alternative 3, no SUP expansion, would likely have minimal effects on wolf habitat usage because the existing SUP is heavily developed and sees high levels of human activity, which wolves tend to avoid. Impacts to wolves could be highest if expansion of the SUP were to occur under Alternatives 2, 4, or 5. If specific impacts to threatened, endangered, and Region 4 sensitive species and/or their habitats, including dens, are identified during project implementation, project operations in the immediate vicinity would be suspended until the Forest Service Wildlife or Fish Biologist or Botanist are contacted. Project implementation may be adjusted, and timing restrictions may be applied, as determined by the Forest Service, to reduce those impacts.			
2. The ability of individuals holding grazing permits on public land to harass adult wolves in an opportunistic, non-injurious manner will become part of their permit conditions so it is clearly understood exactly what can occur. There is a seven-day	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
reporting requirement (USDI Fish and Wildlife Service 1994 a and b).					
3. The following conditions and criteria will apply in determining the problem status of wolves (USDI Fish and Wildlife Service 1994 a and b): a.) Wounded livestock or some remains of a livestock carcass must be present with clear evidence that wolves were responsible for the damage and there must be a reason to believe that additional losses would occur if the problem wolf or wolves were not controlled Such evidence is essential since wolves may simply feed on carrion they have found while not being responsible for the kill b.) Artificial or intentional feeding of wolves must not have occurred Livestock carcasses not properly disposed of in an area where depredations have occurred will be considered attractants Removal or resolution of such attractants must accompany any control action Livestock carrion or carcasses not being used as bait in an authorized control action (by agencies) must be removed,	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
burned, treated with an acceptable chemical repellent, or otherwise rendered such that the carcass(es) will not attract wolves using methods approved by the District Ranger c.) Animal husbandry practices previously identified in existing approved Allotment Management Plans and annual operating plans for allotments must have been followed					
4. Prior to the establishment of six breeding pairs, depredating females and their pups will be captured and released at or near the site of capture, one time prior to October 1. If depredations continue, or if six packs are present, females and their pups will be removed (USDI Fish and Wildlife Service 1994 a and b).	N/A				
Guidelines					
4. If additional livestock depredations are likely, proper animal husbandry practices are employed (proper disposal of livestock carcasses, etc.), artificial feeding does not take place, and AMPs are followed, the Forest may implement procedures to harass, capture, move, or kill wolves that attacked livestock (defined as cattle, sheep, horses, or	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
mules only) on National Forest land.					
Peregrine Falcon Habitat					
Standards					
2. Within 15 miles of all known nest sites, prohibit all use of herbicides and pesticides which cause eggshell thinning as determined by risk assessment (USDA-Forest Service, September 1992)	Consistent. There are no known peregrine falcon nest sites within the project area; however, the project area contains suitable nesting habitat for the species. In the past the species has nested and fledged its young in the Apostles eyrie, which is located in Teton Canyon only 0.12 miles south of the project area. The Apostles eyrie was last occupied by nesting peregrine falcon in 1996. Under all Alternatives, pretreatment of existing infestations of noxious weeds would be conducted with approved herbicides prior to implementation. Herbicide choices and application rates would be based on direction from the District/Forest Weed Program Manager and would preclude the use of herbicides that cause eggshell thinning. Herbicides and pesticides which cause eggshell thinning are not permitted on the Forest.				
3. Restrict climbing and other human disturbances from March 15 through July 31 to avoid adverse impacts at known falcon nest sites.	Consistent. The No Action Alternative would be a continuation of existing operations within the existing SUP. Human disturbance and activities would stay the same within the existing SUP and there are no known nest sites within the existing SUP area.	Inconsistent. There are no known peregrine falcon nest sites within the project area; however, the project area contains suitable nesting habitat for the species. In the past the species has nested and fledged its young in the Apostles eyrie, which is located in Teton Canyon only 0.12 mile south of the project area. The Apostles eyrie was last occupied by nesting peregrine falcon in 2008. If falcons were to nest in the area in the future, the PDC preventing vegetation removal during the migratory bird nesting period would minimize impacts. Additionally, falcons nesting at the Apostles eyrie in previous years do not appear to have been deterred by activity within the existing SUP. However, the proposed projects would bring increased noise and activity closer to potential and historical nesting habitat in Teton Canyon which could deter or disrupt nesting behavior of Peregrine Falcons during March 15 to July 31. Therefore, a project specific Forest Plan amendment is proposed to exempt the projects from this standard. Refer to **Appendix C – Forest Plan Amendments** for more information on this Forest Plan amendment. If specific impacts to threatened, endangered, and Region 4 sensitive species and/or their habitats, including nests, are identified during project implementation, project operations in the immediate vicinity would be suspended until the Forest Service Wildlife or Fish Biologist or Botanist are contacted. Project implementation may be adjusted, and timing restrictions may be applied, as determined by the Forest Service, to reduce those impacts.			
Guidelines					
1. For proposed projects within two miles of known falcon nests consider such items as 1) human activities (aircraft, ground and water transportation, high noise	Consistent. The No Action Alternative is a continuation of existing operations and maintenance practices.	Inconsistent. There are no known peregrine falcon nest sites within the project area; however, the project area contains suitable nesting habitat for the species. In the past the species has nested and fledged its young in the Apostles eyrie, which is located in Teton Canyon only 0.12 miles south of the project area. The Apostles eyrie was last occupied by nesting peregrine falcon in 2008. However, the proposed projects would bring increased noise and activity closer to potential and historical nesting habitat in Teton Canyon which could			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
levels, and permanent facilities) which could cause disturbance to nesting pairs and young during the nesting period March 15 to July 31, 2) activities or habitat alterations which could adversely affect prey availability.	Human disturbance would stay the same within the existing SUP and falcons would not be further disturbed than existing conditions.	deter or disrupt nesting behavior of Peregrine Falcons during March 15 to July 31. However, the abundance of cliff habitat in nearby Teton Canyon suggests that nesting habitat is not limited, and numerous eyries have been documented throughout the *1997 Forest Plan* area. Idaho Fish and Game, Wyoming Game and Fish, and the Forest Service observation data also shows that peregrine falcons are widespread throughout the Targhee Planning Area. Additionally, through the incorporation of PDC as identified in Table 2.4-1 prevention of vegetation removal during the migratory bird nesting period would minimize impacts, and nesting surveys would be completed prior to construction to minimize impacts. Inclusion of these PDC would minimize impacts to peregrine falcon.			
Goshawk Habitat					
Standards and Guidelines					
1997 Forest Plan standards and guidelines related to goshawk habitat are provided in table format. This Table is included in the *Supporting Tables* section of this Appendix. Refer to **Table G** at the end of this Appendix for all management standards and guidelines.	Consistent. The No Action Alternative is a continuation of existing operations and management practices. Although active American goshawk nesting was documented at three nest sites within 1 mile west of the project area, these existing practices would not impact any active and historic goshawk nesting territories.	Inconsistent. Inconsistency relates to the standards for *size of each area* (described in the second row of Table G) and the *management season* (described in the eighth row of Table G). The following discussion relates to information provided in cells with the second and eighth rows of Table G. Active American goshawk nesting was documented at three nest sites within 1 mile west of the project area for four consecutive years from 2019 to 2022 indicating that a breeding pair of birds occupies a territory in the area, referred to as the Mill Creek territory by the	Consistent. Active American goshawk nesting was documented at three nest sites within 1 mile west of the project area for four consecutive years from 2019 to 2022 indicating that a breeding pair of birds occupies a territory in the area, referred to as the Mill Creek territory by the Forest Service. A 200-acre nesting area, 400-acre fledging area, and 5,400 acre foraging area were delineated in suitable habitat surrounding the nest sites. These areas include some forest habitat in the proposed Mono Trees expansion area. Under Alternative 3 and 4 there would be no expansion into the Mono Trees expansion area; therefore, Alternative 3 and 4 would be consistent with the American goshawk nesting territory standards and guidelines.	Inconsistent. Inconsistency relates to the standards for *size of each area* (described in the second row of Table G) and the *management season* (described in the eighth row of Table G). The following discussion relates to information provided in cells with the second and eighth rows of Table G. Active American goshawk nesting was documented at three nest sites within 1 mile west of the project area for four consecutive years from 2019 to 2022 indicating that a breeding pair of birds occupies a territory in the area, referred to as the Mill Creek territory by the

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		Forest Service. A 200-acre nesting area, 400-acre fledging area, and 5,400-acre foraging area were delineated in suitable habitat surrounding the nest sites. These areas include some forest habitat in the proposed Mono Trees expansion area. Within the nesting area, a total of 4.47 acres of impacts are proposed. Within the fledging area, 128.96 acres would be impacted. Removal of trees within these areas would not be consistent with the standards and guidelines identified in Table G for active and historic goshawk nesting territories. Therefore, a project specific Forest Plan amendment would be needed for projects under Proposed Action. Refer to **Appendix C – Forest Plan Amendments** for more information on this Forest Plan amendment.			Forest Service. A 200-acre nesting area, 400-acre fledging area, and 5,400-acre foraging area were delineated in suitable habitat surrounding the nest sites. These areas include some forest habitat in the proposed Mono Trees expansion area. Within the nesting area, a total of 4.47 acres of impacts are proposed. Within the fledging area, 128.96 acres would be impacted. Removal of trees within these areas would not be consistent with the standards and guidelines identified in Table G for active and historic goshawk nesting territories. Therefore, a project specific Forest Plan amendment would be needed for projects under Alternative 5. Refer to **Appendix C – Forest Plan Amendments** for more information on this Forest Plan amendment.
Flammulated Owl Habitat					
Standards					
1. Do not allow timber or firewood harvest activities within a 30-acre	Consistent. The No Action Alternative is a	Inconsistent. Flammulated Owl detections occurred	Inconsistent. CTNF biologists designated five	Inconsistent. Impacts to Flammulated Owl under	Inconsistent. Impacts to Flammulated Owl under

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
area around all known flammulated owl active and historic nest sites.	continuation of existing operations and management practices. Although Flammulated owl detections occurred within the project area, these existing practices would not impact any active or historic Flammulated Owl nest sites.	within the project area during the breeding season in 2019. Based on survey data, TNF biologists identified five 30-acre nesting areas within the Mono Trees, Colter, and Sacajawea terrain areas. A total of 46 acres within these nesting areas would be impacted by the Proposed Action and would include 11 acres of tree clearing and/or grading with the remaining 35 acres occurring as 40% tree thinning for ski glades. A project specific Forest Plan amendment would be required to exempt proposed projects under Alternatives 2 through 5 from impacting active or historic Flammulated Owl nest sites (refer to **Appendix C – Forest Plan Amendments** and the Wildlife BE for more information). Furthermore, various PDC as identified in **Table 2.4-1. Project Design Criteria** would be incorporated to help prevent individual mortality and protect nesting activity. If specific	30-acre Flammulated Owl nesting territories within the project area based on Flammulated Owl detections during pre-project surveys in 2019. Four of these nesting areas are partially or fully within the existing SUP and would be impacted under Alternative 3. 45.7 acres of impacts are proposed in the nesting territories under Alternative 3 which includes grading and tree clearing in 10.7 acres, and 40% tree removal for ski glades in 35 acres. A project specific Forest Plan amendment would be required (refer to **Appendix C – Forest Plan Amendments** for more information).	Alternative 4 would be similar to those under Alternative 3. Refer to the Alternative 3 discussion for more information. A project specific Forest Plan amendment would still be required (refer to **Appendix C – Forest Plan Amendments** for more information).	Alternative 5 would be similar to those under Proposed Action. Refer to the Proposed Action discussion for more information. A project specific Forest Plan amendment would still be required (refer to **Appendix C – Forest Plan Amendments** for more information).

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		impacts to threatened, endangered, and Region 4 sensitive species and/or their habitats, including nests, are identified during project implementation, project operations in the immediate vicinity would be suspended until the Forest Service Wildlife or Fish Biologist or Botanist are contacted. Project implementation may be adjusted, and timing restrictions may be applied, as determined by the Forest Service, to reduce those impacts.			
Boreal Owl Habitat					
Standards					
1. Do not allow timber or firewood harvest activities within a 30-acre area around all known boreal owl active and historic nest sites.	Consistent. Under the No Action Alternative, timber harvest would not occur within 30-acre areas around known boreal owl active and historic nest sites. Based on detection timing and call intensities one Boreal Owl territory is likely centered in the area at the base of Peaked Mountain; however, as discussed in	Inconsistent. Boreal Owl detections occurred within the project area in two separate areas that are likely to represent different nesting territories. Two 30-acre areas were established in these areas where nesting activity was most likely to occur. One of the 30-acre nesting areas is located within a proposed glade area in the northern	Inconsistent. Boreal Owl detections occurred within the project area during the breeding season in 2019 and based on survey data, TNF biologists identified two nesting areas in the proposed Mono Trees expansion area and the southwestern edge of the existing SUP boundary. Under Alternative 3, development is proposed within the existing SUP	Inconsistent. Impacts to Boreal Owls under Alternative 4 would be similar to those under Alternative 3. Refer to the Alternative 3 discussion for more information. A project specific Forest Plan amendment would still be required. Refer to **Appendix C – Forest Plan Amendments** for more information).	Inconsistent. Impacts to Boreal Owls under Alternative 5 would be similar to those under Proposed Action. Refer to Proposed Action for more discussion. A project specific Forest Plan amendment would be required (refer to **Appendix C – Forest Plan Amendments** for more information).

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	the 2021 Peaked Mountain SIR, the area in which the Colter Lift has be constructed does not function as suitable nesting habitat for these species.	portion of the Mono Trees expansion area and the other is located within the southwestern edge of the existing SUP. A total of 25.2 acres within these nesting areas would be impacted by the Proposed Action and would include 2.3 acres of grading and tree clearing and 22.9 acres of 40% tree thinning for ski glades. Therefore, a project specific Forest Plan amendment will be required in order for tree removal to occur within the two 30-acre areas (refer to **Appendix C – Forest Plan Amendments** for more information).	boundary and the South Bowl and Mono Trees areas would remain undeveloped. With no expansion into Mono Trees, only one of the 30-acre Boreal Owl nesting territories would be impacted by proposed projects where 1.1 acres of grading and tree clearing are proposed for a summer trail. Therefore, a project specific Forest Plan amendment would be required (refer to **Appendix C – Forest Plan Amendments** for more information).		
2. Maintain over 40 percent of the forested acres in late seral age classes within a 3,600-acre area around all known boreal owl nest sites.	Consistent. The No Action Alternative and all action alternatives would be consistent with this standard. Boreal Owl detections occurred within the project area in two separate areas that are likely to represent different nesting territories. Two 30-acre areas were established in these areas where nesting activity was most likely to occur. A 3,600-acre home range was also established where over 40% of the forested late seral age class would be maintained even with proposed development impacts. Prior to development impacts, the 3,600-acre home range is comprised of 97% mature and late successional stage forest. Alternatives 2 and 5, which include the proposed Mono Trees expansion area, would directly impact 61 acres of late seral and potential old growth forest in the Boreal Owl home range or 3% of the late seral age class forest in the area. This would reduce the percentage of late-stage forest in the home range to 59%. 27-acres of these losses are in the Mono Trees expansion but forested habitat there is likely of higher value than habitat in the existing SUP because the area is currently undeveloped. 34 acres are in the existing SUP; therefore, under Alternatives 3 and 4, 1.5% of the late seral stage forest in the home range would be lost and 59.8% would remain. With proposed development impacts, well over 40% of the forest within the 3,600-acre home range would still be maintained as mature and late successional stage forest. Refer to the Wildlife BE for additional discussion of potential impacts to Boreal Owl.				
Great Gray Owl Habitat					

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Standards					
1. Do not allow timber or firewood harvest activities within a 20-acre area around all known great gray owl active and historic nest sites. Vegetation manipulation does not include tree planting.	Consistent. The No Action Alternative and all action Alternatives would be consistent with both standards as no known Great Gray Owl nests occur within the project area. The nearest Great Gray Owl detection occurred during 2019 and 2020 survey efforts and was located 1.4 miles west of the project area. If specific impacts to threatened, endangered, and Region 4 sensitive species and/or their habitats, including nests, are identified during project implementation, project operations in the immediate vicinity would be suspended until the Forest Service Wildlife or Fish Biologist or Botanist are contacted. Project implementation may be adjusted, and timing restrictions may be applied, as determined by the Forest Service, to reduce those impacts. The species of interest include any USFWS TES species. Refer to the Wildlife BE for additional discussion of potential impacts to Great Gray Owl.				
2. Maintain over 40 percent of the forested acres in late seral age classes within a 1,600-acre area around all known great gray owl nest sites.					
Guidelines					
3. Restrict the use of strychnine poison to control pocket gophers within a 1/2-miIe buffer around all known active great gray owl nest sites.	Consistent. The No Action Alternative and all action Alternatives would be consistent with this guideline as the use of strychnine poison is not being proposed to control pocket gophers.				
Trumpeter Swan Habitat					
Standards					
1. Maintain suitable trumpeter swan nesting habitat conditions including (but not limited to) the following lakes and ponds Boundary Pond, Swan Lake, Lily Pond, Hatchery Butte, Railroad Pond, Mesa Marsh, Bear Lake, Upper Goose Lake, Long Meadows, Thompson Hole, Twin Lakes, Chain Lakes, Widgit Lake, Rock Lake, Indian Lake, Putney	Consistent. No trumpeter swan nesting habitat exists within the existing and proposed GTR SUP area.				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Meadows, Unnamed Pond (Sec 19, T9N, R46E).					
3. No vegetation management will occur within 300 feet of the lake or pond shoreline unless necessary to improve riparian habitat conditions favorable for trumpeter swans. Management may occur after the swans have left the lake or pond.	Consistent. No trumpeter swan nesting habitat exists within the existing and proposed GTR SUP area.				
Guidelines					
2. Change livestock grazing through management or fencing when grazing is adversely affecting trumpeter swan use or productivity b. Reduction of conflicts between Forest Service and private landowner objectives, especially when conflicts are adversely impacting National Forest System management.	N/A				
4. Maintain constant water levels, allow no drawdowns from May 1 to September 30 when not in conflict with preexisting water rights.	N/A				
5. Do not take any recreation management actions that would encourage dispersed recreation activity at these lakes and ponds. Close these areas to recreation activity if this activity is adversely affecting trumpeter swan use or productivity.	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
6. Implement habitat improvement projects at these lakes and ponds, such as dredging to maintain proper water depths and aquatic vegetation control.	N/A				
Harlequin Duck Habitat					
Guidelines					
1. Avoid establishing new trails, new roads, or new recreation facilities within 300 feet (on each side) of any stream reach with documented harlequin duck breeding activity.	Consistent. No harlequin duck habitat occurs within the existing or proposed GTR SUP area.				
FOREST USE AND OCCUPATION					
Standards					
1A. Road closures will be located and designed to effectively control motorized use.	Consistent. No road closures would be needed under the No Action Alternative.	Consistent. Under all Alternatives, road closures would be designed to effectively control motorized use in and around GTR.			
2A. The Open Road and Open Motorized Trail Route Density (OROMTRD) Standards prescribed for each prescription area do not restrict responses to emergency events to protect human life, property values and structures, and forest resources. Responses to emergency events include law enforcement, search and rescue, and fire suppression	Consistent. Under the No Action Alternative the OROMTRD Standards would still be implemented and not compromised.	Consistent. Under all Alternatives OROMTRD Standards would be followed, and specific PDC would be implemented to decrease congestion.			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
2B. Prudent cross-country motorized access is allowed to implement projects consistent with prescription objectives, in all prescription areas except for grizzly bear core areas and designated wilderness. Administrative uses including but not limited to planned project work such as firewood harvest, timber sales, tree planting, prescribed burns, wildland survey or fish and wildlife habitat improvements on restricted roads, trails or areas will only be allowed under the following conditions. 1) Any motorized vehicle access on a restricted road or trail or in a restricted area will be for official administrative business only and must be approved by the District Ranger. 2) When motorized vehicle access on a restricted road or trail or area is necessary, a sign will be posted while project work is being accomplished. 3) Motorized vehicle access on a restricted road or trail or area will be allowed by permit under the following conditions when approved by the Forest Supervisor or District Ranger a. Project work is one mile or 30	Consistent. Motorized access to restricted roads or trails would not be required under the No Action Alternative.	Consistent. Short-term cross-country motorized access would occur on designated routes during project implementation, which is inconsistent with the access standard for Management Prescription 4.2; however, following implementation, cross country motorized travel would end and management activities within the project area would be consistent with the access standards for Management Prescription 4.2. Temporary routes would be decommissioned following construction. Motorized vehicle access on a restricted road or trail or area would be allowed by permit under the following conditions when approved by the Forest Supervisor or District Ranger: a) Project work is one mile or 30-minute walk or greater b. Equipment is being used that is unreasonable to carry to the project work site. No cross-country travel is proposed within grizzly bear core areas or designated wilderness. Furthermore, motorized access to restricted roads or trails would not be required under all action Alternatives.			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
minutes walk or greater b. Equipment is being used that is unreasonable to carry to the project work site c. Contract inspectors working with contractors who have motorized equipment and vehicles which are necessary for the contract work This direction (in item 2 B above) supersedes direction in access tables for individual prescriptions Needs for motorized cross-country administrative access will be presented and considered in analysis documents for proposals including, but not limited to prescribed burning, fish, and wildlife habitat improvement, timber sales, and personal use firewood harvest. The proposal will limit access to that reasonably needed to conduct the project. Prudent cross-country access to implement these projects may be allowed consistent with project-level NEPA decisions and prescription objectives in all prescription areas except for grizzly bear core areas and designated wilderness. This direction supersedes direction in access tables for individual prescriptions.					

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
3. Figures appearing in the access tables for individual prescriptions represent direction for those prescription areas. If no figure appears refer to the direction in **Table H** at the end of this Appendix. The access density measurements TMARD and OROMTRD are defined in the Glossary. Access densities are based on open and restricted roads and trails.	Consistent. The No Action Alternative would not alter accessibility within the existing GTR SUP area.	Consistent. All Alternatives do not follow the access table prescriptions for Management Prescription 4.2; however, access associated with the proposed projects are consistent with the exceptions detailed for Forest Use and Occupation Standard 2 above. Therefore, all Alternatives are consistent with this standard.			
4. The Forest travel plan was developed from individual prescription access tables and the elk and deer winter range map. The following application dates were developed to respond to local resource and travel conditions. This direction supplements and is to be used in conjunction with the applicable direction in individual prescription access tables. a.) Snow-Free Season -The snow-free season direction takes effect yearly in the spring as local conditions become suitable to support wheeled vehicle traffic on roads and trails without damage. Where legally permitted, snowmachines may use designated roads and trails shown on the travel plan as open to motorized use. Cross-country snowmachine	Consistent. The No Action Alternative would not alter accessibility within the existing GTR SUP area.	Consistent. All Alternatives would be consistent with application dates for the snow and snow-free seasons. All Alternatives do not follow the access table prescriptions for Management Prescription 4.2; however, access associated with the proposed projects are consistent with the exceptions detailed for Forest Use and Occupation Standard 2 above. Therefore, all Alternatives are consistent with this standard. Refer to Forest Use and Occupation Standard 2 above.			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
travel is allowed only where the snow-free season direction allows cross-country motorized travel after June 1 except in Prescription 5.1.4 (C). b.) Snow Season -The snow season direction takes effect yearly on Thanksgiving Day. Where legally permitted, snowmachine travel is allowed consistent with the travel plan map. Crosscountry snowmachine travel is permitted from Thanksgiving Day through June 1 except on the Palisades Ranger District which permits said usage from December 15 through June 1 and except in (inventoried) winter range as shown on Forest Plan Map #24 Cross-country snowmachine travel is allowed in Prescription area 5 1 4 (c) (Big Bend Ridge) from January 1 until April 30.					
Guidelines					
1B. Restrict or reclaim roads not needed for future management as determined in site-specific analysis, at the end of project use. Consider historic recreation use before closure.	Consistent. The No Action Alternative would not require roads as no proposed projects would occur.	Consistent. Under all Alternatives, numerous construction and temporary access administrative routes would be decommissioned following specific PDC at the completion of the project. Refer to Chapter 2 for a discussion of existing administrative routes to be reclaimed and rehabilitated under each Alternative.			
RECREATION					
Winter Recreation					

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Standards					
3. Snowmachine, snowshoes, and dogsleds are prohibited within designated groomed cross-country ski trails. Snowmachines and dogsleds are prohibited within designated cross-country ski areas	N/A				
4. Those areas mapped as winter range on the Revised Forest Plan elk and deer winter range map are closed to cross-country snowmachine travel. This direction supersedes direction in access tables for individual prescriptions.	N/A				
Guidelines					
1. Develop or provide trailhead facilities to match the desired trail capacity. These facilities may be public or private depending on location.	N/A				
2. Management of winter trails should be done where feasible by cooperative agreements with agencies and groups.	Consistent. Under the No Action Alternative management and existing operations of trails would continue to occur in under a cooperative agreement between the Forest Service and GTR and in accordance with Forest Service guidelines.	Consistent. Under all Alternatives, existing and future operations and management of trails would continue to occur under a cooperative agreement between the Forest Service and GTR and in accordance with Forest Service guidelines.			
Visual Quality					

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Guidelines					
1. Following timber harvest in lodgepole pine, dispose of slash not needed to meet other resource objectives by a combination of piling, firewood gathering, and burning in areas up to 200-250 feet on either side of primary travelways, trails, and use areas which have high public concern for scenic quality as soon after harvest as possible.	N/A				
2. Following timber harvest in lodgepole pine, dispose of slash not needed to meet other resource objectives by piling, firewood gathering, or burning for 150-200 feet on either side of roads, trails, and areas which have moderate public concern for scenic quality.	N/A				
OHV					
Standards					
4. No motorized vehicles over 50 inches wide are allowed on trails unless the trails are specifically designed for such vehicles	N/A				
Guidelines					
1. Discourage OHV use on slopes greater than 40 percent, except on designated routes and except for snowmachine use. Roads and	Consistent. Under the No Action Alternative, OHV use would be discouraged on slopes	Consistent. Under all Alternatives, OHV use would be discouraged on slopes greater than 40 percent, unless deemed necessary for project implementation. Permanent and temporary access routes have been designed to provide suitable access to project locations.			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
trails, however, may cross slopes that exceed 40 percent.	greater than 40 percent, unless deemed necessary for Colter Lift implementation. Access routes have been designed to provide suitable access to project locations.				
2. Areas with slopes of 25-40 percent may require travel restrictions if soil erosion factors warrant them.	N/A: Disturbance activities under the No Action Alternative and all Alternatives would primarily occur on soils with slight to moderate soil erosion factors. Therefore, travel restrictions would not be necessary.				
3. Restrict OHV use on identified areas of unstable soils (except for snowmobiles).	Consistent. Under the No Action Alternative, no OHV use would occur on unstable soils.	Consistent. Under all Alternatives, actions within Rick's Basin, where high mobile sediments exist, would follow specific PDC and BMPs to mitigate the impacts from erosion.			
Developed Facilities					
Standards					
5. Facilities that cannot be maintained to acceptable health and safety requirements will be closed until they can be brought up to standard.	N/A				
Guidelines					
1. Expand existing developed facilities to meet public needs.	Consistent. Under the No Action Alternative and all action Alternatives, developed facilities would be expanded to better meet public needs.				
2. Phase out low use developments that have high operation and maintenance (O&M) costs consistently exceeding $1.50 per	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
persons-at-one-time (PAOT) per day.					
3. Rehabilitate or provide heavy maintenance to facilities in Maintenance Class Two (MC 2) and Maintenance Class Three (MC 3) which cannot be brought up to Maintenance Class One (MC 1) through general maintenance.	N/A				
4. Developed facilities receiving heaviest use should receive first priority for maintenance.	Consistent. Under the No Action Alternative existing and future maintenance would continue to occur.	Consistent. Under all Alternatives maintenance and update of existing facilities would occur fulfilling the need to provide additional undeveloped, minimally maintained lift-served terrain and additional traditionally cleared alpine trails.			
Dispersed Recreation Use					
Standards					
1. Unless otherwise posted, motorized access is allowed for parking and dispersed camping within 300 feet of roads and trails which are open for motorized use. This direction supersedes direction in individual prescriptions, except no motorized use is permitted within designated wilderness.	N/A				
Guidelines					
2. Wilderness, recommended wilderness, and roadless areas dispersed campsites should be managed according to the Frissell Condition Classification System Actions (close, protect, or restore)	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
should be taken to restore campsites that do not meet Class three or better.					
3. Dispersed campsite conditions on the remainder of the Forest should have no more than 15 percent of an activity area in a detrimentally disturbed soil condition, as described in the Dispersed Camping Protocol (Process Paper X).	N/A				
4. Low-development-level facilities should be provided at undeveloped concentrated-use areas to prevent resource damage and protect public health and safety.	N/A				
Outfitter and Guides					
Guidelines					
1. Outfitter and guide facilities in dispersed nonwilderness areas should be built in less-frequented areas and be temporary. To prevent unacceptable resource damage or sanitation problems, facilities may be allowed at more heavily used locations. Only essential facilities should be provided at commercial outfitter camps in accordance with Greater Yellowstone Area Outfitter Policy camp standards.	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
WILDERNESS					
Standards					
1. Outfitter/Guide - Allow no new outfitter camps (for hunters, anglers, etc.) until studies have been completed to determine site suitability and carrying capacity.	N/A				
3. **VQO** Manage for preservation.	Consistent. Under the No Action Alternative and all action Alternatives, no actions would occur that would impact the VQO of preservation in wilderness.				
Guidelines					
2. **ROS** Manage for a primitive to semi-primitive nonmotorized classification.	Consistent. Under the No Action Alternative and all action Alternatives, no actions would occur that would impact the ROS of primitive to semi-primitive nonmotorized classification in wilderness.				
TRIBAL COORDINATION					
Standards					
1. Forest consultation procedures and inter government agreements with the tribes to guide future cooperative efforts will comply with the protocols set forth in the National Resource Book on American Indian and Alaska Native Relations Working Draft 1995 or its successor.	Consistent. Under the No Action Alternative and all action Alternatives, all Forest consultation procedures with the tribes are consistent with relevant direction from the National Resource Book on American Indian and Alaska Native Relations Working Draft 1995.				
PRODUCTION OF COMMODITY RESOURCES					
RANGE					
Upland Forage Utilization					

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Guidelines					
1. Apply upland forage utilization levels to all allotments and/or management areas as shown in **Table I** at the end of this Appendix, unless determined otherwise through the interdisciplinary team process. These figures provide for maximum utilization levels regardless of which species of animal uses the forage or browse. These utilization guidelines apply to native and desirable nonnative vegetation as recorded at the end of the grazing period.	N/A				
Riparian Forage Utilization					
Standards					
2A. Riparian Woody Plant Utilization: No more than 30 percent use on riparian woody plant species (current year's growth) is allowed. Thirty percent is the maximum allowed use as recorded at the end of the grazing period.	N/A				
2B. Riparian Vegetation Stubble Height Standard (these apply to all grazing systems) 1.) At the HGL, there will be at least four inches of stubble height remaining on key species at the	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
end of the grazing period, unless determined otherwise through the interdisciplinary team Process. This standard applies to key species of native and desirable nonnative hydric vegetation 2.) Away from the HGL, at least three inches of stubble will be left on the remainder of the key riparian species at the end of the grazing period, unless determined otherwise through the interdisciplinary team process					
Allotment Management Planning (AMP)					
Standards					
3C2. All range improvements necessary for the conversion will be financed and constructed by the permittee. Construction will be in accordance with Forest Service standards.			N/A		
3C3. Do not convert from a cattle allotment to a sheep allotment within bighorn sheep habitat or in grizzly bear management prescriptions			N/A		
3D. Forest Service administrative site livestock pastures will comply with the forestwide standards and guidelines for forage utilization and riparian management.			N/A		

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
3F. Permittees are allowed motorized access to maintain facilities AMPs and Annual Operating Plans will include direction that motorized access must be less than two vehicles per week (This permitted access is not included in the OROMTRD).	N/A				
3G. In Idaho, follow the "Memorandum of Understanding Between the National Forests in Southern Idaho and the Idaho State Historic Preservation Officer Regarding Rangeland Management Activities" (February 1996). In Wyoming, follow the process outlined in the National Programmatic Agreement, Option 2 (Criteria and standards for independent management) until a memorandum of agreement is developed between southern Idaho Forests and the Wyoming State Historic Preservation Office.	N/A				
3H. Monitor heritage resource sites on grazing allotments in Wyoming, and in Idaho consistent with the Heritage Resource Monitoring Plan for Southern Idaho Forests.	N/A				
Guidelines					
3A. Salt should be placed greater than 1/4 mile from water, or as far from water as practicable. Salting	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
should be designed to avoid conflicts with aspen regeneration, conifer plantations, and system trails.					
3B. Allow no livestock grazing before seed set of the second growing season after prescribed or natural fires and rangeland planting or seeding.			N/A		
3C. Allow livestock conversions based only on resource capability (such as topography, water distribution, vegetation, wildlife, and recreation), and management objectives and not solely based on the desires of the permittee.			N/A		
3C1. Conversions may be made in accordance with an AMP, and current range analysis, only after all necessary range improvements structures are in place.			N/A		
3E. All structural improvements directly required to implement the AMP will be installed and financed whereby the Forest Service provides approximately 50 percent of the cost and the permittee provides the remaining 50 percent.			N/A		
3I. Within subwatersheds occupied by native cutthroat trout or designated as vital to meeting recovery goals, identify areas			N/A		

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
where livestock grazing is causing fisheries habitat conditions to fall below or retard the rate of recovery toward the values described in the table, "Expected Values for Healthy Fish Habitat Conditions" in standards and guidelines for Fisheries and Other Aquatic Resources. Include specific remedial actions in the AMP or Annual Operating Plan Progress toward meeting these expected values should be monitored and grazing systems adjusted, as necessary.					
3J. All grazing allotments will be managed at FRES (Forest Range Environmental Study) management strategies A, B, C, or D with exceptions as noted in individual prescriptions (1 1 6, 1 1 7, 1 1 8, 2 2, 2 4, 2 5, 4 2).			N/A		
TIMBER MANAGEMENT					
Allowable Sale Quantity (ASQ)					
Standards					
1B. ASQ will not exceed 80 million board feet (MMBF) for the plan decade.			N/A		
1C. ASQ will not exceed 80 million board feet for outyear decades until this Plan is revised or amended.			N/A		

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
1D. On suited lands within five-series prescriptions, roadless areas and areas with slopes between 40 and 60 percent are in a noninterchangeable component (NIC).	N/A				
Guidelines					
1A. Estimates of ASQ and long-term sustained yield timber supply capacity are themselves based on estimates of volume available on timbered acres scheduled for harvest. Total harvested acres for the decade may vary and will depend on site-specific project implementation to meet plan goals and objectives.	N/A				
Rotation Age Guideline					
Guidelines					
2. The earliest rotation ages of each species group beginning at culmination of mean annual increment are included in **Table J** at the end of this Appendix.	N/A				
Minimum Stocking Guideline					
Guidelines					
3. The minimum stocking which should occur before an area can be certified as stocked is included in	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Table K at the end of this Appendix.					
PRODUCTION OF COMMODITY RESOURCES – TIMBER MANAGEMENT – SLASH TREATMENT					
Standards					
1. Slash treatment guidelines are included in **Table L** at the end of this Appendix.	N/A				
Size of Harvest Units and Adjacent Leave Blocks/Strips					
Standards					
1. Created Opening. A harvested area of commercial forest land will not be considered a created opening for silvicultural purposes when stocking surveys indicate that minimum stocking is achieved and at least seven feet high. When other resource management considerations (such as wildlife habitat, watershed needs, or visual requirements) prevail, a created opening will no longer be considered an opening when the vegetation in it meets a particular management objective stated in the applicable management prescription.	N/A				
Logging systems					
Guidelines					
1. Slopes 40 percent or less will normally be harvested using	Consistent. Under the No Action Alternative,	Consistent. Under all action Alternatives timber removal would primarily be accomplished over-the-snow and utilizing the administrative route network. No skid roads would be constructed as timber would either be			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
ground-based logging equipment (tractors, rubber-tired skidders, low ground pressure equipment, etc.). Slopes greater than 40 percent, but less than 60 percent, will normally be harvested using advanced logging systems like short span cable systems, longspan cable systems, or aerial systems.	slopes 40 percent or less would be harvested using ground-based logging equipment. Some timber removal may occur over snow. Slopes greater than 40 percent, but less than 60 percent, would be harvested using aerial systems.	removed over the snow via snowcat, transported over the snow to a deck location accessible from the administrative route network, piled and burned, or removed via helicopter. For projects that involve logging operations, ground skidding shall be avoided on slopes steeper than 40%. Low-impact machinery (e.g. a spider hoe or helicopter) may be necessary in areas such as South Bowl with steep terrain to assist with tree removal.			
2. Rutting in skid trails should not exceed six to eight inches in depth (wet condition) over more than ten percent of a designated skid trail system. No yarding operations should take place when ground conditions are wet enough that there is a risk of such rutting.	Consistent. Under the No Action Alternative, no skid roads would be constructed as timber would either be removed over the snow or via helicopter.	Consistent. Under all action Alternatives timber removal would primarily be accomplished over-the-snow and utilizing the administrative route network. No skid roads would be constructed as timber would either be removed over the snow via snowcat, transported over the snow to a deck location accessible from the administrative route network, piled and burned, or removed via helicopter.			
Fuelwood					
Standards					
1. Allow permitted fuelwood gathering in designated areas only.	N/A				
Guidelines					
2. Select designated fuelwood areas that have an excess of dead and down woody material which is in excess of that required for ecological function, structure, and composition.	N/A				

Management Prescriptions

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
2.1.2 VISUAL QUALITY MAINTENANCE					
Forest Use and Occupation					
Standards					
1. Access standards are included in **Table M** at the end of this Appendix.	N/A	Inconsistent. Short-term cross country motorized access would occur on designated routes during project implementation, which is inconsistent with the access standard for Management Prescription 2.1.1; however, following implementation, cross country motorized travel would end and temporary routes would be decommissioned following construction. Additionally, specific PDC as identified in **Table 2.4-1** would minimize impacts to sensitive resources within the existing and proposed SUP areas through requiring specific Construction Implementation Plans and an Operation and Boundary Plan. These plans would identify certain construction access points and operation access	N/A	Inconsistent. Short-term cross country motorized access would occur on designated routes during project implementation, which is inconsistent with the access standard for Management Prescription 2.1.1; however, following implementation, cross country motorized travel would end and temporary routes would be decommissioned following construction. Additionally, specific PDC as identified in **Table 2.4-1** would minimize impacts to sensitive resources within the existing and proposed SUP areas through requiring specific Construction Implementation Plans and an Operation and Boundary Plan. These plans would identify certain construction access points and operation access	Inconsistent. Short-term cross country motorized access would occur on designated routes during project implementation, which is inconsistent with the access standard for Management Prescription 2.1.1; however, following implementation, cross country motorized travel would end and temporary routes would be decommissioned following construction. Additionally, specific PDC as identified in **Table 2.4-1** would minimize impacts to sensitive resources within the existing and proposed SUP areas through requiring specific Construction Implementation Plans and an Operation and Boundary Plan. These plans would identify certain construction access points and operation access

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		that would help minimize impacts to sensitive resources.		that would help minimize impacts to sensitive resources.	that would help minimize impacts to sensitive resources.
Timber					
Standards					
1. These areas are removed from the suitable timber base. They do not contribute to the ASQ.	N/A				
2.8.3 AQUATIC INFLUENCE ZONE					
Guidelines					
1. Boundary widths for the five water types apply until a site-specific analysis is completed. The slope distances specified for boundary widths in the five water types will vary by ecological subsection. The slope distances of boundary, widths, in feet, by ecological subsection are included in **Table O** at the end of this Appendix.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3.	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent possible, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**.		
ECOLOGICAL PROCESSES AND PATTERNS					
Insects and Disease					
Guidelines					
1. Where catastrophic insect and disease damage results in degraded riparian conditions, unscheduled timber harvest (salvage and commercial fuelwood cutting) is	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
allowed where needed to attain the goals of this management prescription providing other goals of this management prescription are not adversely affected.					
Fires/Fuels					
Standards					
1. Prescribed fire activities on adjacent lands must be compatible with management prescription goals.	N/A				
Guidelines					
1. Avoid locating bases, camps, helibases, staging areas, helispots, hazardous material storage facilities, and other centers for incident activities within these lands. If the only suitable location for such activities is within this area, an exception may be granted following a review and recommendation by a resource advisor. The resource advisor will prescribe the location, use conditions, and rehabilitation requirements.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3.	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of a PDC in **Table 2.4-1** that states "Vehicle and equipment staging areas shall be located outside of the AIZ and away from wetlands, streams, and drainages to the extent practicable. Petroleum products, hazardous materials, and chemicals shall be stored in designated areas with secondary containment, at least 150 feet from streams, wetlands, and other water bodies. Refueling operations shall occur in designated areas with spill containment measures in place."		
2. Avoid application of chemical retardant, foam, or additives in these areas. Exceptions may be warranted in situations where overriding safety concerns exist, or following a review and	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
recommendation by a resource advisor, when an escape would cause more long-term damage.					
3. Use minimum impact suppression methods.	N/A				
PHYSICAL ELEMENTS					
Lands					
Guidelines					
1. Avoid locating utility corridors and their access roads in these lands whenever possible.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3.	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**.			
Minerals/Geology					
Standards					
1. Adequate reclamation plans, and bonds are required in mining plans of operation These bonds must cover the full costs of removing facilities, equipment, and materials, recontouring disturbed areas to near pre-mining topography, isolating and neutralizing or removing toxic or potentially toxic materials, salvaging, and replacing topsoil, and preparing seedbeds and revegetating to meet management prescription goals	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
2. Do not locate permanent structures or facilities within these lands.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3.	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* standards identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* standard would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**.			
3. Do not locate waste dumps, leaching pads, and other facilities within these lands where other alternatives are available. If no other alternative exists, ensure that safeguards are in place to prevent release or drainage of toxic or other hazardous materials onto these lands.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3.	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* standards identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* standard would be achieved to the extent practicable, and impacts minimizeed through the inclusion of a PDC in **Table 2.4-1** that states "Vehicle and equipment staging areas shall be located outside of the AIZ and away from wetlands, streams, and drainages to the extent practicable. Petroleum products, hazardous materials, and chemicals shall be stored in designated areas with secondary containment, at least 150 feet from streams, wetlands, and other water bodies. Refueling operations shall occur in designated areas with spill containment measures in place."			
4. Do not allow debris, overburden, and other materials associated with mining activities to be placed within these lands if other alternatives are available. If no alternative is available, place them outside the active floodplain and outside the Stream Protection Zones defined by the state. In either case, place them in such a manner as to prevent their entry by erosion, high water, or other means into stream channels.	N/A				
Guidelines					
1. Discourage mineral material extraction (subject to valid	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
permitted rights, or where permitted by plans of operation).					
2. Plans of operation will be consistent to the fullest extent possible with management prescription goals.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3.	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**.			
BIOLOGICAL ELEMENTS					
Wildlife					
Guidelines					
1. Strive to maintain dead and defective tree habitat at a level capable of supporting 100 percent potential populations of the management indicator species for primary cavity excavators.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3.	Inconsistent. Under the *1997 Forest Plan*, Management Prescription – *4.2 Special Use Permit Recreation Sites* prevails over other Management Prescriptions. This Management Prescription does not have any standards and guidelines that dictate snag requirements for habitat and currently encompasses the existing SUP. The proposed South Bowl (Alternatives 2 and 4) and Mono Trees (Alternatives 2 and 5) expansions currently contain Management Prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 – *Aquatic Influence Zone*. There are no standards and guidelines pertaining to snags for Management Prescription 2.1.2 – *Visual Quality Maintenance*, but the requirement for Management Prescription 2.8.3 – *Aquatic Influence Zone* is to maintain dead and defective tree habitat at a 100 percent biological potential for woodpeckers. Since Alternatives 2, 4, and 5 would amend the *1997 Forest Plan* to change Management Prescription 2.8.3 – *Aquatic Influence Zone* in the expansion areas to Management Prescription 4.2 – *Special Use Permit Recreation Sites* , snag requirements on up to 61.9 acres (about 56 acres in Mono Trees and 5.9 acres in South Bowl) would be dropped. Although individual woodpeckers (including three-toed woodpeckers) would likely be impacted from not retaining the 100 percent Biological Potential requirement on up to 61.9 acres in the current AIZ (within Mono Trees and South Bowl), the project would not cause a loss of viability for populations in the vicinity of the project area or the Teton Creek Principal Watershed. The rationale for this is that PDC included in **Table 2.4-1** would ensure impacts to snag nesting habitat is minimized, the proposed project would impact a very small percentage of the available AIZ within the Teton Creek Principal Watershed (about one percent), snags and live trees are not limiting in the vicinity of the proposed project area, and habitat (particularly for three-toed woodpeckers) is widespread. Sufficient snags would still exist within the vicinity of the project area to support woodpecker			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		populations. The reader is referred to Chapter 3, Section 3.16 Wildlife for a discussion of potential impacts to species that rely on snags and Appendix C for the Forest Plan amendments.			
Forest Use and Occupation					
Standards					
1. Access standards are included in **Table N** at the end of this Appendix.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3.	Inconsistent. Short-term cross country motorized access would occur on designated routes during project implementation, which is inconsistent with the access standard for Management Prescription 2.8.3; however, following implementation, cross country motorized travel would end and temporary routes would be decommissioned following construction. Additionally, specific PDC as identified in **Table 2.4-1** would minimize impacts to sensitive resources within the existing and proposed SUP areas through requiring specific Construction Implementation Plans and an Operation and Boundary Plan. These plans would identify certain construction access points and operation access that would help minimize impacts to sensitive resources.			
Guidelines					
1. Containers holding more than five gallons of spare vehicle fuel should be stored outside the AIZ or stored in such a way as to prevent leakage into riparian areas. Vehicle refueling should be done in a way that avoids contamination of water bodies	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3.	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of a PDC in **Table 2.4-1** that states "Vehicle and equipment staging areas shall be located outside of the AIZ and away from wetlands, streams, and drainages to the extent practicable. Petroleum products, hazardous materials, and chemicals shall be stored in designated areas with secondary containment, at least 150 feet from streams, wetlands, and other water bodies. Refueling operations shall occur in designated areas with spill containment measures in place."			
Roads and Trails					
Guidelines					
1. No new roads, trails, or landings will be constructed within these lands until appropriate standards for construction, maintenance, and operations are in place.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3.	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**. Furthermore, all action Alternatives include the following PDC: Decommission unnecessary road and trail segments when no longer in use or impractical, implement suitable			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		measures to re-establish stable slope contours and surface and subsurface hydrologic pathways where necessary to the extent practicable to avoid or minimize adverse effects to soil, water quality, and riparian resources. These measures include: • Removing drainage structures. • Recontouring and stabilizing cut slopes and fill material. • Reshaping the channel and streambanks at crossing sites to pass expected flows without scouring or ponding, minimize potential for undercutting or slumping of streambanks, and maintain continuation of channel dimensions and longitudinal profile through the crossing site. • Restoring or replacing streambed materials to a particle size distribution suitable for the site. • Restoring floodplain function. As necessary, reference the AIZ direction contained within the 1997 Forest Plan (Page III-110). PDC have been included in the action Alternatives to ensure that new administrative route design minimizes impacts to soils, water quality, and riparian resources.			
2. Improve, seasonally close, close, relocate and stabilize, or obliterate roads and trails that have been identified as posing a high risk of causing unnaturally high levels of sediment input or are known to be doing so. Action to be taken will be determined based on travel management needs, terrain, the need for the road or trail, the potential environmental impacts, and resource priorities.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3.	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**. Under all action Alternatives, GTR proposes construction, reclamation, and improvements to administrative routes to eliminate steep and no longer necessary access administrative routes, as well as construct new administrative routes to bypass steep grades and improve mountain circulation and maintenance (refer to **Figure 3**). The overhaul of the administrative route network would allow GTR to reduce erosion and sedimentation and better maintain on-mountain infrastructure. Furthermore, all action Alternatives include the following PDC: Decommission unnecessary road and trail segments when no longer in use or impractical, implement suitable measures to re-establish stable slope contours and surface and subsurface hydrologic pathways where necessary to the extent practicable to avoid or minimize adverse effects to soil, water quality, and riparian resources. These measures include: • Removing drainage structures. • Recontouring and stabilizing cut slopes and fill material. • Reshaping the channel and streambanks at crossing sites to pass expected flows without scouring or ponding, minimize potential for undercutting or slumping of streambanks, and maintain continuation of channel dimensions and longitudinal profile through the crossing site. • Restoring or replacing streambed materials to a particle size distribution suitable for the site. • Restoring floodplain function.			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		• As necessary, reference the AIZ direction contained within the 1997 Forest Plan (Page III-110).			
3. Roads and trails or sections of them that have been identified as inhibiting riparian, wetland, or aquatic ecosystem processes and/or functions (e g, plant community development, sediment transport, and stream channel development) will be improved, relocated, or obliterated. The decision to improve, relocate, or obliterate will be based on the potential environmental impact, the ecological condition of the riparian, wetland and aquatic resources affected, and the need for the road or trail.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**. Under all action Alternatives, GTR proposes construction, reclamation, and improvements to administrative routes to eliminate steep and no longer necessary access administrative routes, as well as construct new administrative routes to bypass steep grades and improve mountain circulation and maintenance (refer to **Figure 3**). The overhaul of the administrative route network would allow GTR to reduce erosion and sedimentation and better maintain on-mountain infrastructure. Furthermore, all action Alternatives include the following PDC: Decommission unnecessary road and trail segments when no longer in use or impractical, implement suitable measures to re-establish stable slope contours and surface and subsurface hydrologic pathways where necessary to the extent practicable to avoid or minimize adverse effects to soil, water quality, and riparian resources. These measures include: • Removing drainage structures. • Recontouring and stabilizing cut slopes and fill material. • Reshaping the channel and streambanks at crossing sites to pass expected flows without scouring or ponding, minimize potential for undercutting or slumping of streambanks, and maintain continuation of channel dimensions and longitudinal profile through the crossing site. • Restoring or replacing streambed materials to a particle size distribution suitable for the site. • Restoring floodplain function. • As necessary, reference the AIZ direction contained within the 1997 Forest Plan (Page III-110).			
4. Culverts and stream crossings found to pose a risk to riparian, wetland or aquatic conditions will be improved to accommodate at least a 50-year flood, including associated bedload and debris.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**.Specifically, all action Alternatives include the following PDC: Locate and design roads/administrative routes to avoid or minimize adverse effects to soil, water quality, and riparian resources. Locate roads to fit the terrain and limit the need for excavation. Locate roads on stable geology with well-drained soils. Avoid hydric soils, inner gorges, overly steep slopes, and unstable landforms to the extent practicable. Avoid sensitive areas such as riparian areas, wetlands, meadows, bogs, and fens, to the			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		extent practicable. Locate roads as far from waterbodies as practicable, with a minimum number of crossings and connections between the road and the waterbody. Examples of crossings include culverts, bridges, arched pipes, low-water crossings, vented fords, and permeable fills. Crossing materials and construction shall vary based on the type of access required, duration of need, and volume of use expected. Crossings should be designed and installed to provide for flow of water, bedload, and large woody debris, desired aquatic organism passage, and to minimize disturbance to the surface and shallow groundwater resources. Design the road surface drainage system to intercept, collect, and remove water from the road surface and surrounding slopes in a manner that minimizes concentrated flow in ditches, culverts, and over fill slopes and road surfaces. As necessary reference National BMPs for NFS lands. Specifically, Road-2. Road Location and Design, Road-3. Road Construction and Reconstruction, Road-4. Road Operations and Maintenance, Road-7. Stream Crossings, and Road-8. Snow Removal and Storage (https://www.fs.usda.gov/naturalresources/watershed/pubs/FS_National_Core_BMPs_April2012.pdf			
5. New stream crossings will be constructed and maintained to prevent diversion of streamflow out of the channel and down the road in case of failure. In locations found to have high potential for failure, the roadway will be hardened to further lessen the chance of roadway failure or severe erosion should the crossing overtop.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**. Furthermore, the following PDC has been incorporated into the action alternatives: Locate and design roads/administrative routes to avoid or minimize adverse effects to soil, water quality, and riparian resources. Locate roads to fit the terrain and limit the need for excavation. Locate roads on stable geology with well-drained soils. Avoid hydric soils, inner gorges, overly steep slopes, and unstable landforms to the extent practicable. Avoid sensitive areas such as riparian areas, wetlands, meadows, bogs, and fens, to the extent practicable. Locate roads as far from waterbodies as practicable, with a minimum number of crossings and connections between the road and the waterbody. Examples of crossings include culverts, bridges, arched pipes, low-water crossings, vented fords, and permeable fills. Crossing materials and construction shall vary based on the type of access required, duration of need, and volume of use expected. Crossings should be designed and installed to provide for flow of water, bedload, and large woody debris, desired aquatic organism passage, and to minimize disturbance to the surface and shallow groundwater resources. Design the road surface drainage system to intercept, collect, and remove water from the road surface and surrounding slopes in a manner that minimizes concentrated flow in ditches, culverts, and over fill slopes and road surfaces. As necessary reference National BMPs for NFS lands. Specifically, Road-2. Road Location and Design, Road-3. Road Construction and Reconstruction, Road-4. Road Operations and Maintenance, Road-7. Stream Crossings, and Road-8. Snow Removal and Storage (https://www.fs.usda.gov/naturalresources/watershed/pubs/FS_National_Core_BMPs_April2012.pdf			

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6. Constructed temporary stream crossings, such as log and culvert installations, may be allowed if temporary crossings will be constructed and used in such a way as to minimize sediment input and to provide for fish passage. They will be maintained during use and removed and rehabilitated as soon as they are no longer needed.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**. Furthermore, the following PDC has been incorporated into the action alternatives: Locate and design roads/administrative routes to avoid or minimize adverse effects to soil, water quality, and riparian resources. Locate roads to fit the terrain and limit the need for excavation. Locate roads on stable geology with well-drained soils. Avoid hydric soils, inner gorges, overly steep slopes, and unstable landforms to the extent practicable. Avoid sensitive areas such as riparian areas, wetlands, meadows, bogs, and fens, to the extent practicable. Locate roads as far from waterbodies as practicable, with a minimum number of crossings and connections between the road and the waterbody. Examples of crossings include culverts, bridges, arched pipes, low-water crossings, vented fords, and permeable fills. Crossing materials and construction shall vary based on the type of access required, duration of need, and volume of use expected. Crossings should be designed and installed to provide for flow of water, bedload, and large woody debris, desired aquatic organism passage, and to minimize disturbance to the surface and shallow groundwater resources. Design the road surface drainage system to intercept, collect, and remove water from the road surface and surrounding slopes in a manner that minimizes concentrated flow in ditches, culverts, and over fill slopes and road surfaces. As necessary reference National BMPs for NFS lands. Specifically, Road-2. Road Location and Design, Road-3. Road Construction and Reconstruction, Road-4. Road Operations and Maintenance, Road-7. Stream Crossings, and Road-8. Snow Removal and Storage (https://www.fs.usda.gov/naturalresources/watershed/pubs/FS_National_Core_BMPs_April2012.pdf			
7. Construct, reconstruct, and maintain all road and trail crossings of streams which currently or historically bear fish to provide for fish passage. Exceptions are allowed where it is necessary to restrict fish movements in order to protect native or desirable nonnative fish populations.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**. Furthermore, the following PDC has been incorporated into the action alternatives: Locate and design roads/administrative routes to avoid or minimize adverse effects to soil, water quality, and riparian resources. Locate roads to fit the terrain and limit the need for excavation. Locate roads on stable geology with well-drained soils. Avoid hydric soils, inner gorges, overly steep slopes, and unstable landforms to the extent practicable. Avoid sensitive areas such as riparian areas, wetlands, meadows, bogs, and fens, to the extent practicable. Locate roads as far from waterbodies as practicable, with a minimum number of crossings and connections between the road and the waterbody. Examples of crossings include culverts, bridges, arched pipes, low-water crossings, vented fords, and permeable fills. Crossing materials and			

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		construction shall vary based on the type of access required, duration of need, and volume of use expected. Crossings should be designed and installed to provide for flow of water, bedload, and large woody debris, desired aquatic organism passage, and to minimize disturbance to the surface and shallow groundwater resources. Design the road surface drainage system to intercept, collect, and remove water from the road surface and surrounding slopes in a manner that minimizes concentrated flow in ditches, culverts, and over fill slopes and road surfaces. As necessary reference National BMPs for NFS lands. Specifically, Road-2. Road Location and Design, Road-3. Road Construction and Reconstruction, Road-4. Road Operations and Maintenance, Road-7. Stream Crossings, and Road-8. Snow Removal and Storage (https://www.fs.usda.gov/naturalresources/watershed/pubs/FS_National_Core_BMPs_April2012.pdf			
8. Conserve surfacing materials and protect riparian resources, by properly maintaining roads and avoiding side casting during road maintenance activities.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**. Specifically, the following PDC has been incorporated into the action alternatives: Locate and design roads/administrative routes to avoid or minimize adverse effects to soil, water quality, and riparian resources. Locate roads to fit the terrain and limit the need for excavation. Locate roads on stable geology with well-drained soils. Avoid hydric soils, inner gorges, overly steep slopes, and unstable landforms to the extent practicable. Avoid sensitive areas such as riparian areas, wetlands, meadows, bogs, and fens, to the extent practicable. Locate roads as far from waterbodies as practicable, with a minimum number of crossings and connections between the road and the waterbody. Examples of crossings include culverts, bridges, arched pipes, low-water crossings, vented fords, and permeable fills. Crossing materials and construction shall vary based on the type of access required, duration of need, and volume of use expected. Crossings should be designed and installed to provide for flow of water, bedload, and large woody debris, desired aquatic organism passage, and to minimize disturbance to the surface and shallow groundwater resources. Design the road surface drainage system to intercept, collect, and remove water from the road surface and surrounding slopes in a manner that minimizes concentrated flow in ditches, culverts, and over fill slopes and road surfaces. As necessary reference National BMPs for NFS lands. Specifically, Road-2. Road Location and Design, Road-3. Road Construction and Reconstruction, Road-4. Road Operations and Maintenance, Road-7. Stream Crossings, and Road-8. Snow Removal and Storage (https://www.fs.usda.gov/naturalresources/watershed/pubs/FS_National_Core_BMPs_April2012.pdfFurthermore, the following PDC has been incorporated into the action alternatives: For projects that increase road traffic or require road use by heavy construction equipment, road surfacing should be applied near stream/drainage crossings as needed to harden the road surface and minimize sediment delivery.			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Recreation and Outfitter/Guide					
Standards					
1. Recreational grazing must meet range standards for utilization of riparian vegetation.	N/A				
2. Permitted stock holding, watering, and handling facilities within riparian vegetation (may not include the entire AIZ boundary) are allowed only if appropriate mitigation measures are implemented to ~reduce negative impacts.	N/A				
Guidelines					
1. When dispersed recreation is found to result in soil disturbance in excess of 15 percent of an activity area, or alteration of natural stream channel morphology, address impacts through education, use limits, more intensive maintenance, facility modification, and /or closures.	N/A				
2. ROS-Primitive to urban	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3	Consistent. Under all action Alternatives, project activities within management prescription 2.8.3 would not result in a deviation from the ROS designation of primitive to urban.			
3. VQO-Retention to modification	Consistent. Under the No Action Alternative,	Consistent. Areas of overlap within the GTR SUP area (Management Prescription 4.2 – *Special Use Permit Recreation Sites*) assume the VQO of Management Prescription 4.2 – *Special Use Permit Recreation Sites*, which			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3	is *Partial Retention* to *Maximum Modification.* Areas of overlap within the Mono Trees area (Management Prescription 2.1.2 – *Visual Quality Maintenance*) assume the VQO of the Management Prescription 2.8.3 – *Aquatic Influence Zone*, which is *Retention* to *Modification.* For the purpose of this analysis, Mono Trees and South Bowl would assume the more conservative VQOs of the surrounding Management Prescription 2.1.2 – *Visual Quality Maintenance*, which are *Retention* to *Partial Retention*. Visual resource impacts to the South Bowl and Mono Trees areas as a result of the proposed projects are expected to be minimal through adherence with specific PDC as identified in **Table 2.4-1**. Therefore, the areas would continue to meet the VQO designation of *Partial Retention*. Overall, the areas would remain consistent with the existing VQO designation of *Retention to Partial Retention* as well as the proposed VQO designation of *Partial Retention to Maximum Modification*.			
PRODUCTION OF COMMODITY RESOURCES					
Range					
Standards					
1. Proposed livestock watering facilities, corrals, and holding pastures within these lands are allowed only if appropriate mitigation measures are implemented to reduce negative impacts.	N/A				
Guidelines					
1. Incorporate into AMPs, objectives for attainment of desired vegetation conditions for riparian plant community seral stage development and stream channel condition.	N/A				
2. Existing livestock watering facilities, corrals, and holding pastures within these lands are allowed at permit issuance only if mitigation measures are	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
implemented to reduce negative impacts.					
Timber					
Standards					
1. These lands are not included in the suitable timber base. They are not part of the ASQ.	N/A				
2. Burning of mechanized treated wood residues within the bankfull channel is prohibited.	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**. Under all action Alternatives, through incorporation of PDC burn piles would be located outside the AIZ to protect hydrologic resources.			
Guidelines					
1. Where needed to attain management prescription goals, design silvicultural prescriptions, and allow prescribed burning and stocking control, as well as the reestablishment and culturing of stands to attain desired vegetation characteristics.	N/A – While silvicultural prescriptions and treatments occur at GTR, and would likely continue to occur into the future, they are not specifically proposed as a component of this project.				
2. Mechanized treatment of wood residue is minimized	Consistent. Under the No Action Alternative, Implementation of the Colter Lift would not impact areas managed under management prescription 2.8.3	Inconsistent. An amendment to the Forest Plan is being pursued. Under proposed conditions, Management Prescription 2.8.3 – *Aquatic Influence Zone* guidelines identified would not be applicable, as the project area would be subject to management under Management Prescription 4.2 – *Special Use Permit Recreation Sites*. However, under proposed conditions, adherence to this Management Prescription 2.8.3 – *Aquatic Influence Zone* guideline would be achieved to the extent practicable, and impacts minimized through the inclusion of various PDC and BMPs as identified in **Table 2.4-1**. Mechanized treatment of wood residue would be minimized to the greatest extent possible under all alternatives.			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
3. Where catastrophic events such as fire or windstorms result in degraded riparian conditions, unscheduled timber harvest (salvage and commercial fuelwood cutting) may be selected as the most desirable management practice.	N/A				
4.2 SPECIAL USE PERMIT RECREATION SITES					
ECOLOGICAL PROCESSES AND PATTERNS					
Insects and Disease					
Standards					
1. Control insects and disease consistent with visual objectives.	N/A				
Fire/Fuels					
Standards					
1. All wildfires that threaten these areas will be aggressively suppressed.	N/A				
Guidelines					
1. Prescribed fire generally will not apply here. It may be used, however, to achieve resource objectives.	N/A				
2. Natural fuels will be reduced or otherwise treated so the potential fireline intensities will not exceed 100 BTU per second per foot on 90	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
percent of the days during the regular fire season (Burning Index < 40).					
PHYSICAL ELEMENTS					
Soil and Water					
Guidelines					
1. Use rehabilitation techniques that do not detract from the recreation opportunity.	Consistent. Rehabilitation at GTR would continue to be done in a way that does not detract from recreation opportunities.	Consistent			
2. Avoid new construction on unstable or highly erosive soils.	Under the No Action Alternative, the Colter Lift would be constructed on soils with moderate to high soil erosion rating and low to moderate mass instability potential; however, following implementation GTR would adhere to design criteria and best management practices to ensure that effects to soil would be minimized to the greatest extent possible.	Consistent. Under all action Alternatives, new construction would occur on soils with slight to moderate erosion hazard (K Factor). Additionally, erosion PDC such as avoiding areas that show signs of instability and authorization of a site erosion control plan would address slope stability standards and guidelines.			
3. On new developments provide adequate vegetation filters to	Consistent. Under the No Action Alternative, mitigation measures, best	Consistent. Under all action Alternatives, vegetative buffers would be maintained adjacent to intermittent or perennial drainages and wetlands, to the extent possible. Where avoidance of the vegetative buffer is not possible,			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
maintain and/or enhance riparian dependent resources.	management practices, and design criteria would be implemented to ensure riparian dependent resources are maintained or enhanced during the construction of Colter Lift.	disturbance would be minimized. PDC have been included as identified in **Table 2.4-1** to maintain vegetative buffers adjacent to intermittent or perennial drainages and wetlands as well as within the AIZ.			
Lands					
Standards					
1. Continue existing recreation residence permits under specific subsection direction and the following conditions for specific areas a) Implement the Big Springs Summer Home Agreement b) New recreation residence tracts (summer homes) will not be established. No new residences will be permitted on vacant lots that are no longer leased unless necessary to replace lots damaged by landslides at the Hoffman site or to implement the Big Springs court order.	N/A				
2. Do not consider Buffalo, Moose Creek, and Big Springs summer home areas for land exchange.	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Guidelines					
1. Corridor rights-of-way will avoid summer homes and group facilities.	N/A				
Minerals/Geology					
Standards					
1. Mineral Material - No entry for mineral materials	N/A				
Guidelines					
1. Locatable - Withdraw from mineral entry, or remove from mineral entry through the notation rule, subject to valid existing rights.	N/A				
BIOLOGICAL ELEMENTS					
Wildlife					
Guidelines					
1. Projects that allow selected wildlife species to be more visible to recreation users may be allowed when compatible with special use permit recreation sites.	Consistent. Under the No Action Alternative and all action Alternatives, implementation of chairlifts and trail clearing would allow wildlife species to be more visible to recreation users. Chairlifts and ski trails are compatible uses under GTR's SUP.				
2. Animal Damage Control - Animal damage control generally will not be done on these sites because of potential conflicts with recreation users and their pets,	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
except for control of problem bears, beavers, porcupines, etc.					
Plants					
Guidelines					
1. Projects or events that focus on the identification and/or uses of plants are allowed where compatible with special use permits and the activities do not degrade the vegetation at the facility.	N/A				
Forest Use and Occupation					
Standards					
1. Access standards are outlined in **Table P** at the end of this Appendix.	Consistent. Short-term cross country motorized access would occur on designated routes during project implementation, which is inconsistent with the access standard for Management Prescription 4.2; however, following implementation, cross country motorized travel would end and management activities within the project area would be consistent with the access standards for Management Prescription 4.2. Temporary routes would be decommissioned following construction.				
Recreation					
Guidelines					
1. Developed - Natural vegetation should be favored around facilities. However, mowing natural vegetation around facilities may be allowed.	Consistent. Under the No Action Alternative and all action Alternatives, GTR would be required to utilize onsite soil, sod, other native material, and native seed mixes to the greatest extent possible to create the most natural appearance and ensure the success of revegetation.				
2. Trails may be allowed for the convenience of people using these sites.	Consistent. Under the No Action Alternative and all action Alternatives, trails would be constructed for recreational use by the public. Proposed trails may include ski, mountain biking, fat bike, Nordic, and hiking trails.				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
3. Short trails are allowed which provide access to facilities and opportunities for interpretation.	Consistent. Under the No Action Alternative and all action Alternatives, trails would be constructed for recreational use and access to facilities by the public. Proposed trails may include ski, mountain biking, fat bike, Nordic, and hiking trails.				
4. ROS - Roaded natural to urban	Consistent. Under all action Alternatives, project activities within management prescription 4.2 would not result in a deviation from the ROS designation of roaded natural to urban.				
5. VQO - Manage for a full range from partial retention to maximum modification. Facilities are often evident, but harmonize and blend with the natural setting.	Consistent. Under all action Alternatives, project activities within management prescription 4.2 would not result in a deviation from the VQO designation of partial retention to maximum modification. PDC have been incorporated into all action Alternatives to ensure that visual impacts are minimized or avoided.				
PRODUCTION OF COMMODITY RESOURCES					
Range					
Guidelines					
1. Unless grazing activities are needed to meet recreation objectives, or unless authorized by special use or grazing permit, grazing of recreation stock and other livestock will not be allowed in special use recreation sites.	N/A				
2. Grazing activities may be allowed in and around facilities designed for livestock use.	N/A				
Timber					
Standards					
1. Developed recreation sites are removed from the suitable timber base. These lands do not contribute to the ASQ.	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Guidelines					
1. All vegetation treatment options are available, but only as required to meet specific recreation objectives.	N/A				
2. Stipulate removal of unsafe and/or dead trees in the special use permit. Native species may be planted to provide cover when naturally-occurring vegetation is inadequate.	Consistent. Under the No Action Alternative and all action Alternatives, hazard tree removal would continue to occur as part of GTR's summer operating plan. Additionally, disturbed areas would be revegetated with a native seed mixture using a variety of native seed grasses, wildflowers and forbs.				

Teton Range Subsection (M331Db)

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Recreation					
Guidelines					
1. Manage the development of the Grand Targhee Ski and Summer Resort within the intent of the 1994 Master Development Plan Final Environmental Impact Statement and according to the Master Plan approved April, 1995.	All existing and proposed projects are consistent with GTR's accepted MDP and NEPA approvals that have occurred subsequent to the 1994 Master Development Plan Final Environmental Impact Statement.				
Wilderness					

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Guidelines					
1. Implement the Jedediah Smith Wilderness Fire Management Plan.	N/A	N/A	N/A	N/A	N/A
Range					
Standards					
1. Domestic sheep grazing within the grizzly bear recovery area will be managed according to Management Situation guidelines.	The guidelines and standards pertain to the management and phasing out of domestic sheep grazing allotments and are not applicable to the proposed projects. Domestic sheep grazing allotments have been effectively phased out from the Teton Range Subsection, reducing the threat of disease to bighorn sheep in the region.				
2. To better manage grizzle bear and big horn sheep habitat, all sheep allotments in the Teton Range Subsection on the Teton Basin Ranger District will be phased out on an opportunity basis (Process Papers L and N). These allotments are the Moose Creek, Canyon Badlands, Dry Basin, Badger Twin, and Green Mountain S&G allotments. Opportunities to vacate an allotment include such event as nonuse violations, term permit waivers where the permit is waived back to the government, resource protection, or permit actions resulting in cancellation of the permit. If opportunities do not arise, then efforts will be made to relocate or accommodate sheep to other areas. Vacated allotments in these areas will be made available as needed to resolve conflicts between grizzly bears and domestic sheep in					

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
other sheep allotments in Situation 2 habitat.					
3. When all sheep allotments in the portion of the subsection within the grizzly bear recovery area have been vacated, they will be closed. Likewise, when all sheep allotments in bighorn sheep habitat have been vacated, they will be closed. The intent of not closing these individual allotments as they become vacated is to provide an opportunity to minimize conflicts between domestic sheep and bighorn sheep or grizzly bears.					
4. The range direction in the Revised Forest Plan for the Targhee National Forest applies to the grazing activities (allotment/permit administration, forage, utilization direction, AMP development, etc.) for that portion of the Moose Creek S&G allotment on the Bridger-Teton National Forest.					
NORTHERN ROCKIES LYNX MANAGEMENT DIRECTION					
ALL MANAGEMENT PRACTICES AND ACTIVITIES (ALL): **THE FOLLOWING STANDARDS, AND GUIDELINES APPLY TO ALL MANAGEMENT PROJECTS IN LYNX HABITAT WITHIN LAUS IN OCCUPIED HABITAT.**					
Standard ALL S1					
New or expanded permanent development and vegetation management projects must maintain habitat connectivity in an LAU and/or linkage area.	Consistent. The No Action Alternative would not create additional habitat disturbance and would	Consistent. Under Alternatives 2 & 5, impacts to lynx habitat would each affect 0.5% of suitable habitat within the Teton Creek LAU, and less than 0.01% in the Badger Creek LAU. This impact would be minimal at the scale of either LAU, because snowshoe hare abundance is currently low in the impacted areas, thus lynx most likely do not use these areas for forage under current conditions. Rather they are most likely to use these portions of the analysis area for travel to more suitable forage and/or denning areas. Lynx would be			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	therefore maintain habitat connectivity.	expected to continue to travel through these areas at night, outside of winter operational hours, during the winter. There is still abundant suitable lynx habitat present to the west of the new SUP boundary to provide connectivity within or between both LAUs. Under Alternatives 3 & 4, 0.05% of lynx habitat would be impacted in Teton Creek LAU, and less than 0.01% in Badger Creek.			
Guideline ALL G1					
Methods to avoid or reduce effects on lynx should be used when constructing or reconstructing highways or forest highways across federal land. Methods could include fencing, underpasses, or overpasses.	N/A				
Standard LAU S1					
Changes in LAU boundaries shall be based on site-specific habitat information and after review by the Forest Service Regional Office.	N/A				
Human Use Projects (HU): ***The following objectives and guidelines apply to human use projects, such as special uses (other than grazing), recreation management, roads, highways, and mineral and energy development, in lynx habitat in lynx analysis unites (LAUs) in occupied habitat, subject to valid existing rights. They do not apply to vegetation management projects or grazing projects directly. They do not apply to linkage areas.***					
Guideline HU G1					
When developing or expanding ski areas, provisions should be made for adequately sized inter-trail islands that include coarse woody debris, so winter snowshoe hare habitat is maintained.	Consistent. The No Action Alternative would not develop or expand the ski area.	Consistent. There have been no specific surveys conducted to determine abundance of snowshoe hares within or adjacent to GTR. However, presence/absence surveys for snowshoe hares were conducted in the Mono Trees area during 2019. With a few exceptions on the extreme southern periphery of the Mono Trees, evidence of hare presence was absent, as there is low horizontal cover throughout Mono Trees. Cover within South Bowl stands providing snowshoe hare, and thus lynx habitat, is similar to that found in the Mono Trees and hares are not expected to be present in large numbers, if at all, in this area as well. Within the current operational boundary, tree stands are skied on a regular basis, which has been likely to have reduced the presence of snowshoe hares. The Proposed Action would not decrease the presence of coarse woody debris in inter-trail islands or inter-glade islands within the existing SUP boundary and would not significantly decrease hare habitat effectiveness in the Mono Trees or South Bowl. Hare habitat in both these areas is currently poor and would continue to be poor following the development of these two areas. Therefore, under all Action Alternatives, the proposed projects are consistent with this guideline.			

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Guideline HU G2					
When developing or expanding ski areas, lynx foraging habitat should be provided consistent with the ski area's operational needs, especially where lynx habitat occurs as narrow bands of coniferous forest across mountain slopes.	Consistent. The No Action Alternative would not develop or expand the ski area.	Consistent. Under Alternatives 2 & 5, 0.5% of lynx habitat in the Teton Creek LAU would be converted to non-habitat, and less than 0.01% within Badger Creek LAU. However, the proposed projects are consistent with GTR's operational needs, as described in their 2018 MDP. The ski area's operational needs supersede the lynx foraging habitat provision of this guideline (USDA Forest Service 2009). Furthermore, it is unlikely that lynx forage exists within the existing SUP due to decreased snowshoe hare habitat effectiveness, or within South Bowl or Mono Trees due to poor hare habitat. Therefore, because lynx foraging habitat effectiveness is currently diminished as a result of ski area development and poor habitat quality (low horizontal cover), and because evidence exists that lynx avoid the area within the operational boundary of ski areas during the winter, and because GTR's operational needs supersede the lynx habitat provisions of this guideline, all Action Alternatives are consistent with this guideline.			
Guideline HU G3					
Recreation developments and operations should be planned in ways that both provide for lynx movement and maintain the effectiveness of lynx habitat.	Consistent. The No Action Alternative would not develop or expand the ski area.	Consistent. As described under the response to Standard ALL S1, projects under the Proposed Action would maintain habitat connectivity within the Teton Creek LAU and between this and other LAUs. The discussions above for Guidelines HU G1 and HU G2 are also relevant to this guideline. Lynx habitat connectivity would be maintained within the Teton Creek and Badger Creek LAUs, facilitating daily, exploratory, and dispersal movements. The effectiveness of snowshoe hare habitat is currently limited within the existing SUP (per USDI-FWS 2013) and would continue to be limited. Furthermore, foraging opportunities and habitat effectiveness are very poor under current conditions within the Mono Trees and South Bowl expansion areas. Thus, the projects proposed under all Action Alternatives would not further impact lynx movements and would maintain the effectiveness of lynx habitat within the existing SUP as it currently exists. Therefore, under all Action Alternatives, the proposed projects are consistent with this guideline.			
Guideline HU G4					
For mineral and energy development sites and facilities, remote monitoring should be encouraged to reduce snow compaction.	N/A				
Guideline HU G5					
For mineral and energy development sites and facilities that	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
are closed, a reclamation plan that restores 40 lynx habitat should be developed.					
Guideline HU G6					
Methods to avoid or reduce effects on lynx should be used in lynx habitat when upgrading unpaved roads to maintenance levels 4 or 5, if the result would be increased traffic speeds and volumes, or a foreseeable contribution to increases inhuman activity or development.	N/A				
Guideline HU G7					
New permanent roads should not be built on ridge-tops and saddles, or in areas identified as important for lynx habitat connectivity. New permanent roads and trails should be situated away from forested stringers.	Consistent. No new road development would occur.	Consistent. No new road development would occur under all of the Action Alternatives in areas important for lynx habitat connectivity. Refer to the Wildlife BA for a discussion of lynx habitat connectivity.			
Guideline HU G8					
Cutting brush along low-speed, low-traffic-volume roads should be done to the minimum level necessary to provide for public safety.	N/A				
Guideline HU G9					
On new roads built for projects, public motorized use should be restricted. Effective closures should be provided in road designs. When the project is over, these roads	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
should be reclaimed or decommissioned, if not needed for other management objectives.					
Guideline Hu G10					
When developing or expanding ski areas and trails, consider locating access roads and lift termini to maintain and provide lynx security habitat, if it has been identified as a need.	Consistent. Under the No Action Alternative, no new access administrative routes or lift termini would be developed.	Consistent. Under Alternatives 2 & 5, 0.5% of lynx habitat in the Teton Creek LAU would be converted to non-habitat, and less than 0.01% within Badger Creek LAU. Under Alternatives 3 & 4, 0.05% of lynx habitat would be impacted in Teton Creek LAU, and less than 0.01% in Badger Creek. However, as described for Standard ALL SI and Guidelines HU G1-3, lynx avoid the area within the existing SUP of ski areas during the winter. The proposed Mono Trees and South Bowl expansions would be established in areas that currently provide very little security habitat due to poor horizontal cover. Therefore, the proposed activities under all Action Alternatives are consistent with this guideline.			
Guideline HU G11					
Designated over-the-snow routes or designated play areas should not expand outside baseline areas of consistent snow compaction, unless designation serves to consolidate use and improve lynx habitat. This may be calculated on an LAU basis, or on a combination of immediately adjacent LAUs. This guideline does not apply inside permitted ski area boundaries, to winter logging, to rerouting trails for public safety, to accessing private inholdings, or to access regulated by Guideline HU G12.	Consistent. Under the No Action Alternative, no new snow compaction would occur	Consistent. Due to the presence of very little security habitat due to poor horizontal cover within the Mono Trees, South Bowl, and low habitat quality of the existing SUP all Action Alternatives would not expand existing snow compacted areas.			
Guideline HU G12					
Winter access for non-recreation special uses and mineral and energy exploration and development,	N/A				

	Alternative 1 – No Action	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
should be limited to designated routes or designated over-the snow routes.					
Linkage Areas (Link): ***The following objective, standard, and guidelines apply to all projects within linkage areas in occupied habitat, subject to valid existing rights.***					
Standard LINK S1					
When highway or forest highway construction or reconstruction is proposed in linkage areas, identify potential highway crossings.	N/A				
Guideline LINK G1					
NFS lands should be retained in public ownership.	Consistent. The No Action Alternative and all Action Alternatives would retain NFS lands in public ownership.				
Guideline LINK G2					
Livestock grazing in shrub-steppe habitats should be managed to contribute to maintaining or achieving a preponderance of mid- or late-seral stages, similar to conditions that would have occurred under historic disturbance regimes.	N/A				

Supporting Tables

Table A.

Woody residue minimum requirement (tons/acre)	Forest Habitat Type
3-5	Limber pine/curleaf mountain mahogany Douglas-fir/mountain snowberry Douglas-Fir/common juniper Lodgepole pine/heartleaf arnica
5-10	Douglas-fir/ninebark Alpine Fir/pine grass Douglas-fir/mountain maple Alpine fir/heart leaf arnica Douglas-fir/blue huckleberry Whitebark pine/ross sedge Douglas-fir/grouse whortleberry Lodgepole pine/blue huckleberry Douglas-fir/common snowberry Lodgepole pine/grouse whortleberry Douglas-fir/white spirea Lodgepole pine/white spirea Douglas-fir/pine grass Lodgepole pine/pine grass Alpine fir/white spirea Lodgepole pine/elk sedge
10-15	Douglas-fir/mountain sweetroot Alpine fie/mountain arnica Engelman spruce/soft leaved sedge Alpine fir/common snowberry Alpine fir/ninebark Alpine fir/western meadow-rue

	Alpine fir/blue huckleberry Alpine fir/Oregon grape Alpine fir/grouse whortleberry
15-20	Engelman spruce/sweet-scented bedstraw Alpine fir/baneberry Alpine fir/mountain sweet root

Table B.

For Fisheries and Other Aquatic Resources guidelines 3, 4, and 5, refer to the following discussion and Table - The following table describes expected values for specific habitat features which are reflective of good fisheries habitat conditions and are also indicators of ecosystem health. It is intended to guide management of native cutthroat trout habitats. Although individual habitat features would be measured at the stream reach scale, the criteria for meeting the expected values appl at the watershed scale, generally for third- to sixth-order streams. These expected values are based on the best available information including INFISH. They are intended as a starting point and can be refined later, based on field analysis or literature review, to better reflect conditions that are attainable in a particular watershed or stream reach.

EXPECTED VALUES FOR HEALTHY NATIVE FISH HABITAT CONDITIONS AT THE WATERSHED SCALE	
Habitat Feature	Expected Value
Pool Frequency (all systems)	At least 1 pool per length of stream equal to 5-7 times the channel width
Water Temperature	Within spawning habitats 13 C or less with a maximum daily average no greater than 9 C 1/ Within adult holding habitat 16 C with a maximum daily average no greater than 12 C
Large Woody Debris (forested systems)	> 20 pieces per mile 2/
Bank Stability (nonforested systems)	> 80 percent
Lower Bank Angle (nonforested systems)	> 75 percent of banks with < 90 degree angle
Width/Depth Ratio (all systems)	Must be suitable for the Rosgen type of the given stream reach 3/
1/ This criterion applies to the period of time from spawning to emergence In lieu of site-specific information, use March 1 to September 15 2/ Criteria must meet R1/R4 stream inventory procedures 3/ Rosgen type refers to a stream classification system which categorizes streams based on entrenchment, gradient. width to depth ratio, sinuosity. and channel materials	

Table C.

Late Seral (successional) Stages			
Forest Type	**Age**	**Trees/Acre**	**DBH (in)**
Lodgepole Pine	100+	40+	9+
Douglas Fir	140+	25+	14+

Mixed Conifer	100+	40+	12+
Spruce/Fir	110+	20+	10+
Aspen	60+	20+	10+
Cottonwood	50+	-	-

Table D. Snag requirements for 100 percent biological potential for woodpecker populations

Species	Range in Snag DBH (inches)	Range in Snag Height (feet)	No of Snags per 100 Forested Acres for 100 Percent Biological Potential			
			Aspen	Cottonwood	Doug-fir Spruce/Fir	Lodgepole
Lewis's Woodpecker	12 to 27	5 to 170	101	101	101	NA
Yellow-bellied Sapsucker	9 to 47	15+	150	150	150	150
Williamson's Sapsucker	12 to 37	15+	NA	NA	150	150
Downy Woodpecker	6 to 14	6 to 50	300	300	300	300
Hairy Woodpecker	9 to 29	15+	180	180	180	180
Three-toed Woodpecker	7 to 19	15+	59	NA	59	59
Black-backed Woodpecker	8 to 17	6+	NA	NA	59	59
Northern Flicker	10 to 51	6+	38	38	38	38
Total Hard Snags per 100 acres			828	769	1037	936

NA indicates the species does not use this forest type

Table E. Snag requirements for maintaining various percentages of biological potential for woodpecker populations (refer to Table D for snag dbh, snag height, and individual species requirements)

Percent of Biological Potential	Number of Hard Snags per 100 Forested Acres			
	Aspen	Cottonwood	Doug-fir and Spruce/Fir	Lodgepole
100	828	769	1037	936
80	662	615	830	749
60	497	461	622	562
40	331	308	415	374
20	166	154	207	187

Table F.

Percent of Biological Potential	Number of Live Trees per Forested Acre				
	>= 10 in dbh	>= 7.0 – 9.9 in dbh	>= 5.0 – 6.9 in dbh	< 5.0 in dbh	Total Tree/Acre
100	8	5	5	7	25
80	6	4	4	6	20
60	5	3	3	4	15
40	3	2	2	3	10
20	2	1	1	1	5

Table G.

Management standards and guidelines for all forest types within active and historic goshawk nesting territories follow

Attnbute	Nest Area	Post-Fledging Family Area	Foraging Area
Number of areas (S)	t	1	t
Size of each area (acres)(S)	>= 200 acres	>= 400	>= 5,400
Size-Class Distribution for forested acres (%) (G) nonstockedlseedling sapling pole maturelold growth 1/	 0 0 0 100	 <= 20 <= 20 <= 20 >= 40	 <= 20 <= 20 <= 20 >= 40
Rotation age (years) (G)	--	60 to 240	60 to 240
Maximum created opening (acres) (G)	0	<= 40	<= 40
Snags and Reserve Trees 2/ (G)	>= 60% unless specified higher in prescription	>= 60% unless specified higher in prescription	>= 60% unless specified higher in prescription
Downed logs (averagelacre)(G)	Forestwide S&Gs	Forestwide S&Gs	Forestwide S&Gs
Management Season (S)	Oct-Feb	Oct-Feb	Year-long
Thinning (G)	Non-uniform 3/	Non-uniform	by silvicultural prescription
Open Road Density4 1(G)	No new system roads	No new system roads	<= Management Rx Density

1/ Mature and old growth canopy closure for nest sites and post-fledging family areas should range between 75-100 percent (G)
2/ Refer to previous section on snaglcavity nesting habitat for explanation of biological potential
3/ Maximize diversity of structure
41 Open roads in goshawk terntories will be given priority for closure to meet management prescription road density standards First priority will be to close roads in nest areas, second priority in post-fledging family areas, third prionty in foraging areas Where possible, open road density should be zero in the nest areas and the post-fledging family areas

Table H.

	Henrys Lake BMU Subunit 1	Henrys Lake BMU Subunit 2	Plateau BMU	Bechler-Teton BMU
TMARD	1 0 MI/SQ MI	1	1	1
OROMTRD)	0 6 MI/SQ MI	0 6	0 6	0 6

Henrys l e l - The Targhee National Forest portion of the Henrys Lake 1 subunit, excluding Management Situation 3 (MS3) habitat
Henrys Lake 2 - The Targhee NF portion f the H k 2 sub Jnit
Plateau BMU - The Targhee NF portion of this Bear Management Unit (BMU), excluding MS3 habitat
Bechler/Teton BMU - The Tarahee NF portion of this BMU

Table I.

Table 1
Upland Ranaeland Ecosystems - Percent Foraae Utilization of Current Years Growth 1/

	Season-long Grazing		Rotation Grazing	
	Unsatisfactory Range Condition	Satisfactory Range Condition	Unsatisfactory Range Condition	Satisfactory Range Condition
Grasses and Herbaceous Species	35%	45%	45%	55%
Shrubs	25%	35%	35%	35%

1/ The figures shown represent the best estimate of acceptable use levels which will provide for maintenance or improvement of these ecosystems. They shall be used as maximum use levels unless there is site-specific information to show that these levels are incorrect. Percent use is based on a dry weight percentage

Table J.

Species	Earliest Rotation Age (years)
Douglas-fir	100
Mixed Conifer 1/	80
Spruce-fir	100
Aspen	60

1/ Includes both MX (DF/LP) and MX3 (DF/LP with ES/AF)

Table K.

Species	Minimum Stocking	Percent of Area Meeting Minimum Stocking
Lodgepole Pine	170	70
Douglas-fir	140	70
Mixed Conifer 2/	200	70
Spruce-fir	200	70
Aspen	300	70

1/ Aspen counts toward stocking
2/ Includes both MX (DF/LP) and MX3 (DF/LP with ES/AF)

Table L.

SLASH TREATMENT FOR FUELS < 3 INCHES IN DIAMETER (G)		
redicted and existing fuel ading under 3 inches iameter 1/	Minimum Treatment 2/	Maximum Fuel Patch size
Inder 5 Tons/Acre	No treatment necessary for lire hazard reduction	160 ac under 40% slope 100 ac over 40% slope
to 10 Tons/Acre	Lop or crush to Regional Lopping Specifications	80 ac ε 40% 40 ac > 40%
11 - 25 Tons/Acre	Alternatives 1 Reduce single entry loading to 10 tons/ac or less by multiple entry thinnings Follow lopping stds above according to loading	Single entry loading ε 5 Ton/Ac , use above stds for < 5 tons Loading 5-10 use above std for 5-10 T/Ac
	2 Reduce slash < 3 in to ε 5 tons per ac by burning or chipping	160 Ac < 40% 100 Ac > 40%
	3 Reduce loading of lopped or crushed fuel < 3 in to 5 - 10 ton per acre by burning or chipping	80 Ac < 40% 40 Ac > 40%
	4 Rehabilitate by piling, burning. and reforestation	160 Ac < 40% 100 Ac > 40%
	5 No treatment	N/A
/ When down woody fuels constitute 30% or more of the total loading under 3 inches, the values in this olumn may be increased by 3 tons per acre / Make sure mechanical treatments meet forestwide soils standards		

Table M.

Season	Type of Access	Cross-Country Travel	Road and Trail Travel 1/
Snow free Seasons	Pedestrian	Yes	Yes
	Horse/Pack Stock	Yes	Yes
	MtnBike/Mechanized	Yes	Yes
Snow free Seasons	Motorized, <50" wide	No	Yes
	Motorized, >50" wide	No	Yes
	OROMTRD 3/	N/A	2/
Snow Seasons	Winter Nonmotorized	Yes	Yes
	Snowmachine	Yes	Yes

1/ individual roads and trails are designated open or closed in the Forest Plan Travel Maps

2/ OROMTRD = Open road and open motorized trail route density does not apply to this prescription area

Table N.

Season	Type of Access	Cross-Country Travel 2/	Road and Trail Travel 1/
Snow free Seasons	Pedestnan	Yes	Yes
	Horse/Pack Stock	Yes	Yes
	Mtn Bike/Mechanized	Yes	Yes
Snow free Seasons	Motonzed, <50" wide	No	Yes
	Motonzed, >50" wide	No	Yes
	OROMTRD 3/	N/A	3/
Snow Seasons 4/	Winter Nonmotonzed	Yes	Yes
	Snowmachine	Yes	Yes

1/ Individual roads and trails are designated open or closed in the Forest Plan Travel Maps

2/ When cross-country travel is found to result in soil displacement in excess of 15 percent of an activity area, or alternation of natural stream channel morphology, reduce impacts through education. use limits, more intensive maintenance. facility modification, and/or closures

3/ OROMTRD = Open road and open motonzed trail route density includes all open roads and open motorized trails The acres in this prescription area and the OROMTRD will be included in the calculations with the acres and OROMTRD in adjacent upland prescription areas (See Roads in Glossary for more information)

4/ Within grizzly bear BMUs, site-specific restrictions on winter recreation activity (such as area closures, timing restrictions, etc) will be imposed to resolve human-grizzly bear conflicts

Table O.

BOUNDARY WIDTHS OF WATER TYPES, BY SUBSECTIONS

Water Type	3.4	2	1,5,6,7
Fish-bearing Stream Reaches 1/	150	200	300
Perennial Nonfish-bearing Stream Reaches 1/	75	75	150
Lakes 2/	150	200	300
Reservoirs, Ponds, Wetlands Greater Than One Acre 3/	75	75	150
Intermittent Streams, Wetlands Less Than One Acre 4/	75	75	100

1/ The boundary width is the slope distance on both sides of the stream, in feet, measured from the edge of the stream. or the area from the edge of the active stream channel to the outer edges of the riparian vegetation. whichever is greater

2/ The boundary width is the slope distance specified. in feet, measured from the high water mark of the lake, or the area from the high mark of the lake to the outer edge of the nparian vegetation or seasonally saturated soil, whichever is greater

3/ The boundary width is the slope distance specified. in feet, measured from the edge of the body of water (edge is defined as the maximum pool elevation of the water body), or the wetland area to the outer edges of the nparian vegetation. whichever is greater

4/ The boundary width is the slope distance on both sides of the intermittent stream, in feet. measured from the edge of the stream, or the wetland area to the outer edges of the nparian vegetation, whichever is greater

Table P.

Season	Type of Access	Cross-country Travel	Road and Trail Travel 1/
Snow free Seasons	Pedestrian Horse/Pack Stock Mtn Bike/Mechanized	Yes No 2/ No	Yes Yes Yes
Snow free Seasons	Motonzed, <50" wide Motorized, >50" wide OROMTRD 4/	No No N/A	Yes 3/ Yes 3/ not applicable
Snow Seasons	Winter Nonmotorized Snowmachine	Yes Yes 5/	Yes Yes 5/

Appendix C. Forest Plan Amendments

Introduction

The National Forest Management Act (NFMA) requires that authorized projects on National Forest System (NFS) lands, including third-party proposals subject to permits, be consistent with Forest Plan direction. The Caribou Targhee National Forest (CTNF) took into consideration consistency of the Proposed Action with the 1997 Revised Targhee National Forest Land and Resource Management Plan (1997 Forest Plan) desired conditions, goals, objectives, standards, and guidelines (refer to Appendix B – Forest Plan Consistency Analysis for more information). Furthermore, as described under the NFMA and its implementing regulations at 36 CFR 219 (2012 Planning Rule), a Forest Plan may be amended at any time. Plan amendments may be broad or narrow, depending on the need for the change. The Forest Service has the discretion to determine whether and how to amend the 1997 Forest Plan and to determine the scope and scale of any amendment.

Per the 1997 Forest Plan management direction, a standard is a binding limitation placed on management actions and must be within the authority and ability of the Forest Service to enforce. The 1997 Forest Plan clarifies that a project or action that varies from the relevant standard may not be authorized unless the Forest Plan is amended to modify, remove, or waive application of the standard (1997 Forest Plan III-2). The 1997 Forest Plan defines guidelines as "a preferred or advisable course of action generally expected to be carried out." Deviation from compliance does not require a Forest Plan amendment but does require rationale for deviation which must be documented in the project decision document. Additional information on the consideration of 1997 Forest Plan consistency, including standards and guidelines, is contained in the project file and Appendix B – Forest Plan Consistency Analysis. Two different types of Forest Plan amendments would be necessary to implement the various Action Alternatives: a programmatic amendment and a project specific amendments. The following sections describe the Forest Plan amendments necessary to implement the various Action Alternatives analyzed in the EIS and the regulations that apply to these Forest Plan amendments.

The Plan Amendment Process (§ 219.7(c))

When the Notice of Intent for this project was published in the Federal Register (8/26/2020), only one Forest Plan amendment was known to be needed for this project, the amendment of the management prescriptions. The other five Forest Plan amendments were not known to be needed at the time the Notice of Intent was published; the need for the amendments became apparent during the analysis process. Therefore, the effects of these project-specific amendments are analyzed and disclosed in conjunction with the GTR MDP Projects FEIS. The adjoined analysis will be available for public comment and objection periods following the guidelines set forth in 36 CFR 219 Subpart B.

Objection Opportunity (§ 219.50 through § 219.62)

The 36 CFR 218 project-level objection procedures apply to the project and project specific Forest Plan amendments, while the 36 CFR 219 Subpart B objection procedures apply to the programmatic Forest Plan amendment.

Effective Date (§ 219.17(a)(2))

The project may be implemented no sooner than 30 days after the publication of the Notice of Approval, which for this project is the Record of Decision. .

Scope and Scale of the Amendments

The scope and scale of the programmatic Forest Plan amendment to change the management prescription areas is specific to an area of 866 acres and covers only a small portion of the CTNF (less than a tenth of a percent). It would apply to all future projects and activities within this 866-acre area, as well as all resources within this area. This programmatic Forest Plan amendment would be effective for the life of the current Forest Plan. Specifically, this programmatic Forest Plan amendment would alter the management emphasis, action, measures, and prescriptions of the acres currently managed under Management Prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 - *Aquatic Influence Zone* to Management Prescription 4.2 – *Special Use Permit Recreation Sites*. As Management Prescription 4.2 – *Special Use Permit Recreation Sites* directs, the 866-acres would be expected to function as a ski area and future ski area-related projects would likely be proposed beyond what are included in the GTR MDP Projects FEIS, though any future projects would require separate and appropriate NEPA analysis.

The scope and scale of the project specific wildlife Forest Plan amendments are limited to areas where proposed project impacts overlap areas of resources covered under Forest Plan Standards. The project specific Forest Plan amendments are intended to exempt project specific impacts from complying with certain Forest Plan standards. They are also project-specific and do not apply to future projects in the Forest. These amendments are limited to wildlife resources (raptors) and are limited to the project area during project construction.

Programmatic Plan Amendment

Management Prescriptions

Components of the Action Alternatives fall primarily within the Management Prescription 4.2 *Special Use Permit Recreation Sites*; however, the proposed South Bowl and Mono Trees SUP boundary expansion areas are located outside of Grand Targhee Resort's (GTR) existing Special Use Permit (SUP) boundary on land that is currently designated as Management Prescription 2.1.2 – *Visual Quality Maintenance* and has an overlay of Management Prescription 2.8.3 – *Aquatic Influence Zone (AIZ)*. A programmatic amendment to the Targhee Forest Plan is necessary to incorporate the proposed SUP expansion areas into the GTR SUP area and designate them as Management Prescription 4.2 *Special Use Permit Recreation Sites*.

Amendment Purpose (36 CFR § 219.13(b)(1))

The purpose of this programmatic Forest Plan amendment is to provide management direction better suited to guide the operation and future needs of the proposed developed recreation sites and activities located within the South Bowl and Mono Trees areas. The proposed South Bowl (Alternatives 2 and 4) and Mono Trees (Alternatives 2 and 5) SUP expansions are located in Management Prescriptions 2.1.2 – *Visual Quality Maintenance* and 2.8.3 – *Aquatic Influence Zone* (refer to **FEIS Figure 1**). There are 866 acres of land managed under management prescription 2.1.2 *Visual Quality Maintenance* with an overlay of 125 acres as 2.8.3 *Aquatic Influence Zone.* The management and types of activities that would occur

within the proposed SUP areas would not comply with the management direction provided under current management prescriptions. Management Prescription 4.2 – *Special Use Permit Recreation Sites* emphasizes providing privately operated types of recreation on National Forest System land for large, concentrated groups of people, as is intended in the proposed South Bowl and Mono Trees project areas. Therefore, the purpose of this programmatic Forest Plan amendment is to convert the management prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 *Aquatic Influence Zone* in the proposed expansion areas to Management Prescription 4.2 – *Special Use Permit Recreation Sites*. Per the 1997 Forest Plan, the 2.8.3 - *Aquatic Influence Zone* Management Prescription overlays other management prescription areas, therefore the 125 acres are accounted for in the 866 acres of Management Prescription 2.1.2 - *Visual Quality Maintenance* being converted to 4.2 - *Special Use Permit Recreation Sites*.

Applicable Alternatives

The Proposed Action (Alternative 2), Alternative 4, and Alternative 5 would require a programmatic amendment to the 1997 Forest Plan to accommodate the actions and activities that would occur within the proposed South Bowl (Alternatives 2 and 4) and Mono Trees (Alternatives 2 and 5) expansion areas.

Format for Plan Components (§ 219.13 (b)(4); § 219.7(e))

This programmatic Forest Plan amendment would apply within the GTR proposed SUP area by converting approximately 866 acres from Management Prescription 2.1.2 – *Visual Quality Maintenance* and 125 acres of Management Prescription 2.8.3 – *Aquatic Influence Zone* to Management Prescription 4.2 *Special Use Permit Recreation Sites*. As previously stated, the 125 acres of Management Prescription 2.8.3 - *Aquatic Influence Zone* are accounted for in the 866 acres of the Management Prescription 2.1.2 - *Visual Quality Maintenance* because AIZs overlay other management prescription areas, so the total acres being converted to Management Prescription 4.2 - *Special Use Permit Recreation Sites* is 866 acres. No portion of the proposed SUP expansion would occur in areas classified as designated wilderness (management prescriptions 1.1.6, 1.1.7, and 1.1.8). Refer to **Figure 1** of the FEIS for a depiction of the proposed boundary expansion and Forest Plan management prescriptions.

Project Specific Forest Plan Amendments

Goshawk Habitat

Project specific Forest Plan amendments related to goshawk habitat is necessary to modify two Forest Plan Standards: (1) the size of each American goshawk area, and (2) management season for American goshawks to align the project actions with the Forest Plan standard direction. The standards to be amended, purpose of the amendment, and description of alternatives this amendment applies are below.

Amendment Purpose (36 CFR § 219.13(b)(1))

1997 Forest Plan standards and guidelines related to American goshawk habitat are provided in Figure 1. Standards described in rows 2 and 8 of this figure are those that would be amended. While guidelines are also shown in this figure, none of the guidelines would be amended under this proposal. A discussion of goshawk guidelines and the proposed project's ability to remain consistent with this direction is included in Chapter 3, **Section 3.13** and Appendix B.

Figure 1. Management standards and guidelines for all forest types within active and historic goshawk nesting territories (1997 Forest Plan 111-21)

Attnbute	Nest Area	Post-Fledging Family Area	Foraging Area
Number of areas (S)	1	1	1
Size of each area (acres) (S)	>= 200 acres	>= 400	>= 5,400
Size-Class Distribution for forested acres (%) (G) nonstockedlseedling sapling pole maturelold growth 1/	 0 0 0 100	 <= 20 <= 20 <= 20 >= 40	 <= 20 <= 20 <= 20 >= 40
Rotation age (years) (G)	--	60 to 240	60 to 240
Maximum created opening (acres) (G)	0	<= 40	<= 40
Snags and Reserve Trees 2/ (G)	>= 60% unless specified higher in prescription	>= 60% unless specified higher in prescription	>= 60% unless specified higher in prescription
Downed logs (averagelacre) (G)	Forestwide S&Gs	Forestwide S&Gs	Forestwide S&Gs
Management Season (S)	Oct-Feb	Oct-Feb	Year-long
Thinning (G)	Non-uniform *31*	Non-uniform	by silvicultural prescription
Open Road Density41 (G)	No new system roads	No new system roads	<= Management Rx Density

1/ Mature and old growth canopy closure for nest sites and post-fledging family areas should range between 75-100 percent (G)
2/ Refer to previous section on snaglcavity nesting habitat for explanation of biological potential
3/ Maximize diversity of structure
41 Open roads in goshawk terntories will be given priority for closure to meet management prescription road density standards First priority will be to close roads in nest areas, second priority in post-fledging family areas, third prionty in foraging areas Where possible, open road density should be zero in the nest areas and the post-fledgingfamily areas

Some of the activities within the proposed Mono Trees expansion area under Alternatives 2 and 5 would impact the nesting, post-fledging family, and foraging areas for confirmed goshawk territory R04F15D56T17. In Alternatives 2 and 5, the Proposed Actions within the Mono Trees area includes management activities that do not comply with two standards *size of each area* and the *management season* described in rows two and eight respectively of Figure 1. These management activities include tree clearing and ski area operations. Therefore, a project specific Forest Plan amendment is necessary to align the proposed management activities with the Forest Plan. Alternatives 3 and 4, do not include activities and addition of the Mono Trees area to the SUP, and would have no direct impacts on the known American goshawk territory. For a complete discussion of Forest Plan consistency, followed by an analysis of the inconsistencies in the context of Forest-wide viability of the species, refer to Chapter 3, Section 3.16 – Wildlife and Appendix B. A detailed discussion of consistency with standards and

guidelines is also included in the Wildlife biological evaluation (BE) prepared for this project. The specific standards that action alternatives are inconsistent with are as follows:

Size of Each Area (Standard):

This standard is described in the second row of the table depicting standards and guidelines related to goshawk habitat. Alternatives 2 and 5 would result in tree removal for the development of ski terrain and infrastructure, which would reduce availability of suitable habitat in the nesting, post-fledging, and foraging areas. As a result, the designated post-fledging family area would drop below 400 acres. Therefore, Alternatives 2 and 5 would not comply with the standard, and a project specific Forest Plan amendment is necessary.

Management Season (Standard):

This standard is described in the eighth row of the table depicting standards and guidelines related to goshawk habitat. Construction activities and vegetation removal for Alternatives 2 and 5 would occur in the nesting area and post-fledging family area outside the specified management season of October through February; therefore, a project specific Forest Plan amendment would be required as proposed projects would not be consistent with the Management Season Standard (as listed in column 1, row 8 of the goshawk standards and guidelines table). As such, clearing and construction practices would not be limited to the management season of October through February and could occur outside this time period.

Although the Management Season Standard would not be adhered to, a project design criteria (PDC) has been included that states “no vegetation clearing/construction activities associated with the action alternatives shall occur within the American goshawk designated 200-acre nest area from April 1 to August 15” (refer to Table 2.4-1). This would ensure that proposed disturbances in the western extent of the Mono Trees pod (for developed ski terrain and the bottom terminal of the proposed lift) would not cause undue impacts to nesting goshawks. For clarity, vegetation clearing and construction could proceed in all other areas that do not overlap the designated 200-acre nest area during the period April 1 to August 15. Additionally, another PDC states, “Tree clearing for construction of a segment of proposed summer trail along the western extent of the existing SUP area within the designated American goshawk post fledging area shall only occur between October and February” (refer to Table 2.4-1). This PDC is specific to the proposed summer trail overlapping the post fledging area in the western extent of the existing SUP area, between the Sacajawea and Colter lifts.

Although implementing Alternatives 2 and 5 could result in the loss of territory R04F15D56T17 and its associated habitat, the proposed project would not threaten the overall viability of American goshawks across the Targhee Planning Area. The detailed analysis prepared for this project within the Wildlife BE and summarized in Chapter 3, Section 3.16 – Wildlife indicates that there are many American goshawk territories spread throughout the Targhee Planning Area, and habitat is not limiting across the area. Therefore, the purpose of these project specific Forest Plan amendments would be to exempt the Mono Trees expansion area proposed in the Proposed Action and Alternative 5 from complying with the standards that these alternatives are inconsistent with. Included with this amendment, would be a requirement (through the PDC) that no clearing/construction activities occur within the designated nest area from April 1 to August 15.

Applicable Alternatives

This project specific Forest Plan amendment would apply to the Proposed Action (Alternative 2) and Alternative 5.

Format for Plan Components (§ 219.13 (b)(4); § 219.7(e))

This project specific Forest Plan amendment would exempt the Proposed Action (Alternative 2) and Alternative 5 analyzed in this EIS from the *size of each area* standard and *management season* standards provided for goshawk habitat in the 1997 Forest Plan. All future projects in this area would need to be consistent with relevant goshawk standards.

Flammulated Owl Habitat

As it relates to flammulated owl habitat, a project specific Forest Plan amendment is necessary to exempt all action alternatives from Flammulated Owl Habitat Standard 1. The standard to be amended, purpose of the amendment, and description of alternatives this amendment applies to follow.

Standard to be Amended

Flammulated Owl Habitat Standard 1:

> *Do not allow timber or firewood harvest activities within a 30-acre area around all known flammulated owl active and historic nest sites.*

Amendment Purpose (36 CFR § 219.13(b)(1))

Flammulated owls were detected in the project area during pre-project surveys in 2019, which resulted in wildlife staff delineating five 30-acre nesting areas based on call strength and frequency. Grading and tree clearing for summer trails, access administrative routes and/or ski trails are proposed in four of the buffers, while the two northern-most buffers are also proposed to have 40 percent tree removal for ski glades. All five buffers would be subject to tree removal associated with trail maintenance (for trails located either within and/or immediately adjacent to the buffers) or for safety reasons. A project specific Forest Plan amendment would be required under all action alternatives (Alternatives 2-5) to exempt proposed projects from Flammulated Owl Standard 1. This would pertain to all the known 30-acre nesting territories under Alternatives 2 and 5, and four 30-acre nesting territories under Alternatives 3 and 4. Included within the Forest Plan amendment would be a PDC describing a timing restriction, which would require that no vegetation clearing or construction associated with the action alternatives shall occur from May 1 to August 15 within the designated 30-acre nest areas, in order to protect nesting activities and prevent individual mortality. Vegetation clearing could occur during other times throughout the year and within the period of May 1 to August 15, so long as it was related to vegetation clearing or construction of project components outside the designated 30-acre nest areas (refer to **Table 2.4-1**).

The detailed analysis prepared for this project within the Wildlife BE and summarized in Chapter 3, Section 3.16 – Wildlife indicates that there is a wide presence of the species and availability of habitat across the Targhee Planning Area. The proposed projects are not anticipated to impact the viability of the species across the Targhee Planning Area. Therefore, the purpose of this proposed project specific Forest Plan amendment would be to exempt all of the action alternatives from complying with Flammulated Owl Habitat Standard 1. Included with this amendment, would be a requirement that no vegetation clearing or construction occur from May 1 to August 15 within the designated 30-acre nest areas.

Applicable Alternatives

This project specific Forest Plan amendment would apply to the Proposed Action (Alternative 2), Alternative 3, Alternative 4, and Alternative 5.

Format for Plan Components (§ 219.13 (b)(4); § 219.7(e))

This project specific Forest Plan amendment would exempt the action alternatives analyzed in this EIS from Flammulated Owl Habitat Standard 1. All future projects in this area would need to be consistent with the Flammulated Owl Habitat Standard 1.

Boreal Owl Habitat

As it relates to boreal owl habitat, a project specific Forest Plan amendment is necessary to exempt all action alternatives from Boreal Owl Habitat Standard 1. The standard to be amended, purpose of the amendment, and description of alternatives this amendment applies to follow.

Standard to be Amended

Boreal Owl Habitat Standard 1:

> *Do not allow timber or firewood harvest activities within a 30-acre area around all known boreal owl active and historic nest sites.*

Amendment Purpose (§ 219.13(b)(1))

Boreal owls were detected in the project area during pre-project surveys in 2019, and two 30-acre nesting areas were delineated based on call strength and frequency. A total of about 25.2 acres within these nesting areas would be impacted by the Proposed Action (Alternative 2) and Alternative 5, with about 23 acres occurring as 40 percent tree removal for ski glades, and the remainder being complete tree clearing. About 24.1 of the total 25.2 acres of potential impacts are for proposed developments in the Mono Trees expansion area, so impacts under Alternatives 3 and 4, which do not include proposed expansion into Mono Trees, would be less severe. Under Alternative 3 and 4, only 1.1 acres of impacts would occur from proposed projects within the existing SUP area, which overlaps the southern-most boreal owl nesting territory near the existing Colter lift. The Proposed Action and Alternative 5 would also include this same impact.

The detailed analysis prepared for this project within the Wildlife BE and summarized in **Section 3.13** indicates that there is substantial availability of habitat outside of the project area, and occurrences of boreal owls throughout the Targhee Planning Area. As a result, the proposed projects are not anticipated to jeopardize the viability of the species across the area. Therefore, the purpose of this project specific Forest Plan amendment would be to exempt the action alternatives from complying with the Boreal Owl Habitat Standard 1. This project specific Forest Plan amendment would allow tree removal within this 30-acre buffer area in order to implement the project. Additionally, a PDC describing a timing restriction would be included in this amendment that would prohibit vegetation clearing and construction associated with the action alternatives within the 30-acre buffers from occurring between March 1 to August 15. This measure is intended to protect nesting activities and prevent individual mortality during project construction. Vegetation clearing could occur during other times of the year and within the period of March 1 to August 15, so long as it was related to vegetation clearing or construction of project components outside the designated 30-acre nest areas (refer to **Table 2.4-1**).

Applicable Alternatives

This project specific Forest Plan amendment would apply to the Proposed Action (Alternative 2), Alternative 3, Alternative 4, and Alternative 5.

Format for Plan Components (§ 219.13 (b)(4); § 219.7(e))

This project specific amendment to the Forest Plan would exempt the action alternatives analyzed in this EIS from Boreal Owl Habitat Standard 1. All future projects in this area would need to be consistent with the Boreal Owl Habitat Standard 1.

Peregrine Falcon Habitat

Standard to be Amended

Peregrine Falcon Habitat Standard 3:

> *Restrict climbing and other human disturbances from March 15 through July 31 to avoid adverse impacts at known falcon nest sites.*

Amendment Purpose (§ 219.13(b)(1))

Forest Service surveys from as early as 1989 document nesting activity at multiple eyrie locations among cliffs on the southern side of Teton Canyon (above the Treasure Mountain Boy Scout Camp), approximately 1 mile south of the project area. The most recent activity in this area was documented in 2018. Less frequent nesting activity has been documented among the Apostles Cliff on the north side of Teton Canyon, which is about 0.12 mile south of the project area. The most recent documented observation from the Apostles Cliff occurred in 2008. The proposed projects would bring increased noise and activity closer to the eyries and has the potential to deter or disrupt nesting and foraging peregrine falcons. Specifically, activity between March 15 and July 31 close to the known Apostles Cliff eyrie could disturb or even prevent future nesting activity. A project specific Forest Plan Amendment is proposed to exempt the action alternatives from Peregrine Falcon Habitat Standard 3. The effects associated with this amendment and implementing the proposed projects would be most severe under alternatives which include expansion of the SUP boundary, because the expansion areas move the SUP boundary further into Teton Canyon encroaching on eyrie nest sites.

Although the action alternatives could potentially result in the loss of the two known eyrie locations in Teton Canyon, the detailed analysis prepared for this project within the Wildlife BE and summarized in **Section 3.13** indicates they would not reduce overall viability of the species across the Targhee Planning Area. This is due to the fact that nesting habitat does not appear to be limited in the Teton Canyon area, nor across the Targhee Planning Area, and peregrine falcons have been documented throughout the Targhee Planning Area. Abundance of cliff habitat in nearby Teton Canyon suggests that potential nesting habitat is not limited. Numerous eyries have also been documented throughout the Targhee Forest Plan Area. It must also be noted that recreation activity is currently high year-round in Teton Canyon, and continued peregrine falcon use of habitat in the area indicates that the birds may be somewhat tolerant of human activity. It is possible that projects impacts would not significantly impact the falcons in the overall Teton Canyon area. Therefore, the purpose of this proposed project specific Forest Plan amendment would be to exempt the action alternatives from complying with Peregrine Falcon Habitat Standard 3.

Applicable Alternatives

This project specific Forest Plan amendment would apply to the Proposed Action (Alternative 2), Alternative 3, Alternative 4, and Alternative 5.

Format for Plan Components (§ 219.13 (b)(4); § 219.7(e))

This project specific amendment to the Forest Plan would exempt the action alternatives analyzed in this EIS from Peregrine Falcon Habitat Standard 3. All future projects in this area would need to be consistent with the Peregrine Falcon Habitat Standard 3. Amendments Consistent with Forest Service NEPA Procedures (§ 219.13(b)(3))

The resource effects of the proposed amendments are documented in the Grand Targhee Master Development Plan Projects Environment Impact Statement (GTR MDP Projects EIS) following Forest Service National Environmental Policy Act (NEPA) procedures at 36 CFR 220. A change in the management prescription in and of itself would not be considered a significant change in the plan for the purposes of NFMA. Furthermore, because there is no anticipated loss of viability across the Targhee Planning Unit for American goshawk, flammulated owl, boreal owl, or peregrine falcon, the project specific wildlife amendments are not considered a significant change to the 1997 Forest Plan for purposes of the National Forest Management Act (§ 219.13(b)(3)). The wildlife project specific Forest Plan amendments only apply to this project and effects would be for a limited duration and spatial extent. Per direction in 36 CFR 219.16, and because an EIS is being prepared for the review of the proposed projects, and there is a potential for significant resource impacts beyond those requiring Forest Plan amendments, a 60-day objection period for the programmatic plan amendment and a 45-day objection period for the project specific plan amendments and FEIS is required. This is also consistent with the direction provided at FSH 1909.12 - Land Management Planning Handbook, Chapter 20 – Land Management Plan.

How the 2012 Planning Rule Applies to the Plan Amendments[335]

The amendments to the 1997 Forest Plan have been prepared under the 2012 Planning Rule (36 CFR 219). The 2012 Planning Rule replaced the 1982 planning rule procedures that the Forest Service used to develop the existing Forest Plan. Therefore, the amendments must comply with the procedural provisions of the 2012 rule, and not the obsolete 1982 rule. The 2012 Planning Rule requires the decision document to explain how the responsible official for the amendment determined the scope and scale of the Forest Plan amendments and which specific substantive requirements of the 2012 Planning Rule within Sections 219.8 and 219.11 apply to the amendments and how they were applied.

Compliance with the Rule's Procedural Provisions

As explained below, these amendments comply with the procedural provisions of the 2012 Planning Rule (§ 219.13(b)).

Using the Best Scientific Information to Inform the Planning Process (§ 219.3)

To identify the potential direct, indirect, irretrievable, irreversible, and cumulative impacts that may result from the Forest Plan amendments, the most accurate, reliable, and relevant information was considered. Best available data for wildlife species include field surveys of habitat types, camera traps, and past

[335] Amendment that applies to all future projects

wildlife assessments for the CTNF. The particular information and documentation of how the information was used is included in the GTR MDP Projects FEIS and its supporting technical reports.

Providing Opportunities for Public Participation (§ 219.4) and Providing Public Notice (§ 219.16; § 219.13(b)(2))

At the time of scoping and Notice of Intent (August 26, 2020) it was determined that one Forest Plan amendment would be necessary, the amending of the management prescription. However, no other Forest Plan amendments were included; therefore, the five other proposed amendments were not included during this time of public participation.

As allowed by § 219.16.13(b)(2), required public notifications of plan amendments were combined where appropriate. The initiation of the proposed plan amendments and invitation for comments on the amendments were combined into one notification and comment period. The comment period was 90 days (§ 219.16(a)(2)). Specifically, a 60-day objection period for the programmatic plan amendment and a 45-day objection period for the project specific plan amendments. Public notifications were made by publication of the Notice of Availability in the Federal Register; by publication of the legal notice in the Post Register; by posting the notification on the project website; by mailing or e-mailing notifications to interested or affected parties per § 219.4(1) and (2); and by distributing a news release.

Individuals and entities who submitted timely, specific written comments during designated opportunities for public comment have the opportunity to file an objection to the Forest Plan amendments (36 CFR 219.53).

Documenting Compliance with the Rule's Applicable Substantive Provisions[336]

As per 36 CFR 219.13(b)(5), the responsible official shall, "determine which specific substantive requirement(s) within 219.8 through 219.11 are directly related to the plan direction being added, modified, or removed by the amendment and apply such requirement(s) within the scope and scale of the amendment.

Substantive Provisions

The responsible official is not required to apply any substantive requirements that are not directly related to the amendment, and thus they are not discussed here. For the remaining substantive provisions from the 2012 Planning Rule that are directly related, the project would have no significant effect. Each substantive provision directly related to the project is discussed below.

§ 219.8 Sustainability

- § 219.8(a)(1) Ecological Sustainability – Ecosystem Integrity – Ecological integrity of terrestrial and aquatic ecosystems and watersheds in the project area are adequately protected by existing Forest Plan guidance. The programmatic and project specific Forest Plan amendments would have direct, indirect, and cumulative impact on the ecological integrity of the project area (see EIS

[336] The applicable substantive provisions of the Rule are within 36 CFR § 219.8–219.11. (81 FR 90723, December 15, 2016).

Sections 3.12 – 3.16). However, given the limited scope and scale of these impacts at the ecosystem scale, impacts are expected to be negligible.

- § 219.8(a)(2) Ecological Sustainability – Air, Soil, and Water – Air quality, soils and soil productivity, water quality, and water resources are addressed in the Forest Plan. The programmatic Forest Plan amendment to change the management prescription area may have direct, indirect, and cumulative impacts to water resources within the proposed SUP expansion areas (see EIS **Sections 3.14 – 3.16**). However, these impacts would not be significant at the ecosystem scale due to the limited scope and scale of the proposed management prescription conversion.

- § 219.8(a)(3) Ecological Sustainability – Riparian Areas – Ecological integrity of riparian areas is adequately protected in the Forest Plan to reduce resource concerns. The programmatic Forest Plan amendment to change the management prescription area would have direct, indirect, and cumulative impacts on riparian areas within the areas proposed for conversion (see EIS **Section 3.16**). However, given specific project design criteria, and the limited scope and scale of the proposed management prescription conversion, these impacts are expected to be minimized and not significant. Also, given the limited scope and scale of the management prescription conversion, the impacts would not be significant.

§ 219.9 Diversity of Plant and Animal Communities

- § 219.9(a) Ecosystem Plan Components – Ecosystem plan components to maintain or restore the ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area are adequately addressed by existing Forest Plan guidance and project-specific measures are in place to reduce resource concerns. The programmatic Forest Plan amendment to change the management prescription area would have direct, indirect, and cumulative impacts on terrestrial and aquatic ecosystems and watersheds within the areas proposed for management prescription conversion; however, these impacts would not be significant at the ecosystem scale due to the limited scope and scale of the proposed management prescription conversion (see EIS **Sections 3.12 – 3.16**).

- There is no anticipated loss of viability across the Targhee Planning Unit for American goshawk, flammulated owl, boreal owl, or peregrine falcon associated with the wildlife project specific Forest Plan amendments; therefore, the project specific wildlife amendments are not considered a significant change to the 1997 Forest Plan for purposes of the National Forest Management Act (§ 219.13(b)(3), see EIS **Section 3.13**). The wildlife project specific Forest Plan amendments only apply to this project.

- § 219.9(b) Additional, Species-Specific Plan Components – Species-specific plan components are adequately addressed by existing Forest Plan guidance and project specific measures are in place to reduce resource concerns. The programmatic Forest Plan amendment to change the management prescription area would have direct, indirect, and cumulative impacts on plant and animal communities within the areas proposed for management prescription conversion; however, these impacts would not be significant at the ecosystem scale due to the limited scope and scale of the proposed management prescription conversion (see EIS **Sections 3.12 – 3.13**).

§ 219.10 Multiple Use

- § 219.10(a) Integrated Resource Management for Multiple Use – The limited nature of the amendments will have no direct impact on integrated resource management to provide for ecosystem services and multiple uses (see EIS **Sections 3.12 – 3.16**).

Appendix D. Comparison Summary of Direct and Indirect Environmental Consequences

Table D-1. Comparison Summary of Direct and Indirect Environmental Consequences

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Recreation The action alternatives have the potential to affect the existing recreational opportunities and experiences within GTR's existing and proposed operational area and nearby NFS lands during both the winter and summer seasons	*Quantification of existing and proposed terrain acreage by ability level compared to the existing condition and industry standards.*	• GTR's terrain network would consist of approximately 680 acres of developed terrain in addition to undeveloped terrain offerings • The deficit of developed beginner and low-intermediate terrain and surplus of advanced and expert terrain compared with industry standards would persist	• GTR's terrain network would consist of approximately 930 acres of developed terrain in addition to undeveloped terrain offerings • Proposed terrain projects would increase beginner, intermediate, advanced-intermediate, and expert terrain acreage • The deficit of developed beginner and low-intermediate terrain and surplus of advanced and expert terrain compared with industry standards would persist	• GTR's terrain network would consist of approximately 765 acres of developed terrain in addition to undeveloped terrain offerings • Proposed terrain projects would result in a lower acreage of intermediate, advanced-intermediate, and expert terrain than the Proposed Action • Alternative 3 would offer a greater selection of trails and difficulties within the SUP boundary but would not address shortcomings in terrain variety without the Mono	• GTR's terrain network would consist of approximately 830 acres of developed terrain in addition to undeveloped terrain offerings • Proposed terrain projects would result in a higher distribution of expert terrain • Alternative 4 would increase the variety of undeveloped terrain by incorporating South Bowl into GTR's terrain network • The deficit of developed beginner and low-intermediate	• GTR's terrain network would consist of approximately 860 acres of developed terrain in addition to undeveloped terrain offerings • Proposed terrain projects would result in a higher distribution of intermediate terrain • Alternative 5 would increase the variety of undeveloped terrain by incorporating Mono Trees into GTR's terrain network • Alternative 5 would increase the distribution of intermediate trails, however, the deficit of

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
				Trees and South Bowl areas for both developed and undeveloped terrain	terrain and surplus of advanced and expert terrain compared with industry standards would persist	developed beginner and low-intermediate terrain and surplus of advanced and expert terrain compared with industry standards would persist
	Both quantitative and qualitative discussion of the change in skier density in relation to guest experiences as compared to existing conditions.	• Skier/Rider Distribution by ability level is as follows: • Beginner – 1 percent • Novice – 10 percent • Low-intermediate – 7 percent • Intermediate – 40 percent • Advanced-intermediate – 27 percent • Expert – 15 percent • Under the No Action Alternative, the deficit of developed beginner and low-intermediate	• Skier/Rider Distribution by ability level is as follows: • Beginner – 1 percent • Novice – 4 percent • Low-intermediate – 7 percent • Intermediate – 44 percent • Advanced-intermediate – 29 percent • Expert – 15 percent • Under the Proposed Action, the distribution of intermediate terrain would increase to 44 percent, and advanced-	• Skier/Rider Distribution by ability level is as follows: • Beginner – 1 percent • Novice – 4 percent • Low-intermediate – 9 percent • Intermediate – 44 percent • Advanced-intermediate – 26 percent • Expert – 15 percent • Alternative 3 would result in lower acreage of intermediate, advanced-intermediate, and expert terrain as	• Skier/Rider Distribution by ability level is as follows: • Beginner – 1 percent • Novice – 4 percent • Low-intermediate – 8 percent • Intermediate – 43 percent • Advanced-intermediate – 26 percent • Expert – 17 percent • Alternative 4 would result in more distribution of expert terrain with the addition of	• Skier/Rider Distribution by ability level is as follows: • Beginner – 1 percent • Novice – 4 percent • Low-intermediate – 8 percent • Intermediate – 45 percent • Advanced-intermediate – 29 percent • Expert – 13 percent • Alternative 5 would result in an increase in distribution of intermediate trails with the addition of Mono Trees. • Beginner, novice, and low-

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		terrain and the surplus of advanced-intermediate and expert terrain would continue. • The deficit in low-intermediate terrain indicates that it can be difficult for skiers/riders to progress from novice-level to intermediate level. • The surplus of advanced- and expert-level terrain reflects the market niche of GTR. This surplus is not seen as a constraint, as long as other ability levels are well balanced. •	intermediate and expert terrain would remain well above market standards. These changes reflect the skier market at GTR. • There is a decrease in distribution of novice and low-intermediate terrain due to the proposed realignment of Teton Vista Traverse, which would be changed from novice to intermediate as a result. • Since skier and rider distribution for each ability level is a proportion of the total, the distribution of an ability level can decrease even when the trail area of that ability level increases.	compared to the Proposed Action. • There would still be a surplus of advanced-intermediate and expert terrain, but there would also be an increase in acreage and distribution of beginner and intermediate terrain, aligning with the purpose and need. • A variety of advanced terrain is important for meeting the expectations of advanced and expert skiers. However, Alternative 3 would not provide the gladed skiing in Mono Trees or the chutes, bowls and gladed skiing in South Bowl like the Proposed Action would provide.	South Bowl, but a lower distribution of advanced-intermediate and novice terrain as compared to the Proposed Action. • Intermediate, advanced-intermediate, and expert terrain would remain above the market standard, meeting the expectations of GTR's guests. • Alternative 4 would meet the purpose and need of increasing the quantity of beginner, intermediate, advanced-intermediate terrain to meet current and anticipated public demand.	intermediate terrain distribution would continue to be below the skier market. But Alternative 5 would still meet the purpose and need of increasing intermediate and advanced-intermediate offerings as well as increasing beginner terrain acreage through improvement projects.

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			• There is still a deficit in distribution as compared to market standards, but the increases in other terrain ability levels align with GTR's purpose and need of increasing beginner, intermediate, and advanced-intermediate terrain.			
	Quantification of existing and proposed Comfortable Carrying Capacity (CCC) and skier visitation as compared to existing conditions.	• CCC would remain at the existing 3,720 guests per day • Based on projections, peak visitation would be in the 2028/29 season at 265,342 visitors total, an increase of 38,597 from the 2022/23 season	• CCC would increase to 6,170 guests per day • Based on projections, peak visitation for this alternative would be 330,866 visitors total, an increase of 65,525 from peak visitation in the No Action alternative	• CCC would increase to 4,910 guests per day • Based on projections, peak visitation for this alternative would be 278,605 visitors total, an increase of 13,264 from peak visitation in the No Action alternative	• CCC would increase to 5,480 guests per day • Based on projections, peak visitation for this alternative would be 303,389 visitors total, an increase of 38,047 from peak visitation in the No Action alternative	• CCC would increase to 5,600 guests per day • Based on projections, peak visitation for this alternative would be 304,304 visitors total, an increase of 38,962 from peak visitation in the No Action alternative

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	Quantitative and qualitative discussion of existing and proposed guest service space and other amenities as it relates to guest experience.	• Guest service space and other amenities related to guest experience would remain unchanged	• Ski patrol operations would be expanded into the Mono Trees and South Bowl areas, including the mitigation of avalanche risks in this terrain • New facilities and guest services would be constructed to balance the anticipated increase in CCC including on-mountain restaurants at the top of Sacajawea and Dreamcatcher lifts; guest facilities at the top of the Shoshone Lift, in Rick's Basin, and on Lightning Ridge near the top terminal of the proposed Mono Trees Lift; and a storage and vault toilet facility at the base of the North Boundary Lift and base of the Proposed South	• Ski patrol operations would not be expanded • New facilities and guest services would be constructed to balance the anticipated increase in CCC including on-mountain restaurants at the top of Sacajawea and Dreamcatcher lifts; guest facilities at the top of the Shoshone Lift and in Rick's Basin; and a storage and vault toilet facility at the base of the North Boundary Lift. Improvements would be made to the existing vault toilet at the bottom of the Blackfoot Lift to include a storage facility.	• Ski patrol operations would be expanded into the South Bowl Area, with associated avalanche mitigation measures • New facilities and guest services would be constructed to balance the anticipated increase in CCC the same as the Proposed Action except the guest facility on Lightning Ridge.	• Ski patrol operations would be expanded into the Mono Trees area • New facilities and guest services would be constructed to balance the anticipated increase in CCC the same as the Proposed Action except for the vault toilet at the bottom of the South Bowl Lift and the associated avalanche mitigation infrastructure.

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			Bowl Lift. Improvements would be made to the existing vault toilet at the bottom of the Blackfoot Lift to include a storage facility.			
	Qualitative discussion of existing and proposed use of backcountry areas within the study area (Teton Canyon and South Leigh Canyon).	• Participation in backcountry recreation is anticipated to increase with current trends	• South Bowl would be incorporated into GTR's SUP boundary and would no longer exist as an opportunity for backcountry recreation in the winter months • By removing approximately 266 acres of backcountry terrain adjacent to GTR, it is anticipated that backcountry use of other nearby areas, such as Teton Canyon and South Leigh Canyon, could increase	• Alternative 3 does not include an expansion to the GTR SUP boundary, therefore it is not expected to have measurable impacts on recreational uses of backcountry areas within the study area	• South Bowl would be incorporated into GTR's SUP boundary; therefore Alternative 4 would have the same impacts as the Proposed Action in Teton Canyon and South Leigh Canyon	• Alternative 5 does not include the incorporation of South Bowl into the GTR SUP boundary, therefore it is not expected to have measurable impacts on recreational uses of backcountry areas within the study area
	Qualitative discussion of GTR guests leaving the resort via Teton Canyon.	• Guests leaving the resort via Teton Canyon is anticipated to	• Some users seeking a backcountry experience may	• Similar to the No Action Alternative, guests leaving	• Guests leaving the resort would be similar to the Proposed	• Similar to the No Action Alternative, guests leaving

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		increase, which could be exacerbated in South Bowl by the presence of the Peaked Lift	exit the SUP boundary just below Mary's Nipple into Teton Canyon and ski backcountry terrain to the extent possible for them to return to the South Bowl lift	the resort via Teton Canyon is anticipated to increase, which could be exacerbated in South Bowl by the presence of the Peaked Lift	Action with the incorporation of South Bowl terrain	the resort via Teton Canyon is anticipated to increase, which could be exacerbated in South Bowl by the presence of the Peaked Lift
	Qualitative analysis and discussion of existing and proposed guest experiences for winter and summer recreation activities at GTR, including the experience of non-skiing guests during the winter months.	• Current summer and winter alternate activities would still be provided	• The incorporation of the South Bowl would allow for avalanche control and other safety procedures in this area, which would greatly reduce safety hazards • The incorporation of Mono Trees would provide additional developed and undeveloped terrain for intermediate and advanced intermediate skiers, including gladed skiing opportunities, which would support a skills progression from	• Additional facilities within the SUP boundary would accommodate the anticipated increase in CCC and would provide a balanced amount of space under proposed conditions • All multi-season recreation projects included in the Proposed Action are also included in Alternative 3; therefore recreation impacts and guest experience would be consistent with those of the Proposed Action	• Impacts would be the same as the Proposed Action except for the incorporation of Mono Trees	• Impacts would be the same as the Proposed Action except for the incorporation of South Bowl

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			intermediate to advanced ability levels • Additional facilities would accommodate the anticipated increase in CCC and would provide a balanced amount of space under proposed conditions • Additional activities such as the zip line, canopy tour, disc golf course, and non-skiing winter activities would provide user groups such as families, the elderly/aging, or those with disabilities with an opportunity to interact with the CTNF in a meaningful way that is currently non-existent within the GTR SUP area			
	Qualitative analysis of existing and proposed user demand and access in the South Bowl and	• The No Action Alternative does not include a SUP expansion	• Backcountry use of areas near GTR such as Teton Canyon and	• Similar to the No Action Alternative, Alternative 3	• Impacts would be the same as the Proposed Action with the	• Alternative 5 does not include the incorporation of South Bowl into

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	Mono Trees proposed expansion areas for winter and summer recreation activities occurring beyond GTR's existing operational boundary (e.g., snowmobiling, backcountry skiing, splitboarding, snowshoeing, mountain biking, hiking).	into the South Bowl and Mono Trees areas • Demand for multi-season recreation opportunities is expected to continue to grow both within and around GTR's SUP area	South Leigh Canyon could increase, including a minor increase in snowmobile use in Teton Canyon to shuttle skiers accessing backcountry terrain from the SUP back to their cars	does not include a SUP expansion into the South Bowl and Mono Trees areas • Demand for multi-season recreation opportunities is expected to continue to grow both within and around GTR's existing SUP area	incorporation of South Bowl into the SUP boundary	the GTR SUP boundary • Demand for multi-season recreation opportunities is expected to continue to grow both within and around GTR's existing SUP area
	Qualitative discussion of increasing developed recreation opportunities to concentrate recreation use and reduce the strain on other developed/dispersed recreation sites throughout the district as compared to existing conditions.	• The No Action Alternative would not increase developed recreation opportunities	• All action alternatives may attract visitors who would otherwise have visited nearby NFS lands, particularly those seeking a more developed recreational experience in the summer; however, some user groups may also be displaced by additional development and increased use of trails within the GTR SUP boundary. • All action alternatives may reduce overall trail use on NFS lands surrounding GTR but would likely increase the use of overnight facilities such as campgrounds and dispersed camping areas near GTR, particularly in Teton Canyon.			
	Qualitative discussion of existing outfitters/guides operating in the area of the proposed SUP expansion and the potential change as a result of the Action Alternatives.	• The No Action Alternative would not impact outfitter/guide operations on surrounding NFS lands	• The incorporation of backcountry terrain into the GTR SUP boundary may impact outfitter and guiding companies; these outfitters	• Alternative 3 does not include an expansion of the GTR SUP boundary so it is not expected to have measurable impacts to outfitters/guides	• Impacts to outfitter and guides would be the same as the Proposed Action by incorporating the South Bowl	• Without the incorporation of South Bowl into the SUP boundary, Alternative 5 is not expected to have measurable impacts to

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			may need to have their operational areas relocated to other areas of the CTNF if negatively affected by the incorporation of South Bowl into the GTR SUP area	operating in the area of proposed SUP expansion	into the SUP boundary	outfitters/guides operating in the area of proposed SUP expansion
	Qualitative discussion of season of use for each activity and change in recreation opportunities both within the existing SUP and in the proposed expanded SUP under the Action Alternatives as compared to existing conditions.	• Both summer and winter uses are expected to increase for all alternatives	• 930 acres of ski terrain would be available • Multi-season recreational opportunities would be increased with the addition of a canopy tour/fly line, zip line, an aerial adventure course, 29 miles of summer trails, snow tubing, and increased ski terrain and variety	• 765 acres of ski terrain would be available • All multi-season recreational opportunities included in the Proposed Action would be included	• 830 acres of ski terrain would be available • All multi-season recreational opportunities included in the Proposed Action would be included	• 860 acres of ski terrain would be available • All multi-season recreational opportunities included in the Proposed Action would be included
Scenery Through the expansion of GTR's operational boundary into lands previously beyond	*Identification of direction for scenery management as provided by the Targhee National Forest Plan, including relevant standards and*	• Under the No Action Alternative, NFS lands within and adjacent to the GTR SUP area would remain in	• Proposed projects within the GTR SUP area and the Mono Trees SUP expansion would alter the appearance of	• Proposed projects within the GTR SUP area would alter the appearance of the area and add incrementally to	• Proposed projects within the GTR SUP area would alter the appearance of the area and add	• Proposed projects within the GTR SUP area and the Mono Trees SUP expansion would alter the appearance of

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
GTR operations (including installation of new infrastructure and other terrain alterations), the action alternatives have the potential to affect the scenic integrity and dark skies of surrounding lands, including from GTNP, the Jedediah Smith Wilderness, the Teton Scenic Byway, Teton Canyon and the identified critical viewpoints in the vicinity. In addition, the proposed expansion in the South Bowl and Mono Trees areas would change the Forest Plan Management Prescription from 2.1.2: Visual Quality Maintenance to 4.2: *Special Use Permit*	*guidelines, established Visual Quality Objectives (VQOs) and discussion of the necessary amendments to the 1997 Forest Plan and qualitative discussion of potential changes under the Action Alternatives.*	compliance with relevant standards, guidelines, and VQOs from the Forest Plan. • The No Action Alternative would not require a Forest Plan Amendment.	the area and add incrementally to the developed character of the landscape when viewed from the west and northwest. Proposed projects within the GTR SUP, South Bowl, and Mono Trees areas would introduce form, line, color, and texture that is not presently common when viewed from the southwest, east, and southeast; however, ski area activities would remain visually subordinate to the visual strength of the characteristic landscapes. • The proposed SUP expansion in the South Bowl and Mono Trees areas would change the Forest Plan Management	the developed character of the landscape when viewed from the west and northwest. These projects would introduce form, line, color, and texture that is not presently common when viewed from the southwest, east, and southeast; however, ski area activities would remain visually subordinate to the visual strength of the characteristic landscapes. • Alternative 3 would not require a Forest Plan Amendment.	incrementally to the developed character of the landscape when viewed from the west and northwest. Proposed projects within the GTR SUP and South Bowl SUP expansion would introduce form, line, color, and texture that is not presently common when viewed from the southwest, east, and southeast; however, ski area activities would remain visually subordinate to the visual strength of the characteristic landscapes. • The proposed SUP expansion in the South Bowl area would change the Forest Plan Management Prescription from 2.1.2:	the area and add incrementally to the developed character of the landscape when viewed from the west and northwest. Proposed projects within the GTR SUP and Mono Trees areas would introduce form, line, color, and texture that is not presently common when viewed from the southwest, east, and southeast; however, ski area activities would remain visually subordinate to the visual strength of the characteristic landscapes. • The proposed SUP expansion in the Mono Trees area would change the Forest Plan Management Prescription from 2.1.2: Visual Quality Maintenance to

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Recreation Sites Recreation Site.			Prescription from 2.1.2: Visual Quality Maintenance to 4.2: *Special Use Permit Recreation Sites*.		Visual Quality Maintenance to 4.2: *Special Use Permit Recreation Sites*.	4.2: *Special Use Permit Recreation Sites*.
	Identification of direction for scenery management as provided by the Built Environment Image Guide (BEIG), including guidelines for materials, colors and reflectivity and adherence to under the Action Alternatives.	• Under the No Action Alternative, structures on NFS lands within and adjacent to the GTR SUP area would remain in compliance with relevant direction from the BEIG.	• Under all action alternatives, prior to construction, all proposed infrastructure, including facilities and lifts, would undergo Forest Service review to ensure compliance with the BEIG. This includes considering the landscape, cultural and ecological character, as well as the architectural guidelines for the Rocky Mountain Province which include descriptions of appropriate siting, massing, scale, structure, materials, color, and sustainability efforts.			
	Qualitative analysis of scenic impacts including changes in views from the foreground, middleground, and background distance zones as well as changes in form, line, and color from existing conditions from the identified critical viewpoints (including identification of view duration and intensity from each): Ashton, Buck Mountain Pass, Colter Building top floor (Driggs; winter and summer),	• Under the No Action Alternative there would be no scenic impacts to the identified critical viewpoints.	• The proposed Fred's Mountain Top Guest Facility, lifts, ski terrain, and other projects within the GTR SUP would result in minor and incremental impacts to the existing developed landscape when viewed from the foreground, middleground (view 13), and	• The proposed Fred's Mountain Top Guest Facility, lifts, ski terrain, and other projects within the GTR SUP would result in minor and incremental impacts to the existing developed landscape when viewed from the foreground, middleground (view 13), and	• The proposed Fred's Mountain Top Guest Facility, lifts, ski terrain, and other projects within the GTR SUP would result in minor and incremental impacts to the existing developed landscape when viewed from the foreground, middleground	• The proposed Fred's Mountain Top Guest Facility, lifts, ski terrain, and other projects within the GTR SUP would result in minor and incremental impacts to the existing developed landscape when viewed from the foreground, middleground (view 13), and

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	Grand Teton (summit), Hastings Lane (Driggs; winter and summer), Hurricane Pass, Lower Saddle (between the Middle and Grand Tetons), Middle Teton (summit), Mount Meek Pass, Paintbrush Divide, Teton Canyon Overview Observation Site, South Leigh Lakes, South Teton/Devil Stairs Trail, Static Peak, Table Mountain (Jedediah Smith Wilderness; winter and summer), Teewinot Mountain, Teton Scenic Byway, and Tetonia, ID (winter and summer).		background (views 3, 4, 6, 7, 20, 21, and 22) distance zones. • The proposed South Bowl lift, ski trails, ski patrol facility, and other projects in South Bowl may be visible from multiple locations within the adjusted SUP area and on adjacent NFS and NPS lands, including views 5, 8, 9, 10, 11, 15, 16, 17, 18, 19, and 23. • The proposed Mono Trees lift, ski trails and glades, and the proposed bottom terminal access administrative route may be visible from multiple locations within the adjusted SUP area and on adjacent NFS lands, including views 3, 4, 6, 7,	background (views 3, 4, 6, 7, 20, 21, and 22) distance zones.	(view 13), and background (views 3, 4, 6, 7, 20, 21, and 22) distance zones. • The proposed Mono Trees lift, ski trails and glades, and the proposed bottom terminal access administrative route may be visible from multiple locations within the adjusted SUP area and on adjacent NFS lands, including views 3, 4, 6, 7, 13, 20, 21, and 22. • Scenic impacts associated with the Mono Trees projects would be similar to those described for the existing SUP area; however, the projects would be located in an area that is currently void of ski area	background (views 3, 4, 6, 7, 20, 21, and 22) distance zones. • The proposed South Bowl lift, ski trails, ski patrol facility, and other projects in South Bowl may be visible from multiple locations within the adjusted SUP area and on adjacent NFS and NPS lands, including views 5, 8, 9, 10, 11, 15, 16, 17, 18, 19, and 23. • Scenic impacts associated with the South Bowl projects would be similar to those described for the existing SUP area; however, the projects would be located in an area that is currently void of ski area development and exists in a near natural state.

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			13, 20, 21, and 22. • Scenic impacts associated with the South Bowl and Mono Trees projects would be similar to those described for the existing SUP area; however, the projects would be located in an area that is currently void of ski area development and exists in a near natural state.		development and exists in a near natural state.	
	Visual simulations will be considered for all critical viewpoints within (or near) 6.9 miles of the project area. A qualitative discussion of existing conditions of GTR operations as compared to the Action Alternatives would be completed from the following viewpoints: (1) Table Mountain, (2) Teton Canyon valley floor, (3) Driggs, and (4) Middle Teton.	• The existing landscape would remain unchanged	• Visual simulations were prepared for the Town of Driggs (Coulter Building Rooftop), the Grand Teton, Table Mountain, and the Teton Canyon valley floor (refer to Figures 9a, 9b, 10a, 10b, 11a, 11b, 12a, and 12b). • Projects both within the existing GTR SUP and in the proposed SUP expansion areas would result in modifications to the existing landscape			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	Qualitative analysis of visual simulations completed from viewpoints outside the 6.9-mile buffer zone of changes in dark sky designations as the result of night lighting under the Action Alternatives.	• Under the No Action Alternative there would be no impacts to the Dark Sky characteristics of surrounding NFS and private lands.	• Fred's Mountain Top Guest Facility is proposed for daytime use only; however, subtle low-lying light fixtures may be installed outside the facility for maintenance and to prepare for daily operations, which would primarily occur in the early morning. Implementation of the proposed lighting is not anticipated to be visible from surrounding views beyond the foreground. • Lights are proposed on Palmer's Raceway in conjunction with the proposed Palmer's Platter surface lift. Lighting fixtures may be visible from foreground, middleground (view 13), and	• Fred's Mountain Top Guest Facility is proposed for daytime use only; however, subtle low-lying light fixtures may be installed outside the facility for maintenance and to prepare for daily operations, which would primarily occur in the early morning. Implementation of the proposed lighting is not anticipated to be visible from surrounding views beyond the foreground. • Lights are proposed on Palmer's Raceway in conjunction with the proposed Palmer's Platter surface lift. Lighting fixtures may be visible from foreground, middleground (view 13), and	• Fred's Mountain Top Guest Facility is proposed for daytime use only; however, subtle low-lying light fixtures may be installed outside the facility for maintenance and to prepare for daily operations, which would primarily occur in the early morning. Implementation of the proposed lighting is not anticipated to be visible from surrounding views beyond the foreground. • Lights are proposed on Palmer's Raceway in conjunction with the proposed Palmer's Platter surface lift. Lighting fixtures may be visible from foreground,	• Fred's Mountain Top Guest Facility is proposed for daytime use only; however, subtle low-lying light fixtures may be installed outside the facility for maintenance and to prepare for daily operations, which would primarily occur in the early morning. Implementation of the proposed lighting is not anticipated to be visible from surrounding views beyond the foreground. • Lights are proposed on Palmer's Raceway in conjunction with the proposed Palmer's Platter surface lift. Lighting fixtures may be visible from foreground, middleground (view 13), and background

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			background (views 3, 4, 6, 7, 20, 21, and 22) views to the west of the SUP area. Visibility of night lighting fixtures would not constitute a considerable change from current settings, including Dark Sky conditions in Driggs, as Palmer's Raceway is located adjacent to the GTR base area, which is already heavily developed and well lit.	background (views 3, 4, 6, 7, 20, 21, and 22) views to the west of the SUP area. Visibility of night lighting fixtures would not constitute a considerable change from current settings, including Dark Sky conditions in Driggs, as Palmer's Raceway is located adjacent to the GTR base area, which is already heavily developed and well lit.	middleground (view 13), and background (views 3, 4, 6, 7, 20, 21, and 22) views to the west of the SUP area. Visibility of night lighting fixtures would not constitute a considerable change from current settings, including Dark Sky conditions in Driggs, as Palmer's Raceway is located adjacent to the GTR base area, which is already heavily developed and well lit.	(views 3, 4, 6, 7, 20, 21, and 22) views to the west of the SUP area. Visibility of night lighting fixtures would not constitute a considerable change from current settings, including Dark Sky conditions in Driggs, as Palmer's Raceway is located adjacent to the GTR base area, which is already heavily developed and well lit.
	Quantification of the change in acreage of the existing condition meeting established VQOs from each visual simulation under each Action Alternative. *Qualitative analysis of the existing visual quality of the project area as compared to proposed scenic*	• Under the No Action Alternative there would be no scenery impact to views of the project area from the Town of Driggs, the Grand Teton, Table Mountain, and the Teton	• As illustrated in the visual simulation from Table Mountain (view 17), the proposed projects are hardly visible (refer to Figures 11a and 11b), altering approximately 1.3 percent of	• As illustrated in the visual simulation from Table Mountain (view 17), the proposed projects are hardly visible (refer to Figures 11a and 11b), altering approximately	• As illustrated in the visual simulation from Table Mountain (view 17), the proposed projects are hardly visible (refer to Figures 11a and 11b), altering approximately	• As illustrated in the visual simulation from Table Mountain (view 17), the proposed projects are hardly visible (refer to Figures 11a and 11b), altering approximately 1.3 percent of the overall view. The

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	integrity through application of visual simulations, including from the Teton Scenic Byway (SH 31 from Swan Valley to Victor; SH 33 from Victor to Tetonia; SH 32 from Tetonia to SH 47 at Ashton).	Canyon valley floor.	the overall view. The proposed South Bowl projects would introduce form (ski patrol facility), lines (lift line and ski terrain), and color (lift infrastructure and ski terrain) that are not presently common in South Bowl or the characteristic landscape. • As illustrated in the visual simulation from the Grand Teton Summit (view 5), the proposed projects are hardly visible (refer to Figures 10a and 10b), altering approximately 0.1 percent of the overall view. • As illustrated in the visual simulation from the Colter Building Rooftop (view 3), the proposed ski trails and lift	1.3 percent of the overall view. • As illustrated in the visual simulation from the Grand Teton Summit (view 5), the proposed projects are hardly visible (refer to Figures 10a and 10b), altering approximately 0.1 percent of the overall view. • As illustrated in the visual simulation from the Colter Building Rooftop (view 3), the proposed ski trails and lift corridors would add form, line, and texture to the characteristic landscape, altering approximately 0.4 percent of the overall view.	1.3 percent of the overall view. • As illustrated in the visual simulation from the Grand Teton Summit (view 5), the proposed projects are hardly visible (refer to Figures 10a and 10b), altering approximately 0.1 percent of the overall view. • As illustrated in the visual simulation from the Colter Building Rooftop (view 3), the proposed ski trails and lift corridors would add form, line, and texture to the characteristic landscape, altering approximately 0.4 percent of the overall view.	proposed South Bowl projects would introduce form (ski patrol facility), lines (lift line and ski terrain), and color (lift infrastructure and ski terrain) that are not presently common in South Bowl or the characteristic landscape. • As illustrated in the visual simulation from the Grand Teton Summit (view 5), the proposed projects are hardly visible (refer to Figures 10a and 10b), altering approximately 0.1 percent of the overall view. • As illustrated in the visual simulation from the Colter Building Rooftop (view 3), the proposed ski trails and lift corridors would add form, line, and texture to the characteristic

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			corridors would add form, line, and texture to the characteristic landscape, altering approximately 0.4 percent of the overall view. • As illustrated in the visual simulation prepared for the Teton Canyon Campground, the cat/construction maintenance access route is the most visible project from this viewpoint (refer to Figure 12b); however, the project only alters approximately 0.6 percent of the total view. Visual impacts associated with the proposed South Bowl projects would likely become more apparent in some locations when hiking to and from Teton Canyon			landscape, altering approximately 0.4 percent of the overall view. • As illustrated in the visual simulation prepared for the Teton Canyon Campground, the cat/construction maintenance access route is the most visible project from this viewpoint (refer to Figure 12b); however, the project only alters approximately 0.6 percent of the total view. Visual impacts associated with the proposed South Bowl projects would likely become more apparent in some locations when hiking to and from Teton Canyon Campground and Table Mountain.

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			Campground and Table Mountain.			
Noise Construction and operation of the proposed projects could affect noise levels in the study area.	*Qualitative discussion of major noise sources, both direct and indirect, and sensitive receptors in the study area and impacts associated to the Action Alternatives.*	• Within the SUP boundary, operation of chairlifts, dining facilities, and general guest activity contribute to typical noise levels at GTR • In the base area, people gathering, dining facilities, ticket offices, retail and rental shops, concerts or music, and nearby traffic contribute to noise levels • The Jedediah Smith Wilderness (JSW) borders the GTR SUP boundary, and winter and summer operations generate noise that can travel over this shared boundary	• In addition to the noise sources discussed in the No Action Alternative, the Proposed Action would have noise sources in the Summer Activity Zone, the Mono Trees area, and South Bowl • Additional noise sources include increased guest activity in the Summer Activity Zone, recreation infrastructure and activity in Mono Trees, and recreation activity and infrastructure (such as avalaunchers) in South Bowl • Construction of proposed projects would generate an additional noise ranging from diesel trucks to	• Major noise sources and sensitive receptors would be the same as the Proposed Action except for the Mono Trees and South Bowl areas	• Major noise sources and sensitive receptors would be the same as the Proposed Action except for the Mono Trees area	• Major noise sources and sensitive receptors would be the same as the Proposed Action except for the South Bowl area

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			heavy machinery (e.g. helicopter, chainsaws)			
	Qualitative discussion of existing noise levels in the study area and changes incurred as a result of the Action Alternatives.	• Existing noise levels range from a quiet rural area (25 to 30 dBA) in undeveloped areas of the terrain network to a level similar to a snowmobile at a distance of 25 feet (100 dBA) in areas where heavy equipment including snowmobiles, snowcats, and chairlifts may dominate the soundscape during operating hours	• Noise within and adjacent to the proposed and expanded GTR SUP boundary would be generated from similar sources as the No Action Alternative. Operation of proposed projects are not anticipated to result in considerable increases in noise levels within and adjacent to the GTR SUP area. • Construction of the proposed projects would result in a temporary increase in noise levels adjacent to the GTR SUP boundary			
	Quantitative and qualitative description of potential noise-related impacts associated with construction and operation of the proposed projects (e.g., use of heavy equipment and helicopters for construction, potential use of avalanche mitigation equipment	• No projects are proposed under the No Action Alternative, therefore there would be no noise-related impacts as a result of construction and operation of proposed projects	• The Proposed Action would cause an incremental increase in noise that would be diluted as a majority of the proposed activities would disperse users throughout the SUP area and	• Construction and operation impacts would be identical to those described under the Proposed Action, however, would exclude construction and operation impacts described in the	• Construction and operation impacts would be identical to those described under the Proposed Action, however, would exclude construction and operation impacts	• Construction and operation impacts would be identical to those described under the Proposed Action, however, would exclude construction and operation impacts described in the South Bowl area

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	during operation, traffic-related noise, concert and restaurant noise), including to the adjacent Jedediah Smith Wilderness as compared to existing conditions.		are not concentrated in areas already characterized by loudness like the base area • The extension of the SUP boundary into the Mono Trees area and associated projects that would be constructed in this area would alter the existing soundscape of these NFS lands • The extension of the SUP boundary into the South Bowl area would alter the existing soundscape of these NFS lands to a greater extent than in Mono Trees through the use of avalaunchers for avalanche mitigation, which would create temporary disturbances to the soundscape similar to the	Mono Trees and South Bowl areas	described in the Mono Trees area	

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			noise levels of thunder • Construction of proposed projects include the use of heavy machinery (such as helicopters) could increase noise levels up to 120 dBA. These impacts would be short-term and would cease upon completion of the project • It is likely that with the construction of the Fred's Mountain Top guest facility and avalanche control in South Bowl, there would be impacts to the JSW soundscape in areas of the wilderness proximate to the existing and proposed GTR SUP boundary. However, it is not anticipated that this would measurably			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			impact the overall soundscape of the JSW			
Socioeconomics Implementation of the proposed projects could potentially alter certain socioeconomic characteristics of Teton County, Idaho and Teton County, Wyoming due to additional visitation and employees and their impacts within the community.	*Quantitative analysis of potential effects to socioeconomic factors in the study area, including: population, employment (part-time seasonal employment vs. full-time equivalents), City/County tax revenue, housing, affordable housing, wages, schools, use of public/social services, public transportation and infrastructure, and visitor spending as compared to existing conditions.*	• **Population:** Population growth in each of the study area counties is predicted to continue through 2029 at rates close to 1 percent • **Schools, use of public/social services:** Demands for human and social services such as schools, emergency services, and public transportation would increase commensurate with the increase in visitors and FTEs projected under each alternative. Impacts would likely be greatest in Teton County, ID as that is where much of the regional workforce related to GTR visitation currently reside. • **Public transportation and infrastructure:** The administrative route network, transportation system, and other public infrastructure throughout the study area would be utilized by both GTR's new visitors and new residents who move to the study area to fill the FTEs projected under each alternative and are expected to commensurate with the level of increased visitor spending and FTEs projected under each alternative. • **Housing, affordable housing:** Refer to housing discussion below for housing impacts				
		• An additional 233 FTEs in winter and 35 FTEs in summer • Approximately $10.3 million in total annual labor income • Approximately $5 million total annual tax impacts • Approximately $19.6 million in total annual visitor spending	• An additional 597 FTEs in winter and 108 FTEs in summer • Approximately $27.5 million in total annual labor income • Approximately $13.2 million total annual tax impacts • Approximately $52.5 million in total annual visitor spending	• An additional 327 FTEs in winter and 108 FTEs in summer • Approximately $16.7 million in total annual labor income • Approximately $8 million total annual tax impacts • Approximately $32 million in total annual visitor spending	• An additional 476 FTEs in winter and 108 FTEs in summer • Approximately $22.7 million in total annual labor income • Approximately $10.8 million total annual tax impacts • Approximately $43.4 million in total annual visitor spending	• An additional 444 FTEs in winter and 108 FTEs in summer • Approximately $21.4 million in total annual labor income • Approximately $10.3 million total annual tax impacts • Approximately $40.9 million in total annual visitor spending

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	Qualitative and quantitative discussion of available housing and affordable housing in the study area during both the winter and summer seasons, including designated employee housing and short-term rentals and analysis of expected impacts as a result of the Action Alternatives.	• Teton County, ID and Teton County, WY currently experience more severe housing shortages and affordability issues than Madison and Bonneville counties • Additional FTEs under all alternatives would contribute to the lack of affordable housing • Increased visitation at GTR under all alternatives is likely to increase demand for short-term rentals and vacation homes, further straining housing availability and affordability • Under all alternatives, employee housing needs are expected to increase the demand for both public affordable housing and private employee housing units. GTR would need to continue to implement employee housing projects as its staffing needs to grow.				
	Qualitative and quantitative discussion of county funding and tax revenues in the study area and how they are expected to change or stay the same as a result of the Action Alternatives.	• County tax revenues and funding sources include property taxes, sales and use tax, and federal land payments • Federal land payments to counties ranged from approximately $201,000 to $2.8 million from the Forest Service, BLM, USFWS Refuse Payments, and Payment in Lieu of Taxes (PILT) • County tax revenues range from approximately $18 to $106 million in the study area counties • County tax revenues remain relatively consistent across the economic impact model for each alternative, with approximately 65 percent of the county tax revenues accruing to Teton County, WY and the remaining 35 percent accruing to the three Idaho counties				
	Qualitative discussion of the values, beliefs and attitudes about the quality of life within the study area and how they are expected to change or stay the same as a result of the Action Alternatives.	• Values, beliefs, and attitudes about the quality of life within the study area included social services, income disparity, affordable housing, and real estate • Ambient population growth in the study area will likely have impacts on affordable housing and staffing shortages • Visitation growth at GTR may have both positive and detrimental effects to local quality of life, with additional recreation opportunities and new businesses or business types made viable, along with challenges around the elements listed above				
Traffic and Parking The action alternatives may generate additional	*Quantification of baseline and estimated traffic volumes under the action alternatives in the study area as related to GTR's*	• On a winter CCC day, there would be an estimated 1,660 vehicles seeking to access the	• Under the Proposed Action, there would be 2,790 vehicles seeking to access the resort	• Under Alternative 3, there would be 2,210 vehicles seeking to access the resort on a winter CCC	• Under Alternative 4, there would be 2,480 vehicles seeking to access the	• Under Alternative 5, there would be 2,540 vehicles seeking to access the resort on a winter CCC day,

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daily/seasonal visitation, thereby affecting traffic and parking within the study area.	*operations, during winter and summer months including estimated traffic generated by timber removal and construction activities.*	resort, resulting in 3,320 total vehicle trips (two-way). • Summer visitation is expected to increase to 1,010 guests per busy day from existing conditions in summer 2033 (26 percent increase) as the parking and other facilities have additional capacity to allow busy day visitation to continue to grow in the summer. Summer busy day traffic volumes are anticipated to increase to 620 vehicles accessing the resort (1,240 vehicle trips two-way). • Traffic conditions vary throughout the study area and by time of year. There are potential declines in vehicle speed or delays at the	on a winter CCC day, 1,130 additional vehicles when compared to 1,660 under the no action alternative (when the CCC is 3,720) • On a summer busy day, there would be 960 vehicles accessing the resort, which is 340 vehicles beyond the forecast for the No Action Alternative. • Potential increases in busy day visitation in the winter results in a 1 to 68 percent increase in traffic volume on the roads accessing the resort, with the highest increase at the resort entrance and on Ski Hill Road in Driggs, at or below 8 percent for all other roadways, and the lowest percent increase	day, 550 additional vehicles when compared to the existing condition and no action alternative • Potential increases in busy day visitation in the winter results in a 1 to 33 percent increase in traffic volume on the roads accessing the resort, with the highest increase at the resort entrance and on Ski Hill Road in Driggs and at or below 4 percent for all other roadways, with the lowest increase on SH 31. • Potential increases in summer busy day traffic volumes would be the same as described under the proposed action. • Similar to the proposed action, proposed	resort on a winter CCC day, 820 additional vehicles when compared to the existing condition and no action alternative • Potential increases in busy day visitation results in a 1 to 49 percent increase in traffic volume on the roads accessing the resort, with the highest percent increase at the resort entrance and on Ski Hill Road in Driggs, at or below 5 percent for all other roadways, and the lowest increase on SH 31. • Potential increases in summer busy day traffic volumes would be the same as described under	880 additional vehicles when compared to the existing condition and no action alternative • Potential increases in summer busy day traffic volumes would be the same as described under the proposed action. • Similar to the proposed action, proposed projects under Alternative 5 could increase the number of vehicles traveling on roadways accessing GTR; therefore, implementation of the action alternatives could contribute to the back-up in Driggs and at the resort on busy days • Under Alternative 5, 2,699 truck trips are anticipated for tree removal from GTR. An additional 8,000

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		resort entrance on winter CCC days, and on SH 33 south of Driggs and Victor on busy summer Saturdays, and on WY-22 during all periods • Under the No Action Alternative, roadways included in the analysis are expected to decrease by a half or whole LOS grade from existing conditions except for Ski Hill Road at GTR by the 2032/2033 season • There would be no traffic generated by timber removal and construction activities because the proposed projects would not be constructed under Alternative 1	on SH 31 at Swan Valley • Potential increases in summer busy day visitation results in a 0.4 to 54 percent increase in traffic volume on the roads accessing the resort, with the highest increase at the resort entrance, 7 percent for Ski Hill Road in Driggs, and at or below 2 percent for all other counters • No change in LOS is anticipated for roadways other than at the resort entrance associated with the implementation of the Proposed Action. GTR would need to continue to employ a variety of strategies to manage transportation demand.	projects under Alternative 3 could increase the number of vehicles traveling on roadways accessing GTR; therefore, implementation of the action alternatives could contribute to the back-up in Driggs and at the resort on busy days • Under Alternative 3, 1,718 truck trips are anticipated for tree removal from GTR. An additional 5,000 truck trips are anticipated for construction and staging of projects (non-tree removal), for a total of 6,718 truck trips. The construction of proposed infrastructure included in the alternative is planned to take place over 5-7 years. This likely	the proposed action • Similar to the proposed action, proposed projects under Alternative 4 could increase the number of vehicles traveling on roadways accessing GTR; therefore, implementation of the action alternatives could contribute to the back-up in Driggs and at the resort on busy days • Under Alternative 4, 1,953 truck trips are anticipated for tree removal from GTR. An additional 8,000 truck trips are anticipated for construction and staging of projects (non-tree removal), for a total of 9,953 truck trips. The	truck trips are anticipated for construction and staging of projects (non-tree removal), for a total of 10,699 truck trips. The construction of proposed infrastructure included in the alternative is planned to take place over 6-8 years. This likely results in 10-20 timber and other construction trips per day on average during the summer. The trips would be a temporary increase to traffic, during the summer when winter ski traffic is not present, and therefore, the impacts to roadway traffic would be minor.

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			• Under this alternative, 2,933 truck trips are anticipated for tree removal from GTR. An additional 10,000 truck trips are anticipated for construction and staging of projects (non-tree removal). The construction of proposed infrastructure included in the alternative is planned to take place over the 10-year summer construction period. This likely results in 10-20 timber and other construction trips per day on average during the summer. The trips would be a temporary increase to traffic, during the summer when winter ski traffic is not present and resulting in	results in 10-15 timber and other construction trips per day on average during the summer. The trips would be a temporary increase to traffic, during the summer when winter ski traffic is not present, and therefore, the impacts to roadway traffic would be minor.	construction of proposed infrastructure included in the alternative is planned to take place over 6-8 years. This likely results in 10-20 timber and other construction trips per day on average during the summer. The trips would be a temporary increase to traffic, during the summer when winter ski traffic is not present, and therefore, the impacts to roadway traffic would be minor.	

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			minor impacts to the roadways.			
	Qualitative and quantitative discussion of existing parking as compared to the expected need of parking under the Action Alternatives to determine if existing available parking is sufficient to service parking needs associated with implementation of the action alternatives. Including discussion of the potential need for offsite parking and an expanded shuttle service to accommodate existing and proposed parking demand. The analysis would rely upon existing parking data collected/maintained by GTR.	• GTR has four parking lots for public skier use. There are approximately 1,455 parking spaces in the winter when snow storage is occurring. During the summer, an estimated 70 additional parking spaces are available. • On winter days when visitation is at CCC, a small surplus of 30 spaces is anticipated on days when visitation approximates CCC in the winter, forecasted for the 2032/33 season • During the summer, there would be a strong surplus of available parking spaces even for the busier days	• Under the Proposed Action, an additional 957 vehicles would seek to park at one time at the resort on a winter CCC day, beyond the number seeking to do so under the No Action Alternative. This results in a total at-one-time parking demand of 2,382 vehicles on a day when visitation is at the CCC (6,170 guests). This would create a deficit of 927 spaces with 1,455 spaces available. • During the summer, an additional 333 vehicles would seek to park at one time at the resort on a busy summer day. There would still be a strong	• Under Alternative 3, an additional 452 vehicles would seek to park at one time at the resort on a winter CCC day, beyond the number seeking to do so under the No Action Alternative. This results in a total at-one-time parking demand of 1,877 vehicles on a day when visitation is at the CCC (4,910 guests). This would create a deficit of 422 spaces with 1,455 spaces available. • Summer conditions would be the same as described under the proposed action	• Under Alternative 4, an additional 684 vehicles would seek to park at one time at the resort on a winter CCC day, beyond the number seeking to do so under the No Action Alternative. This results in a total at-one-time parking demand of 2,109 vehicles on a day when visitation is at the CCC (5,480 guests). This would create a deficit of 654 spaces with 1,455 spaces available. • Summer conditions would be the same as described under the proposed action	• Under Alternative 5, an additional 744 vehicles would seek to park at one time at the resort on a winter CCC day, beyond the number seeking to do so under the No Action Alternative. This results in a total at-one-time parking demand of 2,169 vehicles on a day when visitation is at the CCC (4,910 guests). This would create a deficit of 714 spaces with 1,455 spaces available. • Summer conditions would be the same as described under the proposed action

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			surplus of available parking spaces (572) under the existing supply of parking in the summer.			
Cultural Resources Construction of the proposed projects and associated ground disturbance both within existing SUP area and the proposed SUP expansion area, may affect previously unidentified cultural and heritage resources in the Area of Potential Effect (APE).	*Documentation of the presence (or absence) of identified cultural/heritage resources within the APE including a qualitative discussion of expected impacts as the result of the Action Alternatives.*	• The cultural resource Class III inventory covered 1,586 acres, and resulted in the recordation of 11 cultural resources, including 10 sites (eight historic and two precontact) and one precontact isolated find within the APE. Historic resources include a mid-20th century automobile road (the original and still operable entry road to GTR); a hiking trail; GTR Original Ski Area Buildings; and EuroAmerican Historic arborglyphs.	• Impacts would be the same as the No Action Alternative, as well as the potential impact to several sites specifically in the Mono Trees Area, including sites containing arborglyphs and sites that are recommended uneligible and enevaluated for the National Register.	• Impacts would be the same as under the No Action Alternative	• Impacts would be the same as the No Action Alternative, as well as impacts to a historic trail within the South Bowl Area.	• Impacts would be the same as the Proposed Action, with the exception of impacts to the historic trail in the South Bowl Area.

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		Specifically, the Sioux Lodge, East Alta Ski Hill Road, and the Nature Center are all eligible for the National Register. It is recommended that a lithic scatter site has further testing before development occurs to determine eligibility.				
	Documentation of impacts to any eligible National Register of Historic Places (NRHP) sites including a qualitative discussion of expected impacts as the result of the Action Alternatives.	• Under the No Action Alternative, activities at GTR would essentially be a continuation of existing conditions. No new development projects either within GTR's existing or proposed SUP expansion area would occur. Therefore, the implementation of the No Action Alternative would not change or	• Under all Action Alternatives, there would be no impacts to eligible NRHP sites including the Sioux Lodge, East Alta Ski Hill Road, or the Nature Center. Although no eligible NRHP sites would be impacted, it is recommended that a lithic scatter site located within the Mono Trees SUP expansion area has further testing done to determine eligibility. Several non-eligible sites are impacted by the Action Alternatives, please refer to Section 3.6 – Cultural Resources for more information.			

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		alter the significant characteristics of or the integrity of cultural resources within the project area.				
Public Safety Implementation of proposed projects could affect public safety in the study area by altering avalanche mitigation protocols.	*Description of the existing level of avalanche danger and avalanche mitigation protocols in the South Bowl area based on existing data, including discussion of the role of solar aspects in avalanche danger and comparison of changes to the level of avalanche danger and avalanche mitigation protocols under the Action Alternatives.*	• In the northern hemisphere, north- and east-facing slopes receive less solar exposure than south- and west-facing slopes and are more prone to slab avalanches due to weaker slab layers beneath the surface • Slopes between 30 and 45 degrees and above are most prone to avalanches, particularly if there are buried weak layers in the snowpack • The GTR SUP area exists primarily on a west-facing slope. The area has steep terrain prone to avalanches, however, ski patrol management and monitoring efforts mitigate avalanche risks to skiers in the resort • The South Bowl area has a south-facing aspect and slopes that range from 30 to over 60 degrees. It is prone to avalanches due to its steep slope and snow cover • The existing Mono Trees has low avalanche risk and is not a popular backcountry skiing area • Under the No Action Alternative, South Bowl would not be included in the ski area boundary, and the same risks would persist in the area • It is anticipated that as participation in backcountry recreation continues to grow, additional guests of GTR would venture	• Under Alternative 2, incorporating South Bowl into the GTR SUP boundary would significantly reduce avalanche risk to skiers in the area and would allow more skiers to utilize the unique terrain in South Bowl without as great of a risk • With the incorporation of South Bowl and Mono Trees	• Under Alternative 3, South Bowl would not be included in the ski area boundary, and the same risks would persist in the area • It is anticipated that as participation in backcountry recreation continues to grow, addition guests of GTR would venture into South Bowl	• Under Alternative 4, South Bowl would be included in the GTR SUP boundary. This would significantly reduce avalanche risk to skiers in the area and would allow more skiers to utilize the unique terrain in South Bowl without as great of a risk	• Under Alternative 5, South Bowl would not be included in the ski area boundary, and the same risks would persist in the area • With the incorporation of the Mono Trees area into the GTR SUP boundary, ski patrol operations would expand 600 acres to include this terrain but would

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		into South Bowl from the gates on Peaked Mountain, which may result in increased avalanche accidents and injuries	areas into the GTR SUP boundary, ski patrol operations would expand 866 acres to include these areas • The Proposed Action includes the construction of an additional ski patrol facility located at the top of the South Bowl lift to serve the area • Safety practices to mitigate avalanche terrain in the South Bowl area would include the use of avalaunchers to disrupt unstable snowpack, bootpacking applicable terrain, adding two rescue caches, providing adequate signage to inform users of avalanche hazards, and the use of machinery	from the gates on Peaked Mountain, which may result in increased avalanche accidents and injuries	• With the incorporation of the South Bowl area into the GTR SUP boundary, ski patrol operations would expand 266 acres to include this area • Refer to discussion under Alternative 2 for a description of changes to avalanche danger and mitigation protocols	not include South Bowl terrain • It is anticipated that as participation in backcountry recreation continues to grow, addition guests of GTR would venture into South Bowl from the gates on Peaked Mountain, which may result in increased avalanche accidents and injuries

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			such as winch snow cats to pack and groom the snow • The Proposed Action also includes the installation of two avalaunchers and a bomb cache at the base of the South Bowl lift, two rescue caches within the South Bowl area, and one rescue cache outside of the existing and proposed SUP boundaries to help search and rescue efforts			
	Discussion of potential changes in demand on emergency service providers resulting from potential expansion in South Bowl and Mono Trees (in response to concerns from the Sheriff's department about the displacement of users into new and more distant areas beyond the existing operational boundary).	• Ski patrol facilities and the extent of their operations would largely remain the same as existing conditions • It is likely that the anticipated increase in backcountry use in South Bowl would increase the strain on TCSAR and	• The proposed South Bowl area that would be incorporated into the GTR SUP boundary under Alternative 2 would be managed primarily by GTR ski patrol and would largely reduce the needs of emergency	• Similar to the No Action Alternative, it is likely that the anticipated increase in backcountry use in South Bowl would increase the strain on TCSAR and Teton County, ID Fire and Rescue • Due to the proposed	• Changes in demand on emergency service providers would be nearly the same as that described under Alternative 2	• Changes in demand on emergency service providers would be nearly the same as that described under Alternative 3

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		Teton County, ID Fire and Rescue. These services may need to respond to more backcountry incidents in South Bowl as participation in backcountry recreation increases commensurate with existing trends	services in South Bowl as a whole • Alternative 2 could also contribute to challenges for emergency services by: increasing the ease of access into adjacent backcountry areas, displacing skiers who currently frequent the South Bowl area, and increasing guest capacity at the resort • The impacts listed above may require emergency response in areas farther from the resort and increase the need for services in the area as well	projects under Alternative 3, there would be a greater increase in guest capacity at GTR than in the No Action Alternative which may increase the number of guests accessing adjacent backcountry terrain, creating additional challenges for emergency services • It is anticipated that ski patrol operations would more frequently need to extend to adjacent backcountry to support local emergency services as participation in backcountry recreation increases consistent with current trends		
Wilderness Implementation of the proposed	*Qualitative analysis of potential impacts of the proposed projects on the wilderness character*	• Ambient visitation growth consistent with ski industry	• An increase in access to the JSW is expected	• Alternative 3 would have similar impacts as Alternative 2;	• Alternative 4 would have similar impacts as Alternative 2.	• Alternative 5 would have similar impacts as Alternative 2, but

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
projects could impact the Jedediah Smith Wilderness.	*and wilderness characteristics (untrammeled; natural; undeveloped; outstanding opportunities for solitude or a primitive and unconfined type of recreation) of the Jedediah Smith Wilderness. Discuss particularly visual impacts, increased access and use, construction (including increased noise) and avalanche mitigation.*	trends is anticipated • Avalaunchers currently create noise that ranges from a quiet rural area to a snowmobile at a distance of 25 feet (100 dBA) • There would be no effect on the wilderness characteristics of untrammeled, undeveloped, natural, or opportunities for solitude or primitive and unconfined recreation	during the non-winter months • Avalaunchers would create short-term disturbances to the soundscape of the JSW that would resemble a range from noise level of a quiet rural area (24 to 20 dBA) to thunder (120 dBA) • The use of helicopters and chainsaws to construct the project could impact the soundscape of the JSW in the short-term, with noise ranging from 80 dBA to 120 dBA • There would be minorly adverse impacts on the untrammeled characteristic as there is a possibility of increased use in both the winter and summer as the proposed lifts	however, to a lesser extent as no SUP expansions are included • Alternative 3 would have similar impacts to wilderness characteristics untrammeled and undeveloped. However, could have a similar but lesser effect on natural and opportunities for solitude or primitive and unconfined type of recreation as projects would just occur within the existing SUP and South Bowl and Mono Trees would not be expanded.		to a lesser extent, due to no South Bowl expansion. Specifically, there would be no effect to the natural characteristic of the JSW as Mono Trees is spatially separated from the JSW.

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			and Fred's Mountain Top Guest Facility provide proximal access to the JSW • There would be no effect on the undeveloped characteristic • There would be minorly adverse impacts on the natural characteristic as Alternative 2 has the potential to directly and indirectly impact both grizzly bear and bighorn sheep habitat. • There would be short-term and long-term minorly adverse impacts on opportunities for solitude or primitive and unconfined type of Recreation as the soundscape of the JSW would be impacted from construction and operations.			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			Long-term impacts from operation of Fred's Mountain Top Guest Facility, Dreamcatcher lift, South Bowl lift, Crazy Horse lift, and mountain biking trails may create minorly adverse visual impacts for users of the JSW as facilities and operations, towers, and chairs would be visible from Mary's Saddle trail and the northeast side of Fred's Mountain. • PDC would be incorporated to mitigate impacts to the JSW, like prohibiting overnight backpacks on lifts that provide access to the JSW.			
Livestock and Grazing	*Identification of the relevant grazing allotment units in the study area: Leigh Creek*	• The Mill Creek/Teton Allotment intersects the existing GTR SUP boundary and the proposed South Bowl and Mono Trees areas. All other nearby allotments would not be impacted by the proposed projects.				

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The proposed projects could potentially alter grazing allotment units within the area of the proposed SUP expansion.	*and Mill/Teton allotments; Fred's Mountain and Mill Creek pastures.*					
	Narrative description of existing grazing patterns within and around GTR's proposed SUP area.	• The Mill Creek/Teton Allotment allows grazing between June and September with a three-pasture rotation • Only summer operations create opportunities for direct interactions between recreationists and livestock; a cattleguard is maintained by permittees and GTR in order to reduce conflict				
	Qualitative analysis of potential changes to grazing patterns in the area of the proposed SUP expansion, and identification of potential conflict between permit holders in the study area.	• Existing livestock grazing permits and permittees and allotments would not change. Land uses authorized to these permittees would be subject to Forest Service terms and both permittees would continue to work out management strategies that best suit the coexistence of both land uses.	• The SUP expansion into Mono Trees and South Bowl would increase the area in which the Mill Creek/Teton Allotment intersects with the resort boundary • Livestock and grazing would be impacted through the densification of summer recreational opportunities that would occur under the Proposed Action as there would be a higher likelihood for direct interactions between	• Alternative 3 does not include an expansion to the SUP boundary • Livestock and grazing impacts would be identical to those in the Proposed Action except for the impacts from construction and operations in Mono Trees and South Bowl	• The SUP expansion into South Bowl would increase the area in which the Mill Creek/Teton Allotment intersects with the resort boundary • Livestock and grazing impacts would be identical to those in the Proposed Action except for the impacts from construction and operations in Mono Trees	• The SUP expansion into Mono Trees would increase the area in which the Mill Creek/Teton Allotment intersects with the resort boundary • Livestock and grazing impacts would be identical to those in the Proposed Action except for the impacts from construction and operations in South Bowl

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			recreationists or summer maintenance crews and livestock • Development of ski terrain, administrative routes, and trails may change the vegetation and create routes that are attractive to livestock, primarily in the Mono Trees area • An increase in visitor traffic on Ski Hill Road, which is within the Mill Creek / Teton allotment and is often crossed by grazing cattle, may have an impact on livestock and grazing patterns and feasibility • Construction activity as a result of proposed projects, specifically in the Mono Trees and			

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			South Bowl areas, would temporarily impact livestock and grazing permittees and could change grazing patterns while it occurs • Project Design Criteria has been added to address potential conflict between GTR and livestock and grazing permittees			
Air Quality Construction and operation of the proposed projects (including short-term construction-related activity, burning, and transportation related to timber removal) could result in localized impacts to air quality.	*Narrative description of existing air quality in the study area, including population centers and Class I and Class II airsheds in the vicinity and associated impacts as a result of the Action Alternatives.*	• Population centers in the vicinity of the study area are Jackson, WY (25 miles) and Idaho Falls, ID (60 miles) • Class I airsheds in the vicinity of the study area are Grand Teton National Park (3.5 miles), Yellowstone National Park (20 miles), Teton Wilderness (20 miles), Washakie Wilderness (55 miles), Bridger Wilderness (60 miles), Fitzpatrick Wilderness (60 miles), and the North Absaroka Wilderness (60 miles) • Class II airsheds in the vicinity of the study area are the Jedediah Smith Wilderness (bordering SUP boundary) and the Gros Ventre Wilderness (20 miles) • In the last 10 years, the air quality index (AQI) in Jackson, WY and Idaho Falls, ID has been primarily “good” to “moderate” with rare events of “unhealthy” days that are likely attributable to wildfire smoke. SO2, PM10, and PM2.5 measurements in population centers have remained below NAAQS between 2019-2021 except for two wildfire events in the summers of 2020 and 2021, which caused spikes in PM2.5 concentrations. • NO2, CO, PM10, PM2.5, and ozone in Grand Teton National Park and Yellowstone National Park have remained below NAAQS values between 2019-2021 • GTR power is primarily driven by renewable sources, thus does not measurably contribute to the emission of CO_2 and CH_4 • All Action Alternatives are anticipated to have little or negligible impact on air quality in the region, are not likely to increase emissions above NAAQS, and only result in negligible impacts to emissions			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	Estimated daily increase in vehicle miles associated with the estimated increase in annual visitation.	• Vehicle miles were calculated based on the visitor origin data, lodging occupancy and location, transit ridership, and estimated average vehicle occupancy (2.5 guests/vehicle) • It was estimated that the average winter visitor travels over 60 miles per ski day; the average summer visitor travels almost 80 miles per day • Under the No Action Alternative, winter visitation is expected to increase by 225 people per day on average and summer visitation is expected to increase by 100 people per day on average, when compared to the existing condition	• The Proposed Action is estimated to generate approximately an additional 800 visitors on average per day during the winter season and an additional 450 on average during the summer season, when compared to the existing condition • Average vehicle miles per skier visit is anticipated to increase slightly to reflect more visitors coming from further away. • Total vehicle miles on an average winter day would increase by approximately 59,000 from the existing condition; on an average summer day, vehicle miles traveled would increase by approximately	• Under Alternative 3, it is anticipated that winter visitation would increase by approximately 380 people per average day and summer visitation would increase by 450 people per day on average (same as Proposed Action), compared to the existing condition • Average vehicle miles per skier visit is anticipated to increase slightly from existing conditions to reflect more visitors coming from further away • Total vehicle miles on an average winter day under Alternative 3 would increase by approximately 27,000 from the existing condition; average summer	• Under Alternative 4, it is anticipated that winter visitation would increase by approximately 600 people per average day and summer visitation would increase by 450 people per day on average (same as Proposed Action), compared to the existing condition • Average vehicle miles per skier visit is anticipated to increase slightly from existing conditions to reflect more visitors coming from further away • Total vehicle miles on an average winter day under Alternative 4 would increase by approximately	• Under Alternative 5, it is anticipated that winter visitation would increase by approximately 550 people per average day and summer visitation would increase by 450 people per day on average (same as Proposed Action) , compared to the existing condition • Average vehicle miles per skier visit is anticipated to increase slightly from existing conditions to reflect more visitors coming from further away. • Total vehicle miles on an average winter day under Alternative 5 would increase by approximately 41,000 from the existing condition; average summer day miles are estimated to be

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		• Total vehicle miles on an average winter day under the No Action Alternative would increase by approximately 16,000 from the existing condition; on an average summer day, vehicle miles traveled would increase by approximately 7,000 from the existing condition	34,000 from the existing condition	day miles are estimated to be approximately the same as the Proposed Action	45,000 from the existing condition; average summer day miles are estimated to be approximately the same as the Proposed Action	approximately the same as the Proposed Action
	Narrative discussion of timber removal techniques (e.g., burning) and their potential effect on air quality in the region under existing conditions and as the result of the Action Alternatives.	• The No Action Alternative would not include timber removal and thus would not contribute to air quality impacts as a result of timber removal	• In gladed ski areas that require tree removal, trees would either be removed over the snow and using mountain administrative route networks or hand cut, piled, and burned • Burning would result in the short-term release of pollutant emissions, limited to the duration of the burn itself and is	• Refer to the discussion under the proposed action on the impacts resulting from timber removal techniques	• Refer to the discussion under the proposed action on the impacts resulting from timber removal techniques	• Refer to the discussion under the proposed action on the impacts resulting from timber removal techniques

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			unlikely to result in regional or Class I or II areas air quality degradation • Some tree removal methods (i.e. use of heavy machinery and logging trucks) would generate temporary pollutant emissions during construction. These emissions are included in the construction impacts quantitative analysis			
	Quantitative analysis of short- and long-term emissions due to construction and operation of the projects.	• Without construction of proposed projects, heavy machinery and additional construction vehicles at GTR would not be used and would not generate emissions contributing to air quality. • Activity at the ski area in the long-term, such as	• Construction would require the use of trucks and heavy machinery for tree removal, construction, staging, and installation of proposed infrastructure • Combined impacts from on-road and off-road construction activity would result in temporary	• Construction would require the use of trucks and heavy machinery for tree removal, construction, staging, and installation of proposed infrastructure • Combined impacts from on-road and off-road construction activity would result in temporary	• Construction would require the use of trucks and heavy machinery for tree removal, construction, staging, and installation of proposed infrastructure • Combined impacts from on-road and off-road construction	• Construction would require the use of trucks and heavy machinery for tree removal, construction, staging, and installation of proposed infrastructure • Combined impacts from on-road and off-road construction activity would result in temporary

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		visitor traffic/emissions, is expected to increase in coming years, resulting in increases in CO, NOx, and CO2 emissions from vehicles • CO2 emissions as a result of the No Action Alternative would increase by approximately 8 tons per day in the winter and 3.5 tons in the summer • Increases in CO2 emissions would contribute to an increase of less than 0.1 percent of highway vehicle and CO_2 and CH_4 emissions in the transportation sector in Wyoming, which is not likely to produce emissions that would increase concentrations above NAAQS	impacts to air quality, generating small amounts of CO and NOx (approximately 22 and 14 lbs per day, respectively) and approximately 2.5 tons of CO2 daily • Emissions of NAAQ pollutants as a result of construction activity would contribute to a negligible increase in off-highway vehicle emissions in Wyoming (0.1 percent or less) which are not likely to result in pollutant levels above the NAAQs • CO_2 and CH_4 emissions would contribute an increase of 0.1 percent or less of transportation emissions in Wyoming, which is not anticipated to contribute to a	impacts to air quality, generating small amounts of CO and NOx (approximately 13 and 8 lbs per day, respectively) and approximately 1.5 tons of CO2 daily • Similar to the proposed action, emissions of NAAQ pollutants and CO_2 and CH_4 as a result of construction activity would contribute to a negligible increase in off-highway vehicle emissions in Wyoming (less than 0.1 percent) and overall transportation CO_2 and CH_4 emissions in Wyoming (less than 0.1 percent) • Vehicular traffic due to an increase in visitation would be the primary contributor to air	activity would result in temporary impacts to air quality, generating small amounts of CO and NOx (approximately 17 and 11 lbs per day, respectively) and approximately 2 tons of CO2 daily • Similar to the proposed action, emissions of NAAQ pollutants and CO_2 and CH_4 as a result of construction activity would contribute to a negligible increase in off-highway vehicle emissions in Wyoming (less than 0.1 percent) and overall transportation CO_2 and CH_4 emissions in Wyoming (less	impacts to air quality, generating small amounts of CO and NOx (approximately 17 and 11 lbs per day, respectively) and approximately 2 tons of CO2 daily • Similar to the proposed action, emissions of NAAQ pollutants and CO_2 and CH_4 as a result of construction activity would contribute to a negligible increase in off-highway vehicle emissions in Wyoming (less than 0.1 percent) and overall transportation CO_2 and CH_4 emissions in Wyoming (less than 0.1 percent) • Vehicular traffic due to an increase in visitation would be the primary contributor to air quality as a result

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			degradation of air quality in the state or area • Vehicular traffic due to an increase in visitation would be the primary contributor to air quality as a result of operations under the proposed action • NAAQ pollutant emissions as a result of visitor vehicular traffic would contribute to an increase of less than 0.2 percent of highway vehicle emissions in Wyoming • CO_2 and CH_4 emissions as a result of winter visitor vehicle traffic is expected to produce approximately 30 tons of CO2 daily, which would contribute to an increase of less than 0.2	quality as a result of operations under Alternative 3, though at a lesser rate than in the proposed action • NAAQ pollutant emissions as a result of visitor vehicular traffic would contribute to an increase of 0.1 or less percent of highway vehicle emissions in Wyoming • CO_2 and CH_4 emissions as a result of winter visitor vehicle traffic is expected to produce approximately 14 tons of CO2 daily, which would contribute to an increase of less than 0.1 percent in daily CO2 emissions in the transportation sector in Wyoming	than 0.1 percent) • Vehicular traffic due to an increase in visitation would be the primary contributor to air quality as a result of operations under Alternative 4, though at a lesser rate than in the proposed action • NAAQ pollutant emissions as a result of visitor vehicular traffic would contribute to an increase of 0.1 or less percent of highway vehicle emissions in Wyoming. • CO_2 and CH_4 emissions as a result of winter visitor vehicle traffic is expected to produce approximately 23 tons of CO2	of operations under Alternative 5, though at a lesser rate than in the proposed action • NAAQ pollutant emissions as a result of visitor vehicular traffic would contribute to an increase of 0.1 or less percent of highway vehicle emissions in Wyoming • CO_2 and CH_4 emissions as a result of winter visitor vehicle traffic is expected to produce approximately 21 tons of CO2 daily, which would contribute to an increase of approximately 0.1 percent in daily CO2 emissions in the transportation sector in Wyoming • The increase in CO_2 and CH_4 emissions as a result of

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			percent in daily CO2 emissions in the transportation sector in Wyoming • The increase in CO_2 and CH_4 emissions as a result of the proposed action has the potential to impact air quality, however, the scale of the projects and their impacts on CO_2 and CH_4 emissions is not anticipated to considerably affect air quality in the area	• The increase in CO_2 and CH_4 emissions as a result of Alternative 3 has the potential to impact air quality, however, the scale of the projects and their impacts on CO_2 and CH_4 emissions is not anticipated to considerably affect air quality in the area	daily, which would contribute to an increase of approximately 0.1 percent in daily CO2 emissions in the transportation sector in Wyoming • The increase in CO_2 and CH_4 emissions as a result of Alternative 4 has the potential to impact air quality, however, the scale of the projects and their impacts on CO_2 and CH_4 emissions is not anticipated to considerably affect air quality in the area	Alternative 5 has the potential to impact air quality, however, the scale of the projects and their impacts on CO_2 and CH_4 emissions is not anticipated to considerably affect air quality in the area
Climate Change Construction and operation of the proposed projects (including short-term construction-related activity,	*Quantitative analysis of the potential contributions to climate change of short- and long-term emissions associated with construction and operation of the project*	• The impact of the activities at GTR such as visitor traffic/emissions, maintenance and operations, and water use to climate change	• Construction emissions are expected to be very small, only occurring in the short term until the projects are completed	• Effects would be similar to Alternative 2, but a slightly lesser effect overall.	• Effects are similar; however, Alternative 4 would have more effect as compared to Alternative 3,	• Effects would be similar to Alternative 4, with less of an effect as compared to Alternative

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
burning, and transportation related to timber removal) would result in CO_2 and CH_4 emissions. In addition, climate change has the potential to impact operation of the proposed projects.	*(to be captured in the Air Quality analysis and referenced as needed)*	would resemble current trends. No additional effects to emissions would occur	• Increase in visitation and vehicular traffic would have a long-term measurable impact on CO, NO_X, and CO_2, but would be less than 0.5 percent increase as compared to statewide emissions • Emissions from operations and summer visitation are not expected to generate substantial CO_2 and CH_4 emissions		but a lesser effect as compared to Alternative 2	
	Qualitative discussion of the impact of climate change on the operations of GTR and the proposed projects (in particular, the global warming trend could create operational difficulties for south-facing slopes and lower elevation ski terrain).	• Effects of climate change on operations at GTR would be consistent with current trends • GTR could experience changes in winter and summer temperatures; the timing and amount of precipitation that falls as snow; and the timing and duration of the winter season and snowmelt/runoff due to climate change • Current climate induced effects could continue and could affect snowmaking, visibility, visitation, and operations				

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Wildlife and Fish Implementation of the action alternatives could affect individuals, populations, and/or habitat values for federally-listed proposed, threatened, or endangered and/or Forest Service Region 4 sensitive (PTES) fish and wildlife species, migratory birds, and SOLC.	*Qualitative discussion of the presence/absence of federally listed and/or sensitive wildlife and fish species, migratory birds and SOLC in the study area, as well as species with the potential to occur in the study area and potential impacts on these species as a result of the Action Alternatives.*	• Table 3.13-1 describes the threatened, endangered, proposed, and candidate wildlife species with potential for habitat within the project area • Table 3.13-2 describes the Region 4 sensitive species with potential habitat in the project area • Existing habitat for SOLC species and migratory birds with potential to overlap the project area is included under their respective subheadings within Section 3.13.3 of the Final EIS				
		• *May affect, but is not likely to adversely affect* determination for Canada lynx, wolverine, and grizzly bear • *Not likely to jeopardize the continued existence of the species or result in destruction or adverse modification of propped critical habitat* determination for Monarch butterfly and suckley's cuckoo bumble bee • *May impact individuals or their habitat, but would not likely contribute to a trend toward federal listing or*	• Impacts are the same as the No Action Alternative except for the following: • *Not likely to jeopardize the continued existence of the species or result in destruction or adverse modification of proposed critical habitat* determination for monarch butterfly and suckley's cuckoo bumble bee • *May affect, but is not likely to adversely affect* determination for Canada Lynx • *May affect, and is likely to adversely affect* determination for	• Impacts are the same as the No Action Alternative except for the following: • *Not likely to jeopardize the continued existence of the species or result in destruction or adverse modification of proposed critical habitat* determination for monarch butterfly and suckley's cuckoo bumble bee • *May affect, but is not likely to adversely affect* determination for Canada Lynx and wolverine • *May affect, and is likely to adversely affect*	• Impacts are the same as the No Action Alternative except for the following: • *Not likely to jeopardize the continued existence of the species or result in destruction or adverse modification of proposed critical habitat* determination for monarch butterfly and suckley's cuckoo bumble bee • *May affect, but is not likely to adversely affect* determination for Canada Lynx • *May affect, and is likely to adversely affect* determination for	• Impacts are the same as the No Action Alternative except for the following: • *Not likely to jeopardize the continued existence of the species or result in destruction or adverse modification of proposed critical habitat* determination for monarch butterfly and suckley's cuckoo bumble bee • *May affect, but is not likely to adversely affect* determination for Canada Lynx and wolverine • *May affect, and is likely to adversely affect*

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		loss of population viability determination for bighorn sheep, great gray owl, boreal owl, flammulated owl, American goshawk, peregrine falcon, three-toed woodpecker, western toad, Columbia spotted frog, Yellowstone cutthroat trout, Townsend's big-eared bat, and western bumble bee.	grizzly bear and wolverine • *May impact individuals or their habitat, but will not likely contribute to a trend toward federal listing or loss of population viability* determination for bighorn sheep, great gray owl, boreal owl, flammulated owl, American goshawk, peregrine falcon, three-toed woodpecker, Columbia spotted frog, western toad, Yellowstone cutthroat trout, Townsend's big-eared bat, and western bumble bee. • *Would likely impact individuals, but not have significant impacts to the overall population*	determination for grizzly bear • *May impact individuals or their habitat, but will not likely contribute to a trend toward federal listing or loss of population viability* determination for bighorn sheep, great gray owl, boreal owl, flammulated owl, American goshawk, peregrine falcon, three-toed woodpecker, Columbia spotted frog, western toad, Yellowstone cutthroat trout, Townsend's big-eared bat, and western bumble bee. • *Would likely impact individuals, but not have significant impacts to the overall population*	grizzly bear and wolverine • *May impact individuals or their habitat, but will not likely contribute to a trend toward federal listing or loss of population viability* determination for bighorn sheep, great gray owl, boreal owl, flammulated owl, American goshawk, peregrine falcon, three-toed woodpecker, Columbia spotted frog, western toad, Yellowstone cutthroat trout, Townsend's big-eared bat, and western bumble bee. • *Would likely impact individuals, but not have significant impacts to the overall population*	determination for grizzly bear • *May impact individuals or their habitat, but will not likely contribute to a trend toward federal listing or loss of population viability* determination for bighorn sheep, great gray owl, boreal owl, flammulated owl, American goshawk, peregrine falcon, three-toed woodpecker, Columbia spotted frog, western toad, Yellowstone cutthroat trout, Townsend's big-eared bat, and western bumble bee. • *Would likely impact individuals, but not have significant impacts to the overall population*

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			determination for moose, mule deer, and elk. • *Impact individuals, but is not likely to impact at the population scale* determination for American pika, Pacific marten, and gray wolf. • *No Impact* determination for all other sensitive species.	determination for moose, mule deer, and elk. • *Impact individuals, but is not likely to impact at the population scale* determination for American pika, Pacific marten, and gray wolf. • *No Impact* determination for all other sensitive species.	determination for moose, mule deer, and elk. • *Impact individuals, but is not likely to impact at the population scale* determination for American pika, Pacific marten, and gray wolf. • *No Impact* determination for all other sensitive species.	determination for moose, mule deer, and elk. • *Impact individuals, but is not likely to impact at the population scale* determination for American pika, Pacific marten, and gray wolf. • *No Impact* determination for all other sensitive species.
	Quantification (acreage) of existing habitat of federally listed and/or sensitive wildlife and fish species, migratory birds and SOLC in the study area, and proposed disturbance to that habitat by species as the result of the Action Alternatives.	• Table 3.13-1 describes the threatened, endangered, proposed, and candidate wildlife species with potential for habitat within the project area. The discussion following this table in Section 3.13.3 in the Final EIS quantifies existing habitat by species within the project area. • Table 3.13-2 describes the	• In addition to migratory birds, there are 19 PTES species and SOLC with potentially impacted habitat in the proposed project area. For a discussion of impacts to habitat by species, refer to the respective species sub-heading within Section 3.13.4 of the Final EIS. These discussions compare impacts by alternative and are specific to each species.			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		Region 4 sensitive species with potential habitat in the project area. The discussion following this table in Section 3.13.3 in the Final EIS quantifies existing habitat by species within the project area. • Existing habitat for SOLC species and migratory birds with potential to overlap the project area is included under their respective subheadings within Section 3.13.3 of the Final EIS				
	Quantification (acreage) of fragmentation of forest habitat that would result from the Action Alternatives and discussion of adherence to relevant standards from the 1997 Forest Plan and the Northern	• There would be no changes, additions, or upgrades under the No Action Alternative. As none of the proposed projects would be implemented their would be no	• The Wildlife BA and BE prepared for this project contain calculations of habitat/vegetation type and calculate fragmentation by way of proposed project disturbance. The Final EIS contains an analysis of habitat fragmentation as it relates to specific species, which is included under the respective species sub-heading within Section 3.13.4 of the Final EIS. These species-specific discussions also include a discussion of Forest Plan consistency and Northern Rockies Lynx Amendment consistency (as it relates to Canada lynx). The discussions distinguish between impacts under different alternatives and highlight consistency under the various alternatives.			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	Rockies Lynx Amendment	additional habitat fragmentation related to actions undertaken by GTR. • Increased development on private lands in Idaho and Wyoming in Teton County has caused habitat fragmentation and would likely continue to do so under the No Action Alternative				
	Analysis of direct and indirect impacts to lynx through percent change in denning, foraging, and overall suitable lynx habitat as well as existing and proposed road density in the lynx analysis unit (LAU) as a result of the Action Alternatives.	• Although GTR would not construct any new on-site development under this alternative, increasing recreation use in the future associated with the current infrastructure at GTR has the potential to have minor additional effects on lynx and its habitat that are above current baseline	Activities proposed under all action alternatives would have the following effects on lynx: • Convert currently mapped suitable lynx habitat to linkage areas or non-habitat within the Teton Creek and Badger Creek LAUs. Both Mono Trees and South Bowl currently do not function as quality foraging habitat for lynx, since the horizontal cover is low and there were minimal snowshoe hare detections. Decreased effectiveness would continue with expansion of the operational boundary into these areas. Both areas would continue to provide for lynx movements within and between LAUs. Impacts will not result in take of lynx and loss of habitat will not be detectable at the LAU scale given that the habitat is not the highest quality and ample higher quality habitat remains elsewhere in the LAU. • The consequences to lynx habitat would be greatest under Alternatives 2 and 5 • Add cumulatively to the net effects of habitat conversion that has occurred within both LAUs • Increase traffic volumes on Ski Hill Road and Teton Pass but would not be expected to lead to a measurable increase in the probability of lynx mortality on either road • Although the proposed project components would reduce the availability of lynx habitat, they would not compromise the ability of either LAU to support foraging, denning, or			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		conditions. Therefore, a determination of *may affect, but is not likely to adversely affect*, was reached for the Canada lynx under the No Action Alternative. Any potential effects under this alternative would be far less than any of the action alternatives.	traveling lynx. As a consequence, for all action alternatives, the proposed project may affect, but is not likely to adversely affect, the Canada lynx. All action alternatives were determined to be consistent with relevant NRLMD standards and guidelines applicable to ski areas. The standards and guidelines relevant to this analysis were directed by the GTR Expansion NRLMD Briefing Paper, which is cited in the Wildlife BA and available for review in the project file.			
	Analysis of direct and indirect impacts to grizzly bears within the Bear Analysis Unit, including quantification of percent change in secure and non-secure habitat, potential human/bear conflicts and displacement resulting from noise and human presence during construction and operation as the result of the Action Alternatives.	• Although GTR would not construct any new on-site development under this alternative, increasing recreation use in the future associated with the current infrastructure at GTR has the potential to have minor additional effects on grizzly bears and their habitats that are above current baseline conditions.	Activities proposed under all action alternatives would have the following effects on grizzly bears: • Convert current secure grizzly bear habitat to nonsecure habitat within the Teton BAU. Secure habitat is most abundant in the proposed Mono Trees and South Bowl expansion areas due to their distance from existing roads, while most of the existing SUP currently consists of nonsecure habitat due to existing roads associated with current resort operations. Expanding the GTR SUP boundary into Mono Trees under Alternatives 2 and 5 would entail constructing an access administrative route through the center of the area to the proposed lift base, which would eliminate most of the secure habitat in the area. Expanding the GTR SUP boundary into South Bowl under Alternatives 2 and 4 would entail constructing an access administrative route along the southern boundary of the South Bowl expansion area which would eliminate almost all of the secure habitat in the area and secure habitat outside of the expansion area in Teton Canyon. Administrative routes proposed in the existing SUP under all alternatives would reduce secure habitat in the existing SUP and impact secure habitat outside the SUP Boundary to the east. Existing secure habitat is likely most valuable in the proposed expansion areas where little development and activity currently occurs; therefore, impacts under Alternatives 2, 4, and 5 would be most severe.			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		Therefore, the No Action Alternative would still *may affect, but is not likely to adversely affect*, the grizzly bear. Any potential effects under this alternative would be far less than any of the action alternatives.	• Add cumulatively to the net effects of habitat conversion that has occurred within the Teton BAU • Modify grizzly bear behavior and habitat use, due to increased development density and human activity, both during construction and once improvements are implemented (particularly improvements that would increase summer activity). On mountain facilities and food and beverage vendors could also modify grizzly bear behavior. Increased summer recreation activity, facilities, and associated bear attractants would increase the likelihood of bear-human conflicts which have the potential to lead to individual mortality if a problem bear is removed. • Effects to grizzly bear habitat would be greatest under the Proposed Action, followed by Alternative 4, followed by Alternative 5, with lowest impacts under Alternative 3 The proposed projects have the potential to adversely affect individual grizzly bears and potentially cause mortality of individual bears, through human-bear conflicts into the future. However, over 101,000 acres of secure habitat would remain in the Teton BAU and continue to provide habitat for grizzly bears. Though population growth has slowed in recent years, the population of grizzly bears in the Greater Yellowstone Ecosystem has increased from approximately 200-300 bears in 1975 to an estimated 1,000 in 2021.337 Given the regional population status of grizzly bears and widespread availability of secure grizzly bear habitat and valuable vegetative cover types for grizzly bears throughout the Teton BAU, the proposed projects under all action alternatives are not expected to impact the viability of the grizzly bear population in the Teton BAU or Targhee Planning Area. However, because incidental take of individuals would become more likely under all action alternatives (over the life of the projects), the proposed project *may affect, and is likely to adversely affect, the grizzly bear.* • Standards and guidelines from 1997 Forest Plan related to grizzly bear include measures designed for management of grazing allotments, which are not applicable to the proposed projects. Additional standards and guidelines include provisions for educational programs, habitat management, problem bears, and cross-country travel. Consistency with relevant standards and guidelines would occur under all action alternatives. A detailed description of *1997 Forest Plan* consistency as it relates to potential impacts to grizzly bear can be found in the Wildlife BA and is tracked through Appendix B of the Final EIS.			
	Analysis of direct and indirect impacts to	• Due to the projected	• This alternative has the potential	• Under Alternative 3, minimal	• All but 2 acres of the modeled	• Alternative 5 does not include any

[337] Haroldson et al. 2022; USFWS 2016

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	bighorn sheep, including percent change in suitable habitat, percent change of modeled high-quality habitat on the CTNF and range of the Teton Range herd of bighorn sheep, and displacement resulting from increased noise and human presence during construction and operation (including in backcountry areas) as the result of the Action Alternatives.	increase in recreation use associated with GTR, and increasing participation in backcountry skiing, the No Action Alternative may *impact individuals or their habitat, but not likely contribute to a trend toward federal listing or loss of population viability*.	to result in an overall decline in the population of the Teton or Targhee Herd. Although the Proposed Action would impact the Teton Range bighorn sheep, across the overall Targhee Planning Area (which contains multiple herds), the alternative *May Impact Individuals or Their Habitat but would Not Likely Contribute to a Trend Toward Federal Listing or Cause a Loss of Population Viability*. • For a complete discussion of this species and potential changes to habitat and displacement from project related impacts refer to the *Bighorn Sheep* subheading within Section	habitat loss and fragmentation would occur for bighorn sheep from proposed development within the SUP boundary. Increased activity and development within the existing SUP could influence bighorn sheep use of neighboring habitat if recreationists travel more frequently into South Bowl, Teton Canyon, or the JSW for backcountry skiing or hiking. However, given that bighorn sheep currently travel through or near South Bowl despite intermittent backcountry skiing, it is likely that access to the Apostle Cliffs mineral lick and habitat in Teton Canyon would	high quality bighorn sheep habitat within the total project area are within the South Bowl area and existing SUP boundary; therefore, impacts of Alternative 4 would be comparable to those of the Proposed Action	direct impacts to South Bowl, where the more valuable bighorn sheep is located and which provides an important movement corridor, and thus impacts to bighorn sheep under Alternative 5 would be lower compared to Alternatives 2 and 4. Similar to Alternative 3, projects aimed at improving habitat in South Bowl and Teton Canyon for bighorn sheep use, including potential winter closure areas suggested by the Teton Range Bighorn Sheep Working Group and the Teton Canyon Hazardous Fuels Reduction Project, would proceed under Alternative 5 and may provide

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			3.13.4 of the Final EIS	remain. Further, projects aimed at improving habitat in South Bowl and Teton Canyon for bighorn sheep, including potential winter closure areas suggested by the Teton Range Bighorn Sheep Working Group and the Teton Canyon Hazardous Fuels Reduction Project, would proceed under Alternative 3 and may provide benefits for the Teton herd.		benefits for bighorn sheep
	Analysis of short term and long term direct, indirect, and cumulative impacts to avian species as a result of tree removal and the Forest Plan amendment, including the removal of trees for glade development as Boreal Owls, Flammulated Owls, Three-toed Woodpeckers and American Goshawks are	• Ongoing recreation associated with GTR continues to impact avian species such as great gray owls, boreal owls, flammulated owls, American goshawks, peregrine falcons, three-toed woodpeckers, while projected	• A discussion of each avian species is contained under their respective subheading within Section 3.13.4 of the Final EIS. Under all alternatives and for all the Region 4 Sensitive Species considered in this analysis, a determination of *May Impact Individuals or Their Habitat, but Will Not Likely Contribute to a Trend Toward Federal Listing or Loss of Population Viability*. was reached. Forest Plan consistency is included in these discussions as well. Inconsistencies were identified for certain species and certain alternatives, which is further described in the Final EIS and Appendix B. • In general, the Proposed Action and Alternative 5 are most impactful for the listed avian species, because expansion into the Mono Trees area could impact nesting and other valuable habitat that exists within this proposed project area. Impacts under Alternatives 3 and 4 are generally less impactful to these species as Mono trees is not included in these alternatives and South Bowl (Alternative 4) contains limited late seral or late seral/potential old growth.			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	likely found in those areas.	growth of GTR visitation, as well as increased recreation in the vicinity, would further impact these species in the area into the future. Therefore, the No Action Alternative *may impact individuals or their habitat, but would not likely contribute to a trend toward federal listing or loss of population viability*.	• Peregrine Falcons are the exception to the previous statement as Alternative 4 and the Proposed Action would be most impactful to this species. This is because the South Bowl expansion area contains suitable nesting habitat for falcons and disturbance outside the current SUP boundary would bring development, noise, and activity further into Teton Canyon where valuable nesting habitat exists.			
	Analysis of short term and long term direct, indirect, and cumulative impacts to Columbia Spotted Frogs and Western Toads based on riparian habitat development impacts.	• Ongoing recreation associated with GTR continues to impact western toads, and Columbia spotted frogs, while projected growth of GTR visitation, as well as increased recreation in the vicinity, would further impact these species in the area into the future. Therefore, the No Action Alternative *may*	• The Proposed Action has the potential to impact western toad habitat. Changes to aquatic habitats have the potential to result in the direct mortality of western toads in their aquatic stages and an overall impact on recruitment (if the species were to occur). PDC and standards and guidelines from the 1997 Forest Plan would reduce negative impacts to riparian and aquatic habitats with some potential to support western toads. Although clear cut tree removal for lifts and ski runs would result in a loss of habitat, the presence of suitable upland foraging habitat would remain in the project area, particularly within the AIZs. Selective thinning of trees for ski glades may result in improved habitat (in some areas) by partially opening the canopy, providing needed solar radiation for toads. As a result, the Proposed Action *May Impact Individuals or Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability*. • Alternatives 4 and 5 would be similar to the Proposed Action in their impacts to the western toad. Alternative 3 has the potential to impact western toad upland habitat and to a lesser extent riparian and aquatic breeding habitat. • The impacts to the Columbia spotted frog from the action alternatives are similar to those described for the western toad. The exception is that there are less potential direct and indirect impacts to Columbia spotted frogs from vegetation/construction activities in the upland habitats. As a result, the Proposed Action *May Impact Individuals or Their*			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		impact individuals or their habitat, but would not likely contribute to a trend toward federal listing or loss of population viability.	*Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability*.			
	Qualitative discussion of short term and long term direct, indirect, and cumulative impacts to migratory birds as a result of habitat removal from trail development and the increased number of structures with windows.	• Ongoing recreation associated with GTR continues to impact migratory birds, while projected growth in GTR visitation, as well as increased recreation and traffic in the vicinity, would further impact migratory birds in the area into the future.	• All the action alternatives would result in a decrease in habitat available for nesting migratory birds. Construction activities associated with the proposed projects during the spring and summer nesting season could disturb nesting adults, if nests occur within the zone of influence of the projects. If disturbance occurs prior to fledging of the nestlings, it may result in abandonment of the nest by adults, and subsequent mortality of nestlings. The clearing and thinning of forest habitat for trails, lifts, and glades may also result in the removal of nest sites. PDC would minimize the likelihood of impacts to nesting birds: *"Vegetation clearing activities are generally planned to occur outside of the migratory bird nesting period, which is typically from May 15 to July 15. If vegetation clearing activities must occur during the nesting period, U.S. Forest Service personnel (or individuals deemed qualified by the Forest Service) would conduct nest searches in appropriate habitats prior to the commencement of the vegetation clearing activities. The exact area to be surveyed would be based on the scope of the surface disturbance activities, the habitat to be disturbed, and the potential species to be impacted. If nesting migratory birds occur, the Forest Service would delineate appropriate buffers and halt construction within the buffers until the nesting is complete."* However, some bird species may cease nesting within areas of the proposed projects (after implementation) due to disturbance and habitat loss/degradation. Therefore, all the action alternatives have the potential to impact individuals at the local level; however, all action alternatives are unlikely to substantially impact populations. Alternative 2 would impact the largest acreage of suitable nesting habitat including forested habitat in the existing SUP, Mono Trees, and South Bowl; meadow habitat in the existing SUP and South Bowl; and talus and cliff areas in South Bowl. Alternative 4, with proposed expansion into South Bowl, would likely be less impactful than Alternative 5 (with the proposed Mono Trees expansion) because the Mono Trees expansion area is larger, and more acres of suitable habitat would be impacted than in South Bowl. Alternative 3, no SUP expansion, would cause the least amount of disturbance to migratory bird populations out of the action alternatives.			

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Vegetation Vegetation cover types and age class composition may be impacted under the proposed projects relative to the desired condition identified in the Targhee National Forest Plan. Federally-listed plant species, rare plants (including Forest Service Region 4 sensitive species and species of local concern [SOLC]), other native plant communities (including overstory vegetation), and the presence of invasive species and noxious weeds may be impacted as a result of the proposed projects	*Qualitative discussion of the presence/absence of federally-listed plant species, rare plants, other native plant communities and invasive species and noxious weeds within the study area, including whitebark pine and potential impacts/eradication of these species as a result of the Action Alternatives.*	• There are a total of 511.19 acres of whitebark pine within the Project Area • There are two Wyoming Natural Diversity Database Species of Concern (WYNDDS), including 14 subpopulations, approximately 14.7 acres of keeled bladderpod (*Lesquerella carinata var. carinata;* synonym *Physaria carinata ssp. carinata*) and 58 clusters, approximately 0.04 acre of brightgreen spleenwort (*Asplenium trchomanes-ramosum;* synonym *A. viride*). • There is one Forest Service Region 4 Sensitive Specie, the Payson's bladderpod (*Lesquerella paysonii;* synonym *Physaria carinata* ssp. *paysonii*) which was not observed during field surveys in 2019 but was observed at the top of Dreamcatcher lift during field surveys in 1995. Approximately 10 plants were observed. • There are two TPWs within the project area that were used to assess the old growth within the Project Area. Given data restrictions, data for TPW19 was used to assess the total percentage of old growth within the Project Area. It was determined that there is 27 percent of old growth within TPW19. • At the time of the field survey, within the Project Area there is approximately 2,519 noxious weeds and invasive plants within the Project Area. This includes approximately 1,532 Canada thistle, approximately 52 musk thistle, approximately 654 scentless chamomile, and approximately 281 yellow toadflax. • Action alternatives are anticipated to result in the potential impacts to vegetation in the form of trampling and snow compaction. Some WBP and other sensitive species would be impacted.			
	Quantification (acreage) of proposed ground disturbance and resulting effects to vegetation (both	• Under the No Action Alternative vegetation will remain in the same condition	• Under Alternative 3 it is anticipated that approximately 59.33 acres or 355 individual trees or small stands of WBP would be impacted by the projects.			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	understory and overstory) by vegetation type within each terrain pod.	as it is currently. Due to increased visitation during both the summer and winter, vegetation may be impacted by trampling or snow/soil compaction. Additional ongoing factors like increases in temperature and shifts in precipitation may impact the presence and absence of vegetation within the Project Area.	• Impacts to the keeled bladderpod and brightgreen spleenwort under Alternative 3 would be similar as experienced under the Proposed Action. Determination of effects for both species would be may affect, likely to adversely affect. • Impacts to Payson's bladderpod would be similar as experienced under the Proposed Action. Overall, Alternative 3 may affect but is unlikely to adversely affect the Payson's bladderpod • Approximately 57 acres, or 0.2 percent of the total acres of late seral and potential old growth forest within TPW19 would be impacted. Given approximately 26.7 percent of the late seral stage and potential old growth forest within the TPW19 would be maintained, Alternative 3 would be in adherence to the vegetation guideline within the 1997 Forest Plan. • Impacts to the spread of noxious weeds and invasive plants would be similar as experienced under the Proposed Action; however, to a lesser extent. PDC and BMPs would still be implemented to mitigate the spread of noxious weeds and invasive species • Impacts to WBP under Alternative 4 would be similar as experienced under the Proposed Action. Given most WBP are within the South Bowl expansion area and at high elevations within the existing SUP, both the Proposed Action and Alternative 4 would have the same impact on WBP. • Impacts to WYNDDS and Forest Service Region 4 Sensitive Specie would be similar as experienced under the Proposed Action • Approximately 62 acres or 0.2 percent of late seral and potential old growth forest stands would be impacted by projects under Alternative 4. Given approximately 26.7 percent of the late seral stage and potential old growth forest within the TPW19 would be maintained, Alternative 4 would be in adherence to the vegetation guideline within the 1997 Forest Plan. • Impacts to the transport and establishment of noxious weeds and invasive species under Alternative 4 would be similar as experienced under the Proposed Action, but more intensive than under Alternative 3. Similar to the Proposed Action a Noxious Weed Management Plan, along with other PDC and BMPs would be implemented to prevent the further spread of noxious weeds and invasive species.			
	Quantification of the forested acres of lands designated as	• Under the No Action Alternative current	• Under the Proposed Action there are 866	• Similar to the No Action Alternative, there	• Under Alternative 4, given there is no	• Under Alternative 5, conversion of Management

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	management prescription 2.8.3 Aquatic Influence Zone that would be converted to management prescription 4.2 Special Use Permit Recreation Sites Recreation Sites.	operations at GTR would remain the same and lands that are designated as Management Prescription 2.8.3 would not be converted to Management Prescription 4.2	acres of land managed under Management Prescription 2.1.2 – *Visual Quality Maintenance* with an overlay of 125 acres as Management Prescription 2.8.3 – *Aquatic Influence Zone.* Per the 1997 Forest Plan, the 2.8.3 - *Aquatic Influence Zone* Management Prescription overlays other management prescription areas, therefore the 125 acres are accounted for in the 866 acres of Management Prescription 2.1.2 - *Visual Quality Maintenance* being converted to Management Prescription 4.2 - *Special Use Permit Recreation Sites* under the programmatic	would be no conversion of Management Prescription 2.8.3 given there is no expansion of the SUP area	Management Prescription 2.8.3 within the South Bowl SUP expansion area, there would be no impacts on these lands	Prescription 2.8.3 lands would be similar as under the proposed action. Refer to that discussion for more information

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			Forest Plan amendment.			
	Quantification of existing old growth and late seral stage stands in the Teton Creek and Leigh Creek Watersheds including discussion of proposed impacts as the result of the Action Alternatives.					

	Existing Percentage of Late Seral and Old Growth (%)	Alternative 2 Percentage of Late Seral and Old Growth (%) under Proposed Conditions	Alternative 3 Percentage of Late Seral and Old Growth (%) under Proposed Conditions	Alternative 4 Percentage of Late Seral and Old Growth (%) under Proposed Conditions	Alternative 5 Percentage of Late Seral and Old Growth (%) under Proposed Conditions
Percent Forested Acres in TPW19 in Late Seral/Potential Old Growth	25.7	25	25.1	25.1	25
Percent Forested Acres in TPW19 in Late Seral/Potential Old Growth in 300-acre Forest Blocks	21.7	21.5	21.6	21.6	21.5
Percent Forested Acres in TPW20 in Late Seral/Potential Old Growth	28.9	28.8	28.8	28.8	28.8

<table>
<tr><th>Resource Area and Issue</th><th>Indicator</th><th>Alternative 1 – No Action Alternative</th><th>Alternative 2 – Proposed Action</th><th>Alternative 3 – No SUP Expansion</th><th>Alternative 4 – South Bowl, No Mono Trees</th><th>Alternative 5 – Mono Trees, No South Bowl</th></tr>
<tr><td></td><td></td><td colspan="5"><table>
<tr><td>Percent Forested Acres in TPW20 in Late Seral/Potential Old Growth in 300-acre Forest Blocks</td><td>21.3</td><td>21.3</td><td>21.3</td><td>21.3</td><td>21.3</td></tr>
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• Direct impacts would be minimal in the long-term and would not reduce the percentage of late seral and potential old growth forest stands within the Teton Creek and Leigh Creek Watersheds</td></tr>
<tr><td></td><td>Qualitative discussion of potential impacts to federally-listed plant species, rare plants and other native plant communities, as well as the potential for an invasive species and noxious weeds to spread as a result of the action alternatives.</td><td>• Under the No Action Alternative vegetation will remain in the same condition as it is currently. Due to increased visitation during both the summer and winter, vegetation may be impacted by trampling or snow/soil compaction. Additional ongoing factors like increases in temperature and shifts in precipitation may impact the presence and absence of vegetation within the Project Area.</td><td colspan="4">• As described above, WBP, WYNDDS, Forest Service Region 4 Sensitive Specie, and Old growth forests would be directly and indirectly impacted by all Action Alternatives. Through the increase in both summer and winter visitation snow and soil compaction could occur, which could alter the hydrologic and soil function of the Project Area. Plants could also be trampled by hikers and bikers who are participating in summer recreation within the existing and proposed SUP. Noxious weeds would also have the potential to spread via construction vehicles and personnel during the spring and summer. Within the implementation of specific PDC and BMPs the transport and establishment of noxious weeds and invasive species would be mitigated. Impacts would be most significant under the Proposed Action, followed by Alternative 4, Alternative 5, then Alternative 3. Refer to the discussion above for more information on quantitative impacts to vegetation and plant species within the Project Area</td></tr>
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Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
Soils Ground disturbance, including tree clearing and grading associated with construction and operation of the proposed projects, as well as proposed snowmaking, have the potential to increase erosion and soil compaction within the study area. In addition, bare mineral soil exposed on steep slopes as a result of the heavy equipment use could funnel through downhill channels and increase soil erosion.	*Qualitative discussion of the existing soil map units or land types present in the study area based on United States Department of Agriculture (USDA) Natural Resources Conservation Service soil mapping data and the Forest Service Terrestrial Ecological Unit Inventory, interpretive factors such as erosion potential and instability ratings, and the potential impacts to soils associated with the Action Alternatives.*	• Approximately 724.8 acres (68.7 percent) of the soil within the analysis area are rated as having a slight erosion hazard and 327.9 acres (31.1 percent) are rated as having a moderate erosion hazard • Nearly all map units have a medium potential for compaction (1052.7 acres, 99.7 percent) • Soil unit 34 – rock outcrop is not rated for erosion or soil compaction • Under the No Action Alternative, conditions would remain very similar to the existing condition; GTR operations and maintenance activities would continue to occur, likely resulting in minor	• Approximately 172.1 acres of disturbance by grading would occur on soil with a moderate erosion hazard, approximately 126.9 acres would occur on soil with a slight erosion hazard • Trail building and administrative route construction activities in the 1216, 1170, and 1315 soil types, which overlap the Darby and Hominy Peak formations, could result in the release of fine sediment into streams and exacerbate erosion impacts			

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		soil impacts due to erosion				
	Summary of the increased erosion hazard resulting from temporary and permanent ground disturbance, as presented in the Hydrology Technical Report and corresponding EIS section.	• Soil losses from erosion due to rainfall, runoff, and wind would continue to occur at existing rates and would continue to be from existing administrative routes and areas with a low vegetative cover	• Due to mixing of soil horizons, soil profile characteristics and soil productivity would be drastically changed over pre-construction conditions • The loss of soil resources would be long term and permanent • Increases in soil erosion would occur from mountain biking and hiking activities, vehicle traffic on new access administrative routes, additionally snowmaking infrastructure and snowmelt, and from maintenance of the trails, access administrative routes, and facilities • The increase in erosion hazard would vary depending on the type and quantity of projects proposed under each alternative, with the greatest impact under the Proposed Action and the least under Alternative 3			
	Qualitative discussion of applicability of and compliance with the standards and guidelines of the 1997 Forest Plan as the result of the Action Alternatives.	• Geology and soil resources on NFS lands would continue to be managed as under current conditions and continue to comply with relevant Forest Plan guidance for the geology and soils resource	• The proposed projects under all action alternatives are expected to comply with relevant guidelines from the Forest Plan with implementation of PDC such as: stockpiling topsoil to maintain organic matter, conducting soil surveys to ensure no loss of organic matter, restoring depths of soil A and/or organic ground cover, and avoiding areas of soil wood to the greatest degree possible • The Forest Plan does not contain standards for the geology and soils resource that are relevant to this analysis			
	Quantification of disturbance type by soil map unit and loss of topsoil/organic layer/forest floor material as the result of the Action Alternatives and potential change	• GTR operations and maintenance activities would continue to occur, likely resulting in minor soil impacts due to erosion;	• Grading or grading/tree clearing: Map Unit 1170, 27.4 acres; Map Unit 1172, 81.9 acres; Map Unit 1216, 45 acres; Map Unit 1315,			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	from existing conditions including short and long term impacts.	however, conditions would remain very similar to those described under the Affected Environment	144.5 acres; Map Unit 1593, 0.2 acres; Map Unit 34, 2.5 acres • Vegetation Clearing: Map Unit 1170, 31.7 acres; Map Unit 1172, 157.8 acres; Map Unit 1216, 323.7 acres; Map Unit 1315, 120.2 acres; Map Unit 1593, 0 acres; Map Unit 34, 0.7 acres • Up to 301.5 acres of topsoil and/or organic material could be directly impacted by grading or vegetation removal and grading, which could be lessened by PDC including the salvaging of topsoil			
	Qualitative discussion of short and long term impacts to soils in areas that are chipped and burned as the result of the Action Alternatives and potential change from existing conditions.	• The No Action Alternative would not require chipping and burning	• Burning in gladed terrain, if necessary, could further damage the topsoil, organic material, and forest floor material in addition to changing the soil physical and chemical properties in the long term. Short term impacts in the form of compaction and displacement of topsoil could also occur as machines are used to perform chipping and burning activities. • Both short- and long-term impacts to soils as a result of chipping and burning would be lessened with implementation of PDC			
Hydrology The action alternatives could alter watershed conditions, stream and riparian health, and surface water	*Discussion of existing and proposed Hydrologic Disturbance (HD), in response to the Targhee National Forest Plan guideline stating: "Not more than 30% of any of the principal*	• There are two Teton Principal Watersheds (TPW) (Teton Creek and Leigh Creeks) and three hydrologic unit code (HUC)	• The Proposed Action creates a 13 percent combined (existing, approved, and proposed) HD for Teton Creek and a 3 percent combined HD for Leigh Creeks. For the HUC 6 Watersheds, Dry Creek would have a 13 percent combined HD, South Leigh Creek would have a 1 percent combined HD, and Teton Creek would have a 10 percent combined HD			

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and groundwater quality, quantity, and distribution in the study areas. In addition, the proposed SUP expansion would change several areas from Forest Plan management prescription 2.8.3 Aquatic Influence Zone to 4.2: *Special Use Permit Recreation Sites*.	*watersheds and their subwatersheds should be in a hydrologically disturbed condition at any one time."*[338]	subwatersheds (Dry Creek, South Leigh Creek, and Teton Creek) within the analysis area. Approximately 3,211 acres of Teton Creek, which is 10 percent of the TPW, has existing HD. Approximately 800 acres of Leigh Creeks, which is 3 percent of the TPW, has existing HD. Additionally, approximately 517 acres of Dry Creek, 84 acres of South Leigh Creek, and 1,166 acres of Teton Creek, which is 12 percent, 1 percent, and 5 percent of the total HUC area respectively, have HD.				

[338] USDA Forest Service 1997

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	Quantification (acreage of AIZ and miles of stream type) of the amount of management prescription 2.8.3 Aquatic Influence Zone that would be converted to management prescription 4.2 Special Use Permit Recreation Sites as the result of the Action Alternatives.	• Under the No Action Alternative current operations at GTR would remain the same and lands that are designated as Management Prescription 2.8.3 would not be converted to Management Prescription 4.2	• Under the Proposed Action there are 866 acres of land managed under Management Prescription 2.1.2 – *Visual Quality Maintenance* with an overlay of 125 acres as Management Prescription 2.8.3 – *Aquatic Influence Zone.* Per the 1997 Forest Plan, the 2.8.3 - *Aquatic Influence Zone* Management Prescription overlays other management prescription areas, therefore the 125 acres are accounted for in the 866 acres of Management Prescription 2.1.2 - *Visual Quality Maintenance* being converted to Management Prescription 4.2 - *Special Use Permit*	• Similar to the No Action Alternative, there would be no conversion of Management Prescription 2.8.3 given there is no expansion of the SUP area	• Under Alternative 4, given there is no Management Prescription 2.8.3 within the South Bowl SUP expansion area, there would be no impacts on these lands	• Under Alternative 5, conversion of Management Prescription 2.8.3 lands would be similar as under the proposed action. Refer to that discussion for more information

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
			Recreation Sites under the programmatic Forest Plan amendment.			
	Quantification of existing and proposed disturbance (acres and/or miles of streams affected) in AIZs by activity type as the result of the Action Alternatives.	• Under the No Action Alternative, there would be no proposed impacts to the AIZ as the current operations at GTR would remain in their existing condition. There would be, however, approximately 94 acres of existing AIZ impacts and approximately 17 acres of previously approved impacts, totaling approximately 111 acres of combined impacts. The existing AIZ water types within the Project Area are as follows:	• Under the proposed action the existing AIZ water types would be similar as described under the No Action Alternative. Due to projects as a result of the proposed action there would be approximately 70 acres of proposed impacts to AIZ water types within the project area. In combination with the existing and previously approved impacts as identified under the No Action Alternative, the proposed action would impact a combined total of approximately	• Under Alternative 3 there would be approximately 66 acres of proposed impacts to the AIZ. This, in combination with the existing and previously approved impacts to the AIZ as identified under the No Action Alternative, would result in a combined total of approximately 158 acres of the AIZ.	• Under Alternative 4 there would be approximately 66 acres of proposed impacts to the AIZ. This, in combination with the existing and previously approved impacts, would total to approximately 158 acres of impacts to the AIZ.	• Under Alternative 5 there would be approximately 70 acres of proposed impacts to the AIZ. This, in combination with the existing and previously approved impacts, would total to approximately 173 acres of impacts to the AIZ.

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		• 124 acres of perennial non-fish bearing stream reaches, specifically Mill Creek and Dry Creek • 5 acres of reservoirs, specifically the unnamed waste water lagoon • 110 acres of wetlands that are greater than an acre • 198 acres of intermittent unnamed reaches • 47 acres of wetlands that are less than an acre	178 acres of the AIZ.			
	Qualitative identification of existing surface erosion, water quality, and stream and riparian health, as well as analysis of potential effects to these metrics and projected change as the result of the Action Alternatives.	• There is currently surface erosion within Ricks Basin, where erodible rock units like the Hominy Peak and Darby Formations overlay the Bighorn Dolomite aquifer. Water that flows over this aquifer is not	• There are numerous projects that exist over the Hominy Peak and Darby Formations under the Proposed Action. These projects include tree clearing, glading, and grading which has the	• Since most of the groundwater impacts and erosion occurs within the existing SUP, Alternative 3 would have the same impacts as the Proposed Action • Alternative 3 would have a similar	• Since most of the groundwater impacts and erosion occurs within the existing SUP, Alternative 4 would have the same impacts as the Proposed Action	• Since most of the groundwater impacts and erosion occurs within the existing SUP, Alternative 5 would have the same impacts as the Proposed Action • Alternative 5 would have a similar but lesser effect

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		filtered as well given the large cavities within the aquifer • There are two TPWs that overlay the project area, TPW19 (Teton Creek) and TPW20 (Leigh Creeks), along with three subwatersheds: Dry Creek, South Leigh Creek, and Teton Creek. There is currently existing and approved HD to these streams within the existing SUP. Most of the channels within GTR are under properly functioning conditions. • Potential effects to these metrics include sediment erosion, nutrient loading, along with changing the hydrologic function of sub-alpine streams	potential to increase erosion and thus increase turbidity throughout groundwater as the water flows through the Bighorn Dolomite aquifer. Specifically, this increase in turbidity could impact the Alta Spring which provides water for the town of Alta, WY. With specific PDC and BMPs these impacts would be mitigated (refer to Table 2-4. Project Design Criteria for more information). • Most of the streams are under properly functioning conditions, and the functional-at risk channels are typical of a ski area. Given the At Risk channels being typical of a ski area, impacts to streams are	but lesser effect overall as compared to the Proposed Action when it comes to water quality and riparian health	• Alternative 4 would have a similar but lesser effect overall as compared to the Proposed Action when it comes to water quality and riparian health	overall as compared to the Proposed Action when it comes to water quality and riparian health

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		through construction.	expected to be low. • There is a potential for sediment and nutrient loading to occur under the Proposed Action, however with the implementation of specific PDC and BMPs these impacts would be mitigated.			
	Identification of any Clean Water Act (CWA) impaired or threatened waterbody segments within the study area and discussion of potential impacts as the result of the Action Alternatives.	• There are no CWA impaired or threatened waterbody segments within the Project Area. There are no potential impacts to CWA impaired or threatened waterbodies under any alternative.				
	Quantification of existing and proposed snowmaking operations, including anticipated changes in water quantity (e.g., water yield [acre-feet], peak flows [cubic feet per second]) and water quality which may result from tree removal and new snowmaking withdrawals and runoff.	• Average snowmaking at GTR amounts to a snow depth of 18 inches across the existing snowmaking area per year. Snowmaking snow is unique as it is 50 percent water and 50 percent air. So 18 inches of snowmaking snow totals 9 inches of water. It was determined that the peak of a set of median values of snow water equivalence at GTR was 47.8 inches on April 30th which totals 5,711 acre-feet within Teton Creek watershed and 2,273 acre-feet in the Dry Creek watershed. The highest snow water equivalence is expected to occur in late April. The additional water for increased snowmaking coverage would come from additional groundwater wells.				

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	Sufficiency of water determination for resort operation under existing and proposed conditions.	• Given there is no expansion proposed or new construction projects, GTR would continue to have sufficient water under the No Action Alternative	• GTR has proposed an additional 57 acres of snowmaking on lower-mountain circulation routes and high use trails. Additional groundwater wells are proposed to provide sufficient water to the snowmaking system. Specifically, as identified in the Groundwater Report, it is expected that the two new wells in conjunction with the other existing wells, will provide enough water for combined culinary and snowmaking use, approximately 640 gallons per minute. It is necessary for the two new wells to be properly engineered and placed in locations that would not inhibit the output of the other two existing wells.			
	Analysis of potential impacts to downstream water quality resulting from runoff at GTR being transported through subsurface channels as the result of the Action Alternatives, including a discussion of changes from existing conditions.	• As described above there are currently disturbance within the existing SUP over the Hominy and Darby Formations which contributes sediment to water flowing over the Bighorn Dolomite aquifer. This aquifer has large cavities which minimizes its ability to filter groundwater, this contributing to sediment transportation and turbidity.	• Most critical hydrologic effects could occur in the Papoose Creek watershed at the south end of the existing SUP. This watershed, along with others that flow over the Bighorn Dolomite aquifer, contributes groundwater to Alta Spring, which serves as a community water source for the town of Alta, WY. The creek is also a tributary to Teton Creek which provides water to numerous wildlife species downstream. Ground-disturbing actions in this watershed could cause more fine, high mobile sediment to mobilize and increase the turbidity of both Papoose Creek, Teton Creek, and Alta Spring. This aquifer has large cavities which minimizes its ability to filter groundwater, thus contributing to sediment transportation and turbidity. • Overall, PDC and BMPs would be required for actions that occur over the Hominy Peak and Darby Formations that are not normally required for the operations that occur over Madison Limestone.			
Wetlands Identified wetlands and other waters of	*Qualitative discussion of area of wetlands and other Waters of the U.S. within the study area*	• As defined in the 1997 Forest Plan, the AIZ is associated with surface waters, wetlands, and riparian areas that provide unique functions and values to hydrologic, geomorphic, and ecological processes. The AIZ is comprised of a buffer zone around surface waters and wetlands. The impacts to wetlands and waters of the U.S. as a result of Action Alternatives are as follows:				

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
the U.S. throughout the study area could be temporarily and/or permanently affected by construction and implementation of proposed projects.	*(acres/linear feet) that would be impacted by the Action Alternatives.*	• 66.78 acres in the existing SUP • 0.01 acres in the South Bowl Area • 3.86 acres in the Mono Trees Area				
	Disclosure of wetland functions and values within the study area and discussion of potential impacts as the result of the Action Alternatives.	• To assess the ecological functions and values of the wetlands within the project area, a qualitative functional assessment was completed, using the Montana Department of Transportation – *Montana Wetlands Assessment Method*. Existing functions and values are listed below. Impacts to wetland functions and values would be most intensive under the Proposed Action, followed by Alternative 4, and then Alternative 5 and Alternative 3. • High rating for general wildlife habitat • Low rating for general fish habitat • Moderate to low rating for flood attenuation • Moderate rating for short and long term surface water storage • High rating for sediment/nutrient/toxicant retention and removal • High rating for sediment/shoreline stabilization • High rating of production export/terrestrial and aquatic food chain support • High rating of groundwater discharge • High rating of uniqueness • High rating of recreation/education potential				
	Narrative description of wetland communities, classifications and disclosure of anticipated temporary and/or permanent impacts (acres/linear feet) as the result of the Action Alternatives.	• Mapping of the wetlands and riparian areas within the project area was completed during the 2019 field surveys. Under the No Action Alternative there would not be new proposed impacts to wetlands. Existing indirect impacts may already be occurring like shading of wetland vegetation. There is a total of approximately 42.26 acres of wetlands within the existing SUP. These wetland types include: • 7.7 acres of emergent • 0.24 acre of emergent and scrub-shrub • 16.78 acres of emergent and riparian • 0.05 acre of scrub-shrub • 11.98 acre of scrub-shrub and riparian • 5.51 acres of riparian				

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		• Wetlands under the 1997 Forest Plan are characterized as the Aquatic Impact Zone (AIZ). Impacts to the AIZ are further described below.				
	Quantification of existing and proposed disturbance in AIZs by activity type.	• Under the No Action Alternative, there would be a continuation of existing management practices. Some minor indirect impacts to wetlands are likely occurring within the existing GTR SUP area as a result of ongoing ski area operations (i.e., snow compaction, increased hydrologic budgets from snowmaking, and vegetation removal). There are no new anticipated direct effects to wetland or other water of the U.S. from the No Action Alternative. Ongoing and projected impacts of increasing	• Impacts to the wetlands and waters of the U.S. under the Proposed Action are as follows: • 0.25 acres of impacts from all guest service facilities • 2.60 acres of impacts from all lifts • 0.01 acre of impacts from the avalauncher • Less than 0.00 acre of impacts from cat/construction maintenance access route • 1.05 acres of impacts from the fat bike trails • 16.66 acres of impacts from glades • 0.03 acre of impact from hiking trails • 3.79 acres of impacts from multi-use	• Impacts to wetlands and waters of the U.S. under Alternative 3 are as follows: • 0.25 acres of impacts from all guest service facilities • 2.30 acres of impacts from all lifts • Less than 0.00 acre of impacts from cat/construction maintenance access route • 1.05 acres of impacts from the fat bike trails • 15.86 acres of impacts from glades • 0.03 acre of impact from hiking trails • 3.79 acres of impacts from multi-use trail/mountain biking trails	• Impacts to wetlands and waters of the U.S. under Alternative 4 are as follows: • 0.25 acres of impacts from all guest service facilities • 2.30 acres of impacts from all lifts • 0.01 acre of impacts from the avalauncher • Less than 0.00 acre of impacts from cat/construction maintenance access route • 1.05 acres of impacts from the fat bike trails • 15.86 acres of impacts from glades • 0.03 acre of impact from hiking trails	• Impacts to the wetlands and waters of the U.S. under Alternative 5 are as follows: • 0.25 acres of impacts from all guest service facilities • 2.60 acres of impacts from all lifts • Less than 0.00 acre of impacts from cat/construction maintenance access route • 1.05 acres of impacts from the fat bike trails • 16.66 acres of impacts from glades • 0.03 acre of impact from hiking trails • 3.79 acres of impacts from multi-use trail/mountain biking trails • 11.47 acres of impacts from

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
		temperatures and shifts in precipitation on regional hydrology may impact the extent, distribution, and functions of the wetlands within the existing GTR SUP area; however, these impacts will be minor.	trail/mountain biking trails • 11.47 acres of impacts from administrative routes • 23.87 acres of impacts from ski trails • 4.99 acres of impacts from snowmaking pipes • 5.64 acres of impacts from the summer activities zones	• 11.28 acres of impacts from administrative routes • 21.3 acres of impacts from ski trails • 4.99 acres of impacts from snowmaking pipes • 5.64 acres of impacts from the summer activities zones	• 3.79 acres of impacts from multi-use trail/mountain biking trails • 11.28 acres of impacts from administrative routes • 21.3 acres of impacts from ski trails • 4.99 acres of impacts from snowmaking pipes • 5.64 acres of impacts from the summer activities zones	administrative routes • 23.87 acres of impacts from ski trails • 4.99 acres of impacts from snowmaking pipes • 5.64 acres of impacts from the summer activities zones
	Description of compliance with EO 11988 & 11990 (Floodplain Management & Protection of Wetlands, respectively) under all Action Alternatives.	• Given there are no proposed actions or new construction projects, GTR would continue to operate as they have been operating. Therefore, compliance with EO 11988 and 11990 would be achieved	• Under all Action Alternatives, adherence to specific PDC and BMPs for project design, implementation, and monitoring are necessary to comply to the CWA and Executive Orders 11990 and 11988. Refer to Table 2-4. Project Design Criteria for more information on PDC. A list of specific BMPs would be established prior to construction of the projects in coordination with TNF resource specialists and a TNF hydrologist. If PDC and specific BMPs are followed, adherence to the CWA and Executive Orders 11990 and 11988 would be achieved.			

Resource Area and Issue	Indicator	Alternative 1 – No Action Alternative	Alternative 2 – Proposed Action	Alternative 3 – No SUP Expansion	Alternative 4 – South Bowl, No Mono Trees	Alternative 5 – Mono Trees, No South Bowl
	Discussion of compliance with standards identified in the 1997 Forest Plan under all Action Alternatives.	• Given there are no proposed actions or new construction projects, GTR would continue to operate as they have been operating. Therefore, compliance with the 1997 Forest Plan would be achieved.	• Under all Action Alternatives, compliance with the 1997 Forest Plan would be achieved as specific PDC and BMPs are implemented.			

Appendix E. Response to Comments

Introduction

A Notice of Availability (NOA) for the Grand Targhee Master Development Plan Projects Draft Environmental Impact Statement (EIS) was published in the Federal Register and a legal notice as published in the Post Register on March 21, 2025. This initiated a comment period on the Draft EIS, providing the public with the opportunity to comment for 90 days following publication of the legal notice. Comments on the Draft EIS were received until June 20, 2025. During this 90-day comment period one public open house meeting was held at the Driggs City Center on April 17, 2025 to further inform the public of the publication of the Draft EIS and the analyses that were completed.

Additional information was available on the CTNF project website. Comments were accepted from the following sources: email, web submission, and mailed in letters.

The comments received during the Draft EIS comment period provided the foundation for this Response to Comments (RTC) document and are organized accordingly by these broad topics within the document. Comments were further sorted by subtopic to facilitate the analysis process. Similar comments were combined to be representative of common themes that were expressed by multiple individuals. Therefore, due to the large quantity of comments, each individual comment was not provided a response; instead, similar comments were organized and summarized by their content. Each RTC directs the reader to information within the Final EIS, provides a response directly to the comment itself, notes what was modified or updated in the Final EIS since the Draft EIS, or indicates what additional analysis was performed.

During the 90-day comment period a total of 1,341 unique comment letters were received, which included 544 form letters. From these unique comments and form letters, a total of 2,167 substantive comments were extracted. Please refer to **Table E-1** for a list of the comment ID number that is associated with the individual or organization who submitted the substantive comment.[339] In the table, comments that were categorized as form comments have the same number as similar form comments that were also submitted (e.g., 146, 811, and 1130 are the three form comments that were submitted). Throughout this RTC document, comment IDs and substantive IDs are identified in parentheses (e.g., 1.2) following the representative comment being responded to. The first number is the comment ID which references **Table E-1**, and the second number identifies the substantive component within the unique comment letter. Due to the large number of comments received, some comments had to be added to a separate comment processing database and therefore have the letter “b” after the comment ID (e.g., 1b.2). All public comments were processed in the same fashion.

Names of individuals and groups who submitted comments are part of the project record. Refer to **Chapter 4** of the **Final EIS** for a list of federal, state, and local governments and organizations that submitted comments during the scoping period or Draft EIS comment period.

[339] Only comments that were considered substantive were responded to in this Response to Comments document, and therefore the comment IDs identified in Table E-1 are only from substantive comments.

Response to Comments

1. NEPA Process/Land Planning/Other Policies

1.1 I requested, among other things, a paper copy of the DEIS - as per 40CFR and 36CFR - yet was repeatedly denied the requested materials. This is the first time in over 40 years of working with NEPA and multiple federal agencies such a request has been denied. The FS leader said he did not have to provide a paper copy to me despite my request pursuant to 40CFR1502.20. The less than helpful suggestion he gave was to go to a print shop and have it printed at my cost. The print shop in Driggs Idaho – closest print shop to my home – gave a price of $255 to print and spiral bind the 625 page document. The additional documents to support the DEIS seem to exceed 1000 pages. In order to review the document in physical form would cost me well over $500. What with the various changes in regulation and procedures since 20 January 2025, I sought clarification as to which regulations one was to review the DEIS. I was informed that the 40CFR1500-1508 (CEQ) regulations had been rescinded. I was informed that the FS was operating under agency NEPA regulations at 36CFR220. As of 5 June 2025 36CFR220 makes reference to and provides citations of 40CFR1500- 1508. This seems a bit problematic and certainly lacks clarity (as does much of the havoc wrought upon the federal government by Executive Orders since 20 January 2025). Given what the FS explained, it certainly seems 40CFR1500-1508 regulations are still valid and applicable within 36CFR220-227. Indeed, 36CFR220.1a states that the specific part "…establishes …FS…procedures for compliance with the …NEPA…and the …CEQ regulations for implementing the procedural provisions of NEPA (40CFR1500- 1508l. 36CFR220.2b goes on to state "This part supplements and does not lessen the applicability of the CEQ regulations…". This then appears to establish that 36CFR1500-1508 is currently directly applicable to 36CFR220 NEPA compliance activity. As such, 40CFR1502.20 (Publication of the environmental impact statement) is alive and well! Note that this section states: "The agency shall transmit the entire statement electronically (or in paper copy requested due to economic or other hardship) to (c) Any person, organization, or agency requesting the entire environmental impact statement" (emphasis added). As previously requested – several times – please send me a paper copy of the DEIS as well as any future environmental and decision documents (e.g. SDEIS, FEIS, ROD, etc) associated with this project. Such a transmittal seems more in line with the FS Motto of "Caring for the land and serving people" than the 'nope, not gonna do that' approach. (545.16) (545.1) (16.1)

Thank you for your comment and concern regarding a requested paper copy of the **Draft EIS**. On **page S-2** of the **Final EIS**, it is described that the Forest Service prepared the **Final EIS** in compliance with NEPA and "Forest Service policy", using the Forest Service's NEPA regulations at 36 CFR part 220 as the operative agency procedures. Specifically, text has been added on **page S-2** of the **Final EIS** to state: "On July 3, 2025, the U.S. Department of Agriculture (USDA) released interim National Environmental Policy Act (NEPA) regulations at 7 CFR 1b and rescinded the Forest Service NEPA regulations at 36 CFR 220. These regulations were made final on April 3, 2026. The regulations provide agencies with discretion to use either the new regulations, or the previous agency-specific regulations (36 CFR 220) and the 2020

version of the CEQ (Council on Environmental Quality) NEPA regulations (40 CFR 1500 – 1508) for projects already underway. The FEIS was prepared in with reference to the 2020 version of the CEQ regulations to the extent permitted by the Department of Agriculture's transition instructions."

Additionally, **page 21** of the **Final EIS** states, "Based on Forest Service and external public scoping, and evaluation of the context and intensity factors contained in 40 CFR 1508.27, the Forest Service determined that an EIS would be necessary to review, analyze, and document the potential impacts to the human and biological environment anticipated to result from the implementation of the proposed projects. This **Final EIS** is a disclosure rather than a decision document, and its purpose is to provide sufficient environmental analysis to support a ROD."

Per requirements with 36 CFR 220 and Forest Service Handbook 1909.15 Chapter 24.1, the "Draft Environmental Impact Statement must be circulated to agencies and the public prior to or at the time of transmittal to the Environmental Protection Agency (EPA) in Washington DC." The paper copies that were printed are to provide individuals with an alternative review method at local libraries (Driggs, Alta, Victor, and Jackson), the district office in Driggs, and the Supervisor's Office in Idaho Falls. If the libraries or the Forest Service offices are not amenable to you, a copy of the digital files can be downloaded and printed at your leisure.

The **Draft EIS** was released on March 21, 2025, therefore this project must adhere to the following changes in the regulatory framework: On January 20, 2025, President Trump issued Executive Order (EO) 14154, *Unleashing American Energy*. Executive Order 14154 established and advanced the President's policies toward accelerated permitting and deemed previous guidance inconsistent with policies prioritizing energy. The CEQ withdrew its interim NEPA guidance for the consideration of greenhouse gas emissions and climate change (88 Fed. Reg. 1196; January 9, 2023) to better align with policy objectives established within EO 14154 (90 Fed. Reg. 22472; May 28, 2025). Executive Order 14154 directed that "all agencies shall adhere to only relevant legislated requirements for environmental considerations and any considerations beyond these requirements are eliminated (Section 6(a))." Executive Order 14154 rescinded executive orders which contained requirements to consider climate change in federal actions: EO 13990 Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis and EO 14008 Tackling the Climate Crisis at Home and Abroad (90 FR 8353; January 2025).

Additionally, on January 21, 2025, the President issued a Presidential Memorandum *Ending Illegal Discrimination and Restoring Merit-Based Opportunity* which revoked EOs 12898 of February 11, 1994, (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) to ensure Federal civil-rights laws "are enforced for the benefit of all Americans."

The USDA Forest Service has complied with NEPA requirements, including the Agency's regulations and procedures implementing NEPA at CFR 36 Part 220, effective November 19, 2020, consistent with the President's January 2025 EO and Memorandum. The Grand Targhee Resort Master Development Plan Project is an activity implementing a land management plan. This activity is subject to pre-decisional administrative review under subparts A and B of 36 CFR Part 218 and 219.

Furthermore, the following text was added to **page 1** of the **Final EIS**, stating that this project began prior to the referenced regulatory changes and therefore the project will operate under the previously referenced Forest Service and CEQ regulations: "On July 3, 2025, the U.S. Department of Agriculture (USDA) released interim National Environmental Policy Act (NEPA) regulations at 7 CFR 1b and rescinded the

Forest Service NEPA regulations at 36 CFR 220. These regulations were made final on April 3, 2026. The regulations provide agencies with discretion to use either the new regulations, or the previous agency-specific regulations (36 CFR 220) and the 2020 version of the CEQ (Council on Environmental Quality) NEPA regulations (40 CFR 1500 – 1508) for projects already underway. The FEIS was prepared in with reference to the 2020 version of the CEQ regulations to the extent permitted by the Department of Agriculture's transition instructions."

1.2 With the absence of CEQ guidance (terminated by EO Recission of CEQ Regulations), I have worked to understand this agency's regulatory position, allowing this process to go forward. I have tried to delve into the procedure for NEPA per Forest Service Manual 1900 – Planning and specifically section 1950, Environmental Policy and Procedures. The USDA Forest Service Handbook states on page 3 that Forest Service Handbook shows CEQ Regulations for implementing requirements of NEPA with the Forest Service Regulations that supplement the CEQ regulations. It seems that the regulation no longer exists and the Forest Service handbook cannot be used without CEQ Regulation in place (only supplemental information remains available for our use in review of the DEIS). (14b.3)

Thank you for your comment concerning applicable CEQ guidance. **Page 22** of the **Final EIS** states, "The Forest Service assumes no responsibility for enforcing laws, regulations, or ordinances under the jurisdiction of other governmental agencies, Forest Service regulations require permittees to abide by applicable laws and conditions imposed by other jurisdictions." Additionally, in **Appendix C. Forest Plan Amendments**, on **page 535** of the **Final EIS**, it is confirmed that the project is being processed under Forest Service NEPA procedures at 36 CFR part 220, and the 2012 planning rule at 36 CFR part 219. Therefore, the amendments must comply with the procedural provisions of the 2012 rule, and not the obsolete 1982 rule.

As mentioned throughout the **Final EIS**, FSH 1909.15, and the cited FSMs are internal directives that implement and supplement CEQ's government-wide NEPA regulations and the Forest Service's own NEPA regulations at 36 CFR 220. Therefore, the **Final EIS** does not depend on any one version of CEQ guidance to remain effective. **Page 21** of the **Final EIS** states, "In compliance with FSH 1909.15 Chapter 18, the Forest Service would continually review the relevancy of the analysis and subsequent decision for new and changed conditions as any approved projects are advanced for implementation."

Page 23 of the **Final EIS** states "NEPA requires that an environmental analysis examine a range of alternatives, which would address and potentially resolve conflicts about the proposal." Furthermore, FSH 1909.15 directs the ID Team to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources".

NEPA is a statute that remains in effect. The CEQ was established by NEPA and is responsible for overseeing and coordinating the implementation of NEPA by federal agencies. CEQ's authority to issue government-wide NEPA regulations is derived from executive direction in EO 11991, which was rescinded by EO 11514 and returns the primary responsibility for NEPA procedures to individual federal agencies. Those CEQ regulations are codified in 40 CFR 1500–1508. These regulations establish the baseline procedural requirements for NEPA compliance, including the purpose and need for action, alternatives analysis, environmental consequences, public involvement, and interagency coordination, and

federal agencies, including the USDA Forest Service, are expressly authorized to adopt agency-specific NEPA procedures that supplement CEQ's regulations provided they are consistent with CEQ's requirements. Furthermore, the Forest Service's NEPA direction in FSM 1900 and FSH 1909.15 does not exist independently of CEQ regulations, nor does it require CEQ regulations to be reissued to remain valid.

No edits were made to the **Final EIS** in response to this comment.

1.3 I recommend rejecting GTR's proposed southeast boundary expansion. It is a federal violation of NPS D.O. #41, the 1963 Wilderness Act, the Endangered Species Act, and the National Forest Management Act, and it contradicts Forest Plan Standards of 1997, which would require an amendment to be implemented. (18.1) In addition, under the 2011 Ski Area Recreational Opportunity Enhancement Act, National Forest System (NFS) lands subject to a ski area permit shall harmonize the natural environment of the NFS lands on which the activity or facility is located to the extent practicable. It is paramount that the character of GTR be retained following completion of the proposed development plan projects and that GTR limit its impact to the natural environment both within the existing special use permit boundary and the proposed Special Use Permit (SUP) expansion areas. (582.1) (457.94) (300.14) (301.14) (302.14) (444.13) (720.8)

Thank you for your comment regarding the project's compliance with various regulatory frameworks. Please refer to the NEPA **RTC 1.1** and **1.2**, scenery **RTC 5.1,** wildlife **RTC 16.1**, and wilderness **RTC 13.1** for more information on compliance with the Wilderness Act, and the Endangered Species Act.

Page 16 of the **Final EIS** explains that the Forest Service evaluated the proposal for consistency with applicable policy and statutory direction, including the Forest Plan, the SAROEA, and FSM 2343.14 for ski area-related recreation.

While there are potential impacts to resources managed under some of the various acts referenced by the commenter, the acts themselves are acknowledged and guided the analysis in the **Final EIS**. Specifically, the Wilderness Act and Endangered Species Act guide the analysis of wilderness as contained in **Section 3.9** of the **Final EIS** and as summarized in the **Section 3.12 Vegetation** and **Section 3.13 Wildlife** of the **Final EIS** The National Forest Management Act is considered throughout the analysis, and Forest Plan Amendments (where inconsistencies exist between the Forest Plan and the proposed projects) are identified in **Appendices B and C** of the **Final EIS**. The Ski Area Recreational Opportunity Enhancement Act of 2011 amended the National Forest Ski Area Permit Act of 1986 to expand the types of recreational activities that ski areas operating on National Forest System lands may offer under their special use permits. Specifically, this act authorized the Forest Service to permit year-round, site-appropriate recreation within Ski Area special use permit areas. Specific references to these acts within the **Final EIS** and others are provided in greater detail in the following paragraphs.

On **page S-3** of the **Final EIS**, it is discussed that the proposed SUP expansion areas, including South Bowl, are located entirely on NFS lands within the CTNF; therefore, they do not overlap with National Park Service land, and the mentioned "Director's Order #41" would not apply. Furthermore, as noted on **pages 201-202** of the **Final EIS**, the adjacent JSW is a Forest Service-designated wilderness under the Wilderness Act of 1964 and the 1984 Wyoming Wilderness Act and is therefore managed under Forest Service wilderness regulations (36 CFR Part 293) and the 1997 Revised Targhee Forest Plan. As mentioned in wildlife **RTC 16.1, page 282** of the **Final EIS**, **page 1** of the **Wildlife Biological**

Evaluation, and **page 5** of the **Biological Assessment**, the scope of this analysis describes that species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species, and/or Species of Local Concern (SOLC)*.

Appendix B. Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards and Guidelines, on **pages 439-521** of the **Final EIS**, describes how any possible deviations from Forest Plan standards must be analyzed and documented in a forest plan amendment. Deviations from guidelines must be examined during project-level analysis and documented in a project decision document, but do not require a forest plan amendment.

Appendix C. Forest Plan Amendments on **page 535** of the **Final EIS**, it is stated that the "National Forest Management Act (NFMA) requires that authorized projects on National Forest System (NFS) lands, including third-party proposals subject to permits, be consistent with Forest Plan direction…Furthermore, as described under the NFMA and its implementing regulations at 36 CFR 219 (2012 Planning Rule), a Forest Plan may be amended at any time. Plan amendments may be broad or narrow, depending on the need for the change. The Forest Service has the discretion to determine whether and how to amend the 1997 Forest Plan and to determine the scope and scale of any amendment.

Additionally, as mentioned in NEPA **RTC 1.3**, **pages 16-21** of the **Final EIS** explain that the Forest Service evaluated the proposal for consistency with applicable policy and statutory direction, including the Forest Plan, the SAROEA, and FSM 2343.14 for ski area-related recreation.

No edits were made to the **Final EIS** in response to this comment.

1.4 [Ricks Basin and North Boundary Lift] I strongly oppose the proposed building of a road, guest facilities and a chairlift in Ricks Basin. On page 19 of the DEIS, the 2011 Ski Area Recreational Opportunity Enhancement Act, (SAROEA) states: "Importantly, each activity and facility authorized by the Secretary shall:" "Harmonize with the natural environment of the NFS lands on which the activity or facility is located;" and "Be located within the developed portions of the ski area;" The proposed road, guest facilities and chairlift for Ricks Basin would NOT be located within the developed portions of the ski area, nor would they "harmonize with the natural environment". The proposed lift and other developments that GTR is proposing in Ricks Basin are not allowed by the 2011 SAROEA. The proposed North Boundary Lift would ruin a pristine Nordic and multi-use area, Ricks Basin. It would require building a new road, the glading of a healthy aspen grove, and placing the base of a ski lift in a mostly undisturbed natural environment. One of the many pleasures of Nordic skiing in Rick's Basin is the solitude, the un-marred, quiet and peaceful place it is, just slightly away from the busy base area. Please ensure that the direction in the 2011 SAROEA is followed, and do not approve any changes to the current natural environment in Ricks Basin. (626.1) (631.1)

Thank you for your comment concerning the project components proposed in Rick's Basin. Generally, please refer to the NEPA **RTC 1.3**, scenery **RTC 5.1,** and noise **RTC 6.1** for more information on compliance with regulatory frameworks and PDC, which would maintain the characteristics currently experienced in Rick's Basin.

Additionally, the commenter is referencing FSM §2343.14(1)(e)(1). FSM §2343.14 is titled *Additional Seasonal and Year-Round Recreation Activities at Ski Areas* and was created to supplement the Ski Area Recreational Opportunity Enhancement Act (SAROEA). This supplement added criteria for determining whether proposals for additional seasonal and year-round recreation activities and associated facilities at ski areas were consistent with SAROEA. FSM §2343.14(1)(e)(1) states "To the extent practicable, harmonize with the natural environment of the site where they would be located by being visually consistent with or subordinate to the ski area's existing facilities, vegetation and landscape." This regulation is intended to keep seasonal and year-round activities from dominating the winter scenic experience. Specifically, in FSM §2343.14(1)(a) it states that the Forest Service must ensure that the primary recreation purpose of ski areas is skiing and other snow sports (36 CFR 251.51). The primary role of the North Boundary Lift, access administrative route, and Rick's Basin Guest Facility is to enhance the guest experience during winter months and enhance skier circulation on the north end of the existing SUP. At this time, it is not proposed that the North Boundary Lift would not be used during the summer months. Further, as described on **pages 34 – 35** of the **Final EIS**, under the Proposed Action there are proposed summer recreation trails, as well as Nordic, snowshoeing, and fat bike trails in Rick's Basin. Therefore, these proposed project elements would be expected to "harmonize with the natural environment".

Furthermore, **pages 19-20** of the **Final EIS**, describes that SAROEA is, "subject to the terms of a ski area permit, the Secretary may authorize a ski area permittee to provide such other seasonal or year-round natural resource-based recreational activities and associated facilities (in addition to skiing and other snow sports) on NFS lands subject to a ski area permit as the Secretary determines to be appropriate. Importantly, each activity and facility authorized by the Secretary shall: Encourage outdoor recreation and enjoyment of nature; and to the extent practicable: Harmonize with the natural environment of the NFS lands on which the activity or facility is located; and Be located within the developed portions of the ski area; Be subject to such terms and conditions as the Secretary determines to be appropriate; and Be authorized in accordance with: The applicable land and resource management plan; and Applicable laws (including regulations)."

No edits were made to the **Final EIS** in response to this comment.

1.5 Isn't the SUP boundary established in the Forest Plan and the whole purpose of this is to not allow expansion outside those boundaries until a new Forest Plan is developed? Since when did the Forest Service allow expansion outside ski area boundaries, especially when they are embroiled in controversy? Isn't the Forest Plan the guiding document? And if the terrain outside Grand Targhee's boundary was reviewed by SE Group – a company which prides itself in getting all EIS's, EA's, CE's approved - then have you (or the ski area) paid other organizations (wildlife, socio-economic, recreation) to study the issues with expanding outside the boundary? And even though one might argue that this is merely a Master Development Plan (and not specifically on the expansion outside the SUP), doesn't this become a Plan that typically ski areas can fall back on and say that it was all approved? Please, stick to Alternative 3. (1021.1)

Thank you for your comment. Please refer to the NEPA **RTC 1.1** and **1.2** for more information regarding the proposed project's compliance with the applicable regulatory framework.

On **page S-3** of the **Final EIS**, it is described that the CTNF will consider the application for use of NFS lands and determine if the project is in the public interest and is appropriate, based on the Forest Plan. Furthermore, the project's consistency with the Forest Plan is described on **pages 16-21** of the **Final EIS**. This section also describes the relevant management prescriptions that apply to the existing and proposed components of this project: Management Prescription 4.2 (Special Use Permit Recreation Sites), Management Prescription 2.1.2 (Visual Quality Maintenance), and Management Prescription 2.8.3 (Aquatic Influence Zone), in which the Forest Plan does not prohibit considering the expansion of a ski area SUP boundary through project-level NEPA analysis.

As part of this analysis, in **Appendix B. Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards and Guidelines** of the **Final EIS** contains an in-depth review of project component compliance with standards and guidelines, and **Appendix C. Forest Plan** describes the specific amendments that would be required in this analysis. Furthermore, **page 535** of the **Final EIS** describes that "under the NFMA and its implementing regulations at 36 CFR 219 (2012 Planning Rule), a Forest Plan may be amended at any time. Plan amendments may be broad or narrow, depending on the need for the change. The Forest Service has the discretion to determine whether and how to amend the 1997 Forest Plan and to determine the scope and scale of any amendment."

No edits were made to the **Final EIS** in response to this comment.

1.6 Furthermore, the proposed actions violate the spirit and various guidelines and goals from the 1997 Targhee Forest Plan, 5.3.5 Grizzly Bear Habitat section quoted below (pg 11-146) "Grizzly habitat maintenance and improvement, and grizzly-human conflict minimization will receive the highest management priority. Management decisions will favor the needs of the grizzly bear when grizzly habitat and other land use values compete. Land uses which can affect grizzlies and/or their habitat will be made compatible with grizzly needs or such uses will be disallowed or eliminated. Grizzly-human conflicts will be resolved in favor of grizzlies unless the bear involved is determined to be a nuisance bear. (IGBC, 1986) The abundance and distribution of natural food sources (such as huckleberry habitats, whitebark pine, etc.) are maintained or improved by natural events such as fire and insect disturbances, or by designed vegetation management activities" (pg III- 146). Likewise, the proposed expansion violates the top three goals of the Grizzly Bear Habitat section: 1. Make non-federal lands within this area a high priority for acquisition (this proposal runs counter to this idea) 2. Maintain grizzly bear security through a low density of open, motorized roads and trails. 3. Manage recreation to minimize grizzly conflicts with humans" (pg III-147). Furthermore, this proposed action would also violate the first guideline concerning roads in grizzly habitat: "Roads New or relocated roads should meet the following guidelines: (G) 1. Avoid high quality (such as whitebark pine habitat) grizzly bear habitat" (pg III-149). (711.16) S

Thank you for your comment concerning the guidelines described in the Forest Plan; however, the Project area is not located in Management Prescription Area 5.3.5, therefore, the referenced standards and guidelines do not apply to this project. Furthermore, project analyses were completed on grizzly bear and whitebark pine. Please refer to the wildlife **RTC 16.1** for more information. Additionally, please refer to the Vegetation **RTC 15.12,** addressing whitebark pine's significance as a keystone species, in which residual impacts to other resources may be experienced if individual trees and small stands are impacted. These responses to comments also describe possible effects on watershed hydrology, slower forest

succession, and a decrease in food sources for grizzly bears and Clark's Nutcracker in relation to whitebark.

No edits were made to the **Final EIS** in response to this comment.

1.7 The Mono Trees expansion will involve cutting trees to provide 97 acres of trails. Cutting these trails, from a visual perspective, will not be visually consistent with the existing ski area landscape or harmonize with the natural environment of the GTR site as required by the cited Forest Service Manual. When viewing GTR and the Teton Mtns from Teton Valley, Idaho, it is hard to see GTR, as the open terrain of Fred's Mtn and Peaked Mtn blend in with the entire front range terrain. Many people, unless they are aware of GTR's existence, don't currently realize that GTR exists when looking towards the Tetons. (26b.7)

Thank you for your comment regarding the visual impacts associated with the proposed Mono Trees expansion. As described on **page 99** of the **Final EIS** the feathering concept is considered in areas where ski runs would be fully cleared of vegetation: "trail edges would be feathered or scalloped to provide a variable line, thereby minimizing linear cuts in overstory vegetation. Larger inter-trail tree islands would be maintained to minimize the impact of cleared trails. Cleared ski trails would create contrast with the adjacent and undisturbed natural landscapes; however, they would be located within the existing developed trail network or otherwise near existing ski area infrastructure."

Furthermore, on **page 46** of the **Final EIS** the following PDC specifically suggests feathering proposed ski runs: "Avoid straight edges where removing trees. The edges of lift-lines, trails, glades, and structures, where the vegetation is removed, need to use a variable density cutting (feathering) technique applied to create a more natural edge that blends into the existing vegetation. Edges should be non-linear, and changes in tree heights along the edges of openings should be gradual rather than abrupt. Soften hard edges by selective removal of trees of different ages and heights to produce irregular corridor edges where possible."

Additionally, please refer to the NEPA **RTC 1.1, 1.2,** and **1.4**, Vegetation **RTC** 15.2, and scenery **RTC 5.1** for more information on the impacts associated with glading and tree clearing.

No edits were made to the **Final EIS** in response to this comment.

1.8 In light of our current political situation concerning parks and park management, the approval of expanding the terrain portion of this project would be grossly irresponsible. We do not have the workforce to manage our federal lands at this point in Teton County, Wyoming, and we certainly do not have the resources in Teton Valley, Idaho. Therefore, we do not have the ability to effectively monitor this expansion, let alone enforce the issues created by it. (103.1) Can CTNF make these commitments? Can USFS ensure the public's safety and environmental protection? Given the extreme uncertainty about government staffing and abilities, how realistic is the DEIS? (697.2)

Thank you for your comment regarding the monitoring and management of the proposed projects. GTR's infrastructural network operates on public lands administered under a SUP from the CTNF. Additionally, GTR is located within Management Prescription 4.2 – Special Use Permit Recreation Sites. This prescription applies to ski areas, resorts, summer home sites, and organization camps that are allowed

under a special use permit from the Forest. The emphasis is on providing privately-operated types of recreation on NFS land for large concentrated groups of people. Overall, it is expected that visitors will see many signs of people, and little or no evidence of resource development except for recreation.

As detailed on **page 3** of the **Final EIS**, GTR's SUP and associated summer and winter operating plans, as well as other resource management documents, provide more specific guidance for annual winter and summer ski area operations and projects. Therefore, CTNF's ability to make commitments and enforce them is secured through the terms of GTR's SUP, and responsibilities for operations fall on GTR.

Furthermore, **page 4** of the **Final EIS** describes that the South Bowl area is currently situated beyond GTR's SUP, which presents high avalanche risk to skiers recreating in this area. However, the proposed project would include this area within GTR's SUP, resulting in active operations and management, which would reduce the risk to backcountry skiers and increase monitoring and management in this area.

On **page 19** of the **Final EIS**, it is described that GTR is one of 122 ski areas operating on NFS lands in the United States, which are authorized under a SUP required by the National Forest Ski Area Permit Act of 1986. In the case of GTR, their infrastructural network operates on public lands administered under a SUP from the CTNF. In FSM 2343.14(1)(a) it states that the Forest Service must ensure that the primary recreation purpose of ski areas is skiing and other snow sports (36 CFR 251.51). On **page 536** of the **Final EIS**, it is described that, "A programmatic amendment to the Targhee Forest Plan is necessary to incorporate the proposed SUP expansion areas into the GTR SUP area and designate them as Management Prescription 4.2 Special Use Permit Recreation Sites." As such, this would increase operations and management within the proposed SUP expansion areas.

Table 2.4-1 Project Design Criteria on **pages 44-56** of the **Final EIS**, includes extensive PDCs that GTR would implement to achieve forest service standards and guidelines. These PDC's include specific protocols for erosion control, noxious weed management, and wildlife protection. The agency places the burden of implementation and often the cost of monitoring on the permit holder (GTR), ensuring that environmental protection does not rely solely on appropriated agency staffing levels.

Furthermore, **pages 41-42 of the Final EIS describes that** GTR is required to submit a comprehensive "Construction Implementation Plan" for Forest Service review and authorization, prior to any ground disturbing activities. Additionally, this plan must detail project timelines, disturbance boundaries, and erosion control measures. If GTR fails to adhere to this plan, the Forest Service has the authority to suspend construction or operations, demonstrating both GTR and CTNF's management commitments.

No edits were made to the **Final EIS** in response to this comment.

1.9 I oppose footing the bill for the increased road maintenance, more law enforcement, waste management, water management, emergency services, etc. (120.5)

Thank you for your comment regarding the financial responsibility associated with increased essential services. Please refer to the Socioeconomic **RTC 7.1** for more information.

Furthermore, **pages 123-126** of the **Final EIS**, describe that the project generates tax revenue to support these services. The **Final EIS** estimates that the project will generate approximately $11.4 million in total tax impacts annually (combined winter and summer), which accrue to local and state governments. Additionally, this section states, "The Idaho State Tax Commission collects most Idaho taxes and

distributes the revenue to counties and municipalities, but property taxes are collected by counties. The study area counties in Idaho (Teton, Bonneville, and Madison counties) had property tax revenues ranging from approximately $18 million in Teton County, ID to approximately $106 million in Bonneville County. In Teton County, Wyoming, total tax revenue was approximately $40 million in 2020. Sales and use tax was the primary contributor to this revenue, followed by property taxes."

Page 135 of the Final EIS states, "The impact would likely be greatest in Teton County, Idaho, as that is where much of the regional workforce and many GTR employees presently reside. The potential for increased visitation is also likely to increase demand for short-term rentals and vacation homes, further straining housing availability and affordability. Seasonality of housing demand may also be exacerbated. Additionally, due to the lack of affordable housing available within the study area, GTR would need to continue to implement employee housing projects as its staffing needs to grow."

Additionally, **page 136** of the **Final EIS** states that demands for human and social services, such as schools, emergency services, and public transportation, would increase commensurate with the increase in visitors and FTEs projected under each alternative. Impacts would likely be greatest in Teton County, Idaho, as that is where much of the regional workforce related to GTR visitation currently resides. Additionally, it is anticipated that increased transportation demand and the associated public infrastructure costs are expected to be commensurate with the level of increased visitor spending and FTEs projected under each alternative.

No edits were made to the **Final EIS** in response to this comment.

1.10 Not enough oversight due to reduced staff capacity of the USFS to adequately oversee restoration of damage incurred during logging, road building, lift installation *There are many instances of GTR's contractors failing to comply with local and government rules. A recent example involves the construction on the cabins and the need to dig up Ski Hill Road to tie in a sewer line. The contractor failed to get the proper permit from Teton County, WY Transportation Department to dig up this road. (333.4)

Thank you for your comment concerning shortcomings in Forest Service staff capacity and compliance with local and government regulations. As discussed in the NEPA **RTC 1.8**, **Table 2.4-1 Project Design Criteria** on **pages 44-56** of the **Final EIS**, includes extensive PDCs that GTR would implement to achieve forest service standards and guidelines. These PDC's also include specific protocols for erosion control, noxious weed management, and wildlife protection. The agency places the burden of implementation and often the cost of monitoring on the permit holder (GTR), ensuring that environmental protection does not rely solely on appropriated agency staffing levels.

No edits were made to the **Final EIS** in response to this comment.

1.11 The Teton County Board of County Commissioners respectfully requests that the Caribou Targhee National Forest extend the comment period for the Grand Targhee Master Development Plan Draft Environmental Impact Statement (DEIS) by 60 days. It is our understanding that the DEIS was published in the Federal Register on March 21, 2025, beginning the 90-day comment period. The publication date coincided with Spring Break, when many people in Wyoming and Idaho are away and unavailable due to schools being out. In the case of Teton County, Wyoming the schools release for two weeks during that time period. (32.1) NEPA emphasizes meaningful public participation. The extended DEIS

preparation period and limited analysis of certain alternatives did not provide sufficient opportunity for input or consideration of public concerns. (457.70) Furthermore, NEPA emphasizes public participation and requires agencies to consider public input during the scoping and review process. The DEIS inadequately addresses community concerns, such as housing shortages, traffic congestion, wilderness preservation, and strain on public services. (457.80) The planning process was extended multiple times, yet lacked ongoing, meaningful public involvement, leaving many residents feeling excluded from decisions that will profoundly impact their lives. We urge the Forest Service to read each public comment in detail and actively incorporate feedback from local stakeholders and the local community in their decision–making process. (134.1) (457.58) (545.2) (545.17) (701.1) (457.117)

Thank you for your comment. On **page 543** of the **Final EIS**, it is described that, "Per direction in 36 CFR 219.16, and because an EIS is being prepared for the review of the proposed projects, and there is a potential for significant resource impacts beyond those requiring Forest Plan amendments, a 90-day comment period for the plan amendments and Draft EIS (DEIS) is required. This is also consistent with the direction provided at FSH 1909.12 - Land Management Planning Handbook, Chapter 20 – Land Management Plan." Therefore, the 90-day comment period was provided, and the project was consistent with CFR 219.16.

Additionally, on **page 544** of the **Final EIS**, it is also mentioned that public notifications for the proposed plan amendments will be combined into a single notice and comment period, with a minimum 90-day comment period consistent with § 219.16(a)(2). Notice will be provided through the Federal Register, the project website, direct outreach to interested and affected parties, and a news release, and those who submit timely, specific written comments will be eligible to file objections under 36 CFR 219.53.

Furthermore, the following text has been added to **Section 1.5 Public Involvement** on **page 6** of the **Final EIS**, to describe the public involvement and outreach that occurred during this NEPA process: "A Notice of Availability (NOA) for the Draft EIS was published in the Federal Register and a legal notice was published in the Post Register on March 21, 2025. This initiated a comment period on the Draft EIS, providing the public with the opportunity to comment for 90 days following publication of the legal notice. Comments on the Draft EIS were received until June 20, 2025. During this comment period one public open house meeting was held at the Driggs City Center on April 17, 2025, to further inform the public of the publication of the Draft EIS and the analyses that were completed. Additional information was available on the CTNF project website (https://www.fs.usda.gov/r04/caribou-targhee/projects/58258). Comments were accepted from the following sources: email, web submission, and mailed in letters."

1.12 I may have missed it, but I didn't see a timeline for when the actual expansion into the South Bowl and Mono Trees is planned to occur. Based on the roughly three decades it took to approve the Colter lift, what seems to be a lot of development based on current skier visits may not seem so "massive", as some are calling it, ten or twenty years from now, when the local skier population may also be much larger than it is now. Population growth in the transportation corridor stretching from Pocatello to Jackson is projected to make this corridor resemble the heavily populated Wasatch Front by 2050. If this proves to be the case, resort crowding will be a significant issue and needs to be planned for now, which it appears Grand Targhee is doing by proposing more development than is

currently needed. However, this expansion will definitely be needed as the regional population grows (99.2).

Thank you for your comment regarding the proposed project timeline and concerns about population growth in the transportation corridor between Pocatello and Jackson. Please refer to the recreation **RTC 4.1**, socioeconomics **RTC 7.1**, and traffic and parking **RTC 8.1** for more information, on increasing visitation and population growth related to the proposed projects, and the capacity of the proposed projects to accommodate regional population growth.

Furthermore, as discussed in NEPA **RTC 1.8**, **pages 41-42** of the **Final EIS** describes that GTR is required to submit a comprehensive "Construction Implementation Plan" for Forest Service review and authorization, prior to any ground disturbing activities. Additionally, this plan must detail project timelines, disturbance boundaries, and erosion control measures. If GTR fails to adhere to this plan, the Forest Service has the authority to suspend construction or operations, demonstrating CTNF's management commitments and the associated schedule.

As the commenter describes, it is true that there is no specific timeline for the proposed projects. However, **pages 41-42** of the **Final EIS** states, "Further, should the projects included in the Proposed Action occur, implementation would occur over an approximately 10-year period from the time of approval. Project implementation would be subject to capital availability and may be expedited or delayed based on economic conditions that are beyond the scope of this analysis." Describing that the project would occur in less than a 10-year timeframe and implementation would be dependent on financial constraints.

No edits were made to the **Final EIS** in response to this comment.

1.13 The Grand Targhee expansion would take 866 acres of Forest Service land out of general public access. Although it is not a sale of public lands and it would remain Forest Service land under the SUP, access would be limited to Grand Targhee paying customers. This is inconsistent with the spirit of the pending Public Lands in Public Hands Act (H.R.718).(364.1) The expansion violates the Forest Service mandate of allowing multiple uses on public lands. This public land will become a construction zone and a business zone, and will not be accessible to the public for free. Why allow a successful business to increase its revenues on our public lands? (343.3)

Thank you for your comment concerning public access to the proposed South Bowl and Mono Trees expansion. Please refer to the NEPA **RTC 1.8** and **1.9**, in which it is described that the proposed projects would result in the issuance of a SUP; therefore, all of the expansion area would remain NFS land managed by the CTNF under a SUP. Furthermore, no sale or exchange of federal land is proposed; therefore, access to public lands would not be limited entirely to paying customers. Although access to public lands would be restricted in time and location, and only paying customers would be permitted to access the lifts and resort infrastructure, numerous recreation opportunities would remain free (i.e., hiking and cross-country mountain biking). Please refer to recreation **RTC 4.20,** for more information on recreation opportunities available at GTR. Additionally, please refer to the NEPA **RTC 1.3** and **1.4**, which detail the project's compliance with the applicable regulatory framework.

No edits were made to the **Final EIS** in response to this comment.

1.14 Beginning Analysis of the resort's financial status is paramount. The proposed expansion appears to require significant investment and possible risk. This issue must be examined given that the resort has completed its land exchange, the establishment of an inholding. (445.2) Additionally, clarification is needed on how Federal Land Payments to counties would be affected by changes in visitation or fees. (457.64)

Thank you for your comment regarding the possible financial risk GTR may assume by proposing this project. Please refer to the NEPA **RTC 1.9** and **1.12,** and the socioeconomics **RTC 7.1** for more information.

Regarding the request for an analysis of the resort's financial status, investment, and risk, NEPA does not require a financial feasibility or return-on-investment analysis for the project proponent to be included in an EIS. As mentioned on **pages 1-2** of the **Final EIS**, the purpose of the EIS is to analyze the potential environmental, social, and economic impacts of the proposed action on the human environment, rather than the business viability of the applicant. Although not detailed in the **Final EIS**, the Forest Service evaluates the financial and technical capability of a proponent before the issuance or amendment of a SUP. This is an administrative determination required under 36 CFR 251.54(e)(5) to ensure the holder has the capacity to construct, operate, and maintain the proposed facilities. While this review provides that the proponent can undertake the project, the proprietary financial details are not typically disclosed in the public NEPA document.

Furthermore, in **Table 3.4-5. Federal Land Payments to State and Local Governments by Study Area County,** on **page 125** of the **Final EIS**, Federal Land Payments, including the specific payment elections and projected impacts for each county, are detailed. Further demonstrating that Teton County already has the highest federal land payments among adjacent counties.

No edits were made to the **Final EIS** in response to this comment.

1.15 Construction has finally started on the public land that the FS allowed to be created as an inholding at GTR. Disturbance from that construction is impacting resort visitors now. I suggest it is not timely to approve more expansion and construction until the full impacts of creating private residences at the resort can be evaluated over the next few years. Is the request for expanding the ski area now a means to promote real estate sales? How will this current real estate development possibly affect the future financial stability of the resort? Does the resort have the financial means to complete the requested improvements within the current permit area in a timely fashion given the ongoing construction on private land? (724.12)

Thank you for your comment regarding the impacts of the private land development at the base of GTR and the possible effects on the proposed projects. Please refer to the NEPA **RTC 1.9** and **1.12,** and socioeconomics **RTC 7.1** for more information.

The private land development referenced by the commenter is the GTR's First Amended Master Plan – Planned Unit Development for Planned Resort, approved by Teton County, Wyoming, in 2019. On **pages 141-142** of the **Final EIS**, it is detailed that this development authorizes up to 450 residential/accommodation units and 12,300 square feet of commercial and resort services on approximately 120 acres of private land at the base of the resort.

Furthermore, on **pages 141-142** of the **Final EIS**, cumulative impacts of the First Amended Master Plan – Planned Unit Development for Planned Resort in combination with all action alternatives are detailed. Additionally, on **page 142** of the **Final EIS**, it is stated that, "No portion of the implementation of the project approved under the First Amended Master Plan – Planned Unit Development for Planned Resort is dependent, reliant, or connected to approval of any of the action alternatives by the Forest Service. GTR has been advancing projects on private land from the First Amended Master Plan – Planned Unit Development for Planned Resort since their approval and would implement these projects regardless of the projects being approved under this analysis."

No edits were made to the **Final EIS** in response to this comment.

1.16 I am only in favor of development within the existing resort boundary, with the provision that either such development does not cause any requirement for off-resort infrastructure development or any requirement for off-resort infrastructure development is funded by Grand Targhee prior to resort development. (454.1) Grand Targhee has significant acreage within the current permit boundary, which, even according to information presented, is currently underdeveloped. There are some 'development/enhancement features' cited within the current footprint that appear to have been acceptable to be accomplished, but Grand Targhee has chosen not to carry out. If they truly believe they are important, they should proceed. Holding such development work within current footprint hostage to approval for more terrain should neither be acceptable nor tolerated. (454.2) (9b.5)

Thank you for your concern regarding the project components proposed beyond GTR's existing SUP. Additionally, we understand your concerns regarding the proposed project expansion's dependence on certain projects proposed within the existing SUP. Please refer to the NEPA **RTC 1.1**, **1.2**, and **1.9,** and the socioeconomics **RTC 7.1** for more information.

As indicated on **pages 36-38** of the **Final EIS**, the consideration of Alternative 3 is discussed, in which no expansion of the existing SUP is proposed. Therefore, projects proposed within GTR's existing SUP do not depend on the SUP expansion and can be implemented independently. However, **pages 3-5** of the **Final EIS** describe the proponent's objectives and the extent of the benefits that would be achieved if projects proposed within GTR's SUP were implemented in unison with those projects proposed in South Bowl and Mono Trees.

As mentioned on **page 6** of the **Final EIS**, the proposed action alternatives were developed through a robust scoping process involving 387 comment letters and 1,338 substantive comments. Alternative 3 was specifically created in response to public concerns. NEPA requires analysis of a reasonable range of alternatives to inform decision-making, not to condition one set of actions on approval of another. As mentioned, **pages 36-38** of the **Final EIS** explicitly describe Alternative 3, which was specifically developed in response to public comments expressing concerns about expansion beyond the existing SUP (into South Bowl and Mono Trees).

Pages 127-129 of the **Final EIS** and the socioeconomics **RTC 7.1** explicitly describe that while the project would contribute to existing regional trends (housing demand, traffic, workforce needs), it would not create new development pressure. Rather, this project represents a continuation of ambient growth patterns already occurring in Teton County. The impacts are quantified, localized and mitigated through project design, with no requirements for off-resort infrastructure development. Furthermore, regardless of

proposed project alternatives, population growth in each of the study area counties is predicted to continue through 2029 at rates close to 1 percent.

No edits were made to the Final EIS in response to this comment.

1.17 The City of Victor's 2021 Re-envision Victor Comprehensive Plan sets a clear standard: any tourism or development must protect our rural character, dark skies, and environmental resources and must not undermine the well-being of local residents. Our plan is not an outlier—it is echoed by the Teton County, Idaho and Wyoming Comprehensive Plans, the Teton Regional Transportation Plan, Teton County Housing Needs Assessment, and the Jackson Hole Sustainable Destination Management Plan. All of these frameworks place environmental integrity and community health above visitor satisfaction and unchecked economic growth. This approach contrasts with the United States Forest Service's traditional multiple-use mandate, which does not explicitly prioritize community or environmental values above recreational opportunity. We urge the Caribou-Targhee National Forest to recognize and honor the clear priorities established by local and regional planning: responsible, sustainable growth, not growth for its own sake. (456.2) Align the Caribou-Targhee National Forest's decisions with the priorities set forth in Victor's and the region's comprehensive plans, which place community and environmental values first. (456.7)

Thank you for your comment regarding the project's recognition of the City of Victor Comprehensive Plan (2021). Please refer to the NEPA **RTC 1.1**, **1.2, 1.3**, and **1.5** for more information, and a description of the proposed project's compliance with NEPA regulations and other applicable Federal, State, and Local Policy and Guidance.

Appendix A. Cumulative Effects Projects on **pages 429-438** of the **Final EIS** explicitly lists the City of Victor Comprehensive Plan (2021), Teton County, Idaho Comprehensive Plan (2012), and Jackson/Teton County Comprehensive Plan (2012) as reasonably foreseeable actions or guiding documents considered in the cumulative effects analysis. Additionally, while the Forest Service strives to coordinate with local planning efforts, the agency's decision-making authority is governed by federal law, specifically the NFMA and SAROEA, and not by town, county, or state governance. Furthermore, the mentioned federal mandates require the Forest Service to manage National Forest System lands for multiple uses, including outdoor recreation, which serves a broad public constituency that extends beyond local municipal boundaries.

Additionally, FSM 2343.14 is titled "Additional Seasonal and Year-Round Recreation Activities at Ski Areas" and was created to supplement the SAROEA. This supplement added criteria for determining whether proposals for additional seasonal and year-round recreation activities and associated facilities at ski areas were consistent with SAROEA. This regulation is intended to keep seasonal and year-round activities from dominating the primary purpose of ski areas which is the winter experience. Specifically, in FSM 2343.14(1)(a) it states that the Forest Service must ensure that the primary recreation purpose of ski areas is skiing and other snow sports (36 CFR 251.51).

Additionally, **page 90** of the **Final EIS** explicitly recognizes the importance of dark skies, noting Driggs' status as an "International Dark Sky Community" and the dark sky values of GTNP. The report analyzes potential impacts from night lighting and glare and describes specific measures to mitigate these effects.

Please refer to scenery **RTC 5.1** for additional information. Further, **pages 96-105** of the **Final EIS** synthesizes public scoping comments regarding the "quiet, rural nature of the Teton region." The analysis acknowledges that development could threaten this quality of life. However, implementing the proposed PDCs and adhering to Forest Plan standards would retain conditions visually subordinate to the characteristic landscape and would not violate VQOs for "Retention" to "Partial Retention" in sensitive areas. Please refer to socioeconomics **RTC 7.1** for additional information.

No edits were made to the Final EIS in response to this comment.

1.18 While mitigation measures are mentioned, the DEIS does not provide detailed plans for how these measures will be implemented, monitored, or enforced. Will the Forest Service have adequate resources to supervise this work and minimize risk to downstream water resources? Wildlife Protection: Specific strategies to mitigate impacts on species like owls, bighorn sheep, grizzly bears, and Canada lynx are not fully detailed, especially regarding long-term monitoring and adaptive management. Vegetation Restoration: The DEIS mentions revegetation but lacks specifics on timelines, seed mixes, or success criteria. (457.19) The PDC are noted only to apply to the Proposed Action. If other alternatives are chosen or parts of alternatives chosen and combined into a new alternative the PDC would not apply. I don't know if this is the intent or just poor presentation. Clarify in the document. (1066.28) (457.68) (457.78) (457.122) (477.9) (557.9) (565.3)

Thank you for your comment regarding the implementation, monitoring, and enforcement of mitigation measures with specific attention to wildlife protection and vegetation restoration. Please refer to the NEPA **RTC 1.8** and **1.17,** alternatives **RTC 20.1,** hydrology **RTC 18.1,** wildlife **RTC 16.1, Vegetation RTC 15.1,** and **Table 2.4-1 Project Design Criteria** in the **Final EIS** for more information and PDC associated with each resource.

In **Table 2.4-1 Project Design Criteria** on **pages 44-45** of the **Final EIS,** it is stated that GTR shall develop a Construction Implementation Plan for Forest Service review and authorization prior to starting construction activities on NFS lands. As part of the mentioned Construction Implementation Plan, adherence to project PDCs, including potential need of monitoring and enforcement, would be included. If GTR fails to adhere to this plan, the Forest Service has the authority to suspend construction or operations, demonstrating CTNF's management commitments. Specifically, "All proposed construction methodologies and practices will be reviewed for compliance with the decision and resource management direction. This plan shall include the following information: Construction Management: Project timelines, project contracts, disturbance boundaries, grading and site plans, staging and parking areas, construction access, and any required survey information; Timber management: Defined logging deck areas and skid paths, and protocol for timber removal; Erosion Control and Drainage Management: Erosion control and drainage management activities (refer to the Pre-Construction PDC for watershed resources for additional detail); Post-Construction Revegetation and Restoration plan: Methodology, locations, vegetative mixes, and soil amendments; Noxious Weed Management: Weed control methodologies including equipment cleaning, pretreatment, and post-construction monitoring and treatment; and Best Management Practices (BMPs): Resort BMP list to be employed and adhered to during project implementation."

Additionally, **page 21** of the **Final EIS** states: "The Forest Supervisor is not required to choose either an action alternative or the No Action Alternative described herein, but may select components of an action

alternative or develop an entirely new alternative created from components of each. In addition to determining which alternative to select, the Forest Supervisor would also determine any required Project Design Criteria (PDC) and Best Management Practices (BMPs). The Forest Supervisor may also require additional PDC and/or BMPs not discussed within this document. The Forest Supervisor may also require monitoring of PDC."

The following text was added to page 44 of the Final EIS, describing that the listed amendments and PDC would apply given the selection of all action alternatives 2, 3, 4 and 5: "The environmental analysis throughout Chapter 3 of this FEIS assumes that relevant PDC from Table 2.4-1, as well as applicable Forest Plan amendments described in Appendix C would be applied under all action alternatives (Alternatives 2, 3, 4, and 5) as applicable. The effects disclosed for each alternative are further described in Chapter 3 in which possible amendments associated with Alternatives 2, 3, 4 and 5 are disclosed, as well as applicable PDC to mitigate resource impacts."

Additionally, the following text was added to **pages 44-45 of the Final EIS**, describing the purpose of the Construction Implementation Plan (CIP): "The CIP shall detail planned construction/implementation methodologies sufficient to demonstrate compliance with, and fulfillment of, all applicable Project Design Criteria. If, during the course of implementation, GTR fails to adhere to the CIP, the Forest Service has the authority to suspend construction or operations."

1.19 There have been no studies submitted or plans to mitigate effects from construction damage, increased water use and waste, traffic congestion, and increased need for employee housing. (593.4)

Thank you for your comment regarding mitigating effects from construction, increased water use and waste, traffic congestion, and the need for employee housing. Please refer to the socioeconomics **RTC 7.1** for information on employee housing, traffic and parking **RTC 8.1** for information on traffic and congestion, hydrology **RTC 18.1** for more information on water use and waste, and **Table 2.4-1 Project Design Criteria** in the **Final EIS** for PDC associated with each resource. Additionally, please refer to NEPA **RTC 1.18,** which discusses the Construction Implementation Plan, which would include monitoring and enforcement of project PDCs.

No edits were made to the **Final EIS** in response to this comment.

1.20 While BMPs such as those applied to GTR expansion projects are very important for reducing impacts, in the absence of an evaluation of the efficacy of the activity-specific BMPs in or around the Project area, the EPA has concerns with the use of BMPs being used to make broad conclusions regarding Project impacts. We recommend the Final EIS either provide a data-based evaluation of the efficacy of specified BMPs that will be used or address the uncertainties associated with reliance on PDC and BMPs to manage impacts. A primary way to address uncertainties in BMP effectiveness is through rigorous inspection and enforcement of the measures' implementation, maintenance, and effectiveness. The BMPs also appear to be discretionary, utilizing terms such as "should be applied," which offer no guaranteed protections. Because the Draft EIS does not provide specific information about monitoring of implementation and effectiveness of PDC and BMPs, we recommend the Final EIS outline a monitoring and inspection plan for construction periods, including timeframes for corrective action, to ensure that adverse

impacts are mitigated. To ensure efficacy in implementation and application of the PDC and BMPs, the EPA recommends the Final EIS include the following information, particularly for areas of higher likelihood of impacts such as wetlands, that need a greater level of protection:

• A detailed plan for monitoring of the mitigation measures with specific temporal milestones to ensure timely and correct implementation as well as timely maintenance;

• Specific environmental thresholds based on protecting the minimum desired environmental conditions in the project area which would trigger further action;

• Management alternatives and mitigation measures that would be implemented should a threshold be exceeded, and timeframes for corrective action; We also recommend discussing the process that will be applied if monitoring budgets fall short of the need for this Project. Typically, lack of monitoring would automatically trigger a more conservative treatment area and/or set of mitigation measures. (668.3)

Thank you for your comment. Generally, concerns regarding the associated PDCs and BMPs being discretionary and not backed by data-based evaluation, are addressed in NEPA **RTC 1.8**, and on **pages 41-42** of the **Final EIS,** which describes that GTR is required to submit a comprehensive "Construction Implementation Plan" for Forest Service review and authorization, prior to any ground disturbing activities. Additionally, this plan must detail project timelines, disturbance boundaries, and erosion control measures. If GTR fails to adhere to this plan, the Forest Service has the authority to suspend construction or operations, demonstrating CTNF's management commitments.

Additionally, NEPA **RTC 1.18**, states that **page 21** of the **Final EIS,** clarifies that the Forest Supervisor would also determine any required PDC and Best Management Practices (BMPs). The Forest Supervisor may also require additional PDC and/or BMPs not discussed within this document. The Forest Supervisor may also require monitoring of PDC. Please refer to the resource specific **RTC** and **Table 2.4-1 Project Design Criteria** in the **Final EIS** for more information and PDC associated with each resource.

No edits were made to the **Final EIS** in response to this comment.

1.21 The normal approach in an EIS is to analyze actions and apply mitigations to address impacts. In this EIS, the Forest Service has taken a more backwards approach that tries to mitigate impacts prior to identifying them. This approach could mask and likely underestimate some impacts. The analysis should be revised to follow the more standard and accepted approach of identifying impacts followed by the defining mitigations to reduce those impacts. (1066.29)

Thank you for your comment concerning the analysis of actions and specific mitigation measures to address impacts. Please refer to NEPA **RTC 1.1**, **1.2**, and **1.3** for specific details on the NEPA process and the project's compliance with specific regulations.

Additionally, mitigation measures and PDCs are outlined according to resource in **Table 2.4-1 Project Design Criteria** on **pages 44-56** of the **Final EIS**. As stated on **page 44** of the **Final EIS,** "PDC were devised by subject matter experts and Forest Service specialists in the pre-analysis and analysis phases to reduce potential environmental impacts associated with project elements and ensure compliance with laws

and regulations. PDCs come from federal, state, and local laws, regulations, and policies; forest management plans; scientific recommendations; or from experience in implementing similar projects. Specific sources include the *1997 Forest Plan*, the National BMPs for Water Quality Management on NFS Land, and USDA FS Ski Area BMPs, among others. The majority of the PDC provided in **Table 2.4-1** are considered common practices that have been historically used in similar environments, including those that exist at ski areas, to prevent or decrease potential resource impacts."

No edits were made to the **Final EIS** in response to this comment.

1.22 I quote Geordie Gillette "We'll take measures to ensure that adverse impacts are avoided and species viability isn't compromised. The resort will try to mitigate impacts to the extent possible". What measures and what is meant by to the extent possible? Those are important questions and who really knows the answers? None of us can know how effective mitigation efforts work. This project is bound to damage our alpine ecosystems, including old growth and white bark pine forests. It's hard for me to delineate between environment and wildlife, as they go hand in hand and include us humans too. Construction damage and long-lasting use of the proposed expansion will adversely affect the environment in many ways. (805.3)

Thank you for your comment concerning mitigation of impacts associated with project impacts on alpine ecosystems, old growth and whitebark pine. Please refer to NEPA **RTC 1.1**, **1.2, 1.3**, and **1.21** for specific details on the NEPA process and the project's compliance with specific regulations.

Additionally, please refer to the wildlife **RTC 15.1**, and Vegetation **RTC 15.1**, **15.9**, and **15.11**, for specific details on the proposed project's **impact on wildlife and vegetation.**

No edits were made to the **Final EIS** in response to this comment.

1.23 A systemic concern is that the Draft EIS provides a generalized analysis for many of GTR's proposed expansion projects rather than detailed information and supporting data that would enable a meaningful, site-specific impacts analysis. For example, effects analyses for resources do not take into consideration a construction plan for GTR's projects, which would assist in developing a comprehensive air emissions inventory and thus enable a more meaningful air quality analysis. The Draft EIS also does not identify the locations for the glading GTR is proposing, nor does it provide an estimate of ground disturbance, tree removal, and specific resources impacted by this activity. Given the lack of site-specific analysis, along with the high potential of impacts to water resources, it is unclear how the Forest Service will ensure that impacts to these resources are avoided or appropriately mitigated. Based on this assessment, the EPA recommends that the Final EIS provide additional data and development plans for each of GTR's proposed expansion projects and corresponding site-specific analyses. (668.1)

Thank you for your comment. We acknowledge the EPA's comment regarding the level of detail provided in the **Final EIS** for the GTR MDP Projects. As described throughout the **Final EIS**, the NEPA analysis has been prepared at a programmatic level appropriate for the decision being made, and detail and specific data supporting these analyses are provided on a resource-specific level throughout the document.

As described in NEPA **RTC 1.3**, the Forest Service evaluated the proposal for consistency with applicable policy and statutory direction. Furthermore, as described in NEPA **RTC 1.21**, specific areas of concern were identified and classified as being either "*issues*" or "*resources dismissed from further documentation*." *Issues* may warrant the generation of an alternative, can be addressed by PDC or mitigation, or generally require in-depth analysis and disclosure. *Resources dismissed from further documentation* are beyond the scope of the project, are already decided by law, regulation or policy, or are not relevant to the decision.

Additionally, in **Table 2.2-1** on **pages 23-24** of the **Final EIS**, the type of disturbance associated with each project component of the proposed action is detailed. Additionally, **pages 23-34** of the **Final EIS** describe the disturbance area and disturbance type separated by project component. Furthermore, **page 29** of the **Final EIS** explains that "Approximately 214 acres of traditional terrain developments are proposed within the existing GTR SUP area. Additionally, improvements to existing glades, combined with additional gladed areas would result in approximately 550 acres of gladed areas across the resort (a portion of this glading extends into the proposed Mono Trees area)." As is further described on **page 100** of the **Final EIS** "the proposed glades would have some impact on scenic resources, as approximately [up to] 40 percent of trees [within each polygon glade] would be removed…PDC have been incorporated into the Proposed Action to reduce the degree of scenic impacts associated with the proposed glading (refer to **Table 2.4-1**)." Finally, please refer to **Figure 2** on **page 398** and **Figure 5** on **page 400** that show the proposed glades within the existing SUP area and proposed Mono Trees expansion area. Additionally, please refer to section **3.1.4. Direct and Indirect Environmental Consequences** on **pages 68-85** of the **Final EIS**, as well as resource-specific response to the comments sections for specific details on the proposed project's impacts on each resource.

No edits were made to the **Final EIS** in response to this comment.

1.24 NEPA requires an EIS to assess cumulative impacts, including the combined effects of the proposed action with past, present, and reasonably foreseeable future actions. The document fails to fully account for broader impacts such as climate change, in-holding base area development, regional development, increased recreation, and habitat fragmentation. (457.79) (457.20) (457.113) (464.6) (542.2) (724.8) (633.7)

Thank you for your comment. As mentioned in NEPA **RTC 1.1**, and on **page S-2** of the **Final EIS**, it is described that the Forest Service prepared the **Final EIS** in compliance with NEPA and "Forest Service policy", using the Forest Service's NEPA regulations at 36 CFR part 220 as the operative agency procedures. Specifically, text was updated on **page S-2** of the **Final EIS** to state: "On July 3, 2025, the U.S. Department of Agriculture (USDA) released interim NEPA regulations at 7 CFR 1b and rescinded the Forest Service NEPA regulations at 36 CFR 220. These regulations were made final on April 3, 2026. The regulations provide agencies with discretion to use either the new regulations, or the previous agency-specific regulations (36 CFR 220) and the 2020 version of the CEQ (Council on Environmental Quality) NEPA regulations (40 CFR 1500 – 1508) for projects already underway. The FEIS was prepared in with reference to the 2020 version of the CEQ regulations to the extent permitted by the Department of Agriculture's transition instructions." Additionally, it is described that the **Final EIS** discloses potential direct, indirect, and cumulative environmental effects on the human and biological environment anticipated to result from the implementation of each alternative.

As mentioned in NEPA **RTC 1.17**, and in **Appendix A. Cumulative Effects Projects** on **pages 429-438** of the **Final EIS** explicitly lists cumulative effects projects such as the City of Victor Comprehensive Plan (2021), Teton County, Idaho Comprehensive Plan (2012), and Jackson/Teton County Comprehensive Plan (2012) as reasonably foreseeable actions or guiding documents considered in the cumulative effects analysis.

Please refer to the NEPA **RTC 1.1**, **1.2, 1.3**, and **1.5** for more information, and a description of the proposed projects compliance with NEPA regulations and other applicable Federal, State, and Local Policy and Guidance. Furthermore, the **Final EIS** recognizes that base area development on private lands in Teton County, Wyoming—including lodging and additional parking—has already been approved under GTR's approved 2019 First Amended Master Plan – Planned Unit Development for Planned Resort process and is analyzed as a reasonably foreseeable future action, but is not authorized or controlled by this Forest Service decision.

Additionally, please refer to **Section 3.11 Climate Change** on **pages 233-252** of the **Final EIS** where it describes the effect of proposed projects at GTR on climate change in the region and the effects climate change would have on the proposed projects and future operations at GTR. Please refer to **pages 63-64** of the **Final EIS** where it provides the visitation data and discusses recreation trends, and please refer to **pages 331-332** of the **Final EIS**, where it is mentioned that "increased traffic on highways and high-speed roadways, including Highway 33 and Ski Hill Road, further fragment wildlife habitat and result in more frequent wildlife-vehicle collisions. Teton Valley is expected to continue to grow with private land development increasing into the foreseeable future and more vehicles and recreationists are expected to occur in areas abutting the GTR SUP."

No edits were made to the **Final EIS** in response to this comment.

1.25 Segmentation is specifically prohibited in NEPA. The Government and Grand Targhee Resort have consistently expanded the scope of GTR over the years with each NEPA analyses, as exemplified by the 2016 land swap. This action made no mention of what is being considered today. (473.1)

Thank you for your comment concerning the 2016 land swap in relation to the proposed improvements outlined in this project. The squirrel meadows land exchange was finalized in 2003. There has not been any land exchanges between the Forest Service and Grand Targhee since that time.

Additionally, the squirrel meadows land exchange was finalized in 2003. There has not been any land exchanges between the Forest Service and Grand Targhee since that time.

No edits were made to the **Final EIS** in response to this comment.

1.26 This DEIS study lacks a full traffic and safety study for year-round use, a water sustainability analysis, and studies of future climate conditions. There needs to be a more definitive and thoughtful analysis of recreation displacement impacts, affordable housing and community services assessment, and data related to the changes in wildlife habitat as a result of indiscriminate expansion. (742.2) (457.57) (457.67)

Thank you for your comment concerning the depth of this analysis in reference to traffic and safety, water sustainability, climate change, recreation, affordable housing, community services, and wildlife habitat.

Please refer to **pages 152-175** of the **Final EIS** or a discussion of direct and indirect environmental consequences relating to traffic and parking, and refer to **pages 188-193** of the **Final EIS** for a discussion of direct and indirect environmental consequences relating to public safety. Furthermore, as mentioned on **page 31** of the **Final EIS**, "As required by GTR's SUP, water sufficiency for existing and proposed operations is documented in a water sufficiency letter that is on file with the CTNF."

Additionally, please refer to **Section 3.11 Climate Change** on **pages 233-252** of the **Final EIS** where it describes the effect of proposed projects at GTR on climate change in the region and the effects climate change would have on the proposed projects and future operations at GTR. Please refer to **pages 187-188** of the **Final EIS** where the impacts on Search and Rescue resources as a result of increased visitation and backcountry skier displacement is discussed. On **page 135** of the **Final EIS**, the project's effects on housing are discussed with attention to the affordable housing shortage. In regard to the project's impacts on wildlife, species-specific effects are discussed on **pages 303-332** in the **Final EIS**.

No edits were made to the **Final EIS** in response to this comment.

1.27 Additionally, NEPA requires a rigorous exploration of all reasonable alternatives, including those that minimize environmental impacts. The DEIS dismisses certain alternatives without fully analyzing their feasibility or environmental benefits, limiting the scope of decisionmaking. (457.66) (484.2) (457.73)

Thank you for your comment regarding the analysis's consideration of all reasonable alternatives. On **pages 23-59,** in **Chapter 2. Descriptions of Alternatives** of the **Final EIS**, it is explained that the Forest Service considered a broad range of design options and alternatives. Certain options were dismissed from detailed analysis only after a thorough review of their feasibility, ability to meet the Purpose and Need, and potential environmental impacts. On **pages 57-58** of the **Final EIS,** it is discussed that the SUP Expansion and South Bowl Configuration with Three Lifts alternative was dismissed primarily due to safety and feasibility. A preliminary avalanche study indicated high risk in the area, which would require aggressive management (e.g., explosives) that is difficult, dangerous, and less cost-effective for the limited terrain it would service. Furthermore, this alternative was removed to address specific resource concerns raised during scoping, including "scenery concerns associated with tree removal" and "wildlife (Bighorn Sheep in particular)."

Furthermore, on **page 58** of the **Final EIS**, regarding the SUP Expansion and Incorporation of South Bowl as Hike-To Only Terrain alternative, it is explained that this option was explored to reduce infrastructure, but was dismissed due to the poor quality of the recreational experience. The analysis determined that the required "skate back to the resort along the cat-track would be well over a mile," creating an "unappealing experience for visitors, especially snowboarders." On **page 58** of the **Final EIS,** the South Bowl Interim Cat-Skiing alternative is described in which this option was dismissed because the project proponent determined there was "insufficient demand... to warrant the necessary financial expenditure." Additionally, this alternative would still require the creation of a cat-track, resulting in resource impacts without sufficient benefit or viability.

As described on **page 58** of the **Final EIS,** alternatives responding to community drinking water quality concerns raised during scoping were dismissed, clarifying that the option was "discussed but ultimately eliminated from inclusion in the proposal because it was not clear that any particular alternative would respond directly to the issues that were raised. If any particular project component associated with the

action alternatives is found to generate downstream/slope water quality issues, in a way that could not be managed or mitigated, that project component would not be approved."

Additionally, on **pages 58-59** of the **Final EIS,** alternatives without on-mountain facilities were determined to be unnecessary because "any/all of the on-mountain facilities can be removed by the decisionmaker in the decision document." The decision-making scope is therefore not limited; the Responsible Official retains the authority to approve an alternative while excluding specific facility components if environmental analysis warrants it.

No edits were made to the **Final EIS** in response to this comment.

1.28 Why does this draft EIS not consider the undeniable reality that terrain expansion and base area development are totally linked? Why else would the resort request expansion but to advance its private land development objectives? The Forest Service is required to provide a hard look analysis of impacts before that are "any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented." 42 U.S.C. § 4332(C)(v). (693.16) (1066.63)

Thank you for your comment concerning a connection between the private land development at GTR Base Area and the proposed projects. As detailed on **page 142** of the **Final EIS**, the implementation of the private land projects is not dependent, reliant, or connected to the approval of the proposed action alternatives.

Specifically, the **page 142** of the **Final EIS** states: "No portion of the implementation of projects approved under the 2019 First Amended Master Plan – Planned Unit Developed for Planned Resort are dependent, reliant, or connected to approval of any of the action alternatives by the Forest Service. GTR has been advancing projects on private land from the 2019 First Amended Master Plan – Planned Unit Developed for Planned Resort since their approval and would implement these projects regardless of projects being approved under this analysis. Implementation of the projects in the 2019 First Amended Master Plan – Planned Unit Developed for Planned Resort is not expected to drive additional visitation beyond the visitation levels analyzed for each alternative in this section under Direct and Indirect Environmental Consequences. However, the development of these units could impact the spending patterns of GTR's visitors in terms of the location of the guests' lodging and associated visitor spending. The purpose of the approved projects in the 2019 First Amended Master Plan – Planned Unit Developed for Planned Resort is to provide for a mix of recreational, retail, and service-oriented activities, that provides economic and other benefits to the community."

No edits were made to the **Final EIS** in response to this comment.

1.29 Peaked Lift # 6 Colter lift was built and completed in 2022. This lift added 600 acres of lift-access terrain that was once cat skiing. On April 20, 2021 GTR announced in the Teton Valley News that they were building a 6- pack lift and that it would be ready for the 2022/2023 season. According to 1994 EIS and ROD, this chair "would be a 'downsized' detachable quad…although it would be a high speed lift, it would be designed and built to operate at a lower capacity. Specific mitigation has been added to the FEIS to prevent capacity increases3. According to the Doppelmayr website, this chair can carry 4,000 skiers per hour. This is not a downsized high-speed quad. On May 28, 2021 GTR

submitted a letter requesting to build the 6 pack chairlift.The USFS updated/revised the 2017 SIR to allow GTR to build the 6 pack lift. On July 30, 2021 the USFS approved the construction of the 6 pack lift. This lift is grandiose and was not needed. A high speed quad would have accomplish that same thing. There is rarely a line on this lift. On the busiest days I have maybe stood in line for 5 minutes. Most of the time I look around and I am riding this lift alone. Since the building of the Colter lift, The lines at the other chairs have been dispersed. The addition of 600 acres has made a massive difference in the experience at GTR for the better. According to the 1994 ROD the "…5,130 skiers at one time provides enough capacity to accommodate expected demand for the next 25 to 30 years.4. Since this lift was just built and the effects of it are still unknown. The capacity had not been reached, and I ask the USFS to choose Alternative 1, no action, until there have been proper studies of the effects of this chairlift, the unbuilt restaurant, and the remaining 2 chairs in the Peaked POD. (710.3)

Thank you for your comment regarding the capacity of existing infrastructure in relation to the effects analysis of the proposed infrastructure. Please refer to the **RTC** purpose and need **2.1**, for more information on the necessity of these proposed project features.

Specifically, with respect to the Colter Lift's capacity, as described on **pages 66-67** of the **Final EIS**, this lift is an existing chairlift that was constructed and opened for the 2022-2023 ski season. This lift is not part of the proposed action analyzed in the **Final EIS**, rather, it represents existing conditions that form the baseline against which the proposed alternatives are analyzed.

Furthermore, **Appendix A. Cumulative Effects Projects**, on **pages 429-438** of the **Final EIS**, describes that the following documentation demonstrates that the Forest Service explicitly reviewed and approved the change from a quad chairlift to a six-person chairlift configuration through the 2021 SIR process: "Following the approval of the Peaked lift development projects in a 1994 ROD, 2004 DN/FONSI, and further documentation in a 2017 SIR, the Forest Service authorized GTR to proceed with implementation following review of a 2021 SIR for the Peaked lift documenting and reviewing changes to the project that may have occurred from the time of the previous approval. Specifically, the changed conditions from the 2017 SIR are: The configuration of the Peaked lift as a six-person chair rather than a quad chair".

No edits were made to the **Final EIS** in response to this comment.

1.30 Can the DEIS offer guidance and recommendations on how GTR can be managed to obtain and maintain a Green Resort rating? See: https://suitcasemag.com/sustainable-ski-resorts/ or https://onebreckenridge.com/community-recognition. (724.11)

Thank you for your comment. However, obtaining status as a "Green Resort" or setting sustainability goals is not proposed under the project alternatives, and therefore, this matter is beyond the scope of the analysis. Typically, these initiatives are carried out under individual resort conservation/marketing-related strategies. For information regarding the project's effects on climate change, please refer to climate change **RTC 14.1**.

No edits were made to the **Final EIS** in response to this comment.

1.31 NEPA requires that an EIS be based on high quality information and accurate scientific analysis. The DEIS relies on outdated, incomplete, or speculative data, making its conclusions flawed. (457.83)

Thank you for your comment regarding the level of scientific analysis and the detailed information referenced in the **Final EIS**. However, as described on **page 7** of the **Final EIS**, issues and indicators are identified, indicating that issues may warrant the generation of an alternative, may be addressed by PDC or mitigation, or may require an in-depth analysis and disclosure. For this project, all typical Forest Service-managed resources were considered, and none were dismissed from analysis, demonstrating that in-depth analysis was in fact carried out at the resource-specific level.

Furthermore, the following text was added to **page 60** of the **Final EIS**, clarifying that site-specific detail, including scientific literature, resource surveys, and geospatial data are included in the **Final EIS**: "Resource concerns are discussed throughout this Chapter which is supported by various technical reports produced for this project. These technical reports rely on site-specific detail, including review and incorporation of scientific literature, resource surveys, and geospatial data. Additionally, the technical reports and technical appendices provide granular data, analysis methodologies, disturbance acreages, equipment types, etc. Please refer to the associated technical reports when identified for more information."

No edits were made to the **Final EIS** in response to this comment.

1.32 Lack of Continuity in NEPA Process. The Forest Supervisor listed in the DEIS is no longer employed by the Forest Service. This raises concerns including, but not limited to: 1. Authority and Validity of Decisions, 2. Continuity of Oversight, 3. Consistency with Policies, 4. Public Trust and Transparency, 5. Accountability, 6. Administrative Updates, 7. Opportunity for Reassessment, 8. Legal and Procedural Validity 9. Decision-Making Authority 10. Public Confidence (457.49)

Thank you for your comment. We acknowledge the comment regarding the change in personnel for the Forest Supervisor position. Generally, it should be clarified that although the individual serving as the Forest Supervisor may change during the course of a multi-year NEPA process, the authority and responsibility for the decision-making process reside with the position of the Forest Supervisor, not the specific individual holding the office.

Additionally, please refer to NEPA **RTC 1.18** and **1.20**, and **page 21** of the **Final EIS**, which describes that the Forest Supervisor is identified as the "responsible official", therefore they not required to choose either an action alternative or the No Action Alternative described herein, but may select components of an action alternative or develop an entirely new alternative created from components of each.

No edits were made to the **Final EIS** in response to this comment.

1.33 The Proposed Action – presented as Alternative 2 in the DEIS - is lacking in detail necessary to fully analyze possible effects to the physical, social, and biological environment. The Proposed Action description in the DEIS and MDP lack detailed information to clearly convey what, when, and where various things are to be constructed and operated. Environmental effects predictions require detailed information of proposed features and operations. The Proposed Action seems more of a catalogue of spiffy

recreation ideas and gizmos. A greatly refined proposal – that uses the identification of adverse environmental effects generated thus far in the process – to avoid, minimize, and mitigate those adverse effects. More specificity and less shopping list of fun things. Please revise. (545.6)

Thank you for your comment regarding the details included in the description of project components, with particular attention to the effects on the physical, social, and biological environment. In **Table 2.2-1 Projected Disturbance Under the Proposed Action** on **pages 23-24** of the **Final EIS**, the acreage corresponding with various disturbance types (tree clearing, grading, glading, and selective tree clearing) and project components is detailed. An equivalent table is also provided for Alternative 3 on **pages 37** of the **Final EIS**, and Alternative 4 on **pages 39-40** of the **Final EIS**. These disturbance summaries analyze the proposed project improvements with respect to the ground disturbance required to implement them; therefore, any details not included in the text can be found in the disturbance summary. In this regard, these acreages are applied to the direct and indirect environmental consequences section for each resource, demonstrating potential impacts associated with the calculated ground disturbance. Additionally, please refer to the NEPA **RTC 1.32**, which outlines the process for developing a detailed resource-specific effects analysis.

No edits were made to the **Final EIS** in response to this comment.

1.34 Additionally, the MDP seems less than administratively and technically complete. Please explain how the FS determined the MDP was found 'acceptable. (545.7)

Thank you for your comment. It is important that we clarify the distinct roles of the MDP and the **Final EIS** within the planning and NEPA processes. As described on **page 3** of the **Final EIS**, the MDP is a conceptual planning document required by the terms of the resort's SUP to identify potential future management directions and opportunities.

Page 3 of the **Final EIS** states, "Forest Service acceptance of the 2018 GTR MDP does not constitute approval for individual projects. The implementation of individual projects identified in the 2018 GTR MDP is contingent upon subsequent site-specific analysis/approval in accordance with the NEPA process".

Furthermore, "technical completeness" regarding environmental impacts and feasibility is not finalized in the MDP but is instead the subject of this **Final EIS**. **Appendix A, Cumulative Effects Projects**, on page 414 of the Final EIS, states that the Forest Service determined the MDP was "acceptable" in February 2019 as a conceptual roadmap, which then allowed the resort to submit a specific application for the projects now being analyzed.

No edits were made to the **Final EIS** in response to this comment.

1.35 Potential delays or funding challenges for the 10-year timeline are not addressed. The 10-year timeline is set to expire in 2033 - meaning work was projected to begin in 2023 voiding DEIS implementation timeline information. I would rather see a framework developed that allows permissions granted in a more efficient process, so the Resort is not forced to plan decades before actual expansion. (420.4) Potential delays or funding challenges for the 10-year timeline are not addressed. The 10-year timeline is set to expire

in 2033 - meaning work was projected to begin in 2023 voiding DEIS implementation timeline information. (457.65)

Thank you for your comment regarding the funding challenges and how they relate to the project timeline. On **page 41** of the **Final EIS**, it states, "Project implementation would be subject to capital availability and may be expedited or delayed based on economic conditions that are beyond the scope of this analysis".

Additionally, with consideration to the NEPA process in general and associated regulatory timelines, the EIS was released for public comment on March 21, 2025, which means even if approved immediately thereafter, actual construction would not commence until 2026, 2027, or later, making the original 2023 start date stated in earlier iterations and referred to in this comment no longer operative.

No edits were made to the **Final EIS** in response to this comment.

1.36 Based on the EPA's review, the Draft EIS appears to rely upon a broad-scale, general analysis of existing conditions and potential impacts from GTR's expansion projects. While the Draft EIS discloses GTR's plan of proposed development, it lacks specifics for many of the Project elements, such as the anticipated types of construction equipment; area of ground disturbance; duration and schedule for construction; location and acreage of anticipated glading; and baseline usage and anticipated groundwater usage for snowmaking. Rather than carrying out a site-specific analysis and making site-specific decisions, it appears that many site-specific decisions will be made by GTR a later time. The impacts associated with their future actions are assumed to be mitigated through the application of Project Design Criteria (PDC) and Best Management Practices (BMPs). The EPA supports the use of PDC and BMPs; however, these are not a substitute for a complete and accurate effects analysis, especially when, as in this case, many of the measures are not clearly defined or required.1 The impacts associated with the Project would be expected to vary based on site-specific conditions, including vegetation community composition, soils, slopes, proximity to aquatic resources, proximity to Class I airsheds, road construction needs, equipment used, methods of tree removal, timing of construction, etc. and the degree of avoidance considered practicable at the time of the site-specific decision.2 Because the Draft EIS is missing site-specific effects analyses, we are unable to evaluate the likelihood that significant effects will be avoided or adequately mitigated. Understanding the "what, when, where, and how" of federal projects on public lands is key to the ability to understand the potential impacts and effectively influence PDC, BMPs, and applicable mitigation. We are also concerned that the lack of specificity in the Draft EIS also does not provide for meaningful public participation or full understanding of the potential impacts and mechanisms for avoiding them, both important for well-informed decision-making. (668.2) (668.5)

Thank you for your comment concerning the inclusion of site-specific analyses and details surrounding the description of project components. Please refer to NEPA **RTC 1.33** for additional information.

Chapter 2. Description of Alternatives in the **Final EIS** provides exact acreage calculations for each type of disturbance under each proposed alternative. Additionally, **pages 336-347** of the **Final EIS** evaluates specific project details in reference to soil stability and erosion risks associated with

construction and operations, and **pages 372-376** of the **Final EIS** analyzes potential site-specific impacts on watershed health and water quality. **Table 3.14-2 Acreages of Map Units and Disturbance – Proposed Action** on **page 337** of the **Final EIS**, and equivalent table analyzing Alternative 3 on **pages 339-340** and Alternative 4 on **pages 341-342**, demonstrate disturbance calculations associated with the proposed project components as well as specific effects regarding site-specific soil types.

As described on **pages 17-29** of the **Botany Biological Evaluation**, disturbance acreages associated with proposed project components are discussed in reference to their effect on species. Furthermore, **pages 52-55** of the **Biological Assessment** describe the disturbance acreage associated with project components in relation to their effect on whitebark pine.

Additionally, the following text was added to **page 60** of the **Final EIS**, clarifying that site-specific detail, including scientific literature, resource surveys, and geospatial data are included in the **Final EIS**: "Resource concerns are discussed throughout this Chapter which is supported by various technical reports produced for this project. These technical reports rely on site-specific detail, including review and incorporation of scientific literature, resource surveys, and geospatial data. Additionally, the technical reports and technical appendices provide granular data, analysis methodologies, disturbance acreages, equipment types, etc. Please refer to the associated technical reports when identified for more information."

1.37 The Draft EIS states that GTR will be "glading" several hundreds of acres of forest as part of their proposed expansion projects. It is unclear what this action would involve particularly because it is discussed separately from grading and tree removal activities, and it is not defined in the Draft EIS. We note that the GTR 2018 Master Development Plan defines "glading" as "the removal of up to 10 percent to 40 percent of a slope's trees, which enables a tree stand to be skied or rode by a larger percentage of a resort's guests."4 Since this activity is an integral part of the Project plans, we recommend, for clarity, that the Final EIS define the term and explain what is involved when an area is being "gladed." Since different types of tree removal have varying types of impacts, we also recommend the description include the methods of tree removal GTR proposes to use, then incorporate this information into the resource impact analyses. (668.4)

Thank you for your comment concerning varying impacts relating to different types of tree removal. On **page 272** of the **Final EIS**, in **Table 3.12-14. Estimated Impacts by Disturbance Type to WBP Individuals and Small Stands Under the Proposed Action**, disturbance types are categorized into "Glading (40 percent Tree Removal)" and "Groomable Glades (40 percent tree removal)" versus "Grading and Tree Clearing (100 percent tree removal)." This confirms that glading was analyzed as a partial removal activity, distinct from clear-cutting.

On **pages 23-24** of the **Final EIS**, tree clearing, grading, glading, and selective tree clearing are described as separate activities; however, some project components occurring in vegetated areas would require both grading and tree clearing. These areas are explicitly summarized for Alternative 2 in **Table 2.2-1** on **pages 23-24**, for Alternative 3 in **Table 2.2-2** on **page 37**, for Alternative 4 in **Table 2.2-3** on **pages 39-40**, and for Alternative 5 in **Table 2.2-4** on **pages 40-41** of the **Final EIS**. Disturbance areas solely requiring tree clearing are also summarized separately.

Figure 2 on **page 398** of the **Final EIS**, displays proposed ski trails and glades for all project alternatives. As described in **Table 2.2-2** of the **Final EIS**, the proposed terrain development, would require grading,

tree clearing, and glading. In some areas, grading or tree clearing would be the only necessary action based on existing conditions; however, certain circumstances would require both tree clearing and grading together.

The following text was added to **Table 2.2-1** in the **Final EIS** on **page 24**, to provide an additional description further detailing the process of glading: "Glading consists of the partial removal of trees (specifically between 10 and 40 percent of a stand), to increase spacing providing the opportunity to ski or ride through the forest. Unlike traditional trail construction, this activity does not involve clear-cutting or ground grading, meaning the underlying soil remains largely undisturbed and the area retains its forested character. Specific volumes of cut timer would be dependent on the standing timber present during implementation. Although specific volumes of cut timber cannot be specified, glading projects typically consist of the removal of smaller diameter trees (under 8 inches in diameter) as well as hazard trees which ski areas operating under a SUP FS-2700-5B are authorized to cut."

1.38 I understand that ongoing actions under previous approvals are taking place at GTR, such as the Planned Unit Development. The final EIS and ROD must address the timing of these actions as they relate to actions within the purview of this EIS and ROD so that the public has an understanding of the full scope of development plans and their impacts. (557.11)

Thank you for your comment. Please refer to NEPA **RTC 1.35** for more information on implementation timelines, as well as NEPA **RTC 1.15** for more details on the First Amended Master Plan – Planned Unit Development for Planned Resort.

No edits were made to the **Final EIS** in response to this comment.

1.39 Introducing a man-made structure onto an undeveloped skyline ("skylining") is not allowed in Teton County, Wyoming's Land Development Regulations. While these regulations do not pertain to activities authorized on National Forest lands, the CTNF should be consistent with local land use regulations intended to protect scenic resources. At the very least, this restaurant should be moved off of the ridge so that it is less visually obtrusive and further from the Wilderness boundary. And, until more details about the facility are known, such as how water will be supplied and disposed of, this facility should not be permitted. (471.59)

Thank you for your comment concerning specific details on the proposed mountain top restaurants. However, details regarding these restaurants are outlined on **pages 31-34** of the **Final EIS**, and specific detail on the ground disturbance associated with the proposed restaurants is outlined in **Table 2.2-1 Projected Disturbance Under the Proposed Action** on **pages 23-24** of the **Final EIS**. Please also refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Restaurant and hydrology **RTCs 18.16** and **18.17** for more information on the water and sewer system for Fred's Mountain Top Restaurant.

Furthermore, as mentioned on **page 31** of the **Final EIS**, "As required by GTR's SUP, water sufficiency for existing and proposed operations is documented in a water sufficiency letter that is on file with the CTNF". The water use required by the proposed facilities would be accounted for in the **Water Sufficiency Letter**. Additional specifications of the proposed mountain top restaurants are outlined in scenery, hydrology, and wilderness specific design criteria outlined in **Table 2.4-1 Project Design**

Criteria on **pages 44-56** of the **Final EIS.** Additionally, please refer to NEPA **RTC 1.33** and **1.36** for more information.

No edits were made to the **Final EIS** in response to this comment.

1.40 To avoid overwhelming local government services from future development and expansion, particularly in collaboration with the Forest Service and Teton County, the DEIS should outline a coordinated and phased approach to planning and implementation. Establishing a joint phasing plan with the Forest Service would help ensure that any approved developments align with the County's capacity to provide essential services. This could be formalized through Memoranda of Understanding, or through a reopening of the Resort Master Plan, linking development approvals to measurable indicators such as road capacity, emergency response capabilities, and the availability of workforce housing. By using benchmarks and phased development triggers, the County can avoid costly surprises and ensure that public services scale responsibly with growth. Taken together, these strategies offer a comprehensive framework for managing the socioeconomic impacts of development in a way that safeguards public resources and maintains the character and livability of Teton County. A phased, data-driven approach-backed by updated financial tools and close interagency coordination will ensure that infrastructure and services are expanded in a responsible and sustainable manner. (489.14) (557.10)

Thank you for your comment regarding project phasing as backed by financial tools. Please refer to NEPA **RTC 1.35** for more information on implementation timelines, as well as NEPA **RTC 1.16,** and **1.17** providing details for the bounds of development associated with the proposed projects.

Furthermore, as discussed in NEPA **RTC 1.8**, **pages 41-42 of the Final EIS describes that** GTR is required to submit a comprehensive "Construction Implementation Plan" for Forest Service review and authorization, prior to any ground disturbing activities. Additionally, this plan must detail project timelines, disturbance boundaries, and erosion control measures. If GTR fails to adhere to this plan, the Forest Service has the authority to suspend construction or operations, demonstrating CTNF's management commitments and the associated schedule. Additionally, **page 41** of the **Final EIS** states, "Further, should the projects included in the Proposed Action occur, implementation would occur over an approximately 10-year period from the time of approval. Project implementation would be subject to capital availability and may be expedited or delayed based on economic conditions that are beyond the scope of this analysis." Describing that the project would occur in less than a 10-year timeframe and implementation would be dependent on financial constraints. This indicates that financial considerations will in fact be made following project decision.

No edits were made to the **Final EIS** in response to this comment.

1.41 SE Group – a private consulting firm – prepared the Master Development Plan under contract (as best can be determined) to the Proponent. The FS and the Proponent selected this same business – SE Group - to prepare the NEPA compliance documents. Documents on non-USFS websites (apparently developed and maintained by the Proponent) drawings and illustrations clearly show SE Group title block information. How is this blatant conflict of financial interest even remotely appropriate? The objectivity of

the DEIS is indeed clouded by the perception and possible reality of largescale conflict of interest. (545.4) (545.4)

Thank you for your comment. This analysis is in concurrence with 40 CFR 1506.5 (c), which states that "an agency may authorize a contractor to prepare an environmental document under the supervision and direction of the agency." This statute indicates that there is no conflict of interest between the NEPA contractor, the proponent, or the CTNF.

Furthermore, as described on **page 21** of the **Final EIS** "The Forest Supervisor is not required to choose either an action alternative or the No Action Alternative described herein, but may select components of an action alternative or develop an entirely new alternative created from components of each. In addition to determining which alternative to select, the Forest Supervisor would also determine any required Project Design Criteria (PDC) and Best Management Practices (BMPs). The Forest Supervisor may also require additional PDC and/or BMPs not discussed within this document. The Forest Supervisor may also require monitoring of PDC."

No edits were made to the **Final EIS** in response to this comment.

1.42 There does not appear to be any monitoring data to validate effects predicted in previous NEPA analyses. This is problematic in continuing to build and operate stuff without fully understanding effects. The Proponent must adopt an Environmental Management System (EMS) that is based on ISO 14001 standards and methods. Such an EMS includes the Plan-Do-Check-Act process to effectively manage operations on any landscape but especially one on public land. Indeed, certification as an ISO14001 site seems an appropriate mitigation measure and requirement of any new authorizations as well as during existing permit renewal. Or gosh, just as a best practice to ensure things are working the way the Proponent told the FS and public they would. (545.15)

Thank you for your comment concerning the inclusion of monitoring data to validate effects predicted in previous NEPA analyses. However, the referenced ISO14001 would not apply under this project, because this analysis already includes a thorough effects analysis, PDCs and mitigation measures, as well as monitoring and evaluation, as discussed in NEPA **RTC 1.16, 1.17,** and **1.18**.

No edits were made to the **Final EIS** in response to this comment.

1.43 Curiously, the DEIS was prepared under one set of regulations and procedures, issued, and then a portion of the public comment period conducted Executive Order and Memoranda. These instruments appear to have destroyed existing regulations and procedures and directed federal agencies to prepare new procedures (see e.g. Memorandum for Heads of Federal Departments and Agencies (CEQ 19 February 2025). It would have been rather helpful to the public reviewing and commenting on the DEIS for the lead federal agency to provide clear direction as to under what regulations we were to review and comment. (545.20)

Thank you for your comment regarding the specific regulations this project would be subject to. Because we started this project prior to the changes, we are still operating under the previous Forest Service policy, and, therefore, CEQ regulations would still apply.

As mentioned in NEPA **RTC 1.1,** the **Draft EIS** was released on March 21, 2025, therefore this project must adhere to the following changes in the regulatory framework: On January 20, 2025, President Trump issued Executive Order (EO) 14154, *Unleashing American Energy*. Executive Order 14154 established and advanced the President's policies toward accelerated permitting and deemed previous guidance inconsistent with policies prioritizing energy. The CEQ withdrew its interim NEPA guidance for the consideration of greenhouse gas emissions and climate change (88 Fed. Reg. 1196; January 9, 2023) to better align with policy objectives established within EO 14154 (90 Fed. Reg. 22472; May 28, 2025). Executive Order 14154 directed that "all agencies shall adhere to only relevant legislated requirements for environmental considerations and any considerations beyond these requirements are eliminated (Section 6(a))." Executive Order 14154 rescinded executive orders which contained requirements to consider climate change in federal actions: EO 13990 Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis and EO 14008 Tackling the Climate Crisis at Home and Abroad (90 FR 8353; January 2025).

Additionally, on January 21, 2025, the President issued a Presidential Memorandum *Ending Illegal Discrimination and Restoring Merit-Based Opportunity* which revoked EOs 12898 of February 11, 1994, (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) to ensure Federal civil-rights laws "are enforced for the benefit of all Americans."

The USDA Forest Service has complied with NEPA requirements, including the Agency's regulations and procedures implementing NEPA at CFR 36 Part 220, effective November 19, 2020, consistent with the President's January 2025 EO and Memorandum. The Grand Targhee Resort Master Development Plan Project is an activity implementing a land management plan. This activity is subject to pre-decisional administrative review under subparts A and B of 36 CFR Part 218 and 219.

The following text was added to **page 1** of the **Final EIS**: "On July 3, 2025, the U.S. Department of Agriculture (USDA) released interim NEPA regulations at 7 CFR 1b and rescinded the Forest Service NEPA regulations at 36 CFR 220. These regulations were made final on April 3, 2026. The regulations provide agencies with discretion to use either the new regulations, or the previous agency-specific regulations (36 CFR 220) and the 2020 version of the CEQ (Council on Environmental Quality) NEPA regulations (40 CFR 1500 – 1508) for projects already underway. The FEIS was prepared in with reference to the 2020 version of the CEQ regulations to the extent permitted by the Department of Agriculture's transition instructions."

1.44 When the private property at the base of Targhee was created by the Forest Service during the Squirrel Meadows land exchange, part of the rationale for doing so was so that the existing lodging, restaurants, bar and shops on Forest Service land become deeded properties on private land, and that future lodging, restaurants and other development would be on private land, and managed by Teton County Wyoming. Jay Pence, Teton Basin District Ranger said "Jerry Reese, the forest supervisor at the time, wanted to concentrate development in the base area, he thought it was better to have the county oversee those uses through their land-use rules". I agree with former Caribou-Targhee Supervisor Jerry Reese that the County is better suited to oversee the development through its Land Development Regulations (LDRs) than the Forest Service is, and I agree with Teton County Wyoming that all proposed on-mountain restaurants be limited to the

base area on private land, and not on public land. It would be against the public's interest to reverse that historic policy of limiting development to private land, and make a 180-degree turn on the impactful decision the FS made to privatize the public land at the base of GTR. (626.2) (631.2)

Thank you for your comment concerning the private property development at the base area of GTR. As acknowledged on **page 3** of the **Final EIS**, "All base area (Targhee Village) facilities, guest service facilities, portions of the beginner terrain, and a few other trails, are located on private lands owned by GTR". However, as detailed on **pages 64-65** of the **Final EIS**, GTR faces significant guest service space deficiencies. Specifically, the existing resort is deficient in overall guest service space, with notable shortages in restaurant seating. **Page 4** of the **Final EIS** mentions that the Proposed Action addresses the stated need to "Improve base area, guest services, operational facilities, and on-mountain services to meet the ever-increasing expectations of the local, regional, and destination skier markets"

The following text has been added to **pages 21-22** of the **Final EIS**, "While Teton County Wyoming's Land Development Regulations govern development on the private land at the GTR base area, the proposed on-mountain facilities located on NFS lands are subject to Forest Service jurisdiction under the Forest Plan, applicable federal laws including SAROEA, and Forest Service directives. The Final EIS requires GTR to obtain all required federal, county, town, and state reviews, approvals, and/or permits prior to construction, ensuring that applicable standards are implemented in coordination with relevant jurisdictions. Where county oversight applies to private lands and Forest Service oversight applies to NFS lands within GTR's SUP, the applicable standards of each jurisdiction govern their respective areas of authority."

1.45 Please consider the policy in Forest Service Manual 2343 in your decision. FSM 2343 states that the Forest Service should "work with holders to ensure that ski areas provide a high-quality recreation experience and that recreation activities at ski areas are conducted in a manner that protects the natural environment and cultural resources and enhances community values." Describe how your decision aligns with community values and protects the natural environment. An additional element of FSM 2343 to consider in your decision is that operations are "not requiring significant modifications to topography to facilitate construction or operations." The proposed action includes 25 acres of grading for ski runs. I believe this goes against policy because it would significantly change the natural character of the mountain. (633.2)

Thank you for your comment suggesting FSM 2343 as a guiding Forest Service policy. FSM 2342.14 was incorporated in this analysis, and it is highlighted in detail on **pages 16-21** of the **Final EIS**. Additionally, please refer to the NEPA **RTC 1.3**, **1.4**, and **1.17**, for more information on SAROEA.

No edits were made to the **Final EIS** in response to this comment.

1.46 The goals outlined in the Targhee Forest Plan (1997) to maintain critical winter range for big game and to coordinate bighorn sheep management efforts with the National Park Service remain as vital as ever. Yet, expanding the Special Use Permit boundary and introducing infrastructure into the South Bowl risks undermining these objectives by encroaching on essential habitat, increasing stress, and disrupting the integrity of this region. (685.7)

Thank you for your comment concerning the winter range of big game and bighorn sheep management efforts. The **Final EIS** and associated **Wildlife Biological Evaluation** have analyzed the effects of the proposed trail network on wildlife using metrics established by the 1997 Revised Forest Plan for the Targhee National Forest and best available scientific information. However, the effects of the proposed project components are comprehensively analyzed throughout the **Final EIS** and specifically highlighted on **pages 23-36** of the **Final EIS**. For species such as mule deer and moose, the analysis focuses on the functional loss of habitat effectiveness due to the increased presence of recreationists on the proposed 29 miles of new trails, as mentioned on **pages 328-329** of the **Final EIS**.

On **pages 328** of the **Final EIS** and **pages 116-117** of the **Wildlife Biological Evaluation**, it is stated that "Based on the direct, indirect, and cumulative impacts of the Action Alternatives across the project area, it is likely that proposed developments would result in a decrease in mule deer habitat and increased disturbance to mule deer in crucial winter-yearlong ranges within the vicinity of the project area…Winter ranges and suitable winter habitat are mapped throughout the Teton Creek and Leigh Creek watersheds in the vicinity surrounding the project. Impacts under the proposed alternatives could impact individual survivability. However, given the small reduction in available habitat that would occur due to the proposed project, compared to widespread availability of habitat in the surrounding areas."

Additionally, please refer to **Appendix B. Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards and Guidelines**, on **pages 439-521** of the **Final EIS**, which describes how any possible deviations from Forest Plan standards must be analyzed and documented in a forest plan amendment.

No edits were made to the **Final EIS** in response to this comment.

1.47 The Forest Plan has not been updated in 28 years. The Forest Plan has been amended multiple time within this period. These amendments should be referenced to ensure that the analysis is consistent with those amendments. (1066.10) The Forest Plan has not been updated in 28 years. The National Forest Management Act requires that national forest plans be updated every 10 to 15 years. The current plan is significantly out of date and reflects management objectives, knowledge, and understanding from 28 years ago. The document should be revised prior to any approval of an increase in the SUP area. (1066.11)

Thank you for your comment. Please refer to the NEPA **RTC 1.1, 1.2. 1.3. 1.5, 1.11** and **1.17** for more information on the proposed project's compliance with forest plan standards and guidelines.

As described on **page 19** of the **Final EIS**, "As part of this analysis, the alternatives and purpose and need were reviewed to determine consistency with the Forest-wide goals and objectives as well as the specific standards and guidelines for Management Prescription 4.2 – Special Use Permit Recreation Sites. The Action Alternatives were compared against pertinent Forest-wide and Management Prescription standards and guidelines."

Additionally, both programmatic and project-specific amendments, driven by resource impacts associated with the action alternatives, are described in detail in **Appendix C. Forest Plan Amendments** on **pages 535-546** of the **Final EIS**. Furthermore, **Appendix B. Forest Plan Consistency Analysis** in the **Final EIS** contains a full Forest Plan consistency analysis.

Appendix A. Cumulative Effects Projects on **pages 429-438** of the **Final EIS**, acknowledges that "The Forest Plan has been amended multiple times within this period" through the "Caribou-Targhee National Forest Plan Monitoring Transition" approved in 2016 and the "Greater Sage-grouse Proposed Land Management Plan Amendments" with 2019 Records of Decision. These amendments are explicitly referenced in the cumulative effects analysis.

In **Appendix C. Forest Plan Amendments** on **page 535** of the **Final EIS**, it is stated that "NFMA and its implementing regulations at 36 CFR 219 (2012 Planning Rule), a Forest Plan may be amended at any time. Plan amendments may be broad or narrow, depending on the need for the change. The Forest Service has the discretion to determine whether and how to amend the 1997 Forest Plan and to determine the scope and scale of any amendment". Furthermore, NFMA and its implementing regulations explicitly authorize plan amendments as a mechanism to address specific project needs without requiring full plan revision.

The following text has been added to **page 16** of the **Final EIS**, "Please also refer to Appendix A. Cumulative Effects Projects, which explains past projects on CTNF that have resulted in amendments to the Forest Plan."

1.48 The document notes that the Forest supervisor for the CTNF would decide between alternatives 2,3, 4, 5 or the no action alternative or select components of the alternative to develop an entirely new alternative. If alternatives 3, 4, or 5 are chosen or component of those that expand the SUP, additional NEPA will be required to Amend the Forest Plan. Unless addition NEPA provided, the appropriate Decision to be Made is to decide if the Forest Management Plan will be amended. (1066.13)

Thank you for your comment considering the possible selection of Alternatives 3 and 4. Please refer to the NEPA **RTC 1.18, 1.20,** and **1.32** for more information on the proposed project's compliance with forest plan standards and guidelines.

The following text was added to **page 44** of the **Final EIS**, describing that the listed amendments and PDC would apply given the selection of all action alternatives 2, 3, 4 and 5: "The environmental analysis throughout **Chapter 3** of this FEIS assumes that relevant PDC from **Table 2.4-1**, as well as applicable Forest Plan amendments described in **Appendix C** would be applied under all action alternatives (Alternatives 2, 3, 4, and 5) as applicable. The effects disclosed for each alternative are further described in **Chapter 3**, in which possible amendments associated with Alternatives 2, 3, 4 and 5 are disclosed, as well as applicable PDC to mitigate resource impacts."

1.49 The DEIS mentions that the Forest Service engaged in government-to-government consultation with the Shoshone–Bannock Tribes during the scoping comment period. However, it does not specify the extent or depth of these consultations, nor does it provide details on how Tribal concerns were addressed or incorporated into project planning. (457.41) (457.42) (457.43) (457.45) (457.46) (457.47)

Thank you for your comment regarding tribal consultation. **Page 176** of the **Final EIS** states, "The Forest Service recognizes the importance of tribal knowledge and cultural uses of the land and resources, and encourages direct contact with the District Ranger to provide any information that could inform project

development. The list of tribes consulted, and the details of government-to-government consultation, are maintained internally by the CTNF."

Furthermore, on **pages 378-380** of the **Final EIS**, it is described that the CTNF engaged in government-to-government consultation with potentially affected tribes, including the Shoshone-Bannock Tribes, during the NEPA process.

The following text was revised on **page 176** of the **Final EIS**, highlighting our intent to internally store this confidential information: "To maintain confidentiality for the individual entities consulted as part of the tribal consultation, the details of the government-to-government communications are maintained internally by the CTNF."

1.50 The project description for the ongoing approved development at GTR is sometimes included in the cumulative effects analysis, but it may not be current. There is a reference to a project agreement with Teton County WY that was to expire in February 2024, Please revise the analysis to address the interconnectedness between ongoing and proposed actions, and to conform it to current plans/actions. (557.3)

Thank you for your comment concerning the cumulative effects of the proposed projects on current plans and actions on private land. Please refer to the NEPA **RTC 1.15** for more information on the First Amended Master Plan – Planned Unit Development for Planned Resort.

Page 142 of the **Final EIS**, describe the GTR MDP and the cumulative impact of the First Amended Master Plan – Planned Unit Development for Planned Resort. Furthermore, this section specifically describes that "the development of these units could impact the spending patterns of GTR's visitors in terms of the location of the guests' lodging and associated visitor spending. The purpose of the approved projects in the First Amended Master Plan – Planned Unit Development for Planned Resort is to provide for a mix of recreational, retail, and service-oriented activities, that provides economic and other benefits to the community."

Additionally, **Appendix A. Cumulative Effects Projects** on **page 430** of the **Final EIS** explicitly describes the interaction between cumulative effects projects and the proposed projects: "In 2004, GTR submitted an application to Teton County for a Planned Unit Development District for Planned Resort (PUD-PR). This plan was amended in 2006 and approved in 2008, then amended again in 2017 and approved in 2018 by the Teton County Board of County Commissioners… The updated plan includes the same number of units, however, it was amended to better reflect GTR's operating conditions and to include an environmental mitigation plan addressing the environmental mitigation conditions included in the approval of the 2008 plan. Relevant projects within this plan include a Transportation Demand Management Program, affordable and employee housing standards, open space and trails guidance, and plans for capital improvements and public facilities."

2. Purpose and Need

2.1 There is a lack of need for various proposed lifts and new terrain, due to there being a low density of visitors at GTR and the resort being bigger than Jackson Hole (in acres) with half the visitation. Additionally, there is no need for snowmaking because GTR receives an average of 500 inches of snow per season. There are also ecological and scenery concerns with expanding into areas near wilderness. If GTR wants more skiers, it simply

needs to expand its on-mountain parking, locker availability and places to eat and stay but not on top of a peak where Night Skies, water and waste are all critical issues, lacking responsibility for adequate and safe water in Teton Valley and eventually affecting the Columbia River Basin serving the Northwest. (10.1) I also oppose expansion because it simply is not necessary. I am an avid alpine skier and I think Targhee has enough terrain & lifts; it is never crowded. The limits to skier visits are: accessibility for out of town travelers, fog, and increasingly, poor snow conditions. (39.1) Additionally, Grand Targhee is not in need of more skiable terrain. What it needs is more amenities for skiers. Currently there is one pit toilet at each of the three remote lifts. No running water, no flush toilets, no food availability. (335.1) With the addition of the Colter lift skiers are now spread out over the current in bounds terrain. Lift lines do not exist at GT, except during holiday periods with good weather. (539.1) (1.2) (532.6) (336.1) (352.1) (358.11) (362.3) (380.2) (386.2) (399.1) (431.1) (433.1) (471.2) (476.2) (548.2) (606.1) (626.5) (631.5) (645.5) (683.1) (697.1) (698.4) (848.3) (971.1) (26b.2) (571.1) (495.3) (803.1)

Thank you for your comment. Please refer to hydrology **RTC 18.1** for more information on water quality and wastewater, please refer to scenery **RTC 5.1** for more information on dark skies, and please refer to traffic and parking **RTC 8.1** for more information on the need for parking in GTR's base area. Additionally, please refer to recreation **RTC 4.7** for more information on visitation, and climate change **RTC 14.1** for more information on expected weather and precipitation trends expected in the future.

Page 3 of the **Final EIS** describes the need for the proposed projects as also described in GTR's MDP: "the need to improve the recreational experience and address shortcomings in their terrain offerings and operations in order to remain viable in the competitive destination skier/rider market." Furthermore, **Chapter 1 Purpose and Need** on **pages 1-22** of the **Final EIS**, details the purpose and need for action related to each proposed project component.

Specifically, **pages 3-4** of the **Final EIS** describes the expected increases in visitation from both winter and summer recreational enthusiasts at GTR, due to its close proximity to Yellowstone and Grand Teton National Park (GTNP). This section further details that, "the facilities at GTR are in need of expansion and upgrading, including but not limited to its terrain variety, lift operations, on-mountain guest facilities, and summer activities. To address industry growth, maintain its market niche, and meet increasing guest expectations, GTR must continue to develop and improve its on-mountain and base area offerings."

Page 4 of the **Final EIS** also states that improvements provide an opportunity to increase public safety; "With the installation of the Colter Lift, skiers are currently able to easily access the South Bowl area, which is currently outside the ski area SUP boundary. Without any additional management, South Bowl presents high avalanche risk. While it is not the ski area's responsibility to manage risk outside the SUP and skiers recreating outside the SUP assume the risk for recreating in avalanche terrain, convenient access to this terrain could plausibly result in additional incidents from use of this unmanaged area. Considering recent increases in backcountry usership, there is an opportunity for GTR to take measures to mitigate risk to guests and staff to support public safety while also providing a robust recreational experience."

Additionally, **page 4** of the **Final EIS** describe that GTR has identified a need to: " Provide additional undeveloped, minimally maintained lift-served terrain and additional traditionally cleared alpine trails to enhance terrain variety and skiing experiences at GTR; Enhance the skiing experience for various ability

levels of guests, by providing an appropriate learning progression in an uncongested beginner area and increasing the quantity of beginner, intermediate, and advanced-intermediate terrain to meet current and anticipated public demand; Improve skier circulation across the mountain through improvements to the efficiency of the lift and trail network and by providing more reliable and consistent snow coverage in key areas; Improve base area, guest services, operational facilities, and on-mountain services to meet the ever increasing expectations of the local, regional, and destination skier markets; Expand alternative and non-winter activities to provide a variety of recreational options to guests and to more effectively utilize existing infrastructure during non-winter months; Ensure that risks to public safety associated with resort operations are managed to an extent that is reasonable and appropriate."

As described on **page 6** of the **Final EIS**, improving GTR's base area, guest services, operational facilities, and on-mountain services would address the commenters concerns regarding the expansion of on-mountain parking, locker availability, places to eat and stay, and general amenities for skiers.

Chapter 2. Description of Alternatives on **pages 23-59** of the **Final EIS** describes each proposed action alternative and associated project components in detail and describe how these features proposed within the existing special use permit area and beyond (in South Bowl and Mono Trees areas) would meet the purpose and need.

Specifically, **page 25** of the **Final EIS** describes that the terrain proposed in the South Bowl Area, would "provide unique terrain variety for higher ability level guests within undeveloped portions of the 266-acre expansion area without additional modification." Furthermore, **page 27** of the **Final EIS** describes that the Lightning Ridge Guest Facility proposed in the Mono Trees Area, would "offer limited food service (i.e., outdoor grill and cold sandwiches, snacks, beverages, etc.), a wood stove, and a vault toilet. Its primary purpose would be to provide a warm area for guests coming off the mountain."

Additionally, **pages 28-29** of the **Final EIS** describe the lifts proposed within the existing SUP area, in which each lift serves a specific niche that specifically serves GTR's overarching purpose and need. For example, **page 28** of the **Final EIS** describes the proposed dreamcatcher lift which is noted would "improve skier egress and accessibility", and "provide increased accessibility, particularly for ADA capabilities, and would enable non-skiers to dine on the mountain."

In terms of amenities for skiers, **pages 29-34** of the **Final EIS**, describes the proposed Guest Services Facilities, consisting of Fred's Mountain Top Guest Facility, Sacajawea Restaurant and Guest Facility, Shoshone Guest Facility, Rick's basin Guest Facility, and the Storage and Vault Toilet Facilities; which are intended to improve the guest experience by offering services such as food and beverage, improved customer service through additional staff resources, and areas to escape the weather on the mountain.

Regarding the need for parking at GTR**, page 157** of the **Final EIS** describes that improving parking and facilities in the base area is planned under a separate initiative because the base area is primarily located on private land; "GTR's anticipated base area is on private land, development was previously approved by Teton County, Wyoming in 2019, and no part of its implementation is dependent upon the decision to be made under this EIS process. The approved development included improvements to be made on the private land of the base area to increase parking capacity and use of other methods such as incentives for carpooling to balance parking capacity with resort CCC. Please refer to NEPA **RTC 1.15** for more information on private land development and base area improvements.

No edits to the **Final EIS** were made in response to this comment.

2.2 Prices have increased, but quality of offerings has not improved. I am opposed to any and all acreage expansion until base facilities and parking are expanded to properly handle current demand. (326.1)

Thank you for your comment. Please refer to purpose and need **RTC 2.1** for additional information on the proposed project's purpose and need in relation to meeting current and future demands. Additionally, please refer to NEPA **RTC 1.15** for more information on private land development and base area improvements.

No edits to the **Final EIS** were made in response to this comment.

2.3 GTR has a strong local following from residents of Victor and Driggs, Idaho". COMMENT: "Local following" has historically also included Rexburg, Idaho Falls, Pocatello and all other east Idaho area communities. This Draft EIS needs to include these communities. (Current lift ticket prices have now excluded many from these communities and future expansion, with increased prices, will exclude even more.) (26b.1)

Thank you for your comment. Please refer to recreation **RTC 4.7**, purpose and need **RTC 2.1**, and socioeconomics **RTC 7.1** for more information on visitation.

Thank you for your comment concerning the analysis' incorporation of Rexburg, Idaho Falls, Pocatello, and all other east Idaho communities. **Page 10** of the **Final EIS** includes the communities you mentioned within its study area and analysis of socioeconomics. Additionally, **page 10** of the **Final EIS** explicitly describes the Study Area in which socioeconomics were analyzed: Teton County, Idaho; Teton County, Wyoming; Madison County, Idaho; Bonneville County, Idaho. Therefore, because Rexburg falls within Madison County, and Idaho Falls is located within Bonneville County, these downs were considered in detailed analysis. Additionally, it is described that although Pocatello falls outside of the immediate four-county study area, it does fall within the "broader regional context" analyzed for Socioeconomic impacts.

Furthermore, on **page 63** of the Final EIS, the broader region in which visitation and resort capacity area analyzed is described as Teton, Bonneville, and Madison Counties in Idaho.

On **pages 130-146** of the **Final EIS**, direct and indirect environmental consequences are described in which impacts resulting from each proposed action alternative are described in relation to population, economy, visitor accommodations, county tax revenues, federal land payments, housing, human and social services, public transportation/infrastructure, values, beliefs, and attitudes. For additional information on the inclusion of these communities and impacts on pricing, please refer to socioeconomics **RTC 7.1**.

On **pages 132-133** of the **Final EIS**, data collected in the 2020/2021 winter season describes the breakdown of where visitors of GTR chose to stay, in which it was determined that overnight guests (66% of total) stayed in the Driggs, Idaho area (52%), followed by at the resort (17%), in Jackson (12%), 3% in Alta, and elsewhere (16%). This section also states that "Elsewhere likely includes those staying in the Victor area, Rexburg, or Idaho Falls."

On **page 135** of the **Final EIS**, concerns regarding housing shortages and affordability in Bonneville and Madison Counties are also described, and on **page 141** of the **Final EIS** it is mentioned that "travel and tourism is an important economic component of the study area, and GTR is an important part of this

economic sector GTR attracts both visitors and employees. As GTR grows, they would hire more employees and attract new visitors, incrementally adding to the economic and social impacts to the region. As noted, the estimation of economic impacts is related to visitation, as expenditures by visitors generate industry sales and support new jobs."

Further on **page 56** of the **Socioeconomics Technical Report** it discusses ticket, and seasons pass pricing and why it wasn't considered in the visitation projections, "Lift ticket and season pass pricing for example have a measurable effect on snowsports visitation and guests as they choose which resort to visit. The nationwide trend within the ski industry over the past decade of offering more modestly priced season passes has promoted the commitment/loyalty of the season pass holder to an individual resort (or resort collective offering access to multiple resorts on one pass product). Given the uncertainty and variability around these factors, it was not feasible to incorporate them into projections."

No edits to the **Final EIS** were made in response to this comment.

2.4 We appreciate that Targhee is not proposing snowmaking in South Bowl, yet. However, we fear that if the South Bowl expansion were to happen, snowmaking in South Bowl would follow. In the same way that Targhee is seemingly using the installation of the Colter Lift to justify the "need" to expand into South Bowl ("public safety"), it stands to reason that the resort would justify a "need" for snowmaking in South Bowl in the future. (471.40)

Thank you for your comment. As acknowledged, it is correct that the proposed action alternatives would not include proposed snowmaking in South Bowl. In **Appendix D. Comparison Summary of Direct and Indirect Environmental Consequences** on **page 604** of the **Final EIS**, it is summarized that the Proposed Action would include "implementation of 57 acres of snowmaking within the existing SUP" but does not include snowmaking in either the South Bowl or Mono Trees expansion areas. The proposed snowmaking would be limited to "lower-mountain circulation routes and high use trails" within the existing Special Use Permit (SUP) boundary.

Additionally, on **pages 285-303** of the **Final EIS** describes that the South Bowl area has distinct characteristics for snow retention, and could be operated without supplemental snowmaking, which may reduce the need for future snowmaking infrastructure in this area; "As previously described, the proposed South Bowl is a south-facing slope. Southern-facing slopes are known for not keeping a sufficient snowpack throughout the year as compared to north-facing slopes... Snow management would be necessary due to the sun and warming this area would receive from its southerly aspect. It is important to note that the portion of the South Bowl area that is proposed for incorporation into the GTR SUP boundary also has an eastern facing aspect through the majority of the terrain. Favorable wind patterns and loading over the ridge have proven that this terrain can hold viable snow throughout the portion of the season that it would be operational. Additionally, the lift and terrain configuration that is proposed is largely above tree line and stays within higher elevations that have longer SRTs [snow residence times]. This proposed terrain area could be operated without supplemental snowmaking however, the number of days that this area would be open to the public would be less than other areas of the mountain. This is consistent with GTRs plans to provide lift-served skiing within the South Bowl.".

In the regard to the future need for snowmaking in the proposed expansion areas, **page 248** of the **Final EIS** states that, "Into the future, this trend could be exacerbated by climate change and additional snow

management features and/or snowmaking could be necessary. If these projects were determined to be necessary in the future, they would be subject to a separate NEPA analysis."

No edits to the **Final EIS** were made in response to this comment.

2.5 A result of 'no action' to me would be a regressive movement against the progression of the greater Teton Valley area, and while academically speaking, no action may have 'no impact' on the surrounding community at first. However in my opinion it will more than likely stagnate the area and risk the existing economy's stability in the long run. (72.1)

Thank you for your comment and your concerns about the region's long-term economic stability in the event that the No Action Alternative is selected. Please refer to purpose and need **RTC**s **2.1** and **2.3**, and socioeconomics **RTC 7.1** for more information.

Specifically, on **page 4** of the **Final EIS** the proposed project's purpose and need is described to "meet the ever increasing expectations of the local, regional, and destination skier markets; Expand alternative and non-winter activities to provide a variety of recreational options to guests and to more effectively utilize existing infrastructure during non-winter months." These purpose and need statements highlight the proposed action alternatives intention to keep GTR relevant in the local market, therefore increasing economic stability.

No edits to the **Final EIS** were made in response to this comment.

2.6 Why would a ski area known for low density skiing/lack of lines need to expand the size of their SUP. From my review of the EIS, this question is not properly addressed or answered. The assumption that it needs to do so to remain competitive is inadequate. The draft EIS in Section 3 projects various ski area visitation growths based upon the different alternatives. This is pure speculation and is not clear how these numbers are derived or the validity of these projections. As a general proposition, skier visits in the US remain stable and why GTR should be a national exception is not addressed.(111.1) Additionally, growth in visitation may be skewed from pandemic years and the proposed action prioritizes destination skiers while ignoring local Idahoan skiers thus prioritizing profit over the common good. (333.1) Based on our experience over the years, it seems clear that GTR is doing an excellent job of meeting its "market niche." Regarding the claim that they need to "meet guest expectations," I note a complete absence of any objective data derived from direct surveys of GTR patrons with respect to their expectations. I find it difficult to believe that after all the years GTR has been in operation that they've never felt the need to conduct a survey of their patrons. As such, I would suggest that as part of the approval process, the FS ask GTR to provide the data that show that their patrons have expectations beyond what GTR presently provides. (627.1) (471.3) (640.5) (650.4) (729.2) (1066.40) (26b.8) (26b.22) (445.1) (457.15)

Thank you for your comment. Please refer to purpose and need **RTC 2.1, 2.3,** and **2.5** which describe the proposed project's purpose and need as well as the projects proposed to meet these needs. Additionally, please refer to recreation **RTC 4.1**, and socioeconomics **RTC 7.1** for more information.

As highlighted on **page 4** of the **Final EIS**, the purpose of the project is not solely to increase capacity, but also to, "improve the recreational experience and address shortcomings in their terrain offerings and

operations". Additionally, **page 4** of the **Final EIS** also identifies specific deficiencies in the existing terrain network as well as a lack of developed beginner and low-intermediate terrain to provide an appropriate learning progression.

Specifically, **page 68-70** of the **Final EIS** explains that annual visitation growth rates have ranged from 12 percent to 30 percent over the last decade. Additionally, on **pages 15-16** of the **Recreation Technical Report**, and **pages 55-56** of the **Socioeconomic Technical Report,** it is described that methodology for visitation projections at GTR are derived from historical visitation trends, anticipated utilization rates based on lift capacity, as well as regional population growth trends.

The following text was added to **pages 68-69** of the **Final EIS** to clarify that possible inflations in visitation data resulting from the COVID-19 pandemic were considered**: "**Visitation projections utilized a five-year baseline average (2016/17 through 2020/21) that incorporates multiple pre-pandemic seasons to ensure estimates reflect long-term trends rather than temporary anomalies associated with the COVID-19 pandemic. This methodology aligns with the GTR's consistent ten-year growth trajectory documented in the **Recreation Technical Report,** confirming that projected increases are driven by sustained regional demand and infrastructure utilization rather than short-term pandemic spikes."

2.7 The main reason why an expansion of limited degree is warranted pertains to the dynamics that is occurring in Teton Valley, Idaho. There are approximately 16,000 undeveloped lots in already approved subdivision throughout the county. In addition, there are additional projects that are requesting approval yearly. While there are citizens that harbor a dislike for the changes that are occurring, there is very little that is being done to curtail new development. One aspect of the economic engine of the county is that it thrives off the construction world. That increase in development is going to require that owners have a place to recreate in the future. Targhee Resort's request for the expansion of its facilities is in anticipation of this future need. (702.1) (702.6)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and specific detail regarding each proposed project's connection to the purpose and need. Additionally, please refer to recreation **RTC 4.7**, and socioeconomics **RTC 7.1** for more information on visitation.

No edits to the **Final EIS** were made in response to this comment.

2.8 Teton Valley has already seen steady and sustainable growth: Winter visitation to GTR has increased by 6% annually between 2016 and 2021. Summer visits have grown 9% annually. The recent Colter Lift and planned Dreamcatcher upgrade already boost uphill capacity significantly. There is no compelling need to sprawl further into public lands. (748.1)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need.

No edits to the **Final EIS** were made in response to this comment.

2.9 Grand Targhee needs to expand because it's already beyond its sustainable capacity on peak days. The increase in visitation is real and ongoing. Denying this expansion won't stop that — it'll just make the experience worse for everyone. More terrain is the only meaningful way to spread skier traffic and preserve the quality that brought so many of us here in the first place. (11b.1)

Thank you for your comment supporting proposed terrain expansions and achieving a sustainable capacity at GTR. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need.

No edits to the **Final EIS** were made in response to this comment.

2.10 I believe that multiple-use sustained yield and ecosystem management practices are invaluable to supporting both environmental and economic sustainability. However, the expansion of the Grand Targhee ski resort does not align with the Forest Service's mission of caring for the land and serving people. It is stated that there was a purpose and need for undeveloped, minimally maintained skiing area, yet also a need for development of facilities and infrastructure. The Caribou-Targhee National Forest stewards forest ecosystems for the benefit of all; trees, vegetation, undisturbed soil, and clean water support animals like bighorn sheep and boreal owls as well as people. (144.1) In the Draft Environmental Impact Statement (DEIS) we did not see a clear "need" to expand Targhee in a way that supports the community, wildlife or the socio-economic advancement of the community. (344.1) How did the Forest establish this need? On what grounds? Were cooperating agencies, local communities, and experts engaged to determine the purpose and need? The DEIS fails to show critical components of an effective and defensible Purpose and Need. (484.1) While we understand the value of recreation on public land, the Draft EIS fails to identify a true need that necessitates the privatization of public land. (538.1) (403.1) (438.3) (462.1) (486.7) (537.1) (548.1) (570.1)(658.2) (688.1) (689.1) (720.9) (724.13) (9b.2) (201.1) (398.6) (469.1)

Thank you for your comment. Please refer to purpose and need **RTC 2.1** detailing the proposed project's purpose and need. Additionally, please refer to vegetation **RTC 15.1**, wildlife **RTC 16.1**, geology and soils **RTC 17.1**, and hydrology **RTC 18.1** for more information.

Furthermore, please refer to NEPA **RTC 1.1** for more information on the proposed project's consistency with the 1997 Forest Plan, associated consultation and coordination, and public land use.

No edits to the **Final EIS** were made in response to this comment.

2.11 In general, the process to establish the purpose and need creates questions for our-Board. The purpose and need is apparently rooted in the 2018 Master Development Plan (MDP), but the MDP seems to be more a document of the applicants "wants" built around statistics and analysis that focus solely on guest experience and not around the full range of environmental and socioeconomic metrics that ultimately matter in finding the best alternative to balance between positive and negative impacts. (489.1) (489.5)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need.

No edits to the **Final EIS** were made in response to this comment.

2.12 The DEIS does not clearly establish that "…GTR must continue to develop and improve its terrain…" Nor does it show GTR must implement the MDP Projects to "…remain viable…" Mere assertion cuts little mustard here. No viability success criteria appear to be presented. To establish this need, economic information is necessary for evaluation and understanding. It is indeed desirable that GTR continue successful operations. It is an important element to the economy and culture of Teton County Idaho. But one must ask why new stuff is proposed while existing infrastructure and features remain wanting? Why are the currently authorized actions not fully implemented? Why is expansion needed when maintenance and care of existing facilities apparently has been inadequate? There did not appear to be any discussion in the DEIS concerning Permittee compliance with existing Special Use Permit Terms and Conditions. A full disclosure of compliance is necessary to support any aspect of the Purpose and Need for the MDP Projects. (545.5)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need. Additionally, please refer to recreation **RTC 4.1** as well as socioeconomics **RTC 7.1** for more information.

Furthermore, please refer to NEPA **RTC 1.1** for more information on the proposed project's consistency with the 1997 Forest Plan, associated consultation and coordination, and public land use.

As referenced throughout the **Final EIS** and **Recreation Technical Report**, industry standards are consistently referred to for market norms including, visitation, terrain, and on-mountain offerings. Additionally, as detailed in on **pages 3-4** of the **Final EIS**, "To address industry growth, maintain its market niche, and meet increasing guest expectations, GTR must continue to develop and improve its on-mountain and base area offerings. These developments are needed in direct response to evolving consumer demands and the competitive regional and destination skier markets."

No edits to the **Final EIS** were made in response to this comment.

2.13 The Purpose and Need statement in the Grand Targhee DEIS is unreasonably narrow and focused entirely on the desires of a private entity. Rather than framing a public-oriented goal grounded in the Forest Service's multiple-use mandate, the statement adopts the private applicant's business objectives – increasing skier capacity, expanding terrain variety, and enhancing year-round market competitiveness – as if they are inherently federal interests. This approach violates the spirit of NEPA, which requires agencies to independently define project purposes in the context of public land stewardship, not simply to facilitate a permittees desired development. How did the Forest establish this need? On what grounds? Were cooperating agencies, local communities, and experts engaged to determine the purpose and need? The DEIS fails to show critical components of an effective and defensible Purpose and Need. Courts have repeatedly rejected EIS documents where Purpose and Need statements were tailored to justify a single outcome,

eliminating serious consideration of reasonable alternatives (National Parks & Conservation Ass'n v. Bureau of Land Management 2010; Citizens Against Burlington 1991). (711.4)

Thank you for your comment. As detailed in purpose and need **RTC**s **2.1, 2.3, 2.5, and 2.6,** the purpose and need for this project is influenced by the project's capacity to support regional growth in visitation by providing sustainable recreation experience at GTR. Additional information on visitation, regional trends, and each proposed project's connection to the purpose and need are discussed in the preceding purpose and need **RTC**s. Additionally, please refer to recreation **RTC 4.1**, socioeconomics **RTC 7.1,** and alternatives **RTC 20.1** for more information.

Furthermore, please refer to NEPA **RTC 1.1** for more information on the proposed project's consistency with the Forest Plan, associated consultation and coordination, and public land use.

Text has been updated in the **Final EIS** on **pages 3-4** to more clearly explain the purpose and need of the project. Please refer to **pages 3-4** of the **Final EIS** for more information.

The comment also alludes to the new July 3, 2025, regulations detailing that the United States (U.S.) Department of Agriculture (USDA) published an interim final rule that modified USDA regulations for implementing NEPA, replacing the regulations previously found at 36 Code of Federal Regulations (CFR) 220. These new regulations, found at 7 CFR Parts 1b, 372, 520, 650, 799, 1970, and 2407, are in effect for all projects initiated after July 3, 2025. These regulations were made final on April 3, 2026. However, to reduce undue impact on existing projects, the final rule allows previously initiated projects to continue under the previous regulations at the discretion of the line officer. It is understood that the GTR MDP EIS line officer wishes to complete the Project under the previous regulations (36 CFR Part 220) rather than utilize the recently adopted regulations.

2.14 I am writing in support of the Grand Targhee expansion plan. As the Teton Valley continues to expand and grow, so too must the things that attracted us to the area such as bike trails, nordic trails, and yes, the ski resort. I have lived in areas where infrastructure and amenities did not keep pace with the growth of the community. This ultimately lead to a diminished experience participating in the activities we all enjoy, particularly the overall ski experience. Trails become more crowded and dangerous, lift and concession lines become longer, the quality of conditions is compromised. I feel the overall goal of the Grand Targhee expansion plan is in line with the anticipated growth of Teton Valley and surrounding areas. Facilities like the Summit at Snowbird, The Roundhouse at Sun Valley, and Eleven53 Café at Mammoth Mountain set a national standard. The proposed improvements at Targhee are in line with this norm and will help disperse visitor traffic and provide better access to services across the mountain. (281.1) (61.1) (303.1) (346.2) (442.3) (647.3) (647.11) (647.12) (647.15) (647.16) (702.1) (304.1) (338.1) (472.1)

Thank you for your comment in support of the proposed projects. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need.

No edits to the **Final EIS** were made in response to this comment.

2.15 Stepping back to the very concept of Targhee expansion, one must ask is there even a need for expansion and what purpose will the expansion serve? An excellent argument can be made to expanding base area operations, but the argument falls apart when trying to justify expanding the ski area boundaries with the SUP or building a restaurant at the top of Freds mountain. The socioeconomic analysis (section 3.4 of the draft EIS) does not justify why Targhee, a ski area already larger than Jackson hole mountain resort but with less than a third the number of skiers, would need to expand in the first place? Alternative 2 of the draft EIS does not make sound economic sense. Building a restaurant at the top of Freds with all the logistical issues of trying to operate such an amenity makes no economic sense - let alone the creation of terrible eye-sore visible up and down the valley. Anyone enjoying the beautiful view of the Tetons will also, unavoidably see a large, obtrusive structure blocking the view of the Tetons. This would be very sad. Clearly, the only purpose for alternative 2 of the EIS is to enrich wealthy investors and will do nothing for the local community except add demands to the infrastructure and congestion of Teton Valley, Idaho. (334.1)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need. Additionally, please refer to recreation **RTC 4.1** and socioeconomics **RTC 7.1** for more information.

No edits to the **Final EIS** were made in response to this comment.

2.16 Expansion Beyond Current Boundaries Is Unwarranted Targhee's current skiable terrain is underutilized compared to its capacity. Terrain rarely feels crowded-even on peak days-and the proposed expansion into South Bowl and Ricks Basin would fragment valuable wildlife habitat and negatively impact quiet-use areas. (330.1) These undeveloped areas are vital for maintaining ecological integrity and the backcountry character of the region and environmental costs do not outweigh the recreational benefits from the proposed projects (358.13). Additionally, many visitors come to this area for its pristine wilderness and opportunities for dispersed recreation. Over-developing the resort for summer use could detract from the area's natural appeal and contribute to overuse of trails and other natural resources. (358.15) (365.1) (385.1) (457.48) (458.1) (474.1) (484.5) (561.1) (598.1) (615.4) (653.1) (700.3) (769.6) (10b.4) (26b.25)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need. Additionally, please refer to recreation **RTC 4.1,** wilderness **RTC 13.1**, and socioeconomics **RTC 7.1** for more information.

Furthermore, please refer to NEPA **RTC 1.17** for more information on the proposed project's consistency with the 1997 Forest Plan as well as local and regional planning standards.

As documented on **page 61** of the **Final EIS**, the Forest Plan classifies South Bowl as Management Prescription 2.1.2 (Visual Quality Maintenance) with an ROS range of "semi-primitive nonmotorized to roaded natural opportunities." However, **pages 67-68** of the **Final EIS** it documents that South Bowl currently experiences consistent backcountry skiing use and is easily accessible from GTR's existing boundary.

No edits to the Final EIS were made in response to this comment.

2.17 Some have raised concerns about protecting backcountry access and forest health. As someone who treasures the wilderness character of our region, I believe both goals can be achieved simultaneously. The Forest Service has a track record of overseeing responsible resort development that incorporates wildlife safeguards, trail buffers, and environmental mitigation. With thoughtful implementation and continued public input, we can protect what makes this place special while adapting to the undeniable realities of growth. The choice before us isn't whether Grand Targhee grows-it's how it grows. I strongly encourage you to adopt Alternative 2, which allows this well-planned, environmentally reviewed expansion to proceed. Teton Valley is changing, and this project will help ensure that our local ski area continues to thrive in a way that serves both our residents and future generations of visitors. (304.2)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need. Additionally, please refer to recreation **RTC 4.1,** wilderness **RTC 13.1**, recreation **RTC 15.1**, and socioeconomics **RTC 7.1** for more information.

No edits to the **Final EIS** were made in response to this comment.

2.18 Before encroaching further into undeveloped forest lands or even significantly altering existing skiable areas within the current SUP boundary, the Forest Service should critically assess whether there are opportunities to optimize or redistribute use on existing terrain. Could creative solutions enhance the skier experience without expanding the footprint or increasing capacity? This option seems largely underexplored in the DEIS. (358.12) (635.1)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need. Additionally, please refer to alternatives **RTC 20.1** for more information on proposed action alternatives and other considerations for enhancing recreational experiences at GTR.

No edits to the **Final EIS** were made in response to this comment.

2.19 Additionally, the land exchange had the intent to place development on private lands at the Base Area and not spread out impacts onto the adjoining public lands. Parking and traffic issues need to be addressed and studied further, and the safety and needs of Teton County, ID need to be placed above the financial needs of GTR and Wyoming. (411.3)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need.

Additionally, please refer to the traffic and parking **RTC 8.1** for a discussion of the detailed analyses incorporated in the **Final EIS**, and please refer to public safety **RTC 10.1**, detailing the proposed project's effect on public safety within the existing and proposed SUP area.

No edits to the **Final EIS** were made in response to this comment.

2.20 I feel there isn't a need for another bigger ski resort in this region. We already have Jackson Mountain Resort and Big Sky. I question the long-term sustainability of ski resorts. Baby Boomers won't be skiing much longer. Can the younger generations continue to afford the ever increasing costs of skiing at destination resorts? And what if winter temperatures continue to increase, ski seasons become shorter, and snowmaking is no longer feasible? Many ski areas have ceased operations for various reasons in my lifetime. Targhee's expansion plans to remain economically viable seem like a high risk endeavor. (384.1) Additionally, the proponent provided no data concerning the economics of the existing operations or the true feasibility – and constructability – of an expanded operation within any of the alternatives presented. (545.8) (711.3) (711.1)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.2 2.3, 2.5,** and **2.6** for additional information on visitation, snowmaking, regional trends, and each proposed project's connection to the purpose and need.

No edits to the **Final EIS** were made in response to this comment.

2.21 The public comments that the Project, including the proposed boundary adjustments, are an attempt to drive demand and change the landscape of the local community – to convert it to Vail or Teton Village – are false. They ignore a critical tenet of responsible and thoughtful planning: to proactively plan for the future and not get caught reacting to foreseeable changes to use and demand. They ignore the timeline needed to plan for and implement this type of development. This process is over seven years in the making. And it will take at least a year for it to be completed. It is not feasible for the Resort to wait for the Resort to become overcrowded or wholly out of date to propose needed improvement or expansion. (647.4) (887.1) (416.1)

Thank you for your comment in support of the proposed projects. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need.

No edits to the **Final EIS** were made in response to this comment.

2.22 An approval of the DEIS does not mandate a resort to proceed with development. It only establishes what could be done within regulatory frameworks. Much of what has been submitted would not only take many years to implement but a good part of it may never even come to fruition as those decisions will ultimately be based on normal business dynamics like financial feasibility, the competitive landscape and skier demand. We all saw how many years it took from approval to completion of the Colter lift. An approval of the DEIS as presented allows the resort to make a plan and prioritize key improvements so that GTR remains competitive and provides the desired experience with adequate lodging, increased food options and minimal wait times at the lifts. A common misperception is that, if approved, somehow all of this infrastructure will just magically appear. Of course, reality dictates that this is far from the case. This plan simply sets a foundation for the next 10-20+ years in GTR's evolution since its founding in 1969. Without strategic growth and responsible development of infrastructure and services,

including the expansion of terrain, the resort risks falling behind in both safety and the desired guest experience. (711.3)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need.

Additionally, as discussed in NEPA **RTC 1.8**, and on **pages 41-42 of the Final EIS,** GTR is required to submit a comprehensive "Construction Implementation Plan" for Forest Service review and authorization, prior to any ground disturbing activities. Additionally, this plan must detail project timelines, disturbance boundaries, and erosion control measures. Additionally, NEPA **RTC 1.12**, and **page 41** of the **Final EIS** states the following: "should the projects included in the Proposed Action occur, implementation would occur over an approximately 10-year period from the time of approval. Project implementation would be subject to capital availability and may be expedited or delayed based on economic conditions that are beyond the scope of this analysis."

As described in NEPA **RTC 1.14** and on **pages 1-2** of the **Final EIS**, the purpose of the **Final EIS** is to analyze the potential environmental, social, and economic impacts of the proposed action on the human environment, rather than the business viability of the applicant.

No edits to the **Final EIS** were made in response to this comment.

2.23 The statement of Need is incorrectly focused on what GTR wants to accomplish on federal land. The need for the EIS should instead focus on the Forest Service's obligation to assess whether granting the SUP would be in conformance with the Forest Plan and other requirements and would benefit public use and access to forest lands. Please revise the statement of purpose and need to describe the government's need for the proposed action, not GTR's. (471.1) Additionally, the purpose and need statements are not in line with the National Environmental Policy Act and USFS directives related to it. (656.1) We recommend that the remainder of the DEIS is adjusted to adhere to this clear direction within the forthcoming EIS. We also recommend that you remove language that conflates objectives outlined in the GTR Master Plan from 2018 with the Purpose and Need Statement, as you have done in section 1.3 where GTR objectives are shared as "Purpose and Need for Action". Problematically, as it stands right now, this DEIS is much more aligned with the objectives of GTR than the direction that CTNF outlined for itself. (620.1) (557.1) (614.1) (620.2) (653.2) (693.9) (727.1) (771.1) (811.1) (1066.1) (14b.2)

Thank you for your comment. As detailed in purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6.** the purpose and need for this project is influenced by the project's capacity to support regional growth in visitation by providing sustainable recreation experience at GTR. Additional information on visitation, regional trends, and each proposed project's connection to the purpose and need are discussed in the preceding purpose and need **RTC**s.

Please refer to purpose and need **RTC 2.13** for more information on the changes to the purpose and need that were made for the **Final EIS**.

Additionally, please refer to recreation **RTC 4.1**, socioeconomics **RTC 7.1,** and alternatives **RTC 20.1** for more information.

Furthermore, please refer to NEPA **RTC 1.1** for more information on the proposed project's consistency with the 1997 Forest Plan, associated consultation and coordination, and public land use.

No edits were made to the **Final EIS** in response to this comment.

2.24 Review process – We are provided the Grand Targhee's Proposed Action. Within my previous agency, the Department of Energy, a DEIS is "owned by" and represents the Government's proposed action. The analysis often completed by contractors and cooperating agencies has been reviewed by and accepted by the government. The proposed alternative is therefore the government position. The government position, independent of the company position is unknown to the public. It is difficult to review a document when an agency with superior knowledge of what is required and what the effects of impacts mean to our public lands. (14b.1)

Thank you for your comment in support of the proposed projects. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need. Furthermore, please refer to NEPA **RTC 1.1** for more information on the proposed project's consistency with the 1997 Forest Plan, associated consultation and coordination, and public land use.

Additionally, please refer to NEPA **RTC**s **1.18** and **1.20**, and **page 21** of the **Final EIS**, which describes that the Forest Supervisor is identified as the "responsible official", therefore they not required to choose either an action alternative or the No Action Alternative described herein, but may select components of an action alternative or develop an entirely new alternative created from components of each.

No edits to the **Final EIS** were made in response to this comment.

2.25 The expansion into South Bowl does not fit the Purpose and Need. First, it is advanced terrain, which does not fit the skier market needs of beginner to advance-intermediate described in the Purpose and Need. Secondly, safety would not be improved by expansion into this area. Skiers would have access to other backcountry terrain from the expanded area, so that risk would not change, as stated in the DEIS. Additionally, if South Bowl were a part of Grand Targhee Resort, the avalanche risk would be controlled through bombs, avalaunchers, and closures. However, the DEIS does not assess the hazard of a steep south facing slope within the ski boundary. The risk of head and spine injuries from falls to a large number of resort users would be greater than avalanche risk to the small number of backcountry users. Regardless if it is in or out of bounds, this is hazardous terrain. (633.1) (787.1)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5,** and **2.6** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need.

Additionally, as mentioned in purpose and need **RTC 2.1** and **page 4** of the **Final EIS** also states that improvements provide an opportunity to increase public safety; "With the installation of the Colter Lift, skiers are currently able to easily access the South Bowl area, which is currently outside the ski area SUP boundary. Without any additional management, South Bowl presents high avalanche risk. While it is not the ski area's responsibility to manage risk outside the SUP and skiers recreating outside the SUP assume

the risk for recreating in avalanche terrain, convenient access to this terrain could plausibly result in additional incidents from use of this unmanaged area. Considering recent increases in backcountry usership, there is an opportunity for GTR to take measures to mitigate risk to guests and staff to support public safety while also providing a robust recreational experience."

No edits to the **Final EIS** were made in response to this comment.

2.26 The Purpose and Need Statement in the Draft EIS is to respond "to an application submitted under the National Forest Ski Area Permit Act of 1986 and Ski Area Recreational Opportunity Enhancement Act of 2011 (SAROEA) by GTR to implement projects from their accepted 2018 GTR MDP." Draft EIS at 3. That is an incomplete Purpose and Need Statement. The Purpose and Need Statement should more cohesively integrate the needs of the Resort as identified in the 2018 Master Development Plan ("MDP") and the purpose of the Project components to address those needs. (647.1) (647.2)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5, 2.6,** and **2.23** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need.

Please refer to purpose and need **RTC 2.13** for more information on the changes to the purpose and need that were made for the **Final EIS**.

Additionally, please refer to NEPA **RTC 1.2**, and **pages 15-21** of the **Final EIS** which describes that the Forest Service evaluated the proposal for consistency with applicable policy and statutory direction, including the 1997 Forest Plan, the SAROEA, and FSM 2343.14 for ski-area-related recreation.

No edits to the **Final EIS** were made in response to this comment.

2.27 Some people have suggested that the Forest Service should add South Bowl to GTR's permit but prohibit GTR from adding a lift. Respectfully, that is an absurd and unreasonable idea. It would preclude the great majority of GTR's guests from enjoying South Bowl and prevent them from skiing with views of the Tetons. Most visitors do not have the equipment, the experience, the desire, or for some the level of fitness, to find their own way out of a place like South Bowl without access to a lift. Adding South Bowl without a lift would not accomplish GTR's objectives of improving the Resort for its guests as stated in the MDP, and would not accomplish the purpose and need identified in the Draft EIS. (647.10)

Thank you for your comment. Please refer to purpose and need **RTC**s **2.1, 2.3, 2.5, 2.6**, and **2.13** for additional information on visitation, regional trends, and each proposed project's connection to the purpose and need.

Additionally, please refer to alternatives **RTC 20.1** for more information on proposed action alternatives and other considerations for enhancing recreational experiences at GTR.

No edits to the **Final EIS** were made in response to this comment.

3. Forest Plan Amendments

3.1 Tree clearing and construction within the expansion contradicts Forest Expansion Plan Standards, for protecting goshawk habitat, flammulated owl nesting areas, boreal owl nesting site, three toed woodpecker habitat and peregrine falcon eyries. (300.13) (301.13) (302.13) (484.47) (697.7) (711.44) (916.14) (620.3)

Thank you for your comment. Please refer to **Appendix C. Forest Plan Amendments** on **pages 535-546** of the **Final EIS** where it explains the purpose of the Forest Plan Amendments. Specifically, as described under the National Forest Management Act (NFMA) and its implementing regulations at 36 CFR 219 (2012 Planning Rule) a Forest Plan may be amended at any time. The Plan amendments may be broad or narrow, depending on the need for amendment. The CTNF has the discretion to determine whether and how to amend the 1997 Forest Plan and to determine the scope and scale of any amendment.

Additionally, as described on **page 536** of the **Final EIS**, the scope and scale of the project specific wildlife Forest Plan amendments are limited to areas where proposed project impacts overlap areas of resources covered under Forest Plan Standards. The project specific Forest Plan amendments are intended to exempt project specific impacts from complying with certain Forest Plan standards. They are also project-specific and do not apply to future projects in the Forest. These amendments are limited to wildlife resources (raptors) and are limited to the project area during project construction.

Further, please refer to **pages 537-543** of the **Final EIS** for more information on the project-specific Forest Plan Amendments for goshawk, flammulated owl habitat, boreal owl habitat, and peregrine falcon habitat. There is no project-specific Forest Plan Amendment for three toed woodpecker habitat, but rather as explained on **pages 336-337** of the **Final EIS** since Alternatives 2, 4, and 5 would amend the 1997 Forest Plan to change the Management Prescription in the expansion areas (South Bowl and Mono Trees) to Management Prescription 4.2 – Special Use Permit Recreation Sites, which supersedes Management Prescription 2.8.3 – Aquatic Influence Zone, snag requirements on up to 61.9 acres (about 56 acres in Mono Trees and 5.9 acres in South Bowl) would be dropped. The project would not cause a loss of viability for three toed woodpeckers as included PDC would ensure impacts to snag nesting habitat is minimized, the proposed project would impact a very small percentage of the available Management Prescription 2.8.3 – Aquatic Influence Zone within the Teton Creek Principal Watershed, snags and live trees are not limiting in the vicinity of the proposed project area, and habitat is widespread.

Overall, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. The Responsible Official maintains the sole authority of determining whether or not the project proceeds and in what manner. They can select specific aspects of an alternative, combine alternatives, or choose the No Action Alternative. The proposed decision and rationale for decision are disclosed in the **Draft ROD** and speak directly to this concern. No edits were made to the **Final EIS** in response to this comment.

3.2 The proposed Mono Trees expansion will significantly impact several wildlife species, necessitating several forest plan amendments. While many of the forest plan amendments proposed to facilitate the Mono Trees expansion are also necessary for proposed actions within the current SUP, it is clear that the Mono Trees expansion presents the more significant inconsistencies with the Targhee Forest Plan. The projects proposed within the SUP could be modified to avoid forest plan inconsistencies, and, by

denying the Mono Trees expansion, the forest plan amendments could be avoided altogether. Please do not relax standards for identified sensitive species in this area. I do not support amending the Forest Plan to accommodate Grand Targhee's development plans at the expense of wildlife. Do not allow expansion into "Mono Trees". (693.11)

Please refer to forest plan amendment **RTC 3.1** for more information on project-specific Forest Plan Amendments related to wildlife.

While the commenter correctly articulates the need for several project specific Forest Plan amendments (as documented in **Appendix C**), the need for a Forest Plan amendment is not synonymous with "significance" in the context of NEPA. It is worth noting that for every wildlife species requiring an amendment, a determination of *May Impact Individuals or Their Habitat, but Will Not Likely Contribute to a Trend Toward Federal Listing or Loss of Population Viability* was reached. Please refer to **Section 3.13** in the **Final EIS** for a further discussion of impacts to wildlife resources. As it relates to wildlife resources, it is important to distinguish between management direction and Forest Plan consistency which is addressed in **Appendices B and C** (consistent with NFMA) of the **Final EIS** and environmental impacts which are disclosed, consistent with NEPA within **Section 3.13** of the **Final EIS**.

Additionally, please refer to **pages 336-337** of the **Final EIS** within **Appendix C. Forest Plan Amendments** where it describes the Programmatic Plan Amendment. The Proposed South Bowl and Mono Trees SUP boundary expansion areas are currently designated as Management Prescription 2.1.2 – Visual Quality Maintenance (866 acres) and an overlay of Management Prescription 2.8.3 – Aquatic Influence Zone. Under this Programmatic Plan Amendment, the 866 acres of Management Prescription 2.1.2 – Visual Quality Maintenance and Management Prescription 2.8.3 – Aquatic Influence Zone would be changed to Management Prescription 4.2 Special Use Permit Recreation Sites. Text has been clarified on **page 27** and **pages 536-537** of the **Final EIS** to make this amendment in Management Prescription more clear.

The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Overall, the Responsible Official maintains the sole authority of determining whether or not the project proceeds and in what manner. They can select specific aspects of an alternative, combine alternatives, or choose the No Action Alternative. The proposed decision and rationale for decision are disclosed in the **Draft ROD** and speak directly to this concern. No edits were made to the **Final EIS** in response to this comment.

3.3 Amendments to the 1997 Forest Plan do not align with its original intent, and the process of identifying amendments during scoping had limited public input. (457.50) (457.76) Additionally, the DEIS proposes amendments to the 1997 Forest Plan but fails to demonstrate consistency with the Plan's goals, standards, and guidelines, particularly regarding visual quality, wildlife habitat, and aquatic influence zones. (457.84) (457.87) (476.18) (545.11) (569.4) (729.14)

Thank you for your comment. Please refer to **page 535** of the **Final EIS** where it explains that when the Notice of Intent for the project was published in the Federal Register (8/26/2020), only one Forest Plan amendment was known to be needed for this project, the Programmatic Plan Amendment for the change in Management Prescriptions. The other five project-specific Forest Plan Amendments were not known to be needed at the time the Notice of Intent was published; the need for the amendments became apparent

during the analysis process. Therefore, the effects of these project-specific amendments were analyzed and disclosed in conjunction with the **Draft EIS**. This analysis in the **Draft EIS** was made available for public comment, and will be available for objection periods following the guidelines set forth in 36 CFR 219 Subpart B.

Additionally, please refer to **pages 336-337** of the **Final EIS** within **Appendix C. Forest Plan Amendments** where it describes the Programmatic Plan Amendment. The Proposed South Bowl and Mono Trees SUP boundary expansion areas are currently designated as Management Prescription 2.1.2 – Visual Quality Maintenance (866 acres) and an overlay of Management Prescription 2.8.3 – Aquatic Influence Zone. Under this Programmatic Plan Amendment, the 866 acres of Management Prescription 2.1.2 – Visual Quality Maintenance and Management Prescription 2.8.3 – Aquatic Influence Zone would be changed to Management Prescription 4.2 Special Use Permit Recreation Sites. Text has been clarified on **pages 25-26** and **pages 518-519** of the **Final EIS** to make this amendment in Management Prescription more clear.

Please also refer to **pages 537-543** of the **Final EIS** for more information on the project-specific Forest Plan Amendments for goshawk, flammulated owl habitat, boreal owl habitat, and peregrine falcon habitat.

Finally, please refer to **pages 439-521** of the **Final EIS** where **Appendix B. Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards and Guidelines** is presented. This appendix presents Forest-wide and Management Prescription 4.2 standards and guidelines relevant to the GTR EIS and explains the project's consistency with them. Resources and species with associated goals and objectives in the 1997 Forest Plan have been omitted from this analysis. Therefore, no edits were made to the **Final EIS** in response to this comment.

3.4 The Forest Service's planning regulations explicitly allow the Forest Service to issue a Forest Plan amendment when "a proposed project or activity would not be consistent with the applicable plan." 36 C.F.R. 219.15(c)(4). The point "is to allow a project that would otherwise not be consistent with the plan to be authorized and carried out in a manner appropriate to the particular time and place of the project, without changing how the plan applies in other respects." National Forest System Land Management Planning Rule, 7 Fed. Reg. 21,162, 21,239 (Apr. 9, 2012). Forest Plans are programmatic in nature and infrequently revised. This makes it foreseeable that specific projects may require an amendment of the applicable plan when appropriate. The United States Supreme Court has endorsed this approach and the agency's use of amendments to revise Forest Plans "in response to an appropriate proposed sitespecific action that is inconsistent with the Plan." Ohio Forestry Ass'n, Inc. v. Sierra Club, 523 U.S. 726, 735 (1998). The Forest Service has utilized this important tool to approve Forest Plan amendments at many ski areas, including in the 2019 Crested Butte Teocalli Expansion Record of Decision, the 2021 Steamboat Resort Improvements Decision Notice, the 2019 Aspen Mountain Decision Notice, and the 2012 Breckenridge Peak 6 Record of Decision. (647.19)

Thank you for your comment. Please refer to forest plan amendment **RTC 3.1**, **3.2**, and **3.3** for more specific information on the Programmatic Plan Amendment and five project-specific Plan Amendments that were presented and analyzed in the **Draft EIS**.

The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Overall, the Responsible

Official maintains the sole authority of determining whether or not the project proceeds and in what manner. They can select specific aspects of an alternative, combine alternatives, or choose the No Action Alternative. The proposed decision and rationale for decision are disclosed in the **Draft ROD** and speak directly to this concern. No edits were made to the **Final EIS** in response to this comment.

3.5 The Visual Quality Maintenance prescription emphasizes maintaining the existing visual quality within major travel corridors with high quality natural vistas. The Forest Plan calls for management along these travel corridors—including Ski Hill Road and Teton Canyon Road—to protect natural visual quality, to be environmentally sensitive, and to provide for various dispersed recreational opportunities. To-date, the CTNF has achieved these goals, but a forest plan amendment to reclassify these areas as a Special Use Authorization Recreation Site would dramatically upend management and be an abrupt departure from what has long been intended under the Forest Plan. Special Use Authorization Sites provide for privately operated recreation facilities—not dispersed camping—and highly modified visual characteristics. (471.8) (537.2) (727.8)

Thank you for your comment. Please refer to forest plan amendment **RTC 3.2** for more information on the proposed Programmatic Plan Amendment to change the Management Prescriptions of the proposed South Bowl and Mono Trees expansion areas.

Additionally, please refer to **page 506** of the **Final EIS** within **Appendix B. Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards and Guidelines** where the standards and guidelines of Management Prescription 2.1.2 Visual Quality Maintenance are further described and the proposed projects are determined to be consistent or inconsistent with them.

Please also refer to **Section 3.2** in the **Final EIS** for a discussion of impacts to scenery. As it relates to impacts to scenery, it is important to distinguish between management direction and Forest Plan consistency which is addressed in **Appendices B and C** (consistent with NFMA) of the **Final EIS** and environmental impacts which are disclosed consistent with NEPA within **Section 3.2** of the **Final EIS**.

The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Overall, the Responsible Official maintains the sole authority of determining whether or not the project proceeds and in what manner. They can select specific aspects of an alternative, combine alternatives, or choose the No Action Alternative. The proposed decision and rationale for decision are disclosed in the **Draft ROD** and speak directly to this concern. No edits were made to the **Final EIS** in response to this comment.

3.6 I am highly concerned about the visual impact of the access road and lift into South bowl. This area was obviously important visually to be allocated a visual management prescription in 1997 due to its prominence from many viewpoints in teton canyon and the Jed Smith wilderness. While the DEIS rightly acknowledges the need for a forest plan amendment, there is little discussion about why visuals is suddenly not important. If it was important in 1997, what changed? (787.2)

Thank you for your comment. Please refer to scenery **RTC 5.1** for more information on the proposed South Bowl expansion as it relates to scenery and viewshed resources. Specifically, **pages 87-110** of the **Final EIS** provides a comprehensive analysis of scenery resources.

Please also refer to forest plan amendment **RTC 3.2** for more information on the proposed Programmatic Plan Amendment to change the Management Prescriptions of the proposed South Bowl and Mono Trees expansion areas.

Additionally, please refer to **page 506** of the **Final EIS** within **Appendix B. Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards and Guidelines** where the standards and guidelines of Management Prescription 2.1.2 Visual Quality Maintenance are further described and the proposed projects are determined to be consistent or inconsistent with them. No edits were made to the **Final EIS** in response to this comment.

3.7 Peregrine Falcon Habitat Standard 3 requires the CTNF to restrict climbing and other human disturbances from March 15 through July 31 to avoid adverse impacts at known falcon nest sites. According to the DEIS, two cliff sites in Teton Canyon have served as nesting sites for peregrine falcons in recent years: one about 1 mile from of the project area on the southern side of the Teton Canyon and an eyrie among the Apostle Cliffs, about 0.12 miles from the project area. While the current SUP boundary falls within the 2-mile buffer of these sites, expanding the resort into Teton Canyon would bring a far greater impact to these nest sites than current activities, or any new activities within the current SUP, because an expansion would vastly increase human activity and disturbance in close proximity to the sites without a topographical buffer to mitigate impacts. (471.9) Additionally, The DEIS states that a pair of breeding goshawks occupy a territory (Mill Creek Territory) with 3 nest sites that includes the Mono Trees area. The Targhee Forest Plan includes strong protections for goshawk nesting, fledging, and foraging areas. Per the DEIS, the Mono Trees expansion would impact 4.47 acres (2%) of the 200- acre nesting area and 128.96 (32%) acres of the 400-acre fledging area within this goshawk territory. While we appreciate the Wildlife and Fish Project Design Components 14, 16, and 18, these mitigation measures are not enough to ensure goshawks do not abandon this area. (471.43) (537.3) (711.22)

Thank you for your comment. Please refer to forest plan amendment **RTC 3.1** for more information on the proposed project-specific Forest Plan Amendments for goshawk, flammulated owl habitat, boreal owl habitat, and peregrine falcon habitat. These amendments are included to exempt project specific impacts from complying with certain Forest Plan Standards.

Regarding the analysis that was completed for peregrine falcons and American goshawk, please refer to **pages 321-324** of the **Final EIS** for a comprehensive analysis of direct and indirect impacts as a result of the proposed projects. Please also refer to **pages 49-51** of the **Final EIS** within **Table 2.4-1 Project Design Criteria** where it describes specific PDC that are included in the project to minimize impacts to wildlife species.

The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Overall, the Responsible Official maintains the sole authority of determining whether or not the project proceeds and in what manner. They can select specific aspects of an alternative, combine alternatives, or choose the No Action Alternative. The proposed decision and rationale for decision are disclosed in the **Draft ROD** and speak directly to this concern. No edits were made to the **Final EIS** in response to this comment.

3.8 Targhee Forest Plan Flammulated Owl Habitat Standard 1 prohibits timber removal in 30-acre flammulated owl nesting areas. There are 5 of these sites within the project area, primarily within the existing SUP. While the majority of impacts to flammulated owl nest sites would occur from projects proposed within the current SUP (which we will discuss later in these comments), permitting an expansion into Mono Trees would bring timber removal to nesting habitat that is currently undisturbed. Again, the CTNF should not so readily dismiss the standards in place to protect this species. Instead, project design elements should be adjusted to ensure compliance with the Forest Plan's Flammulated owl habitat standards. (471.44) (1b.11)

Thank you for your comment. Please refer to forest plan amendment **RTC 3.1** for more information on the proposed project-specific Forest Plan Amendments for goshawk, flammulated owl habitat, boreal owl habitat, and peregrine falcon habitat. These amendments are included to exempt project specific impacts from complying with certain Forest Plan Standards.

Additionally, please refer to pages **540-541** of the **Final EIS** where it describes the project-specific Forest Plan Amendment for flammulated owls in more depth. Please also refer to **pages 320-321** of the **Final EIS** for a comprehensive analysis of the direct and indirect impacts to flammulated owls as a result of the proposed projects. A PDC has also been included in the Proposed Action that prohibits vegetation clearing/construction within flammulated owl designated 30-acres territories from May 1 to August 15 as described on **page 51** of the **Final EIS**.

Overall, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. The Responsible Official maintains the sole authority of determining whether or not the project proceeds and in what manner. They can select specific aspects of an alternative, combine alternatives, or choose the No Action Alternative. The proposed decision and rationale for decision are disclosed in the **Draft ROD** and speak directly to this concern. No edits were made to the **Final EIS** in response to this comment.

3.9 CTNF biologists have recorded two boreal owl nesting sites within the Proposed Action area, and 25.2 acres of those nesting sites would be impacted by tree removal. One of these nesting sites would see 24.1 acres of tree removal. The 1997 Forest Plan includes protection for such sites, prohibiting tree removal within 30 acres of known nests. Despite the proposed design characteristics meant to limit impacts to boreal owls, a Forest Plan amendment would be required for proposed glading. We object to any Forest Plan amendments that would soften protections for these nesting raptors because the proposed projects have a high likelihood of displacing these birds. (1b.10)

Thank you for your comment. Please refer to forest plan amendment **RTC 3.1** for more information on the proposed project-specific Forest Plan Amendments for goshawk, flammulated owl habitat, boreal owl habitat, and peregrine falcon habitat. These amendments are included to exempt project specific impacts from complying with certain Forest Plan Standards. Additionally, please refer to pages **541-542** of the **Final EIS** where it describes the project-specific Forest Plan Amendment for boreal owls in more depth.

Please also refer to **pages 318-319** of the **Final EIS** for a comprehensive analysis of the direct and indirect impacts to boreal owls as a result of the proposed projects. A PDC has also been included in the

Proposed Action that prohibits vegetation clearing/construction within boreal owl designated 30-acres territories from March 1 to August 15 as described on **page 51** of the **Final EIS**.

The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Overall, the Responsible Official maintains the sole authority of determining whether or not the project proceeds and in what manner. They can select specific aspects of an alternative, combine alternatives, or choose the No Action Alternative. The proposed decision and rationale for decision are disclosed in the **Draft ROD** and speak directly to this concern. No edits were made to the **Final EIS** in response to this comment.

3.10 The CTNF identified "Changes in public use of the designated winter travel route in Teton Canyon due to expansion which could result in RPF travel plan amendment(s)." Given that a travel management-related Forest Plan amendment is not included in this DEIS, we assume that the CTNF determined such an amendment was not necessary. However, this concern underscores an issue that is not adequately addressed in the DEIS: how public use of the designated winter travel route in Teton Canyon may change as a result of the expansion and how this use may or may not comply with existing travel management standards and goals in Teton Canyon. For example, a South Bowl expansion may increase oversnow vehicle (OSV) use along the Teton Canyon groomed route and overall OSV use in Teton Cayon both in shuttling resort skiers who exit the SUP and descend beyond the bottom terminal of the South Bowl lift but do not wish to hike uphill back to Skil Hill Road, and as skiers who previously accessed South Bowl from Teton Canyon seek opportunities deeper into Teton Canyon. Neither of these scenarios involving increased OSV use in Teton Canyon are analyzed in the DEIS. The CTNF does not currently have a winter travel plan in compliance with Subpart C of the Travel Management Rule (36 CFR Part 212 Subpart C) and should not be authorizing activities that have the potential to increase motorized use without first conducting over-snow vehicle travel management planning. (471.31)

Thank you for your comment. Please refer to recreation **RTC 4.20** for more information on the impacts to recreation within Teton Canyon as a result of the proposed projects. Specifically, as described on **page 76** of the **Final EIS**, under the Proposed Action the terrain in South Bowl would be incorporated into GTR's SUP boundary and would no longer exist as an opportunity for backcountry recreation during the winter months. This area would experience increased skier use and backcountry skiing within the portion of South Bowl that would be incorporated into GTR's SUP boundary would not be permissible. It is anticipated that backcountry use of other areas through the CTNF could increase. This could include an increase in snowmobile use in Teton Canyon as skiers are shuttled from the SUP back to their cars. Additionally, because only a portion of the South Bowl would be incorporated into the GTR SUP, and since adjacent terrain would remain in its existing condition, some users may exit the SUP boundary just below Mary's Nipple and ski backcountry terrain to the extent possible for them to return to the South Bowl Lift.

Additionally, travel management planning and making an amendment to the 1999 Targhee Travel Plan as a result of this project is not necessary. Travel management planning is a process in which designation of specific roads, trails, and areas for motorized vehicle use occurs. This planning is done so to balance recreation with environmental protection. This project does not propose new OSV roads, trails, or areas. If in the future, additional roads, trails, or areas for motorized use were proposed or deemed necessary the

CTNF would go through a separate NEPA travel management process. Therefore, no edits were made to the **Final EIS** in response to this comment.

3.11 Remove all project components requiring 1997 Forest Plan amendments: Above, we have identified at least two legally required amendments that would need to be made were you to expand into South Bowl. By eliminating the South Bowl expansion from this project you alleviate the need for these two amendments. With that said, we acknowledge that there may exist additional necessary amendments that have yet to be identified, possibly within Alternative 3. These should be identified by the Forest as you compile the final EIS. We request that any and all project components requiring amendments are removed in order to align with your Purpose and Need statement, and in order for us to give Alternative 3 our enthusiastic support. (620.11) (771.2) (811.2)

Thank you for your comment. Please refer to **pages 535-537** of the **Final EIS** where the Forest Plan Amendments are further described. Specifically, there is one Programmatic Plan Amendment and five project-specific Plan Amendments.

The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Overall, the Responsible Official maintains the sole authority of determining whether or not the project proceeds and in what manner. They can select specific aspects of an alternative, combine alternatives, or choose the No Action Alternative. The proposed decision and rationale for decision are disclosed in the **Draft ROD** and speak directly to this concern. Therefore, no edits were made to the **Final EIS** in response to this comment.

3.12 The EIS notes that "A programmatic amendment to the 1997 Forest Plan would be required to incorporate the proposed expansion areas into the GTR SUP area…." Is additional NEPA going to be conducted to support an amendment if the expansion is approved? (1066.12)

Thank you for your comment. The Forest Plan Amendments described by the commenter are part of this analysis and are described as part of the Alternatives Considered in Detail in **Section 2.2** of the **Final EIS**. Specifically, text within this section as well as in **Appendix C** on **page 519** of the **Final EIS** was updated to be clearer. This section now states, "The scope and scale of the Forest Plan programmatic amendment to change the management prescription area is specific to an area of 866 acres and covers only a small portion of the CTNF (less than a tenth of a percent). It would apply to all future projects and activities within this 866-acre area, as well as all resources within this area. This Forest Plan programmatic amendment would be effective for the life of the current Forest Plan. Specifically, this Forest Plan programmatic amendment would alter the management emphasis, action, measures, and prescriptions of the acres currently managed under Management Prescription 2.1.2 – *Visual Quality Maintenance* and Management Prescription 2.8.3 - *Aquatic Influence Zone* to Management Prescription 4.2 – *Special Use Permit Recreation Sites*. As Management Prescription 4.2 – *Special Use Permit Recreation Sites* directs, the 866-acres would be expected to function as a ski area and future ski area-related projects would likely be proposed beyond what are included in the GTR MDP Projects FEIS, though any future projects would require separate and appropriate NEPA analysis."

Additional amendments, driven by resource impacts associated with various project components of the action alternatives, are described in the corresponding resource sections within **Chapter 3**. These

proposed amendments are project specific, and would amend the 1997 Forest Plan to exempt the proposed projects from certain resource standards. The aforementioned project specific 1997 Forest Plan amendments are related to wildlife habitat and are described in detail in **Sections 3.13**. **Appendix B** contains a full 1997 Forest Plan consistency analysis. **Appendix C** and **Section 1.9.1 – Targhee National Forest Revised Forest** Plan describes the 1997 Forest Plan amendments themselves.

A complete list of Forest Plan Amendments was noticed at the release of the **Draft EIS**. Refer to *Providing Opportunities for Public Participation (§ 219.4) and Providing Public Notice (§ 219.16; § 219.13(b)(2))* in **Appendix C** of the **Final EIS**.

Please refer to **pages 535-537** of the **Final EIS** where the Forest Plan Amendments are further described. Specifically, there is one Programmatic Plan Amendment and five project-specific Plan Amendments.

There would be no additional NEPA process to support an amendment as this NEPA process fulfills the requirements. Specifically, please refer to **page 535** of the **Final EIS** where it describes The Plan Amendment Process. The effects of these proposed amendments were disclosed in conjunction with the **Draft EIS** analysis and were available for public comment, and will be made available for objection following the guidelines set forth in 36 CFR 219 Subpart B.

4. Recreation

4.1 Alternative 3 - "No Special Use area expansion" is the only alternative that makes any sense because it limits impacts to wildlife, avoids user conflicts, and respects adjacent wildlands. Alternative three makes desirable improvements to skier experience within the resort's existing footprint. I suggest that people advocate for Alternative 3 and choose in-boundary amenities that seem appropriate. A restaurant at the top of Sacajawea would alleviate crowded restaurants at the base. Uphill capacity can be increased with a Crazy Horse Lift. (4.1) Additionally, the Blackfoot lift capacity and speed should be improved as should the Sacagawea lift and Shoshone lift. The construction of the six-pack Colter lift provided access to many acres of beautiful skiing, however I have NEVER ridden this lift when all six seats are filled, or when there is a line. Thus if increasing skier capacity is an issue we advocate for the upgrade of existing lifts, terrain, and infrastructure to improve visitor experience and safety for all ability levels; would not require additional expansion onto forest service land. (156.4) (159.4) (94.2) (162.4) (795.4) (74.1)

Please refer to **pages 36-38** of the **Final EIS** where it describes the project components that would be included in Alternative 3. Within Chapter 3 of the Final EIS, adverse impacts and beneficial effects from all Action Alternatives are analyzed. These adverse impacts and beneficial effects have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

Further, as described on **pages 3** and **4** of the **Final EIS**, the purpose and need for the Forest Service's action is to decide whether to grant a special use permit to GTR for the proposed projects. GTR's has specifically identified a need to provide additional undeveloped, minimally maintained lift-served terrain and additional traditionally cleared alpine trails to enhance terrain variety and skiing experiences at GTR. The Proposed Action would respond to GTR's objectives and as further described on **pages 36-38** of the

Final EIS, Alternative 3 was created to respond to a variety of resource concerns associated with the SUP expansion into South Bowl and Mono Trees.

No edits to the **Final EIS** were made in response to this comment.

4.2 Terrain Network – Comment: Additional development of the South Bowl and Mono Trees area will not enhance the novice to intermediate available terrain that GTR is stated to be lacking. (26b.21)

Thank you for your comment highlighting that the Proposed Action would not enhance the terrain available to novice to intermediate skiers. As is described on **page 71** of the **Final EIS**, under the Proposed Action, intermediate terrain would increase to 44 percent, and advanced-intermediate and expert terrain would remain well above the skier market standards. These changes better reflect the skier market particularly at GTR, which caters to primarily advanced and expert ability level skiers. It also states that under the Proposed Action there is a decrease in novice and low-intermediate terrain. This can be explained by some trail projects, such as the realignment of the Teton Vista Traverse, which would change its difficulty from Novice to Intermediate. This decrease can also be explained by an increase in beginner, intermediate, advanced-intermediate, and expert terrain acreage. While the distribution of these ability levels still represents a deficit in relation to market standards, the increases in other terrain ability levels align with GTR's purpose and need of increasing the quantity of beginner, intermediate, and advanced-intermediate terrain to meet current and anticipated public demand. For more information on the purpose and need of the project and GTR's objectives please refer to **pages 3** and **4** of the **Final EIS**.

No edits to the **Final EIS** were made in response to this comment.

4.3 What are the infrastructure issues being addressed. (70.1)

Please refer to **page 28** of the **Final EIS** where it describes the lifts, lift replacements, and lift realignments within the existing SUP area that are included in the Proposed Action. Specifically, Dreamcatcher Lift is expected to meet its life expectancy shortly after the completion of this NEPA process and needs to be replaced. The Shoshone lift is also proposed to be upgraded to a detachable lift to provide an improved guest experience.

No edits to the **Final EIS** were made in response to this comment.

4.4 The lift proposed next to Blackfoot will not provide any extra skiable acreage. It will simply put you further down the boring cat track back to the lift. (532.5)

The proposed lift next to the Blackfoot Lift is the North Boundary Lift. As described on **page 28** of the **Final EIS** this lift would be a fixed-grip triple lift and is intended to provide better utilization of the terrain at the far north edge of the resort. This lift would also provide easier access to intermediate and advanced terrain that is currently not lift-accessed. Although the lift would not provide any extra skiable acreage, it would provide a better guest experience on days when Dreamcatcher and Blackfoot Lifts cannot be operated due to fog, wind, or other weather factors.

No edits to the **Final EIS** were made in response to this comment.

4.5 Rather than expanding into undisturbed areas, the resort should invest in optimizing its current footprint. There are numerous practical and sustainable improvements that would

enhance skier experience without extending infrastructure into new terrain: - Upgrade Existing Lifts: Improving capacity and speed of current lifts would reduce bottlenecks and efficiently spread skiers across the mountain. - Install a T-Bar or Short Lift Between Sacajawea and Dreamcatcher: This would open up underutilized terrain and balance skier distribution without further development into untouched areas. (181.2)

Thank you for your comment regarding the proposed improvements and expansion beyond the existing GTR SUP. Please refer to recreation **RTC 4.1,** where it is described that adverse impacts and beneficial effects from all Action Alternatives are analyzed, and that Alternative 3 was created to respond to a variety of resource concerns associated with the SUP expansion into South Bowl and Mono Trees. Additionally, please refer to recreation **RTC 4.3** where it describes that both Dreamcatcher and Shoshone Lifts would be upgraded under the Proposed Action. Upgrading these lifts would enhance the skier circulation throughout the resort and improve the guest experience.

As indicated in **Figure 2** on **page 398** of the **Final EIS**, there is a new lift, Crazy Horse, that is proposed under the Proposed Action and Alternative 3. Further, as described on **page 28** of the **Final EIS** the Crazy Horse Lift would provide better access to trail on Fred's Mountain and allow skiers and riders to access Fred's Mountain terrain without having to return to the base area to ride Dreamcatcher. The Crazy Horse Lift would also allow guests to reach the top of Fred's Mountain when Dreamcatcher is inoperable by riding Sacajawea and Crazy Horse in succession.

Placing a T-Bar or short lift between Dreamcatcher and Sacajawea was considered but was dismissed from further analysis, as this type of lift would not improve access to underutilized terrain. Existing terrain that is underutilized is located where the Crazy Horse Lift is proposed and placing a lift directly in-between Dreamcatcher and Sacajawea would not decrease the amount of terrain that would need to be developed. The Crazy Horse Lift as proposed serves the objectives of the project.

Additionally, the following text was added to **Section 2.5 Alternatives Considered but Eliminated from Detailed Analysis** on **page 59** of the **Final EIS,** describing the consideration of the previously discussed alternative: "T-Bar or short lift between Dreamcatcher and Sacajawea to access additional terrain and substitute the proposed Crazy Horse Lift."

4.6 Several years ago, GTR finally built its summit lift, Colter lift, to the summit of Peaked mountain. Now they are asking for a second lift to the summit of Peaked Mountain. There is no room on the summit for a second terminal. (173.2)

Thank you for your comment regarding the logistics of the proposed South Bowl Lift to the summit of Peaked Mountain. Please refer to **Figure 4** on **page 400** of the **Final EIS** which shows the proposed projects in South Bowl under Alternatives 2 and 4. As indicated in this figure, the existing Colter Lift as well as the proposed South Bowl Lift terminate near the summit of Peaked Mountain. The top terminal of the proposed South Bowl Lift would be placed northwest of the existing top terminal of the Colter Lift. There is space on top of Peaked Mountain for both of these top terminals. Please refer to **page 25** of the **Final EIS**, which describe the design details of the proposed South Bowl Lift and specifically state that grading and tree clearing would be required to create space for the lift terminals and skier egress.

No edits to the **Final EIS** were made in response to this comment.

4.7 No lift expansion. From the DEIS pg 60 " GTR's current CCC is calculated at 3,720 guests per day….peak days … exceed by 25%" so on a big day there's maybe 5000 skiers. Combined uphill capacity of the existing 4 major lifts is ~ 10,000/hour, so utilization on a big day is ~ 50%. Targhee has a well-deserved reputation for no liftlines. There can be bottlenecks on certain days and conditions but these are brief and rare. (295.2)

Thank you for your comment regarding the lack of need for increased chairlift capacity. However, on **pages 63** and **64** of the **Final EIS**, "Comfortable Carrying Capacity (CCC)"is described as a planning tool representing the number of daily visitors a resort can comfortably or efficiently accommodate at one time without overburdening the resort's infrastructure. Furthermore, the CCC is derived from the resort's supply of vertical transport (the combined uphill hourly capacities of the lifts) and demand for vertical transport (the aggregate number of runs demanded multiplied by the vertical rise associated with those runs). The CCC is then calculated by dividing the vertical supply by vertical demand. As the commenter stated, the existing CCC of the resort is 3,720 guests per day.

The demand for vertical transport (the aggregate number of runs demanded multiplied by the vertical rise associated with those runs) is a product of resort capacity and visitation. As discussed on **page 72** in the **Final EIS**, "it is anticipated that upon implementation of projects included in the Proposed Action, annual winter visitation and growth rates at GTR would increase from baseline conditions". Therefore, an increase in vertical demand is expected at GTR in the years to come.

Furthermore, as described on **page 73** of the **Final EIS,** the proposed installation of South Bowl, Mono Trees, Crazy Horse, and North Boundary Lifts and the proposed upgrades to the Shoshone Lift and Papoose Carpet would result in an increased CCC under the Proposed Action. The CCC at GTR would increase from 3,720 guests per day to 6,170 guests per day. Although the four major lifts have an approximately 10,000 persons per hour lift capacity (vertical supply), this capacity has to be divided by the vertical demand, which is expected to increase in the future.

No edits to the **Final EIS** were made in response to this comment.

4.8 I don't really feel that the addition of news lifts within the SUP are necessary. I know old lifts will need to be replaced and I support this on their current foot print for the safety of the public, but there is no need to add more lifts in areas that don't currently have any. (767.4) (767.5)

As specified in recreation **RTC 4.3** both Dreamcatcher and Shoshone Lifts would be upgraded under the Proposed Action. Further, as described on **pages 28** and **29** of the **Final EIS** the construction of new lifts like Crazy Horse, North Boundary, Palmer Platter, and the Teaching Carpet would enhance the skier circulation throughout the resort and improve the guest experience. Construction of these new lifts would also meet GTR's objective of improving skier circulation across the mountain through improvements to the efficiency of the lift and trail network and by providing more reliable and consistent snow coverage in key areas. This has been considered in the Responsible Official's decision, and rationale for that decision can be found within the **Draft ROD**.

No edits to the **Final EIS** were made in response to this comment.

4.9 The document notes that the Dream Catcher lift is near its "life expectancy." This is misleading. Dream Catcher is nearing its design life. That is much deferent the life

expectancy. With ongoing maintenance and upgrades, Dream Catcher will operate safely for many years. Not the old Blackfoot life is still operating many years after being removed from service at GTR. (1066.16)

Thank you for your comment referencing **page 28** of the **Final EIS,** where it states that the Dreamcatcher Lift is expected to meet its life expectancy shortly after the completion of this NEPA. The statement in the **Draft EIS** was intended to convey that the Dreamcatcher Lift is approaching the point at which major capital investment or replacement would be necessary to maintain modern operational standards and meet future recreation demand.

No edits to the **Final EIS** were made in response to this comment.

4.10 Unless I am missing it, I hope the expansion will include more easy trails from the upper part of the mountain. As a former Grand Targhee Instructor, TVT is the only jump up the mountain from Shoshone. So please keep that progression in mind for those skiers, especially family members, wanting to enjoy more of the mountain as their skills progress. (34.1)

As described in recreation **RTC 4.2** the Teton Vista Traverse would be realigned under the Proposed Action. This realignment would cause its difficulty level to change from Novice to Intermediate. As is described on **page 71** of the **Final EIS**, under the Proposed Action, intermediate terrain would increase to 44 percent, and advanced-intermediate and expert terrain would remain well above the skier market standards. These changes better reflect the skier market particularly at GTR, which caters to primarily advanced and expert ability level skiers. It also states that under the Proposed Action there is a decrease in novice and low-intermediate terrain. This can be explained by some trail projects, like the realignment of the Teton Vista Traverse. This decrease can also be explained by an increase in beginner, intermediate, advanced-intermediate, and expert terrain acreage.

As is further described on **page 30** of the **Final EIS**, the Teton Vista Traverse is an existing on-mountain administrative route that needs to be realigned/rehabilitated to reduce erosion and sedimentation. This realignment/rehabilitation would also provide access to the Fred's Mountain Top Guest Facility and improve circulation throughout the resort as is described further on **pages 31** and **34** of the **Final EIS**.

No edits to the **Final EIS** were made in response to this comment.

4.11 Instead of new large-scale terrain expansion, thoughtful enhancements in Rick's Basin and Colter Canyon would provide meaningful benefits: - Rick's Basin: With its rolling terrain and proximity to the existing resort footprint, Rick's Basin presents a low impact opportunity for increasing skiable acreage. Careful trail development here could maintain the basin's character while improving skier variety and flow. *- Colter Canyon: Rather than extending infrastructure deep into this area, the addition of a single midmountain facility-such as a small, energy-efficient restaurant or warming station-would meet guest needs for years to come without compromising the area's tranquility or ecological function. (181.4)

Please refer to **Figure 2** on **page 398** of the **Final EIS** where it shows the existing Nordic trails that are present within Rick's Basin. Please also refer to **pages 34-36** of the **Final EIS** where it explains that an additional 1.4 miles of Nordic trails are proposed to be constructed within Rick's Basin. The soft,

undulating terrain in Rick's Basin provides Nordic, snowshoe, and fat bike users with an alternative winter activity than downhill skiing. This area serves these users and changing this area to provide downhill skiing would not meet GTR's objectives of expanding alternative and non-winter activities to provide a variety of recreational options to guests and to more effectively utilize existing infrastructure during non-winter months. This alternative was considered but dismissed from further analysis.

Additionally, please refer to **pages 31** and **34** of the **Final EIS** where it explains additional guest service facilities that are proposed including the Sacajawea Restaurant and Guest Facility, Shoshone Guest Facility, and Rick's Basin Guest Facility.

Further, as seen in **Figure 2** on **page 398** of the **Final EIS**, there is no infrastructure proposed to be constructed deep in Papoose drainage [referenced as Colter Canyon in the comment]. The Colter Lift already exists on Peaked Mountain and no guest facility is proposed at the top of the lift. Specifically, as described on **pages 32-33** of the **Final EIS**, the Sacajawea Restaurant and Guest Facility is proposed near the top terminal of the Sacajawea Lift.

No edits to the **Final EIS** were made in response to this comment.

4.12 Ricks Basin: There is no demonstrated need to develop a road or other facilities in this area. A concern of mine is any development is a harbinger of another land exchange and expansion of the present inholding for the purpose of residential/commercial development. (445.7)

Please refer to **Figure 2** and **Figure 3** on **pages 398** and **399**, respectively, for specific information about the infrastructure that is proposed within Rick's Basin. Specifically, under the Proposed Action there are Nordic trails, multi-use trails, an access administrative route, and a guest facility proposed within Rick's Basin. These proposed projects would meet GTR's objective of expanding alternative and non-winter activities to provide a variety of recreational options to guests and to more effectively utilize existing infrastructure during non-winter months. Additionally, impacts from these project components have been assessed within **Chapter 3** of the **Final EIS**, and the associated impacts have been accounted for by the Responsible Official in the **Draft ROD**.

Further, the Rick's Basin area is within GTR's existing SUP, and any new projects proposed within this area must go through a NEPA process similar to this one. The decision to propose projects within their existing SUP is a business decision of GTR's. Additionally, development of their private land is also a business decision of GTR's and has been assessed as a cumulative effect project within this NEPA process. The **Final EIS** is a disclosure, rather than a decision document. Please refer to the **Draft ROD** for more information on the rationale of the Responsible Official's decision.

No edits to the **Final EIS** were made in response to this comment.

4.13 GT needs to increase its service capacity (food, lodging, parking, changing area, lockers) before increasing the number of skiers. (24.4)

Please refer to **pages 31** and **34** of the **Final EIS** where it describes the proposed guest services facilities that are included in the Proposed Action. These facilities would provide services to guests like food and beverage, restrooms, customer service, and areas to escape the weather on the mountain.

Additionally, as described **pages 157-158** of the **Final EIS**, GTR has four parking lots which are all located on private land. With the Proposed Action there is expected to be a deficit of 927 parking spaces when visitation is at CCC (6,170 guests) during the winter. Under the Grand Targhee Resort First Amended Master Plan – Planned Unit Development for Planned Resort (PUD-PR) as described on **pages 167-175** of the **Final EIS**, the approved development included plans to increase parking capacity. Along with increasing parking capacity other incentives for carpooling to balance parking capacity would be implemented. These two action would result in well-planned and balanced recreation facility at GTR where base area infrastructure has been developed commensurate with on-mountain capacities – and vice versa. The PUD-PR was previously approved by Teton County, Wyoming in 2019 and no part of its implementation is dependent upon the decision to be made under this NEPA process.

No edits to the **Final EIS** were made in response to this comment.

4.14 As you consider a model for on mountain restaurants, please keep in mind that guests like to come inside to dine and get a break from the weather. Outdoor seating is great on a sunny Spring day but otherwise falls short of people's expectations. (45.1)

As described in recreation **RTC 4.13** and on **pages 31-34** of the **Final EIS** there are four guest service facilities that are proposed under the Proposed Action. These include the Fred's Mountain Top Guest Facility (7,000 square feet of interior space), Sacajawea Restaurant and Guest Facility (6,500 square feet of interior space), Shoshone Guest Facility (1,500 square feet of interior space), and Rick's Basin Guest Facility (1,500 square feet). As further described on **page 73** of the **Final EIS**, these facilities would accommodate the anticipated increase in CCC and would provide a balanced amount of space under proposed conditions.

No edits to the **Final EIS** were made in response to this comment.

4.15 The Crazy horse lift would be a disaster for lovers of the mountain. It would open up the unseen terrain that stays as a low traffic/ untracked area. It will ruin powder days. Don`t build it. (442.4) (26b.13)

As described on **page 28** of the **Final EIS**, the Crazy Horse Lift would provide better access to trails on Fred's Mountain and allow skiers and riders to access Fred's Mountain terrain without having to return to the base area to ride Dreamcatcher Lift. In the event the Dreamcatcher Lift is inoperable, skiers would be able to access the terrain by riding Sacajawea and Crazy Horse Lifts.

Additionally, as described on **pages 72-73** of the **Final EIS** the Crazy Horse Lift would enhance access to additional expert terrain. This lift would meet GTR's objective of improving skier circulation across the mountain through improvements to the efficiency of the lift and trail network and by providing more reliable and consistent snow coverage in key areas.

No edits to the **Final EIS** were made in response to this comment.

4.16 I am not opposed to development within the resort's current boundary, provided that there is not a noticeable increase to buildings above 9,000 feet (e.g. the planned development atop Fred's Mountain). (481.2)

As described on **page 73** of the **Final EIS** all proposed guest facilities, including Fred's Mountain Top Guest Facility, would improve the guest experience by offering services such as food and beverage,

improved customer service through additional staff resources, and areas to escape the weather on the mountain. These facilities would accommodate the anticipated increase in CCC and would provide a balanced amount of space under proposed conditions.

Additionally, as described on **pages 96** and **97** of the **Final EIS**, Fred's Mountain Top Guest Facility would result in an incremental addition to a largely developed landscape when viewed from foreground, and middleground (Teton Canyon Overview Observation Site), and background distance zones to the west of GTR. The facility may be visible from the Teton Canyon Overview Observation Site; however, given the popularity of GTR as a destination ski area, it can be reasonable assumed that most visitors expect to encounter developed recreation infrastructure within the viewshed. The facility would also result in an incremental addition to a largely undeveloped landscape when viewed from middleground (South Leigh Lakes, Table Mountain, and Jedediah Smith Wilderness (JSW)), and background distance zones within the JSW. Scenic impacts would be most prominent from South Leigh Lakes. Impacts would be similar, but even less noticeable from background (Grand Teton Summit, Hurricane Pass, Lower Saddle Between the Middle and Grand Tetons, Middle Teton Summit, Mount Meek Pass, and Paintbrush Drive) distance zones within GTNP. The proposed projects would alter approximately 0.1 percent of the overall view from this viewpoint. Collectively, the proposed Fred's Mountain Top Guest Facility is not expected to increase visual resources impacts such that the area would not meet its visual quality objective (VQO) designation of Partial Retention to Maximum Modification. Therefore, maintenance of the VQOs would be achieved.

No edits to the **Final EIS** were made in response to this comment.

4.17 The on-mountain facilities are lacking currently for the existing skier numbers. Limited restroom facilities are present, under development of parking, and there are no on-mountain restaurant facilities. The base lodge is grossly undersized for the current skier numbers and the proposed on-mountain facilities will go a long way in adequately addressing these issues and provide greater visitor satisfaction. The proposed on-mountain lodges that are being proposed are situated in optimum locations to serve the users, just should not be located in undesirable locations (ridgeline for example). There are mitigation methods that have been implemented in other situations that would reduce the visibility of the structures from the valley in the way of building materials and vegetative screening. (702.2)

Thank you for your comment concerning the existing on-mountain facilities that are currently lacking. As described in recreation **RTC 4.16** the proposed on-mountain guest facilities would improve the guest experience by offering services such as food and beverage, improved customer service through additional staff resources, and areas to escape the weather on the mountain. These facilities would accommodate the anticipated increase in CCC and would provide a balanced amount of space under proposed conditions.

Additionally, please refer to **page 32** of the **Final EIS** where more information is provided on the location and design of the proposed Fred's Mountain Top Restaurant; "the building would have simple, linear forms and utilize low-reflective materials to blend with the surrounding environment in sensitivity to viewsheds from GTNP and would comply with the Forest Service's Built Environment Image Guide (BEIG)"Please refer to **RTC 5.10** for more information on Fred's Mountain Top Guest Facility and additional clarification that was added to the Final EIS to provide more information on the location of this facility and how the facility is expected to look.

No edits to the **Final EIS** were made in response to this comment.

4.18 Recreation in the "GTR SUP" Area Comment: As this Alternative 4 is about the "expanded" GTR SUP boundary a specific section that addresses this is necessary in this DEIS. The above "title" is for "Recreation in the GTR SUP Area" not the "Expanded Area". (26b.27)

Thank you for your comment referencing the subsection title "Recreation in the GTR SUP Area" within **Section 3.1.4 Direct and Indirect Environmental Consequences.** Please refer to **page 82** of the **Final EIS** where it describes the direct and indirect environmental consequences on surrounding NFS lands as a result of the proposed projects. Under Alternative 4 the incorporation of South Bowl into the GTR SUP boundary would have similar impacts as disclosed under the Proposed Action section. The subsection heading "Recreation in Surrounding NFS Lands" analyzes the impacts on South Bowl and Mono Trees under all alternatives.

No edits to the **Final EIS** were made in response to this comment.

4.19 Grand Targhee proposes to build a new chairlift within the existing SUP boundary that would service terrain on its northern boundary and in Rick's Basin. Other than the small amount of terrain below the North Boundary Traverse where the bottom of the lift would be sited, this terrain is already accessible from the Blackfoot lift, making this new lift unnecessary. (1b.14)

Thank you for your comment, which references the proposed North Boundary Lift. As described in recreation **RTC 4.4** and **page 28** of the **Final EIS** this lift would be a fixed-grip triple lift and is intended to provide better utilization of the terrain at the far north edge of the resort. This lift would also provide easier access to intermediate and advanced terrain that is currently not lift-accessed. Although the lift would not provide any extra skiable acreage, it would provide a better guest experience on days when Dreamcatcher and Blackfoot Lifts cannot be operated due to fog, wind, or other weather factors.

No edits to the **Final EIS** were made in response to this comment.

4.20 Expanding the resort boundary would further degrade wild, quiet, natural darkness and dispersed recreation within Teton Canyon, Mono Trees, and South Bowl areas. Teton Canyon has long been a source of quiet recreation for our residents and visitors in all seasons. Literally thousands of people hike Table Mountain and the surrounding area in the summer. Similar large numbers of people ski Teton Canyon trails each winter. Many more recreate in lower Teton Canyon as part of a heritage of family reunions, campouts, and similar gatherings. The South Bowl expansion will both visually and sonically impact this area. Extensive avalanche control using explosives will be necessary to safely ski the South Bowl and will be most egregious of the impacts in winter. A South Bowl expansion would significantly impact the many members of the public like backcountry skiers and hunters who recreate in Teton Canyon and other nearby public lands and these impacts would not be limited to ski season. Additionally, the expansion of the ski area's boundary into the Mono Trees area will impact recreational use in the Mill Creek area, a popular non-fee cross-country ski trail. Again-the USFS should strive to provide a wide selection of recreational opportunities across the economic spectrum. For both the South Bowl and the Mono Trees areas, a more robust analysis of recreational displacement impacts

should have been included in the DEIS. (6.2) (571.6) (922.9) (693.13) (398.5) (173.1) (300.3) (301.3) (302.3) (398.4) (636.4) (419.1) (424.1) (433.3) (444.3) (464.8) (471.6) (477.19) (480.1) (682.3) (695.2) (715.1) (724.1) (727.13) (727.14) (910.2) (30.1) (96.2) (102.2) (126.2) (155.1) (158.1) (170.1) (181.1) (194.5) (390.2) (416.5) (454.3) (462.13) (476.3) (484.32) (487.2) (491.2) (499.2) (571.2) (595.4) (598.7) (606.2) (645.4) (646.6) (648.6) (658.1) (673.3) (706.1) (710.11) (711.31) (715.3) (1066.39) (803.2) (1067.1) (1072.1) (96.3) (637.2) (682.1) (13.1) (445.3) 727.18) (126.2) (146.2) (518.4) (117.2) (13b.1) (9b.7) (7b.4) (25b.1) (8b.6) (24b.2) (26b.9)

Thank you for your comment concerning the adverse effects associated with the proposed expansion beyond the existing GTR SUP boundary. Please refer to **pages 75-77** of the **Final EIS** where it describes the impacts to recreation resources on NFS lands surrounding GTR's existing SUP. The Proposed Action may attract additional visitors who may chose to recreate within the GTR SUP boundary. These additional users may displace existing user groups due to increased use of trails within the GTR SUP boundary and may also use trails to access other trails within the surround NFS lands, like the Mill Creek multiuse trail. Given multi-season recreation opportunities already exist at GTR and on surrounding NFS lands, it is anticipated that this would be a minor shift and users would continue to recreate in areas outside the SUP boundary. The Proposed Action is expected to increase the use of overnight facilities such as campgrounds and dispersed camping areas near GTR.

Additionally, as further described on **pages 75-76** of the **Final EIS**, the Proposed Action proposes to expand the GTR SUP boundary into the Mono Trees area. Mono Trees in its existing state is not a popular recreation destination, so the Proposed Action is not expected to measurably displace users. The recreation opportunity spectrum (ROS) ranges from roaded natural to urban, and with the proposed development it is expected to become a mostly natural appearing environment with some visible trails, roads, and ski area infrastructure.

Further, as described on **pages 76-77** of the **Final EIS**, under the Proposed Action the South Bowl terrain in Teton Canyon would be incorporated into GTR's SUP boundary and would no longer exist as an opportunity for backcountry recreation during the winter months. This area would experience increased skier use and backcountry skiing within the portion of South Bowl that would be incorporated into GTR's SUP boundary would not be permissible. As a result of its incorporation into GTR's SUP boundary under the Proposed Action it is anticipated that backcountry use of other areas on the CTNF could increase. This could include an increase in snowmobile use in Teton Canyon as skiers are shuttled from the SUP back to their cars. Additionally, because only a portion of the South Bowl would be incorporated into the GTR SUP, and since adjacent terrain would remain in its existing condition, some users may exit the SUP boundary just below Mary's Nipple and ski backcountry terrain to the extent possible for them to return to the South Bowl Lift. Further, the incorporation of backcountry terrain in the GTR SUP may impact outfitter and guiding companies as they may need to have their operational areas relocated to other areas of the CTNF if negatively affected by the incorporation of South Bowl into the GTR SUP area. However, through the incorporation of the South Bowl into the SUP boundary avalanche control and other safety procedures could take place. Given the South Bowl is easily accessible from the existing SUP boundary it is a highly used backcountry area; however, the dangers posed by avalanches create a serious public safety risk. Through the incorporation of this area into the operational boundary, GTR would be able to improve safety measures and accident response capabilities. Overall, the ROS for the South Bowl ranges from roaded natural to urban, and with the proposed development would become a mostly natural appearing environment with some visible trails, roads, and ski area infrastructure.

As further described on **page 77** of the **Final EIS** through incorporation of the South Bowl, backcountry users would be displaced. This displacement may increase the use of South Leigh Canyon as a backcountry destination in the winter. Summer use of South Leigh Canyon is not expected to experience measurable changes as a result of the Proposed Action. These displacements of backcountry users and outfitters and guides has been taken into account in the decision. The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

Additionally, on **page 70** of the **Final EIS**, direct and indirect environmental consequences to recreation resources on NFS lands surrounding the existing GTR SUP boundary are described. This section states, "Participation in backcountry recreation is anticipated to increase with current trends and could be exacerbated in South Bowl by the presence of the Colter Lift. The 2023 season indicated that the Colter Lift has resulted in marginal increases in use within the South Bowl area. Implementation of the Colter Lift has not changed access points to South Bowl from those that were available to the public under existing conditions, but rather has created a more consistent but higher use pattern within portions of the South Bowl area. Under the No Action Alternative, this is expected to continue into the future. Increased backcountry use in this area may result in increased avalanche accidents and injuries." Therefore, it is not expected that recreation on NFS lands surrounding the existing GTR SUP would change from existing conditions.

No edits were made to the **Final EIS** in response to this comment.

4.21 Snowmobile Rescue Cache – Comment: I reject this proposed action as it is unnecessary, as historical evidence does not warrant it's need. (26b.15)

Please refer to **page 31** of the **Final EIS** where it describes the proposed snowmobile rescue cache. In coordination with the Forest Service, this rescue cache would be located to the south of the South Bowl area and provide additional safety equipment in case of emergencies. Given the existing backcountry use of South Bowl and the proposed use of South Bowl under the Proposed Action the project component would be relevant with or without the inclusion of the South Bowl.

As further described on **page 190** of the **Final EIS**, the installation of the rescue cache would support the public safety of skiers. Specifically, it would support skiers and riders within the SUP boundary and in surrounding backcountry areas by providing storage for rescue equipment, thus improving the efficiency of emergency response.

No edits were made to the **Final EIS** in response to this comment.

4.22 All the services identified in this section can be addressed on GTR's private land. When the USFS transferred the base land to GTR, it was partially to help provide for such facilities. Placing them on public land leaves more of the private land at the base area available for development and income. This in essence transfers public land for private use. The base area can provide all these services without the use of public lands. (1066.35)

Thank you for your comment referencing the Guest Services Facilities section on **page 31** of the **Final EIS**. GTR currently does not possess any on-mountain guest facilities and all on-mountain guest facilities

are proposed to be located within their existing SUP boundary as depicted in **Figures 2**, **4**, and **5** on **pages 398**, **400**, and **401** respectively.

Additionally, as described on **page 141** of the **Final EIS** the *Grand Targhee Resort First Amended Master Plan* was adopted on February 12, 2019 and was approved for a total of 450 residential/accommodation units and 12,300 square feet for commercial and resort services for GTR. The plan was also created by Section 4.3.7 of the Teton County Land Development Regulations. Actions on GTR's private land are regulated by Teton County, Wyoming and are not under the purview of federal permitting under this NEPA process. Overall, what GTR decides to do on their private land is a business decision of GTR.

Further, as described on **page 126** of the **Final EIS** use of NFS lands under a SUP are subject to fee payment to the United States Treasury. Over the past 10 years, GTR has paid SUP fees to the United State Treasury in various amounts ranging between $99,111 and $258,250. The SUP are included in the annual calculations for the 25 percent payments made to counties.

No edits were made to the **Final EIS** in response to this comment.

4.23 I have greatly enjoyed the entire "vibe" of the area and have not experienced overcrowding or a lack of food choices. So the proposal being put forth to add on mountain restaurants doesn't seem to be needed at this time. At least not large, sit down type facilities. On mountain restrooms are needed. My suggestion is to hold off on the on mountain dining and instead create restrooms or small areas to obtain a hot beverage and get out of the weather. (96.1)

As described in recreation **RTC 4.22** and on **page 73** of the **Final EIS** the guest service facilities are intended to improve the guest experience by offering services such as food and beverage, improved customer service through additional staff resources, and areas to escape the weather on the mountain. Currently GTR has no on-mountain guest service facilities.

Further, as described in purpose and need **RTC 2.1** and on **page 4** of the **Final EIS**, there is a need to improve on-mountain services to meet the ever-increasing expectations of the local, regional, and destination skier markets.

No edits were made to the **Final EIS** in response to this comment.

4.24 I support night skiing with a restriction of 7pm closing to respect dark skies. (102.3)

Please refer to scenery **RTC 5.9** for more information on impacts to night skies.

No edits were made to the **Final EIS** in response to this comment.

4.25 The document states that "Teton Canyon is heavily used by motorized and non-motorized recreationalists." This statement is misleading. The area is heavily used by nonmotorized recreationalists in the winter. There is minor use by snow machines for access to backcountry skiing and/or transport of skiers who have skied down from GTR. (1066.59)

Thank you for your comment referencing text on **pages 292-295** within the wildlife section of the **Final EIS**. This section is talking about the Apostles Cliffs mineral lick that bighorn sheep use which is position between the existing southern boundary of GTR and Teton Canyon which is heavily used by motorized

and non-motorized recreationists. The Teton Canyon Road is used in both the winter and summer for recreation access. Further, as described on **pages 66-67** of the **Final EIS** in the winter there are popular multipurpose snowmobile/cross-country trails at the base of Teton Canyon and in the summer there are hikers and campers. All of these recreationists have to drive on Teton Canyon Road which can increase the motorized recreation in the canyon.

No edits were made to the **Final EIS** in response to this comment.

4.26 I am strongly opposed to the proposed road, guest facilities and chairlift in Rick's Basin. As discussed on pages 18-20 of DEIS, the Ski Area Recreation Enhancement Act of 2011 and the Forest Service Manual 2343.14, "activities should harmonize with the natural environment and not require extensive new support facilities such as chairlifts" and "be located in developed part of ski area". This is completely inconsistent with cutting down trees and putting a road, warming hut, chairlift and small restaurant in Rick's Basin. (729.16)

Thank you for your comment referencing FSM §2343.14(1)(e)(1). Specifically, FSM §2343.14 is titled *Additional Seasonal and Year-Round Recreation Activities at Ski Areas* and was created to supplement the Ski Area Recreational Opportunity Enhancement Act (SAROEA). This supplement added criteria for determining whether proposals for additional seasonal and year-round recreation activities and associated facilities at ski areas were consistent with SAROEA. FSM §2343.14(1)(e)(1) states “To the extent practicable, harmonize with the natural environment of the site where they would be located by being visually consistent with or subordinate to the ski area’s existing facilities, vegetation and landscape.” This regulation is intended to keep seasonal and year-round activities from dominating the winter scenic experience. Specifically, in FSM §2343.14(1)(a) it states that the Forest Service must ensure that the primary recreation purpose of ski areas is skiing and other snow sports (36 CFR 251.51). The primary role of the North Boundary Lift, access administrative route, and Rick’s Basin Guest Facility is to enhance the guest experience during winter months and enhance skier circulation on the north end of the existing SUP. At this time, it is not proposed that the North Boundary Lift would not be used during the summer months. Further, as described on **pages 34-36** of the **Final EIS**, under the Proposed Action there are proposed summer recreation trails, as well as Nordic, snowshoeing, and fat bike trails in Rick’s Basin.

The project is consistent with FSM §2343.14 and no edits to the **Final EA** are required.

4.27 Grand Targhee Resort recently eliminated Quakie Ridge from nordic ski trail network. The addition of the proposed North Boundary Lift will further impact the nordic area. In addition, expansion of the SUP into the South Bowl will eliminate many acres of backcountry ski access. Grand Targhee Resort should return Quakie Ridge to the nordic skitrail network and should install backcountry ski access gates at the top of Nitwits and on the north side of the ski area above South Leigh canyon. (582.7)

As described in recreation **RTC 4.26** and on **page 36** of the **Final EIS**, under the Proposed Action there are approximately 1.4 miles of Nordic trails proposed. These trails would improve the connectivity with the existing trails in Rick’s Basin. A portion of these proposed Nordic trails would be established on private lands and tie Nordic skiing into the Targhee Village and introduce additional trail variety. Additionally, an approximately 1,500 square foot Rick’s Basin Guest Facility with vault toilets and potable water would also be located within the Rick’s Basin trail network.

The North Boundary Lift, as described on **page 28** of the **Final EIS** is proposed to provide better utilization of the ski area terrain on the far north edge of GTR. It would also provide access to intermediate and advanced terrain that is currently not lift-accessed. The North Boundary Lift would help provide a quality ski experience on days when Dreamcatcher and Blackfoot Lifts cannot be operated during to fog, wind, or other weather factors. The proposed North Boundary Lift would not impact Nordic operations at GTR.

Please refer to recreation **RTC 4.20** for more information on impacts to backcountry skiing as a result of the Proposed Action.

Further, please refer to **Table 2.4-1** on **page 46** of the **Final EIS** where it explains that GTR will develop an Operations and Boundary Plan that will guide users exiting from the permit boundary to the adjacent backcountry terrain through logical and safe exit points. Additionally, this plan will identify both physical closures and operation measures to be taken within the SUP.

No edits to the **Final EIS** were made in response to this comment.

4.28 In his MDP acceptance letter, former CTNF Supervisor Mel Bolling expressed concerns over possible impacts to recreation and impacts from recreation on other resources stemming from the proposed Mono Trees expansion and other project activities. These included the potential demand for more trails or roads outside the resort (such as parallel trail to Ski Hill Road) and anticipated increase in the heavy use of the Mill Creek trail. None of these potential impacts are discussed in the DEIS. Indeed, while the DEIS mentions the "popular Mill Creek trail" once, when discussing Teton Canyon, the DEIS goes on to state: "The area [Mono Trees] may have limited dispersed recreation but is not considered a destination for backcountry skiing or hiking." The Mill Creek trail may begin in Teton Canyon, but it travels through the Mono Trees area and would be significantly impacted by a SUP expansion into Mono Trees. Tree clearing for ski runs and glading would change the character of the trail where it travels through Mono Trees and, as Supervisor Bolling indicated, an anticipated increase in use along the trail. These impacts and possibilities, however, are not considered in the DEIS. The FEIS should address these deficiencies. (471.50)

Thank you for your comment; it is correct that the Mill Creek Trail is mentioned only twice in the analysis, on **pages 66-67** of the Final EIS. In further analysis, additional text has been added to the **Final EIS** that describes the Mill Creek Trail and the Cold Spring Trail, both of which pass through the proposed Mono Trees expansion area.

Please refer to **page 66** of the **Final EIS** under the Mono Trees subheading where additional text has been added that describes the Mill Creek Trail and Cold Springs Trail. This text states: "The Mill Creek Trail is a popular hiking and mountain biking trail that starts within Teton Canyon and passes through the proposed Mono Trees expansion area. This trail follows the proposed southern boundary of the proposed SUP expansion area. A less popular hiking and mountain biking trail, the Cold Springs Trail, also passes through the proposed Mono Trees SUP expansion area. The Cold Springs trail can be accessed from Ski Hill Road and connects to the Mill Creek Trail. It crosses the proposed ski runs and gladded terrain from southwest to northeast within the proposed Mono Trees SUP expansion area. Both of these trails are managed by the CTNF."

Please also refer to **page 75** of the **Final EIS** under the Mono Trees subheading where additional text has been updated in the direct and indirect environmental analysis section in relation to the Mill Creek and Cold Spring Trails. Text that was updated now states: "The Proposed Action proposes to expand the GTR SUP boundary so that it includes an additional 600 acres in the Mono Trees area. During construction of the proposed projects, users of the Mill Creek and Cold Spring Trails may be impacted by additional noise or trail delays/closures. These impacts are expected to be short term in nature, and users are not expected to be displaced as short term trail delays/closures may occur as the projects are implemented. Users are not expected to experience long term impacts as use of these two trails is primarily in the summer season, and no ski area activities are proposed to occur in the proposed Mono Trees expansion area during the summer season. Users recreating on the Cold Springs Trail through the proposed ski runs and gladed areas of the proposed Mono Trees expansion may experience few trees and vegetation cover, but these impacts are not expected to cause adverse impacts to the recreation experience of users. The CTNF would continue to manage these two trails under their existing conditions beyond the GTR SUP area, while GTR would manage these trails within the SUP area."

4.29 I recommend bringing back xcountry skiing in Rick's basin and revitalizing your nordic ski program and grooming Quakie Ridge again. Specifically, the document notes that GTR proposed to expand its Nordic. In the past year, GTR has significantly decreased its Nordic skiing opportunities by reducing the terrain being groomed and often not grooming at all. This seems like an empty proposal. (83.2) (1066.27) (598.5)

Please refer to recreation **RTC 4.26** and **4.27** for more information on the proposed Nordic skiing trails that are proposed. Under the Proposed Action GTR is proposing to construct new Nordic trails in Rick's Basin on Quakie Ridge. Please refer to **Figure 2** on **page 398** of the **Final EIS**, which shows the proposed winter projects within GTR's existing SUP Area, and details the proposed Nordic skiing improvements in Rick's Basin, including Quakie Ridge.

No edits to the **Final EIS** were made in response to this comment.

4.30 Increasing lifts will decrease powder skiing for which GT is famous for. (24.6)

Thank you for your comment. As described on **pages 28-29** of the **Final EIS** there are four new lifts that are being proposed, which include Crazy Horse, North Boundary, Palmer Platter Surface Lift, and the Teaching Carpet. These lifts would enhance the guest experience and improve skier circulation throughout the resort. A decrease in powder skiing was not determined to be an impact from the installation of these proposed lifts.

No edits to the **Final EIS** were made in response to this comment.

4.31 Rick's Basin is one of the very few areas near Teton Valley that is readily accessible for high-elevation touring involving low and moderate slopes. Accordingly, it should be preserved for nonmotorized and non-lift-served recreation. Further, I have enjoyed the current winter and summer trail network in Rick's Basin and don't see the need for any improvements other than a restroom. It is currently a peaceful, multiple use area for hikers, bikers, snowshoers, Nordic skiing, and horseback riding. (5.3) (729.17)

Please refer to recreation **RTC 4.26** and **4.27** where the proposed winter improvements to Rick's Basin is discussed. Under the Proposed Action approximately 1.4 miles of new Nordic trails are proposed in Rick's Basin along with a new guest service facility with vault toilets and potable water.

Additionally, as described on **pages 34–36** of the **Final EIS**, and as depicted on **Figure 3: Proposed Summer Projects (All Action Alternatives)** on **page 399** a few multi-use trails are proposed throughout Rick's Basin. These trails would improve the connectivity of the area and provide greater recreational opportunities for users.

No edits to the **Final EIS** were made in response to this comment.

4.32 The DEIS mentions that ". . . the recently constructed Colter Lift within GTR's existing SUP boundary has the potential to increase accessibility to NFS lands and the JSW." This is true, but winter access to the JSW is easier via the Dreamcatcher lift, and the steep and avalanche-prone slope along the south side of Mary's Nipple (Peak 9930) is common to both access points. Also, gaining the summit of Peaked Mountain via the Dreamcatcher lift is not significantly different than it is from the Colter lift. Both require some uphill travel (112 feet from the Colter lift versus 200 feet from the Mary's-Peaked saddle). In winter, a ski-traverse from Dreamcatcher to the saddle east of Peaked Mtn. is more efficient than the summer trail. (644.17)

Thank you for your comment regarding the wilderness section and the use of the Colter Lift to access the JSW. As the commenter highlights on **pages 208-209** of the **Final EIS** it states that the Colter Lift has the potential to increase accessibility to NFS lands and the JSW. The paragraph goes on to state that the Colter Lift could act as an additional access point, particularly in the winter months due to its proximity to the adjacent South Bowl backcountry terrain. This text highlights that the Colter Lift could be used as another access point to adjacent JSW, along with other existing lifts like the Dreamcatcher Lift. Specifically, as mentioned on **page 210** of the **Final EIS** it states that although additional lifts are included in the Proposed Action, access to the JSW is not anticipated to increase as a result of the proposed projects. The Dreamcatcher Lift, Crazy Horse Lift, and the South Bowl would increase the capacity of the ski area during the winter months; however, none of these proposed projects would provide access that doesn't already exist or direct access to the JSW. The construction of the Colter Lift, as analyzed in the No Action Alternative would provide another access point to the JSW that wasn't already present.

No edits to the **Final EIS** were made in response to this comment.

4.33 Please acknowledge in the Final EIS that the proposed boundary adjustments represent a relatively tiny percentage of land (about 1/30th of 1%) of the 2.7 million acres of public lands on the CTNF, and that the addition of South Bowl and Mono Trees has no effect on the 99% of the CTNF available for public backcountry recreation. (647.14) (108.1)

As described on **pages 24** and **25** of the **Final EIS** the South Bowl and Mono Trees proposed SUP expansion areas are 266 acres and 600 acres, respectively. This totals to approximately 866 acres, which is approximately 0.03 percent of the approximately 2.7 million acres of land on the CTNF.

No edits to the **Final EIS** were made in response to this comment.

4.34 Facilities and Guest Services – Comment: Additional guest services as a day lodge at the bottom plaza area, a mountain facility at the top of Sacajawea Lift, at the top of the Shoshone Lift, and in Rick's Basin are needed. (26b.23)

Please refer to **pages 31-34** of the **Final EIS** where four new proposed guest service facilities and storage and vault toilet facilities are described. Under the Proposed Action there is a guest facility near the top of Sacajawea Lift, one proposed near the top of Shoshone Lift, and one in Rick's Basin.

No edits to the **Final EIS** were made in response to this comment.

4.35 The concept that a resort as large as GTR has no on-mountain dining options or facilities is highly atypical. I have skied at 103 different ski resorts in the US and abroad. Grand Targhee is one of the only resorts of its size with zero on-mountain dining. For this reason and for general business and guest experience purposes, I support both dining options presented at Sacajawea and at the top of Fred's. I trust GTR will work to make these structures visually appealing and minimize potential impacts to the environment. Additionally, a restaurant on the Peaked Mountain side could improve the visitor experience. (416.3) (542.6) (887.3)

Thank you for your comment in agreement with the Proposed Action. Please refer to scenery **RTC 5.10** for more information.

No edits to the **Final EIS** were made in response to this comment.

4.36 Terrain glading and grading: Additional glading and grading in key areas will provide an improved skier experience. – Comment: Agree 100% this would enhance skiing at Targhee. (795.10)

Thank you for your comment in agreement with the Proposed Action. Please refer to **page 29** of the **Final EIS** where it describes that approximately 550 acres of gladed areas are proposed.

No edits to the **Final EIS** were made in response to this comment.

4.37 The Mono Trees area would be a fantastic addition to the resort. This area is already accessible to the resort and heavily traversed. It only requires a short walk up to the Sacajawea Lift. Fog does not affect this area as often as the top due to the much lower elevation. For this reason the addition would increase accessible terrain on the frequent cloudy days. (705.1)

Thank you for your comment in agreement with the Proposed Action and Alternative 5. Please refer to **page 26** of the **Final EIS** for more information on the Mono Trees SUP expansion area.

No edits to the **Final EIS** were made in response to this comment.

4.38 Summer Recreation: Adding more trails to our award winning trail network will provide additional lift-served and multi-use trails providing additional recreation opportunities for hiking, trail running and biking. The proposed Summer Activity Zone in the Shoshone area will provide additional engaging activities for families and visitors – Comment: Agree this would be a great addition for summer recreation. (795.11)

Thank you for your comment in agreement with the Proposed Action. Please refer to **pages 34-36** of the **Final EIS** for more information on proposed summer recreation trails and other summer activities.

No edits to the **Final EIS** were made in response to this comment.

4.39 I support the full request by Grand Targhee to expand their inbound lifts and facilities. I also support their request to expand in the Mono Trees and South Bowl. The expanded terrain will make skiing conditions safer as these 2 new areas will be less prone to the persistent fog that engulfs Grand Targhee. The inbound expansion will help alleviate the current crowding and lift lines in the base area. (108.1)

Thank you for your comment in agreement with the Proposed Action. Please refer to **pages 24-27** of the **Final EIS** for more information on the proposed South Bowl and Mono Trees SUP expansion areas.

No edits to the **Final EIS** were made in response to this comment.

4.40 Granting the additional crazy horse lift as well as allowing for a lift and extension of trails on the north end of the "Blackfoot" zone in terrain already occupied as cross country terrain makes sense for all. I would also approve expansion of a summer bike/hike trail network within the current resort boundary. (103.3)

Thank you for your comment in agreement with the Proposed Action. Please refer to **page 28** and **pages 34–36** of the **Final EIS** for more information on the proposed Crazy Horse and North Boundary Lifts as well as the non-winter and alternatives activities like summer recreation trails and alternative winter activities that are proposed.

No edits to the **Final EIS** were made in response to this comment.

4.41 The Colter lift was such a huge improvement. It has made a massive impact on spreading out the mountain (standing in long lines is not enjoyable to anyone). I can only imagine these new proposals doing more of the same. As a skier I am excited about these proposals. (48.1)

Thank you for your comment in agreement with the Proposed Action and purpose and need for the project. Please refer to **pages 23-36** of the **Final EIS** for more information on what projects are included in the Proposed Action.

No edits to the **Final EIS** were made in response to this comment.

4.42 I am in favor of the proposed upgrades to the Shoshone and Dreamcatcher lifts. The proposed Crazy Horse lift seems like a reasonable proposal. (101.3)

Thank you for your comment in agreement with the Proposed Action. Please refer to **page 28** of the **Final EIS** for more information on the Dreamcatcher Lift replacement and proposed Crazy Horse Lift.

No edits to the **Final EIS** were made in response to this comment.

4.43 I think the proposed platter lift to serve the race area is an excellent idea. This would make it easier for racers in training and competition to directly access the race course without interfering with recreational skiers. (101.1) (162.3) (795.3)

Thank you for your comment in agreement with the Proposed Action. Please refer to **page 29** of the **Final EIS** for more information on the Palmer Platter Surface Lift and lights to improve Palmer's Raceway.

No edits to the **Final EIS** were made in response to this comment.

4.44 The boundaries as proposed form a natural way to round out the mountain and improve the user experience. Particularly the north boundary lift and mono trees. Those areas would make great additions to the mountain as the lifts adjacent to them (Blackfoot and Sacagawea) feel a little bit unfinished as ski pods. Adding those lifts would create a natural boundary on the south and north and serve as a limiting factor for future growth. It would also provide a good option for skiers when upper mountain conditions are unfavorable due to fog, wind, or other weather factors. I feel approving the expansion areas would give Targhee a "finished" feel and let it mature as one of the best ski areas in the world in regard to terrain and usability. (47.1) (26b.14)

Thank you for your comment in agreement with the Proposed Action. Please refer to **page 28** of the **Final EIS** for more information on the North Boundary Lift and **pages 26-27** of the **Final EIS** for more information on the proposed Mono Trees area.

No edits to the **Final EIS** were made in response to this comment.

4.45 We are fully supportive of the growth to enlarge the facility, particularly more dining options and slopeside lodging. We really would appreciate getting detachable quads for the beginning skiers as our grandkids are skiing now And the Blackfoot lift is almost impossible to load unload. Even the Shisha is difficult for beginning snowboarders. There also needs to be a better connection to the base from Colter lift. (93.1)

Thank you for your comment in agreement with the Proposed Action. Please refer to **pages 31-34** of the **Final EIS** for more information on the guest service facilities that are proposed as well as **pages 28–29** of the **Final EIS** for more information on the lifts, lift replacements, and realignments that are proposed within the existing SUP.

As depicted in **Figure 2: Proposed Winter Projects within Existing GTR SUP Area** on **page 398** of the **Final EIS**, current users of the Colter Lift who want to access the base area can ride the Colter Lift then ski/ride down *Rendezvous Upper*, connect to *Dreamweaver Upper*, and then connect into the *Powder Reserve Traverse* back to the base area or ride the Crazy Horse Lift for an alternate connection back to the base.

No edits to the **Final EIS** were made in response to this comment.

4.46 Please consider keeping all new buildings at the base to preserve the wild, untouched spirit that makes Targhee so special. (49.1)

Thank you for your comment on the proposed infrastructure at GTR and for advocating for facilities in the base area rather than at other locations on the mountain. Please refer to the description of Alternative 1

– No Action Alternative on **page 23** of the **Final EIS**. This Alternative was considered throughout the analysis and is consistent with the comment.

Additionally, we should clarify that no modifications to the base area or buildings are proposed within the EIS. Please refer to **pages 31-34** of the **Final EIS** where the proposed on mountain guest service facilities are described. Further as described on **pages 85-86** and **pages 141-142** of the **Final EIS** the Teton County, Wyoming GTR 2019 First Amended Master Plan – Planned Unit Development was approved in 2019 and includes projects on private lands at GTR's base area. Text was updated in the Final EIS to correctly report how many units and commercial and resort space was approved in the 2019 First Amended Master Plan – Planned Unit Development. Text on **pages 85**, **233**, and **430** of the **Final EIS** to state "This plan includes the construction of up to 450 units and 12,300 square feet for commercial and resort services." This text has also been updated in the **Recreation Technical Report**, **Socioeconomics Technical Report**, and the **Traffic and Parking Technical Report**.

As is described on **page 157** of the **Final EIS** since GTR's anticipated base area is on private land, development was previously approved by Teton County, Wyoming in 2019, and no part of its implementation is dependent upon the decision to be made under this EIS process. Implementation of the 2019 First Amended Master Plan is outside the scope of this project and under the jurisdiction of Teton County, Wyoming rather than the CTNF.

4.47 Over twenty years ago, Grand Targhee closed a land swap deal that would allow them to perform badly needed updates to their base facilities. We are still waiting for those updates to occur. My view is that updating the base facilities - providing first-class lodging for guests and affordable housing for employees - makes the most business sense, and should be given priority. Mountaintop dining and terrain expansion should not be approved until the work on the base facilities is completed. (4b.1)

As described in recreation **RTC 4.46** and on **pages 85-86** and **pages 141-142** of the **Final EIS** the Teton County, Wyoming GTR 2019 First Amended Master Plan – Planned Unit Development was approved in 2019 and includes projects on private lands at GTR's base area. GTR is working on implementing these projects as resources allow.

No edits to the **Final EIS** were made in response to this comment.

4.48 Fred's Mountain Top Guest Facility and Sacajawea Restaurant and Guest Facility – The document notes that the facilities would include a bar. The additional public safety issues with impaired skiers are not adequately analyzed. (1066.21) (1066.24)

Thank you for your comment, which is correct in that on **pages 32**-**33** of the **Final EIS**, both the Fred's Mountain Top Guest Facility and Sacajawea Restaurant and Guest Facility would have bars. However, monitoring public safety issues created by impaired skiers is outside the scope of this EIS and not required by NEPA.

No edits to the **Final EIS** were made in response to this comment.

4.49 I can see how having one on-mountain restaurant would have its benefits and I would not oppose the construction of such a building in an area that you cannot see it from the valley. A smaller building somewhere low on Peaked Mountain or Lightning Ridge would

relieve the bathroom needs for the Sac and Colter lifts. A bathroom on Shoshone would be really nice - not having to do tree potty breaks for the little ones would be a luxury. That being said something as simple as a pit toilet or adding a bathroom near the sprung structure near lot 3 would be a positive addition to the area. (767.9)

Please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility and impacts to scenery resources.

Additionally, please refer to **pages 31-34** of the **Final EIS** for more information on the guest service facilities that are proposed within this project. Specifically, a guest facility on Lighting Ridge is proposed with the proposed Mono Trees SUP expansion area. There is also a guest service facility proposed near the top terminal of the Shoshone Lift and near the top terminal of the Sacajawea Lift. The Shoshone Guest Facility would include restaurant seating, a simple kitchen, and restrooms. The Sacajawea Restaurant and Guest Facility would include a restaurant, bar, and restrooms.

No edits to the **Final EIS** were made in response to this comment.

4.50 The Forest Service has well-established procedures for inspecting chair lifts and other lifts and is well qualified to keep those facilities safe for public use. However, overseeing construction of public buildings to ensure public safety, is not in their normal purview. Restaurants on a mountain are very different from ski lifts - they have water, sewer, plumbing, electrical, public restrooms, kitchens, lighting and other impacts and concerns. Teton County has well-established procedures for approval of new buildings and other development including an established system for all the inspections that need to take place during construction, which ensures that buildings are built to code - grading and erosion control, engineering, mechanical, plumbing, electrical, waste management, lighting, and others must all pass inspection before a Certificate of Occupancy is granted. The County is in the business of ensuring that buildings are built correctly, follow County code, and are safe for the public to use, the Forest Service is not. Allowing the proposed restaurants to be built on FS land would be a loophole which could allow the developer to avoid some of the conditions and inspections that would take place if the restaurants were built on Targhee's private property at the base area. (626.3) (631.3)

Please refer to **page 45** of the **Final EIS** within **Table 2.4-1 Project Design Criteria** where it states that GTR shall obtain all required federal, county, town, and state reviews, approvals, and/or permits prior to the start of construction. This includes proper engineering, mechanical, plumbing, electrical, waste management, and lighting review/permits to ensure the building is to code prior to occupancy and final construction. GTR shall obtain all of these approvals prior to full use of the new infrastructure.

No edits to the **Final EIS** were made in response to this comment.

4.51 NO to restaurant above Shoshone or Sacajawea. Absolutely ridiculous given the short run to the base. Instead see above YES to a facility at the bottom of Colter which should be able to serve both chairs. (598.6)

Please refer to **pages 32-33** of the **Final EIS** where it describes how the proposed Sacajawea Restaurant and Guest Facility would serve the southern side of the resort, including the existing Sacajawea and Colter areas along with the proposed Mono Trees area. This facility would be located near the top

terminal of the Sacajawea Lift as depicted in **Figure 2: Proposed Winter Projects within Existing GTR SUP Area** on **page 398** of the **Final EIS** and would be easily accessible by skier/riders of both the Sacajawea and Colter Lifts.

Additionally, please refer to **page 33** of the **Final EIS** where it describes the Shoshone Guest Facility which would be used to accommodate guests using beginner terrain and the Summer Activity Zone. Children using the beginner terrain off of the Shoshone Lift would have easier access to a bathroom rather than traveling back to the base area.

No edits to the **Final EIS** were made in response to this comment.

4.52 Two restaurants are overkill. One at Blackfoot is sufficient. Additional restrooms that have toilets and washrooms are required at the base of Colter Lift and Blackfoot Lift. No more pit toilets or johnny on the spots. (502.7)

Please refer to recreation **RTC 4.51** for more information on the proposed guest service facilities that are proposed near the top terminal of Shoshone and Sacajawea Lifts. The proposed Shoshone Guest Facility could serve skiers/riders coming off of the Blackfoot Lift, and the Sacajawea Restaurant and Guest Facility would service skiers/riders using the Sacajawea and Colter Lifts.

Additionally, as described on **page 34** of the **Final EIS** there is a storage facility and improved vault toilet that is proposed to be installed at the bottom of the Blackfoot Lift. This would improve the guest experience at this terrain pod.

No edits to the **Final EIS** were made in response to this comment.

4.53 The private lands at the base area are more suitable than public lands at higher elevation for new visitor services requested by GTR on the CTNF. We recommend these services occur as development proposals on private lands, upon proper review and permitting by Teton County, with our established Plan Review Committee (PRC) process, which includes opportunity for review by CTNF. (489.4)

Please refer to recreation **RTC 4.46** for more information on the proposed projects and improvement projects at GTR's base area on private land.

Additionally, please refer to **pages 31-34** of the **Final EIS** that describes that the proposed guest service facilities are intended to improve the guest experience by offering services such as food and beverage, improved customer service through additional staff resources, and areas to escape the weather on the mountain. These guest service facilities are in alignment with GTR's objective of improving on-mountain services to meet the ever-increasing expectations of the local, regional, and destination skier markets as described on **page 4** of the **Final EIS**.

No edits to the **Final EIS** were made in response to this comment.

4.54 Improve On-Mountain Dining Modestly: A small-scale restaurant or warming hut in Colter Canyon would provide amenities for guests while preserving the wild, low-impact character of the resort. (181.3)

Please refer to recreation **RTC 4.46**, **4.49**, **4.51**, and **4.52** for more information on the guest service facilities that are proposed within this project and base area improvements on private land that are expected to take place. These guest service facilities would be in alignment with GTR's objective of improving on-mountain services to meet the ever-increasing expectations of the local, regional, and destination skier markets as described on **page 4** of the **Final EIS**.

No edits to the **Final EIS** were made in response to this comment.

4.55 I think improving the Shoshone lift would help that area. A bathroom added on the ski patrol hut at the top of Dream catcher lift would help. If more dinning area is needed a restaurant could be added some where at the base but not at the top of the mountain that interferes with ski terrain. (51.1)

Thank you for your comment, which agrees with the Proposed Action to upgrade the Shoshone Lift to a detachable lift. For more information on upgrading the Shoshone Lift please refer to **page 29** of the **Final EIS**.

Please refer to **page 32** of the **Final EIS** for more information on the proposed Fred's Mountain Top Guest Facility that is proposed to be located near the top terminal of the Dreamcatcher Lift. Please also refer to scenery **RTC 5.10** where it describes in more detail where Fred's Mountain Top Guest Facility would be located and how it would look. This facility is not expected to interfere with ski terrain.

Additionally, please refer to recreation **RTC 4.46** for more information on projects planned at GTR's base area on private land.

No edits to the **Final EIS** were made in response to this comment.

4.56 If there is not enough space to do this then a restaurant at the top of Sacajawea would be used by skiers not posers and although it would be a logistical nightmare with no easy access for staff or supplies, it would change the vibe of the hill less. (442.2)

Thank you for your comment regarding the need to upgrade and expand the base-area facilities. If there is not enough space to do so, then GTR would build the restaurant near the top terminal of the Sacajawea lift. GTR currently does have plans to upgrade the base area and associated infrastructure through their approved 2019 First Amended Master Plan. For more information refer to recreation **RTC 4.46**.

Additionally, as stated in recreation **RTC 4.51** and **4.52** the Sacajawea Restaurant and Guest Facility would serve the southern side of the resort, including the existing Sacajawea and Colter areas. This facility along with the other proposed guest service facilities as described on **pages 31-34** of the **Final EIS** would improve the guest experience on-mountain at GTR.

No edits to the **Final EIS** were made in response to this comment.

4.57 The proposed expansions would be a horrible idea. The Mountain flows really well as is. All of the proposed lifts are only going to make the flow worse as they will stop in the same area as the current lift. A upgrade to the current lifts with an upgrade would be nice. The bowl at the top of Colters doesn't open up enough area to make it worth while. Further expansion only creates more issues with too many people coming in from other places and ruining the once excellent snow. Any restaurants at the top of any of the hills

will require additional infrastructure to manage them which will cut into valuable ski terrain so a second restaurant at the bottom of the hill will be fine. A bathroom with a drinking fountain would be nice at the top of Fred's but unnecessary. (50.1)

As described on **page 4** of the **Final EIS** there is a need to improve skier circulation across the mountain through improvements to the efficiency of the lift and trail network. Lifts like Dreamcatcher are expected to meet their life expectancy soon and would need replaced to continue meeting guest expectations. The replacement of Dreamcatcher with a detachable six-passenger chairlift and gondola configuration as well as upgrading the Shoshone Lift to a detachable lift would improve skier circulation throughout the mountain.

Additionally, as described in **Table 3.1-3** on **page 69** and depicted in **Figure 2: Proposed Winter Projects within Existing GTR SUP Area (All Action Alternatives)** on **page 398** of the **Final EIS**, the Colter Lift and associated terrain pod opened in the 2022/2023 winter season and provides additional intermediate and advanced terrain.

Please also refer to **page 4**of the **Final EIS** where it states that there is a need to provide additional undeveloped, minimally maintained lift-served terrain and additional traditionally cleared alpine trails to enhance terrain variety and skiing experiences at GTR; and to improve the base area, guest services, operational facilities, and on-mountain services to meet the ever-increasing expectation of the local, regional, and destination skier markets. As articulated on **page 72** of the **Final EIS** the expanded terrain would address the purpose and need of providing additional undeveloped, minimally maintained lift-served terrain and improving the guest experience.

Please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility. Specifically, this facility would be placed outside of valuable ski terrain in an area near the top terminal of the Dreamcatcher Lift that would be easily accessible for skiers/riders. Please also refer to recreation **RTC 4.46** for more information on proposed projects at the base area on GTR's private land.

No edits to the **Final EIS** were made in response to this comment.

4.58 Grand Targhee Resort is one of the few ski areas without on-mountain dining, and guest feedback has made it clear-we need additional infrastructure to improve convenience and relieve pressure on the base area, which currently serves as a bottleneck. The new Dreamcatcher and Sacajawea restaurants will provide much needed food, beverages, and restrooms at scenic locations with incredible views. These facilities will balance the resort's amenities, helping to distribute guests more evenly across the mountain while addressing the longstanding need for on-mountain bathrooms and space. Designed with organic architecture, the structures will blend seamlessly into the natural surroundings, enhancing the mountain experience without disrupting the landscape. – Comment: While it is true that most ski resorts have on mountain restaurants and it would help alleviate the large crowds at the Plaza during busy times. However, it needs to be noted that with the weather of Targhee, incredible views are not always available. For example, this past ski season, you could see the Tetons twice in the month of March. (162.10) (795.8)

Please refer to **pages 31-34** of the **Final EIS** for information on the Fred's Mountain Top Guest Facility and the Sacajawea Restaurant and Guest Facility. Specifically, as described on **page 73** of the **Final EIS**

all facilities are intended to improve the guest experience by offering services such as food and beverage, improved customer service through additional staff resources, and areas to escape the weather on the mountain. Obstructions in views due to fog or weather at the facilities was not analyzed in the EIS as views of landscapes are not the purpose for the facilities.

No edits to the **Final EIS** were made in response to this comment.

4.59 I think adding one on mountain restaurant is a good option. given the size of the resort and the number of users, I think this is sufficient. I do not see any need for two restaurants in addition to the current base facilities. (101.6)

Please refer to recreation **RTC 4.51** and **pages 32-33** of the **Final EIS** where it explains that the purpose of the Sacajawea Restaurant and Guest Facility is to serve the skier/riders using the Sacajawea and Colter Lifts. Currently there is no on-mountain facility for these two terrain pods. Users have to travel back to the base area to use the restroom or find food and beverage options. Additionally, as described on **page 32** of the **Final EIS** Fred's Mountain Top Guest Facility would serve skiers/riders using the Dreamcatcher Lift and proposed Crazy Horse Lift. Given the geography of the existing SUP area, having two restaurants on-mountain would serve guests most effectively and not require them to travel back to the base area and leave the terrain they were skiing/riding.

No edits to the **Final EIS** were made in response to this comment.

4.60 GTR First Amended Master Plan PUD – The document notes that "the availability of more on-site lodging would also likely lead to more guests being able to stay on-resort and avoid driving up …" If base development is not connected to the SUP expansion, this assumption is invalid and additional analysis is required. If base development is connected as assumed in this section, analysis of the connected action of base area development is required. The analysis is incomplete. (1066.56)

Thank you for your comment citing **Section 3.5.4 Cumulative Effects** within **Section 3.5 Traffic and Parking** of the **Final EIS**. Specifically, on **pages 167-168** of the **Final EIS** it describes the components of the 2019 First Amended Master Plan – Planned Unit Development and that 450 accommodation units are proposed which would require one parking space for each accommodation unit, two spaces for a single-family residence, and 1.5 spaces for a cabin or attached dwelling unit. The analysis goes on to state that should the accommodation units be developed, the additional required parking spaces and transit ridership may impact traffic and parking conditions leading to and at the resort. On **page 168** of the **Final EIS** it further explains that availability of more on-site lodging would also likely lead to more guests being able to stay on-resort and avoid driving up and back to the resort each day. As is further described on page 137 of the Final EIS no portion of the implementation of projects approved under the First Amended Master Plan – Planned Unit Development are dependent, reliant, or connected to approval of any of the action alternatives by the Forest Service. GTR has been advancing projects on private land from the First Amended Master Plan – Planned Unit Development since their approval and would implement these projects regardless of projects being approved under this analysis. Implementation of the projects in the First Amended Master Plan – Planned Unit Development is not expected to drive additional visitation beyond the visitation levels analyzed but could impact the spending patterns of GTR's visitors and influence traffic and parking. Therefore, the First Amended Master Plan – Planned Unit Development is analyzed as a cumulative effects project in the EIS as it is has present and

reasonably foreseeable components that when combined with the proposed action could cause cumulative effects to resources.

No edits to the **Final EIS** were made in response to this comment.

4.61 In addition, the DEIS provides few details on the realities of how a full-service restaurant could actually operate in this harsh, alpine environment. Obviously, a full-service restaurant requires a significant amount of water and will produce a significant amount of wastewater, but to the extent that the feasibility of either of these infrastructure needs is addressed in the DEIS, the analysis basically says "this will be figured out later". Different impacts and issues arise from placing a septic system versus sanitary sewer line on top of a mountain, and it's unclear if an onsite well is feasible or would be permitted by the State of Wyoming at all. Essentially, Grand Targhee is asking the CTNF to permit a massive new piece of infrastructure without fully understanding what will be needed to construct and operate this new building – at the edge of Wilderness at that – therefore making it impossible to fully analyze the impacts of the decision. Being built on Forest Service land would allow a loophole, which would allow the developer to avoid some of the conditions and inspections that would take place if the restaurant was built on Targhee's private property at the base area. No to any facilities on peaks or ridge lines that are visible from Teton Valley, South Leigh Canyon, Teton Canyon or JS Wilderness. The DEIS does not take the requisite "hard look" at this issue that NEPA demands. (471.58) (486.2) (598.4)

Please refer to hydrology **RTC 18.16** and **18.17** for more information on the wastewater system and well system that is proposed for Fred's Mountain Top Guest Facility. The well would be subject to permitting from the Wyoming State Engineer's Office and a PDC is included in **Table 2.4-1 Project Design Criteria** on **page 45** of the **Final EIS** that states that GTR shall obtain all required federal, county, town, and state reviews, approvals, and/or permits prior to the start of construction. Following the NEPA decision GTR would be required to obtain the proper permitting for the facility as well as associated water and utility permits.

Additionally, a new PDC has been added to the **Final EIS** that states "Wastewater systems for on-mountain guest service facilities shall be designed by a qualified engineer to meet or exceed all Wyoming Department of Environmental Quality (WDEQ) and EPA standards and regulations. Where necessary, systems shall incorporate treatment technologies to minimize nutrient loading in Karst topography or waterways. Final design selection (e.g., septic vs. sanitary sewer line to base) shall be based on a site-specific geotechnical analysis to ensure the protection of groundwater resources and downstream Public Water Systems (PWS)."

Additionally, please refer to scenery **RTC 5.10** for more information on the siting of the facility as it relates to the viewshed and scenery resources.

No edits to the **Final EIS** were made in response to this comment.

4.62 The base lodge, bar and coffee shop facilities are not big enough for the amount of people that frequent the mountain, this has been obvious for quite a number of years and should be the number one area to be addressed. On mountain dining would move some

people out of the base, but I don`t think it is really a solution, I think it`s a ploy to attract rich non skiers. Build another restaurant and coffee shop in the base area and make the pub bigger. Simple. (442.1)

Please refer to recreation **RTC 4.46** and **4.60** for more information on the proposed base area improvements that are proposed on GTR's private land under their 2019 First Amended Master Plan.

Additionally, please refer to recreation **RTC 4.59** for more information on the need of Fred's Mountain Top Guest Facility and the Sacajawea Restaurant and Guest Facility and the services they would provide to guests.

No edits to the **Final EIS** were made in response to this comment.

4.63 I also oppose the construction of guest service facilities on Fred's Mountain, at the top of the Shoshone lift, in Rick's Basin, and atop Lightning Ridge for 4 reasons. 1) Other than during peak visitor periods, additional facilities are not needed. 2) It is preferable to expand & modernize the current base facilities. (159.6)

Please refer to recreation **RTC 4.46**, **4.59**, and **4.60** for more information on the proposed improvements at GTR's base area as well as the need of Fred's Mountain Top Guest Facility and the Sacajawea Restaurant and Guest Facility.

Please also refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility as it relates to viewshed and scenery resources.

No edits to the **Final EIS** were made in response to this comment.

4.64 Finally, the most important reason that Grand Targhee skiing is extraordinary is the large ratio of skiable terrain to lift capacity - Fred's mountain will not be better skiing with more lift capacity; the proposed Crazy horse lift is a bad idea. Powder is already skied out in a couple of hours, and on groomer days, lift lines are not a problem and putting more people on the groomers is just not an improvement in skiing. The options for more groomer terrain on that part of the mountain are limited by the chutes - so on non-powder days all that lift capacity will end up on 2-3 existing trails. (480.4)

Please refer to purpose and need **RTC 2.1** and **2.3** for more information on the purpose and need of lift replacements and upgrades within GTR's existing SUP. Specifically, as described on page 4 of the Final EIS, there is a need to improve the base area, guest services, operational facilities, and on-mountain services to meet the ever-increasing expectations of the local, regional, and destination skier markets.

Please also refer to recreation **RTC 4.15** and **4.30** for more information on the need of Crazy Horse Lift. Specifically, a decrease in powder skiing was not determined to be an impact from the installation of this proposed lift.

No edits to the **Final EIS** were made in response to this comment.

4.65 Dreamcatcher – Comment: The proposed "chondola" is a good planned improvement. To enhance this new replacement lift would be to establish a midway station near the top of the Wandering Moose trail . As in past years, prior to the current Dreamcatcher chair lift, a

midway station existed, whereby during fogged in mountain top days, skier would offload midway. This option would make the Crazy Horse Lift unnecessary. If Fred's Mountain Top Guest Facility is accepted, routine provisions must exist to the Dreamcatcher lift to allow skiers/visitors to the facility to ride down the lift when they may not be able to safely ski down, due fog or other weather conditions that exist after visiting the facility. (26b.12)

Thank you for your comment. The construction of a mid-station for the Dreamcatcher Lift near the top of *Wandering Moose* trail was considered but dismissed from detailed analysis. The projects as proposed meet the purpose and need of the project and the layout of lifts and terrain improvements is based on how the permittee feels best serves the terrain. As this is not a resource driven change to the proposed projects, this alternative was considered but eliminated from detailed analysis. Please refer to **page 54** of the **Final EIS** where the Alternatives Considered but Eliminated from Detailed Analysis area further explained.

Additionally, please refer to **page 32** of the **Final EIS** where it describes that this upgraded detachable six-passenger chairlift and gondola configuration would have a gondola cabin approximately every 5 chairs to provide the opportunity for non-skiing guests to access Fred's Mountain Top Facility. These gondola cabins would also serve users returning to the base by providing a safe and secure ride.

Additionally, the following text was added to **Section 2.5 Alternatives Considered but Eliminated from Detailed Analysis** on **page 59** of the **Final EIS,** describing the consideration of the previously discussed alternative: "The construction of a mid-station for the Dreamcatcher Lift near the top of *Wandering Moose* trail."

4.66 The proposed north boundary lift does not increase the vertical drop all that much and would increase traffic in what is really a very small acreage. The area the lift would serve is currently ungroomed and highly valued by more advanced users. I think a more efficient option both environmentally and economically given the relatively small amount of terrain in this area would be to simply upgrade the Blackfoot lift to a detachable version. (101.2)

As described in recreation **RTC 4.4** and **page 28** of the **Final EIS** the North Boundary Lift would be a fixed-grip triple lift and is intended to provide better utilization of the terrain at the far north edge of the resort. This lift would also provide easier access to intermediate and advanced terrain that is currently not lift-accessed. Although the lift would not provide any extra skiable acreage, it would provide a better guest experience on days when Dreamcatcher and Blackfoot Lifts cannot be operated due to fog, wind, or other weather factors.

As described in GTR's 2018 Master Development Plan the Blackfoot Lift has already been previously approved for replacement/realignment with a triple or detachable quad as identified in the 1994 ROD and GTR's 1995 Approved MDP.

No edits to the **Final EIS** were made in response to this comment.

4.67 I am not in favor of the Mono trees lift and boundary adjustment. The relatively low altitude and West/SW aspect would mean it would only be desirable for skiing for a relatively short time. Snow cover in that area right now is marginal at best. (101.4)

Please refer to **pages 26-27** of the **Final EIS** where it described the proposed Mono Trees area. This area would have 97 acres of proposed intermediate and advanced-intermediate ski trails as well as glades and open meadows.

Additionally, please refer to **page 249** of the **Final EIS** where it describes that lower elevation areas like Mono Trees would have a lower snow residence time. The expected decrease in snow residence time in this area could prompt the need for snowmaking in the future. Additionally, snowmaking days could decrease in the future, which could pose a threat to the number of days this area could be open to the public. Further, areas like Mono Trees are expected to experience midwinter rains and less consistent snowfall patterns compared to higher elevation areas.

These impacts have been considered in the decision. The **Final EIS** is a disclosure rather than a decision document. Please refer to the **Draft ROD** for more information on the decision rationale.

4.68 North Boundary Lift – Improves access to Targhee's northernmost terrain, featuring glades and aspen trees. Extending the bottom terminal allows full vertical skiing, better storm-day visibility, and an enhanced experience when Blackfoot or Dreamcatcher are impacted by weather. Unlocks new in-bounds terrain previously inaccessible due to traverse constraints, expanding the Blackfoot zone. – Comment: One item that was not in the proposal is how long is this lift and how much vertical does it cover? By putting in this North Boundary Lift and saying you will improve access to Targhee's northernmost terrain will actually be detrimental to those who ski Blackfoot and go through the extra effort on the traverse to the North to ski untracked powder. Right now, this area is a Powder Heaven that many do not ski because it seems that the non locals do not like to ride the slower Blackfoot lift and if they want to ski other than DC most will go to Sacajawea (SAQ) with the high speed lift in lieu of Blackfoot. This lift would just aid in skiing out terrain that today does not get skied as much and on top of that, the average skier does not ski glades and aspens as they are more into groomed runs. You also state this lift will help with visibility when Blackfoot and DC are impacted by weather. As I stated earlier I have skied more than 200 days in the last two seasons and I cannot recall Blackfoot being shut down on many occasions. There was a time this year when all lifts were shut down due to lightning but other than that I do not remember many. As far as fog goes, there is a reason it is called Grand Foghee and the just comes with skiing at Grand Targhee. Many days this year, fog with all the way down to the bottom for those who were on Shoshone had fog as well, you just can't get away from it. Final opinion: No need for this lift. (795.2) (162.2) (598.8)

Please refer to **page 28** of the **Final EIS** where it explains that the proposed North Boundary Lift would be 2,845 feet long and would have a capacity of 1,200 people per hour. Further as articulated in GTR's 2018 Master Development Plan the lift would have a vertical rise of 1,309 feet.

Please refer to recreation **RTC 4.4** and **4.66** for more information on the purpose and need for the North Boundary Lift and how it would improve the skier circulation throughout the north end of the existing SUP as well as provide enhanced access to terrain when other lifts are closed.

No edits to the **Final EIS** were made in response to this comment.

4.69 South Bowl Boundary Adjustment - With its stunning views and ideal pitch, South Bowl offers incredible southfacing terrain, perfect for sunny spring skiing. Expanding this area would increase terrain diversity across different aspects and elevations, improving the resort's ability to adapt to varying weather conditions. This adjustment also addresses safety concerns. The area is directly adjacent to a rope line, leading to frequent rescues of skiers who venture out unprepared. Bringing it inbounds would allow for avalanche mitigation, reducing risks for both skiers and patrollers. While this expansion enhances safety and terrain variety, it's important to note that the lift will not extend to the bottom of Teton Canyon, and there will be no inbounds connection to Teton Canyon. – Comment: One item that was not in the proposal is how long is this lift and how much vertical does it cover? There are already stunning views on a South Facing runs on Colter and to justify this for spring skiing is really not what Targhee is all about. Skiing on Colter on south facing runs in the spring gives you about 2 hours of skiing in a day as in the morning it will be solid ice and late in the day it is so soft and sticky you cannot even move. You are also justifying to adapt to varying weather conditions which when it is foggy which is the case on many days, this area would be foggy as it is wide open so it would not in my opinion going to very skiable on these stormy foggy days. (162.8) (420.2) (767.2) (795.7)

Please refer to **page 25** of the **Final EIS** where it explains that the South Bowl Lift would be 3,211 feet long. It would also have a vertical rise of 1,571 feet.

Please also refer to **page 248** of the **Final EIS** where it explains that the South Bowl is on a south-facing slope. It goes on to further explain that southern-facing slopes are known for not keeping a sufficient snowpack throughout the year as compared to north-facing slopes. Into the future, this trend could be exacerbated by climate change and additional snow management features and/or snowmaking could be necessary.

These impacts and conditions have been taken into consideration in the decision. The **Final EIS** is a disclosure rather than a decision document. Please refer to the **Draft ROD** for decision rationale.

4.70 Dreamcatcher Upgrade - As we've seen with Colter, the new six-pack lifts offer enhanced wind resistance and improved operation in rime ice conditions. Chair storage will allow chairs to be removed overnight, reducing rime ice buildup and minimizing morning delays. Additional grading around the terminal will create more space for a smoother lift maze experience. – Comment: I agree that the DC lift upgrade but to just clarify, the Colter lift does not have as many wind hold or shut downs more due to the angle the lift goes up as when the wind blows from the typical South to Southwest, riding up Colter the wind is behind you and not to the side as it is with Colter. And to say that Colter has less rime issues is just not accurate as Colter had more delays than the other chairs combined due to rime ice this last season. So, agree with the upgrades but the reasons provided are not 100% accurate as the real reason is DC is getting old and needs to be upgraded which I agree with totally. (162.5) (795.5)

Thank you for your comment. Please refer to **page 28** of the **Final EIS** where it explains the purpose of replacing the Dreamcatcher Lift is because it is expected to meet its life expectancy shortly after the completion of this NEPA process.

The language the commenter is quoting was not within the **Draft EIS** nor is it in the **Final EIS**. This language is taken from GTR's website, and while the website may provide more context for certain projects, the **Final EIS** should be used as the basis for analysis and description of the purpose and need for the projects.

No edits to the **Final EIS** were made in response to this comment.

4.71 Speaking as a 50 year Grand Targhee skiing veteran, the biggest problem with Grand Targhee skiing is the Fog. In this sense, adding another lift to the top of the mountain along Crazy horse is a bad idea. The new north boundary lift addition and the mono trees addition are OK: additional terrain to go with additional lift capacity. (480.3)

Please refer **pages 28-29** of the **Final EIS** where it describes the proposed lifts, lift replacements, and lift realignments that are included in the Proposed Action.

Meteorological or climatic factors like fog are not within the scope of the analysis of the **Final EIS**. Fog and cloud cover are inherent environmental conditions that would not be impacted by the project, nor impact the project itself.

No edits to the **Final EIS** were made in response to this comment.

4.72 Crazy Horse Lift - Enhances access to terrain south of Fred's without requiring a full lap back to the base. Combines TVT and PRT into a more seamless flow and provides backup access if Dreamcatcher goes down due to weather. – Comment: I do not understand the value of this lift, I do not know of anyone who is concerned about having to ski to the bottom of Dreamcatcher (DC) when they ski down TVT, Lost Groomers, Painted Pony, Patrol and Instructor Chutes, Happy Hunting Grounds, Crazy Horse or Wild Willie. Many ski below in the Powder Reserve so this chair you would not even be able to access this chair. The proposal states that this could serve as a back up when DC goes down due to weather. Since the lift will be going to similar elevation as DC, it will be exposed to the same weather as DC so would expect issues with running any new lift at times when weather is an issue on DC. But honestly, I have skied at many resorts in North America, USA and Canada and Austria and Switzerland and having lifts close down due to weather is just part of the normal operations of a ski area and for the average skier, they are not interested in skiing when the conditions are that bad so if another lift was available, very few with the exceptions of the diehards would even consider riding a lift under the same conditions that closed DC for weather. I cannot tell you how many times the line at the first of the day is long and then after the skiers, primarily nonlocal experience the conditions at the top, they are trying other lifts due to the weather at the top of DC. Final opinion: No need for this lift, adds no value. (162.1) (795.1)

As described on **page 28** of the **Final EIS**, the Crazy Horse Lift would provide better access to trails on Fred's Mountain and allow skiers and riders to access Fred's Mountain terrain without having to return to the base area to ride Dreamcatcher Lift. In the event the Dreamcatcher Lift is inoperable, skiers would be able to access the terrain by riding Sacajawea and Crazy Horse Lifts in succession.

Additionally, as described on **page 70** of the **Final EIS** the Crazy Horse Lift would enhance access to additional expert terrain. This lift would meet GTR's objective of improving skier circulation across the

mountain through improvements to the efficiency of the lift and trail network and by providing more reliable and consistent snow coverage in key areas.

No edits to the **Final EIS** were made in response to this comment.

4.73 However, traffic, parking bottlenecks and lines at the resort base are a problem on many days. So, expanding the lodging at the base area may add congestion and change the peaceful/calm nature of the resort. Uphill enhancements could be good and help spread out the crowd. (94.1)

As described in recreation **RTC 4.46** and **4.60** GTR's 2019 First Amended Master Plan – Planned Unit Development includes improvements to the base area. These projects are assessed within the Final EIS as cumulative effect projects.

Additionally, as described on **pages 31-34** of the **Final EIS** the proposed on-mountain guest facilities would provide food and beverage, improved customer service through additional staff resources, and areas to escape the weather on the mountain.

No edits to the **Final EIS** were made in response to this comment.

4.74 The Caribou-Targhee National Forest officials did recognize that the resort was moving quickly and that in their haste they would overlook important research and regulations. In a November 4, 2019 letter from then- Forest Supervisor Mel Bolling to Geordie Gillette, general manager for GTR, the FS pointed out multiple groups that the resort should consult with to "highlight potential issues and mitigations." The public and many wildlife and forestry groups were mostly not contacted. The FS had advised, in another communique, to contact the tribes associated with the forest. This contact has been inconclusive and deficient. The November, 2019 letter went on to speak to research needed for winter range management, complying with the Jedidiah-Smith Wilderness boundary, changes proposed for Teton Canyon (a much valued recreation area for Teton County Idaho residents), travel modes to and from the resort and "anticipated heavy use of the Mill Creek Trail" which is in the proposed Mono Trees expansion area, and effects to active grazing and solutions. The research done on all these areas is deficient in the DEIS and thus a Supplemental DEIS is required. (701.2) (729.5)

Please refer to **pages 378-380** of the **Final EIS** where it provides the list of agencies, organizations, and Tribes that were consulted throughout the NEPA process. Additionally, **pages 379-380** of the **Final EIS** provides a list of agencies and organizations who commented during scoping which includes wildlife and forestry groups.

Please refer to cultural resources **RTC 9.1** for more information on consultation with the Tribes and the Class III Cultural Resource Inventory Evaluation that was completed for this project.

Please refer to **pages 209-212** of the **Final EIS** for an analysis on the direct and indirect impacts to wilderness resources and the adjacent JSW as a result of the Proposed Action.

Please also refer to recreation **RTC 4.28** for more information on the Mill Creek trail and analysis within the Final EIS.

Additionally, please refer to **pages 197-199** of the **Final EIS** for an analysis on the direct and indirect impacts to livestock and grazing resources as a result of the Proposed Action.

No edits to the **Final EIS** were made in response to this comment.

4.75 Furthermore, I have worked in the outdoor industry for over 20 years. Grand Targhee may be the only mid-to-large resort that does not offer facilities on the mountain. Providing our guests with these services will disperse traffic, enhance their overall experience and help to ensure that they return to TCI. Undoubtedly, this will also contribute to the local economy through ancillary revenue. (410.1)

Thank you for your comment in agreement with the Proposed Action. Please refer to **pages 31-34** of the **Final EIS** where it describes the proposed guest services facilities.

No edits to the **Final EIS** were made in response to this comment.

4.76 Recreation Opportunities beyond the GTR SUP AREA – Comment: This section states that the proposed projects at GTR could lead to an increase in use of recreation opportunities outside of the GTR SUP that would include Teton County, Idaho. Therefore, this EIS needs to address the impacts within Idaho. (26b.28)

Please refer to **page 60** of the **Final EIS** where it states the scope of the analysis for the Recreation analysis. As described the scope of the analysis of recreational opportunities extends to winter and summer uses at GTR on NFS lands within the existing SUP area and on adjacent NFS lands in the South Bowl, Mono Trees, Teton Canyon, South Leigh Canyon, and JSW areas. Given the location of GTR being on Teton County, WY land, including analysis on indirect impacts to recreational resources on Teton County, ID land was determined to be unnecessary.

No edits to the **Final EIS** were made in response to this comment.

4.77 3.1.3 Affected Environment – Comment: The attraction for local skiers (those from Pocatello, Idaho Falls, Rexburg and other SE Idaho communities) to ski GTR has declined considerable over the last few years due to the increase cost of lift tickets. Your analysis does not adequately include the SE Idaho affected environment. Further development and associated increased lift ticket and lodging costs will further decrease SE Idaho attendance. (26b.20)

As described on **page 118** of the **Final EIS** within **Section 3.4 Socioeconomics** the analysis considered four counties, three in Idaho and one in Wyoming. As further described in the **Socioeconomics Technical Report** on **page 7,** the four counties were Teton County, WY; Teton County, ID; Madison County, ID; and Bonneville County, ID. Southeast Idaho is included in the existing conditions analysis.

Additionally, lift ticket pricing is a private business decision. Pricing is based on market variables like inflation, regional competition, and consumer demand and is not determined by this project; therefore, lift ticket pricing was not analyzed in this Final EIS.

No edits to the **Final EIS** were made in response to this comment.

4.78 There are numerous model projections in the DEIS for future resort growth (annual skier visits), daily traffic volumes, parking, and economic impacts and there is no uncertainty associated with the projections. These numbers are used to support or justify the proposed development without any evaluation of the uncertainty of the numbers. If annual skier visits are projected to be 270,342 for a future year, this implies that the uncertainty of this number is plus or minus 1. In reality, the actual number could be plus or minus 1,000, 5,000, 10,000 or 50,000. The reader has no context of the uncertainty in these numbers and thus rendering the number difficult to assess and compare. At a minimum the numbers should be rounded appropriately and uncertainty explicitly expressed. It is nearly impossible to comment on the validity of the projections without associated uncertainties. Data, such as visitation projections and wildlife population impacts, rely on assumptions that are not fully substantiated. NEPA requires the use of accurate and reliable data to inform decision-making. (197.4) (457.72)

While numeric error margins were not explicitly calculated for visitation, daily traffic volumes, parking, and economic impacts, the Draft EIS fully disclosed the methodologies, historical data sources, and assumptions that were used to complete the analysis. This analysis is consistent with 40 CFR 1502.23 Methodology and Scientific Accuracy and uses the best available data.

Please refer to **pages 63-64** of the **Final EIS** where it provides the visitation data. As described in the References table of the Report, this data was provided to SE Group by GTR and is confidential. This data is confidential as it is business data that GTR uses to protect their competitive advantage, marketing insights, financial performance, and operational insights.

Additionally, please refer to **pages 3-4** of the **Traffic and Parking Technical Report** where it explains where existing traffic volumes were obtained. This data came from the Idaho Transportation Department's Automatic Traffic Recorder database and the Wyoming Department of Transportation Annual Automatic Traffic Recorder Report. This data provided hourly, daily, and monthly traffic volumes for Ski Hill Road and other state highways in the study area. Please also refer to **pages 14 – 15** of the **Traffic and Parking Technical Report** where it explains the assumptions that were used to determine traffic volumes and parking numbers under the Proposed Action. Specifically, it was assumed that 70 percent of visitors would be overnight visitors to the region, up from 62 percent estimated for existing conditions.

Please also refer to **pages 6-7** of the **Socioeconomic Technical Report** where it explains the methodology and assumptions that were used for the analysis. Specifically, it states that while IMPLAN modeling utilizes the most current observed industry interdependencies calibrated to the local and regional economy of the study area counties, the results are only as accurate as the data used to describe the proposed change. Therefore, certain estimations and assumptions are needed and the projected values presented in this analysis should not be considered precise, but rather accurate estimates of the potential economic impacts for all alternatives, and do provide the relative comparison necessary.

No edits to the **Final EIS** were made in response to this comment.

4.79 The last visitation numbers cited in the DEIS are from 2022-23 and need to be updated to include the past two years to accurately evaluate whether conditions at Grand Targhee Resort square with such trends. The accuracy of them are questionable due to changing conditions. Visitation projections cited in the Master Development Plan (MDP) appear to

be estimated based on available lift capacity and terrain, implying that more skiers will come once there is more capacity. We find no data that supports how increased capacity will automatically increase visitation, or where those skiers will come from. Before approving any additional SUP for GTR, it would be prudent to review current data assessing the demand for, and expected utilization of, the type of expansive destination resort as the one described in the 2018 MDP. (195.2) (457.60)

Please refer to recreation **RTC 4.78** for information on where the reported visitation data came from. Specifically, this data was provided to SE Group by GTR for the visitation analysis within the **Recreation Technical Report**. The last visitation data reported in the **Draft EIS** was for the 2022/23 season as this was the most up to date and best available data that was available at the time of publication of the **Draft EIS**. As described on **page 15** of the **Recreation Technical Report** these numbers are projected visitation numbers and not considered to be precise, but rather accurate estimates of the potential visitation.

Additional visitation numbers for the 2023/24 and 2024/25 ski season were obtained from GTR following the publication of the **Draft EIS**. These visitation numbers have been added to the text on **pages 63-64** of the **Final EIS** and within the **Recreation Technical Report** on **page 8**. These reported visitation numbers closely match the projected visitation numbers that are reported on **pages 69**, **72-73, 78-79, 81, and 83-84** of the **Final EIS**. Additionally, text has been updated in **Table 3.1-3**, **Table 3.1-5**, **Table 3.1-7**, **Table 3.1-9**, and **Table 3.1-11** to clarify when construction of proposed projects would occur based on when a NEPA decision is issued. Specifically, instead of reporting each ski season the text has been updated to say “Year 1 following NEPA decision.” This update in text correctly represents how the visitation projections were completed. Associated text with these tables on **pages 69**, **72-73**, **78-79**, **81**, **and 83-84** of the **Final EIS** have been updated to report the correct year following the NEPA decision rather than the ski season year. These tables and associated text have also been updated in the **Recreation Technical Report**.

No edits to the **Final EIS** were made in response to this comment.

4.80 How many of the 29 new miles of trail construction proposed in Alternative 2 and 3 will be for hikers compared to mountain bike and mixed use trails? Please note that recently the quality of the popular Bannock hiking trail has decreased from being crowded by ever more biking trails. The current GTR trail map looks like a bowl of spaghetti now. Can the FS direct that new trails for hikers be created and that they are insulated from the high speed down hill biking trails? Many people of all ages enjoy the downhill and/or uphill hike at GTR for the magnificent views of the Teton Range and the valley. It feels like hikers are being squeezed out at the resort. Also, the current density of trails appears to have eliminated any "security" habitat for wildlife. (724.6)

Please refer to **pages 34-35** of the **Final EIS** where it explains the proposed Summer Recreation Trails. Specifically, within the Proposed Action there is one new hiking trail proposed from Mary’s Saddle to the base area which would be 2 miles long.

Additionally, please refer to **Figure 3: Proposed Summer Projects (All Action Alternatives)** on **page 399** of the **Final EIS** where it shows the existing hiking trails, previously approved horse/hiking trails, previously approved multi-use trails, and the proposed hiking trail.

Please refer to wildlife **RTC 16.55** for more information on trail density and wildlife habitat.

No edits to the **Final EIS** were made in response to this comment.

4.81 If either Alternative 2 or 5 is approved there will be an increase in the number and types of summer recreation activities provided by GTR in the Mono Trees area. More recreationalists will utilize the area and there will be more conflicts between trail users, their dogs and grazing cattle. The proposed project design criteria stipulate the use of permanent fencing to exclude cattle from areas with structures and hazards. However, the PDCs do not address how to educate people on safe practices while biking and hiking in proximity to grazing stock. Use of signage and other educational materials would be appropriate. (294.21) (342.21)

Please refer **page 399** of the **Final EIS** which shows **Figure 3: Proposed Summer Projects (All Action Alternatives)**. No summer projects are proposed within the Mono Trees area, and therefore it is not expected that summer recreation would increase in Mono Trees.

Please refer to recreation **RTC 4.28** for more information on use of Mill Creek trail as a result of the proposed projects.

Please also refer to livestock and grazing **RTC 11.1** and **11.17** for more information on PDC in place to mitigate impacts to grazing cattle.

No edits to the **Final EIS** were made in response to this comment.

4.82 The document notes that GTR will prepare an Operations and Boundary plan to guide users to exit the permitted boundary. This is a mitigation that should be specifically defined in this EIS so that it can be properly analyzed. (1066.31)

Please refer to **page 55** of the **Final EIS** within **Table 2.4-1 Project Design Criteria** where it describes the Operations and Boundary Plan. Specifically, this plan should describe both physical closures and operational measures to be taken. This plan would also be reviewed by the Forest Service prior to construction and once finalized would be incorporated into the operation plan prior to operation of lift served terrain in South Bowl and Mono Trees. Boundary post and rope line installation shall utilize the same technique which has been developed for use elsewhere within GTR's existing SUP boundary.

No edits to the **Final EIS** were made in response to this comment.

4.83 The south east boundary along Peaked ridge (east side of Rolling thunder) needs to have better containment measures for the general skiing public. In order to deter the non-prepared backcountry user from illegally going out of bounds, they should replace their current little piece of rope with a fence that you cannot go under or over. (767.3)

Please refer to recreation **RTC 4.82** for more information on the Operations and Boundary Plan that GTR would be required to produce prior to operations.

Additionally, placing a physical fence on the Peaked Mountain ridge would not be physically feasible given amounts of snowfall and topography.

No edits to the **Final EIS** were made in response to this comment.

4.84 The South Bowl expansion: too much skier traffic is already degrading the quality of recreation in Teton Canyon. I watched 3 people being rescued by TCSAR earlier this past winter season 24/25. These 3 both went out of bounds without any preparation or necessary equipment and got into difficulty which needed GTS patrol to send out personnel who in turn called TCSAR to do this rescue. So TCSAR is an excellent non-profit and GTS patrol are a well trained group but how much did it cost to fly a helicopter back and forth 3 times and how much danger were the rescue personnel in? (22b.2)

Please refer to public safety **RTC 10.1** for more information on the purpose and need for the South Bowl expansion and mitigations to public safety.

No edits to the **Final EIS** were made in response to this comment.

4.85 Furthermore, while the North Boundary lift would increase the amount of low-intermediate terrain, access to this area would first require skiing terrain from Blackfoot lift, which is much more advanced intermediate terrain. Combined with the already low skier density, this lift seems to add little to the visitor experience while generating considerably increased impacts on the environment. The RTR also identifies a dearth of visitor services as a limiting factor on GTR's effective skier yield and competitive viability. Additional uphill capacity within the existing Special Use Permit (SUP) area and additional visitor services within the base area on private land are the most effective ways that GTR could improve visitor experience. The former (additional uphill capacity) could be accommodated within Alternative 3, while the latter (increased visitor services) will be considered under GTR's Master Plan approved by Teton County, Wyoming. (489.3) (729.18)

The North Boundary Lift, as described on **page 28** of the **Final EIS** is proposed to provide better utilization of the ski area terrain on the far north edge of GTR. It would also provide access to intermediate and advanced terrain that is currently not lift-accessed.

Upon review of the text in the **Draft EIS**, text has been updated on **page 28** of the **Final EIS** to state: "Similar to Mono Trees Lift, the North Boundary Lift would help provide a quality ski experience on those days when Dreamcatcher cannot be operated due to fog, wind, or other weather factors."

Please refer to recreation **RTC 4.46** and **4.60** for more information on the proposed projects at GTR's base area on private land.

Please also refer to recreation **RTC 4.16** where it describes that the proposed on-mountain guest facilities would improve the guest experience by offering services such as food and beverage, improved customer service through additional staff resources, and areas to escape the weather on the mountain. These facilities would accommodate the anticipated increase in CCC and would provide a balanced amount of space under proposed conditions.

No edits to the **Final EIS** were made in response to this comment.

4.86 The document states that GTR "caters to primarily advanced and expert ability level skiers." This is a false statement and not supported by GTR advertising. Specifically, the GTR website advertises that the resort has 10% beginner, 45% intermediate, 30%

advanced, and 15% expert. This is inconsistent with Table 3.1-1. GTR has always promoted itself as a family resort, "70% of Targhee slopes are rated intermediate in difficulty, there are also quality advanced slopes to challenge even the most proficient skier and snowboarder. First time skiers and boarders to the slopes will also be delighted with Targhee's gentle beginner and low intermediate slopes, and there is a magical area just for kids where they can slide through Giant Ant Hills, the Eyeball Forest, or cruise into the Bat Cave (and don't let your youngsters miss the North Pole or Alley Oop Alley!)."(1066.37) (1066.34)

Please refer to **page 62** of the **Final EIS** where **Table 3.1-1 Developed Terrain Network Distribution by Ability Level – Existing Conditions** is depicted. This table further separates out GTR's existing terrain by beginner (1 percent), novice (10 percent), low-intermediate (7 percent), intermediate (40 percent), advanced-intermediate (27 percent), and expert (15 percent). Further specification of the ability levels of the existing terrain allows more specific analysis on how the proposed projects are expected to change the existing levels. Under the Proposed Action as described in **Table 3.1-4** on **page 71** of the **Final EIS** the distribution in ability levels is expected to be beginner (1 percent), novice (4 percent), low-intermediate (7 percent), intermediate (44 percent), advanced-intermediate (29 percent), and expert (15 percent). These changes in ability level distribution better reflects the skier market particularly at GTR, which caters primarily to advanced and expert ability level skiers.

No edits to the **Final EIS** were made in response to this comment.

4.87 The DEIS states under "Affected Environment and Environmental Consequences" that "...some trail projects, such as the realignment of the Teton Vista Traverse, which would change its difficulty from novice to intermediate." Teton Vista Traverse (TVT) is a narrow trail that returns most skiers back to the base area. This can already get crowded with people and dangerous. Adding many more skiers/day to a return to base trail, in conjunction with making the trail more difficult is a poor decision. (476.14)

As described in recreation **RTC 4.2** and **4.10** the Teton Vista Traverse would be realigned under the Proposed Action. This realignment would cause its difficulty level to change from Novice to Intermediate.

As is further described on **page 30** of the **Final EIS**, the Teton Vista Traverse is an existing on-mountain administrative route that needs to be realigned/rehabilitated to reduce erosion and sedimentation. This realignment/rehabilitation would also provide access to the Fred's Mountain Top Guest Facility and improve circulation throughout the resort as is described further on **page 32** and **70** of the **Final EIS**.

Please refer to **page 399** of the **Final EIS** where **Figure 3: Proposed Summer Projects (All Action Alternatives)** shows the administrative route actions. On this figure it shows the Teton Vista Traverse being an existing administrative route to be upgraded from above the proposed Crazy Horse Lift to the base area. As is described on **page 70** of the **Final EIS** this upgrade would enhance skier circulation throughout the resort.

No edits to the **Final EIS** were made in response to this comment.

5. Scenery

5.1 The two expansions proposed in South Bowl and Mono Trees. A ski lift and road in the South Bowl would be visible from the three most popular wilderness hiking trails in Teton Canyon, from the Teton Scenic Byway, from areas within GTNP, and from within the Jedediah Smith Wilderness. This really changes the user experience. Currently, it is incredible to go a short distance from Driggs and not see human development. That is very special and unique in today's world. Let's really think before we allow that to be changed forever. In winter, hundreds of nordic skiers, dog walkers and snowshoers use Teton Canyon every week. They also should not need to see human development or hear loud bombs from avalanche control. Numerous species of wildlife would be greatly disturbed. Let's leave this place for wildlife- they need large, connected areas. It would also increase the visibility of the Targhee footprint on the Teton range, further impacts the view for areas residents. The benefits for the few do not outweigh the impacts for the many. In its entirety, the Scenery Technical Report of the DEIS would not pass a master's candidate's faculty committee. To have the gall to say that the changes to the GTR landscape would only be seen by those on foot or on a bicycle for a few seconds, or at most a few minutes, is offensive. SE Group did not have a viewpoint from one of the hundreds of homes in the north end of the valley who sited their homes with a front porch, family room, or living room focused squarely on the Grand Tetons. (121.4) (4.3) (23.1) (701.3) (81.1) (15.2) (122.4) (140.4) (156.2) (156.3) (164.2) (166.2) (167.4) (188.1) (443.1) (447.1) (517.6) (729.9) (471.35) (592.1) (600.2) (640.4) (650.3) (700.2) (925.1) (457.52) (5.2) (457.37) (540.2) (487.3) (646.3) (710.14) (727.7) (735.5) (812.1) (546.3) (545.13) (693.15) (695.1) (1029.4) (1066.42) (508.1) (1062.3) (433.2) (644.8) (26b.33) (26b.34) (26b.35) (23b.3)

Thank you for your comment regarding the proposed actions visibility from the Teton range and impacts on surrounding viewsheds. Please refer to wildlife **RTC 16.1** for more information on wildlife impacts and noise **RTC 6.1** for more information on the proposed actions impacts on natural quiet. Additionally, please refer to NEPA **RTC 1.1** and purpose and need **RTC 2.1** for more information on compliance with regulatory framework and the specific intention of the proposed action.

Additionally, on **pages 91-96 of the Final EIS** the viewpoint analysis is detailed in which 19 critical viewpoint locations and 23 views (some occurring during the day, and some occurring during the night) are considered to provide a representative sampling of the views within the study area. Furthermore, four of these viewpoints were analyzed in both winter and summer conditions. Specific viewpoints are used as a point of reference throughout the effects analysis in order to quantify visual impacts associated with the proposed action from numerous different vantage points (foreground, middle ground, and background distance zones within the JSW). Although there were no viewpoints situated at private residences in Alta, Wyoming or Driggs, Idaho, the following viewpoints are representative of viewpoints from these towns: Colter Building Rooftop, Driggs, Idaho (views 3 and 4), Hastings Lane, Driggs, Idaho (views 6 and 7), Teton Scenic Byway (view 20), and Tetonia, Idaho (views 21 and 22).

Additionally, as described throughout the viewpoint analysis on **pages 91-96 of the Final EIS** the existing condition of each viewpoint is described in which the duration that the proposed action can be seen from each viewpoint is determined based on the activity most common at each viewpoint. For instance, at the Colter Building Rooftop, Driggs, Idaho (views 3 and 4), the view duration is expected to range from minutes to hours based on the restaurant setting at this viewpoint, whereas most of the viewers

at the Hastings Lane, Driggs, Idaho (views 6 and 7), would be driving or biking resulting of a view duration of only several seconds (depending on mode of travel).

On pages 80-91 of the Final EIS the regional characteristic landscape is described in which two designated wilderness areas are acknowledged; the JSW and the Winegar Hole Wilderness located in the easternmost portions of the Forest, bordering Yellowstone and Grand Teton National Parks. Driggs is also considered when describing the existing condition of the regional landscape. Additionally, this section analyzes the project area characteristic landscape by three areas, the existing Grand Targhee Resort SUP, South Bowl, and Mono Trees.

Page 85 of the **Final EIS** describes the spatial and temporal boundaries of scenic resources in which critical viewpoint locations were identified within 32 miles of the project area; 32 miles was chosen as project components would not be distinguishable from viewpoints at greater distances. Additionally, the temporal scope of this scenery analysis extends from GTR's inception as a ski area in the 1960s, through the foreseeable future in which GTR can be expected to operate.

Pages 87-88 of the **Final EIS** describe the Visual Management System in which Visual Quality Objectives are defined as "how the landscape will be managed, the level of acceptable alteration of the natural landscape in the area, and under what circumstance the alteration may occur under. VQOs range from Preservation (ecological changes only) to Maximum Modification (dominance of management activities). VQOs guide management of visual resources only on NFS lands."

Pages 96-108 of the **Final EIS** describe the how each proposed action alternative is consistent with the Forest Plan direction for Scenery Management. Furthermore **page 105** of the **Final EIS** describes that the proposed action would be consistent with the VQO of Partial Retention to Maximum Modification. In addition, the proposed SUP expansion areas would remain consistent with the existing VQO designation of Retention to Partial Retention (Management Prescription 2.1.2 – Visual Quality Maintenance) as well as the proposed VQO designation of Partial Retention to Maximum Modification (Management Prescription 4.2 – Special Use Permit Recreation Sites).

Additionally, **pages 88-89** of the **Final EIS** detail the Built Environment Image Guide (BEIG) which ensures thoughtful design and management of the built environment, which includes above ground facilities: administrative and recreation structures, landscape structures, site furnishing, structures on roads and trails, and signs installed or operated by the Forest Service, its cooperators, and its permittees. Furthermore, **pages 96-108** of the **Final EIS** also detail that each proposed action alternative would be consistent with the BEIG. **Page 105** of the **Final EIS**, states "Prior to construction, all proposed infrastructure, including facilities and lifts, would undergo review by a Forest Service Landscape Architect to ensure consistency with the BEIG."

On **page 484** in **Appendix B: Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards**, of the **Final EIS**, the project is deemed consistent with Wilderness Section Standard #3. This section details that under the No Action Alternative and all action Alternatives, no actions would occur that would impact the VQO of preservation in wilderness. Furthermore, the project is deemed consistent with Recreation and Outfitter/Guide Guideline #3, describing that under all action Alternatives, project activities within management prescription 2.8.3 would not result in a deviation from the VQO designation of partial retention to maximum modification. The project is also deemed consistent with Forest Use and Occupation Standard #1, stating: "Short-term cross country motorized access would

occur on designated routes during project implementation, which is inconsistent with the access standard for Management Prescription 4.2; however, following implementation, cross country motorized travel would end and management activities within the project area would be consistent with the access standards for Management Prescription 4.2. Temporary routes would be decommissioned following construction." Additionally, the project is also deemed consistent with Forest Use and Occupation Guideline #5, stating: "Under all action Alternatives, project activities within management prescription 4.2 would not result in a deviation from the VQO designation of partial retention to maximum modification. PDC have been incorporated into all action Alternatives to ensure that visual impacts are minimized or avoided."

As identified in **Table 2.4-1 Project Design Criteria** on **pages 46-47** of the **Final EIS**, Scenery-specific PDC and mitigation measures would limit impacts to visual resources within the project area.

No edits to the **Final EIS** were made in response to this comment.

5.2 Ski Hill Road in Teton County Idaho is designated as a Scenic Corridor. The document fails to address the scenic impacts those traveling along the Ski Hill Road Scenic Corridor. (1066.2)

Thank you for your comment regarding the scenic impact that the proposed action would have on Ski Hill Road. Please refer to scenery **RTC 5.1** for more information on visual impacts resulting from all action alternatives.

According to the U.S. Department of Transportation Federal Highway Administration, Ski Hill Road is not a nationally designated National Scenic Byways or All American Road (https://fhwaapps.fhwa.dot.gov/bywaysp/States/Show/WY). Existing ski area development and other infrastructure can be seen from Ski Hill Road. It is not expected that impacts to the scenic characteristics around Ski Hill Road would change as a result of the proposed projects as the VQOs of the existing and proposed SUP boundaries are expected to be maintained.

Additionally, on **page 94** of the **Final EIS** it is mentioned that the Teton Canyon Overview Observation Site (view 13) is "located on Ski Hill Road, approximately 3.5 miles southwest of the GTR SUP area. The Teton Canyon Overview Observation Site is a popular viewpoint and photography area. The Teton Canyon Overview Observation Site viewpoint looks east towards the Teton Range and provides views of Peaked Mountain and the Mono Trees area in the middleground, as well as the Grand, Middle, and South Tetons in the background. The Teton Canyon Overview Observation Site is located in a forested area and views of Peaked Mountain and the GTR SUP area are largely obstructed by vegetation in the foreground and middleground."

No edits to the **Final EIS** were made in response to this comment.

5.3 Lightning Ridge Guest Facility – Comment: I reject this action. Placing a facility as proposed in this location is highly questionable as it is not in an easily accessible location from a skiing perspective even with the construction of the Mono Trees Lift. Constructing the facility and necessary roads and amenities for it to function, as explained, creates unnecessary damage to the scenic value of this area. (26b.11) (27b.3)

Thank you for your comment. Please refer to scenery **RTC 5.1** for more information on proposed actions compliance with VQOs and the BEIG. Additionally, please refer to purpose and need **RTC 2.1** for more information on the proposed Lightning Ridge Guest Facility.

On **pages 100-101** of the **Final EIS** the proposed design of on-mountain facilities is described including the Sacajawea Restaurant and Guest Facility, the Shoshone Guest Facility, the Rick's Basin Guest Facility, and the Lightning Ridge Guest Facility. This section details that these facilities would have simple linear forms to blend in with the surrounding environment, therefore complying with the BEIG. Additionally, it is stated that the Sacajawea Restaurant and Guest Facility and the Shoshone Guest Facility would include materials to match the backdrop of the alpine environment during the summer season. Furthermore, the Rick's Basin and Lightning Ridge Guest Facilities would be located below treeline and would be screened by vegetation to reduce visual impacts.

Additionally, a PDC has been added to **Table 2.4-1** on **page 46** of the **Final EIS** to minimize impacts to dark skies that states: "All lighting within the SUP boundary and proposed SUP boundary expansion shall comply with Teton County, Wyoming Dark Skies Land Development Regulation unless specifically exempted by a Forest Service Authorizing Official."

5.4 The summit of Fred's Mountain is a prominent high point on the western slope of the Tetons and is visible from numerous surrounding high peaks, including Grand Teton, Table Mountain, and portions of the Jedediah Smith Wilderness. Permitting a restaurant facility in this exposed, alpine setting would introduce man made infrastructure into an undeveloped skyline. This practice, called "skylining," is not allowed in Teton County, Wyoming's Land Development Regulations. If the owner of a private parcel cannot skyline, a permittee on public lands should definitely not be permitted to skyline. The structure would be visible from both popular recreation areas and remote wilderness zones, diminishing the sense of naturalness and visual continuity that currently defines the viewshed. This restaurant should be moved off of the ridge and out of sight, or not permitted. Likewise the North Lift infrastructure and noise would impact the visual integrity and solitude of the adjacent Jedediah Smith Wilderness in Leigh Canyon. This lift should be moved out of sight or not permitted. (484.46) (711.42) (724.5) (729.20)

Thank you for your comment regarding the proposed restaurant on Freds Mountain Top Guest Facility and the North Boundary Lift, and compliance with Teton County Wyoming Land Development Regulations. Please refer to scenery **RTC 5.1** and NEPA **RTC 1.1** for more information on scenery PDCs and the proposed action alternatives compliance with visual quality objectives, the BEIG, and other applicable regulatory framework.

The project area as well as the discussed characteristic landscape including the existing Grand Targhee Resort SUP, South Bowl, and Mono Trees, are located on the CTNF the Teton County, Wyoming regulations on "skylining' would not apply to the proposed action alternatives. However, on **pages 16** of the **Final EIS,** it is explicitly described that the projects must comply with relevant Forest Service policy, such as the 2011 SAROEA and Forest Service Manual 2343.14, which provides guidance on multi-season activities at ski areas operating on NFS lands. Additionally, three more renderings/visual simulations were completed for Fred's Mountain Top Restaurant. These renderings as well as a short analysis describing them have been added on **page 97** of the **Final EIS** and **pages 18-19** of the **Scenery Technical Report**. In these renderings, Fred's Mountain Top Restaurant is located below the ridgeline and would be designed

with a low-profile form, natural-toned materials and non-reflective finishes. Please refer to scenery **RTC 5.10** for more information.

Additionally, as described in Scenery **RTC**s **5.1** and **5.3**, the JSW and the Winegar Hole Wilderness located in the easternmost portions of the Forest, bordering Yellowstone and Grand Teton National Parks are described within the regional characteristic landscape. On **page 95** of the **Final EIS** the project area's visibility from Table Mountain, JSW (views 17 and 18) is discussed and visual impacts from the proposed action are described throughout the analysis. Further, **pages 96-97** of the **Final EIS** described the visual impacts to Wilderness expected to result from the proposed Fred's Mountain Top Guest Facility. For instance, it is detailed that the restaurant would result in a minor addition to a largely undeveloped landscape when viewed from middleground (views 14, 17, and 18) and background distance zones within the JSW. In summary this section details that the Fred's Mountain Top Guest Facility would result in minor decreases in the scenic integrity of surrounding lands within the JSW and negligible decreases within GTNP.

No edits were made to the **Final EIS** in response to this comment.

5.5 The DEIS does not include any viewshed analysis for the No. Boundary Lift which would be very close to the wilderness boundary. The lift will be visible from many places in South Leigh Canyon and from the top of Beards Mountain. The FEIS should include a formal viewshed analysis of this lift. (729.19)

Thank you for your comment. Please refer to scenery **RTC 5.2** and **5.4**, NEPA **RTC 1.1**, and wilderness **RTC 13.1** and **13.4** for more information on scenery PDCs and the proposed action alternatives adherence with visual quality objectives, the BEIG, and other applicable regulatory framework.

As described on **page 98** of the **Final EIS**: "The Proposed Action includes numerous lift projects within the existing SUP area such as the construction of the Crazy Horse Lift, North Boundary Lift, Palmer's Platter, the Papoose carpet upgrade, and the Shoshone Lift replacement. The GTR SUP area is most visible from views to the west, including views 3, 4, 6, 7, 13, 20, 21, and 22. The proposed lifts would be indiscernible from views 3, 4, 6, 7, 20, 21, and 22, as they are outside the Zone of Potential Visibility due to distance (refer to Figure 8); however, tree clearing for proposed lift corridors would be visible. This is illustrated in the visual simulation from the Colter Building Rooftop (Figures 9a and 9b)". Therefore, although the North Boundary Lift is proposed adjacent to the wilderness boundary, the viewshed analysis determined that it would not be visible from the viewpoints selected within the adjacent wilderness area. Please also refer to **Figures 7** and **8** within the **Final EIS** for more information on the viewshed analysis.

The following text was added to **page 98** of the **Final EIS** and **page 20** of the **Scenery Technical Report**, to further detail the viewpoints and wilderness areas from which the North Boundary Lift would be visible: "Although several of the proposed lifts are located in locations proximate to the JSW, and may be visible from extents of the wilderness area, they would not be visible from Views 17 and 18, the viewpoints analyzed within the JSW, and incorporation of PDC would minimize impacts."

Additionally, please refer wilderness **RTC 13.9** where it explains that the VQO of the JSW would be maintained.

5.6 The Mono Trees area is a nice, forested area with characteristics that are forthcoming to attract and keep wildlife, but so is the surrounding several hundred thousand acres of

forested lands. The development of several ski runs cut in the treed area will be viewed by many as additional ski runs when viewed with the numerous other cuts in the trees that currently exist on the hillside. Viewed in the winter the runs will look like treeless areas like avalanche paths, but in the summertime the trails will become obscure as the hillside will blend in with the surrounding green when viewed from a distance. Feathering the margins of the runs will also give the viewer a less harsh view when seen during the winter. Also, from a user prospective, the Mono Trees area, due to its lower elevation, provides skiable terrain when the peaks are shrouded in the clouds, thus enhancing the experience. (702.4)

Thank you for your comment regarding the development of ski runs within treed areas and minimizing the impacts of the proposed action alternatives by feathering the edges of these runs. Please refer to scenery **RTC 5.2** and NEPA **RTC 1.1** for more information on scenery PDCs and the proposed action alternatives compliance with visual quality objectives, the BEIG, and other applicable regulatory framework.

As described on **page 99** of the **Final EIS** the feathering concept is considered in areas where ski runs would be fully cleared of vegetation: "trail edges would be feathered or scalloped to provide a variable line, thereby minimizing linear cuts in overstory vegetation. Larger inter-trail tree islands would be maintained to minimize the impact of cleared trails. Cleared ski trails would create contrast with the adjacent and undisturbed natural landscapes; however, they would be located within the existing developed trail network or otherwise near existing ski area infrastructure."

Additionally, in **Table 2.4-1 Project Design Criteria** on **page 46** of the **Final EIS** the following PDC specifically suggests feathering proposed ski runs: "Avoid straight edges where removing trees. The edges of lift-lines, trails, glades, and structures, where the vegetation is removed, need to use a variable density cutting (feathering) technique applied to create a more natural edge that blends into the existing vegetation. Edges should be non-linear, and changes in tree heights along the edges of openings should be gradual rather than abrupt. Soften hard edges by selective removal of trees of different ages and heights to produce irregular corridor edges where possible."

No edits to the **Final EIS** were made in response to this comment.

5.7 Expanding into the Mono Trees area would significantly degrade the viewscape and soundscape of this currently undeveloped ridgeline. The construction of lift infrastructure, ski runs, and associated development would introduce visible alterations into a natural forested setting that currently offers unobstructed views of the Teton Range. These changes would fragment the scenic integrity of the landscape and diminish the area's natural aesthetic. Additionally, the proposed expansion into the Mono Trees would provide traditional ski runs at a relatively low elevation and, consequently, not increase the attractiveness of GTR as a ski area. (484.42) (502.2) (582.9) (711.39) (922.8) (925.3) (26b.10)

Thank you for your comment concerning the construction of lift infrastructure, ski runs, and associated development within the Mono Trees area, and the possible impacts associated with these proposed project elements. Please refer to scenery **RTC**s **5.1, 5.3**, and **5.2** for more information on scenery PDCs and the proposed action alternatives compliance with visual quality objectives, the BEIG, and other applicable

regulatory framework. Overall, **pages 96-108** of the **Final EIS** describe the how each proposed action alternative is consistent with the Forest Plan direction for Scenery Management. Furthermore **page 105** of the **Final EIS** describes that the proposed action would be consistent with the VQO of Partial Retention to Maximum Modification. In addition, the proposed SUP expansion areas would remain consistent with the existing VQO designation of Retention to Partial Retention (Management Prescription 2.1.2 – Visual Quality Maintenance) as well as the proposed VQO designation of Partial Retention to Maximum Modification (Management Prescription 4.2 – Special Use Permit Recreation Sites).

Additionally, please refer to purpose and need **RTC 2.1,** for more information on compliance with regulatory framework and the specific intention of the proposed action.

No edits to the **Final EIS** were made in response to this comment.

5.8 The South Bowl access road crosses the south side of Peaked Mountain's west and south ridges at around the 8000 to 8400-foot elevation, and ends at the Patio (spot elevation 8252 feet). As drawn on the map in the DEIS (page 388), the alignment appears approximate and has excessive variance in grade and does not fit the terrain contours very well. I used the road path as shown in the DEIS, and assume that the proposed road would be built at or near the mapped alignment. Of course, the actual road would not be a "wide yellow line" as in the Google Earth simulations, but cut-and-fill slopes will be prominent along the steep terrain, especially towards the Patio where it crosses the Bighorn dolomite. (644.6)

Thank you for your comment regarding the visual impacts resulting from the proposed access administrative routes. Please refer to scenery **RTC 5.1** for more information on proposed actions compliance with VQOs and the BEIG, which specifically includes suggestions for administrative route implementation.

As described on **page 100** of the **Final EIS** "proposed access administrative routes and upgrades, summer recreation trails and activities, alternative winter activities, and small on-mountain facilities would contribute additional visual impacts; however, they would be less noticeable due to their size and locations." Additionally, this section specifically details that disturbed areas surrounding the proposed administrative routes and trail treads would be revegetated.

Furthermore, on **page 104** of the **Final EIS** it is stated that the proposed access administrative routes would require tree clearing which would result in unnatural breaks in vegetation as seen from foreground and middleground distance zones; however, implementation of PDC would minimize the sharp line contrasts between cut runs and adjacent forest, visually blending them into the landscape.

An additional PDC was added to the **Final EIS** in **Table 2.4-1** on **page 46** to minimize impacts from cut or newly exposed rocks. This new PDC states: "Bright rock areas, newly exposed through excavation or side casting, should be treated with Natina or an equivalent weathering/coloring agent to reduce the contrast of newly exposed rocks."

5.9 I oppose lift service operations in the Mono Tree area. I do not oppose night skiing as a long as the operation closes by 7:00 pm. (8.1)

Thank you for your comment concerning the proposed projects in the Mono Trees area. Please refer to scenery **RTC**s **5.1** and **5.7** for more information on scenery PDCs and the proposed action alternatives compliance with visual quality objectives, the BEIG, and other applicable regulatory framework. Additionally, scenery **RTC 5.1** explicitly describes Mono Trees withing the regional characteristic landscape in which impacts resulting from the proposed action alternatives are analyzed.

Additionally, as described on **page 8** of the **Scenery Technical Report**, "Night lighting was considered for viewpoints within the Zone of Potential Visibility. Night lighting is a binary category of analysis. Analysis for this category simply includes discussion of whether lighting fixtures, for nighttime recreation, maintenance, and emergencies, would be installed on infrastructure within the viewshed."

Further, as stated on **page 99** of the **Final EIS** in relation to Palmer's Platter "Visibility of night lighting fixtures would not constitute a considerable change from current settings, including Dark Sky conditions in Driggs, as Palmer's Raceway is located adjacent to the GTR base area, which is already heavily developed and well lit. Night lighting on Palmer's Raceway would not be visible from GTNP." Additionally, text has been added to the Palmer Platter Surface Lift and Lights project description on **page 29** of the **Final EIS** that states: "The lights would operate seven days a week and would be turned off by 9pm."

Additionally, a new PDC was added to **Table 2.4-1** on **page 46** of the **Final EIS** to minimize impacts to dark skies that states: "All lighting within the SUP boundary and proposed SUP boundary expansion shall comply with Teton County, Wyoming Dark Skies Land Development Regulation unless specifically exempted by a Forest Service Authorizing Official."

5.10 The alpine summit of Fred's Mountain is visible from throughout Teton Valley as well as from numerous Teton peaks, including Grand Teton, Table Mountain, and portions of the Jedediah Smith Wilderness. Building anything, much less a 7,000 square-foot restaurant, in this prominent location will have a significant 360- degree visual impact. The viewpoints from where this facility would be visible from are not places that people do not simply glance up from while traveling through, as indicated in DEIS. The summits of Teton peaks, for example, are major destinations and most climbers and ski mountaineers spend time to enjoy the view upon reaching these areas. For many, the view is the point of the climb. Likewise, the lower saddle between the Middle and Grand Teton is where many climbers spend the night before making their Grand Teton summit push. Having reached this remote and awe inspiring spot, people spend a significant amount of time taking in the view from it. This view would be marred by the intrusion of a restaurant on top of Fred's Mountain. This intrusion would diminish the sense of naturalness, solitude, and visual continuity that currently defines the viewshed from high points in Grand Teton National Park and the Jedediah Smith Wilderness and impact dark skies. (471.56) (453.3) (489.8) (541.7) (697.22) (120.6) (146.4) (194.3) (300.4) (301.4) (302.4) (362.5) (370.3) (386.4) (411.1) (424.3) (427.1) (430.1) (444.4) (445.5) (456.4) (456.9) (459.1) (665.4) (678.1) (792.1) (917.1) (187.3) (571.9) (602.2) (971.6) (589.3) (605.2) (606.3) (655.3) (656.3) (685.9) (705.2) (718.1) (848.2) (767.8) (909.1) (1064.3) (1066.23) (9b.1) (26b.29) (26b.30) (26b.31) (26b.32) (26b.36) (27b.2) (1b.12) (5b.1) (19b.1)

Thank you for your comment. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, please refer to purpose and need **RTC 2.1** for more information on the proposed Fred's Mountain Top Guest Facility.

Specifically, on **pages 96-98** of the **Final EIS** Fred's Mountain Top Guest Facility is analyzed. Overall, "The proposed facility would result in an incremental addition to a largely undeveloped landscape when viewed from middleground (views 14, 17, and 18) and background distance zones within the JSW. Scenic impacts would be greatest from South Leigh Lakes (view 14), which is approximately 2.5 miles east of the top of Fred's Mountain. As illustrated in the visual simulation from Table Mountain (view 17), which is approximately 3.5 miles from the top of Fred's Mountain, the proposed projects are hardly visible (refer to Figures 11a and 11b), altering approximately 1.3 percent of the overall view. Impacts would be similar, but even less noticeable from background (views 5, 8, 9, 10, 11, and 12) distance zones within GTNP, as illustrated in the visual simulation from the Grand Teton Summit (view 5). The proposed projects would alter approximately 0.1 percent of the overall view from this viewpoint. Most viewers from these locations would be hikers and the duration of their view would likely last several minutes. While impacts would be minor from the aforementioned views, with adherence to PDC identified in **Table 2-1**, ski area activities would remain visually subordinate to the visual strength of the characteristic landscape. The Fred's Mountain Top Guest Facility would result in minor decreases in the scenic integrity of surrounding lands within the JSW and negligible decreases within GTNP." Further, "the proposed facility is not expected to increase visual resource impacts such that the area would not meet its VQO designation of *Partial Retention* to *Maximum Modification*. Therefore, maintenance of the VQOs would be achieved."

Additionally, three more renderings/visual simulations were prepared to understand the siting and massing of Fred's Mountain Top Guest Facility. Additional text has been added on **pages 18-19** of the **Scenery Technical Report** and **page 97** of the **Final EIS** to describe these renderings. This additional text states: "three additional renderings were developed to understand the siting and massing of Fred's Mountain Top Guest Facility. These renderings are located from the backside of GTR within the JSW (**Figure 13**), from an oblique view (**Figure 14**), and from a ridgeline southwest of Peaked Mountain (**Figure 15**). As shown in **Figure 13**, the siting of Fred's Mountain Top Guest Facility would be below the ridgeline and would be located to provide connection to the proposed Dreamcatcher and Crazy Horse Lifts (**Figure 14**). Additionally, as shown in **Figure 15**, the proposed facility would introduce additional forms and lines in the far foreground and middleground views. As shown in **Figures 13** and **14** the proposed facility is expected to have simple, linear forms, natural colors, and utilize low-reflective materials to blend with the surrounding environment. Similar to other visual simulations (**Figures 11a** and **11b**) and viewshed analyses that were done, Fred's Mountain Top Guest Facility would result in an incremental additional to a largely undeveloped landscape. However, with adherence to PDC as outlined in **Table 2.4-1**, ski area activities and infrastructure would remain visually subordinate to the visual strength of the characteristic landscape and the VQO of *Partial Retention* to *Maximum Modification* would be maintained." Overall, Fred's Mountain Top Guest Facility would be located below the ridgeline and would follow proper BEIG guidelines and architectural review.

Further, on **pages 32-33** of the **Final EIS** use and lighting associated with Fred's Mountain Top Guest Facility is described in detail: "The facility is proposed for daytime use only. Closure of this facility would be no later than an hour past NOAA's published sunset time. There would be no major night lighting associated with the proposed project; however, subtle low lying light fixtures may be installed outside the facility for maintenance and to prepare for daily operations which would primarily occur in the early morning. Outdoor lights would use full cutoff or shielded fixtures that minimize skyglow, glare,

and light trespass in order to preserve dark sky values." Additionally, the PDC in **Table 2.4-1** on **page 47** of the **Final EIS** has been updated to state: "Nighttime use of Fred's Mountain Top Guest Facility or the Sacajawea Restaurant and Guest Facility is not included in the Action Alternatives. Closure of this facility shall be required no later than an hour past NOAA's published sunset time. Future nighttime use of this facility shall be subject to additional NEPA review and cannot be permitted via changes in the operating plan."

Further, as specified in scenery **RTC 5.3** a new PDC was added to **Table 2.4-1** on **page 46** of the **Final EIS** to minimize impacts to dark skies that states: "All lighting within the SUP boundary and proposed SUP boundary expansion shall comply with Teton County, Wyoming Dark Skies Land Development Regulation unless specifically exempted by a Forest Service Authorizing Official."

5.11 I believe that concerns regarding the "view shed" and light pollution are also adequately mitigated in the DEIS. I could cite a hundred examples of why this should not be the objection to virtually any of the resorts' proposals. The logic that you might be able to see a lift from a national park is just comical. With that logic we should do away with the Tram at Jackson Hole, the Jackson Hole Airport, the infrastructure at Crystal Mountain Washington, Winter Park Colorado and Whitefish Montana. That's not even to mention Lake Louise and all the ski resorts among the five national parks of the Canadian Rockies and almost every lift in the Alps! If you read the documents around the DEIS, I think they do a good job of mitigating both of these topics to a reasonable degree. At the recent DEIS open house they did a mockup of the viewshed impacts on a big screen and you literally had to squint and go back and forth to even notice a difference. Just imagine if that made national news, how absurd it would sound? "Residents of a rural valley in Idaho are revolting against their own local ski resort and the forest service because they can SEE ski trails!" I'm guessing there would be a whole lot of confusion and not a lot of people crying for us upon hearing that news! (12.1) (416.2) (887.2)

Thank you for your comment supporting the purpose and need of the proposed action, addressing any concern related to impacts to scenery. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, please refer to purpose and need **RTC 2.1** for more information on the proposed Fred's Mountain Top Guest Facility, and scenery **RTC 5.10** for more information on night lighting and dark skies.

No edits to the **Final EIS** were made in response to this comment.

5.12 A proposed lift on Palmer's Raceway with lights to train young skiers would be a service to the community. These twilight programs typically end by 6pm. Lights should be required to be off by 7 because Teton Valley is a dark sky community. A ridgeline restaurant at the top of Dreamcatcher would similarly disturb our dark skies and adjacent wilderness. (4.2)

Disposition Code: Already addressed in the EIS no additional edits needed

Thank you for your comment regarding the benefits of proposed Palmer's Platter, and the associated impacts to dark sky. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the

proposed actions compliance with VQOs and the BEIG. Additionally, please refer to scenery **RTC 5.10,** for more information on night lighting and dark skies.

Specifics regarding the lighting that would be associated with the proposed Palmer Platter Surface Lift, are described on **page 29** of the **Final EIS**. Additionally, **page 99** of the **Final EIS** describes associated impacts related to the proposed Palmer Platter: "Lights are proposed on Palmer's Raceway in conjunction with the proposed Palmer's Platter surface lift. The lights would enable nighttime training sessions for athletes during the winter months. Lighting fixtures may be visible from foreground, middleground (view 13), and background (views 3, 4, 6, 7, 20, 21, and 22) views to the west of the SUP area. Visibility of night lighting fixtures would not constitute a considerable change from current settings, including Dark Sky conditions in Driggs, as Palmer's Raceway is located adjacent to the GTR base area, which is already heavily developed and well lit. Night lighting on Palmer's Raceway would not be visible from GTNP." Additionally, text has been added to the Palmer Platter Surface Lift and Lights project description on **page 29** of the **Final EIS** that states: "The lights would operate seven days a week and would be turned off by 9pm."

Further, as specified in scenery **RTC 5.3** a new PDC was added to **Table 2.4-1** on **page 46** of the **Final EIS** to minimize impacts to dark skies that states: "All lighting within the SUP boundary shall comply with Teton County, Wyoming Dark Skies Land Development Regulation unless specifically exempted by a Forest Service Authorizing Official."

5.13 A smaller, less obtrusive structure that does not break the skyline would better respect the surrounding wilderness and reduce noise and visual impacts. (542.7)

Thank you for your comment regarding the scenery impacts resulting from the proposed Fred's Mountain Top Guest Facility. Please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies.

No edits to the **Final EIS** were made in response to this comment.

5.14 When you look around the horseshoe of mountains surrounding our beautiful valley it is unspoiled by mountaintop structures because Teton County, Idaho has prohibited them in the past. I have been told that the intention of the Squirrel Meadows land swap 21 years ago was to limit development of Targhee to its base area to respect the values of our community for dark skies and maintaining a more natural environment in the mountains. If Targhee is given a foothold to put even one restaurant on the hill this will set a precedent and other large mountain structures will surely follow in the future. (594.2)

Thank you for your comment regarding the scenery impacts resulting from the proposed on-mountain improvements. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies.

All proposed infrastructure within GTR's existing and proposed SUP boundary are analyzed for compliance with the VQOs of the area. Overall, **pages 96-108** of the **Final EIS** describe the how each proposed action alternative is consistent with the Forest Plan direction for Scenery Management. Furthermore **page 105** of the **Final EIS** describes that the proposed action would be consistent with the VQO of Partial Retention to Maximum Modification. In addition, the proposed SUP expansion areas

would remain consistent with the existing VQO designation of Retention to Partial Retention (Management Prescription 2.1.2 – Visual Quality Maintenance) as well as the proposed VQO designation of Partial Retention to Maximum Modification (Management Prescription 4.2 – Special Use Permit Recreation Sites).

Further, the commenter is referencing actions on GTR's private land. As stated on **page 142** of the **Final EIS** "No portion of the implementation of projects approved under the 2019 First Amendment Master Plan – Planned Unit Development for Planned Resort are dependent, reliant, or connected to approval of any of the action alternatives by the Forest Service. GTR has been advancing projects on private land from the 2019 First Amendment Master Plan – Planned Unit Development for Planned Resort since their approval and would implement these projects regardless of projects being approved under this analysis. Implementation of the projects in the 2019 First Amendment Master Plan – Planned Unit Development for Planned Resort is not expected to drive additional visitation beyond the visitation levels analyzed for each alternative in this section under Direct and Indirect Environmental Consequences."

No edits to the **Final EIS** were made in response to this comment.

5.15 Peaked Mountain Restaurants' location was moved from where it was shown in Alternative 4 to the location shown for Alternative 6. The reason for this change was that the addition of Peaked #7 lift provided easy access to the restaurant. This location is much less exposed and consequently less visible from both within and outside the permit area."2. With this restaurant already approved and never built the USFS should deny GTR approval of a restaurant at the top of Fred's Mountain and at the top of Sacajawea. Both of these proposed restaurants are highly visible. The already approved restaurant is hidden from the view of the valley and Teton National Park. (710.1)

Thank you for your comment regarding the scenery impacts resulting from the proposed on-mountain improvements. Please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies.

Additionally, please refer to NEPA **RTC 1.1** for more information on compliance with regulatory framework and the specific intention of the proposed action.

No edits to the **Final EIS** were made in response to this comment.

5.16 Most skiers recognize the need for in-bounds on-mountain improvements, especially on the Peaked Mountain side of the resort. The Sacagawea restaurant seems appropriate for this reason. The restaurant on top of Fred's Mountain is more problematic, as it sits on the edge of the Jedediah Smith Wilderness (JSW) and in view of Grand Teton National Park (GTNP). This restaurant should be much smaller than proposed and sited to be out of the GTNP and JSW viewsheds. This will also help reduce noise impacts in the JSW. Jackson Hole Mountain Resort is similarly situated on the border of GTNP, and has only a small waffle shack, below the ridgeline at the summit. (922.10)

Thank you for your comment regarding the scenery impacts resulting from proposed on-mountain improvements. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, please refer to scenery **RTC 5.10**

for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies, and refer to noise RTC **6.1** for more information on the proposed action's impact on natural quiet.

Additionally, please refer to NEPA **RTC 1.1** for more information on compliance with regulatory framework and the specific intention of the proposed action.

No edits to the **Final EIS** were made in response to this comment.

5.17 I recognize the resort's need to grow as a business, and I am not opposed to most of the developments inside the existing boundary. However, I oppose the mountaintop restaurant on Fred's Mountain and the North Boundary lift, as they would tarnish the viewshed and wilderness quality of nearby public land on the Caribou-Targhee and in Grand Teton National Park. (24b.4) (673.7)

Thank you for your comment regarding the scenery impacts resulting from the proposed Fred's Mountain Top Guest Facility and North Boundary Lift. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting and dark skies, and refer to wilderness **RTC 13.1** for more information on the analysis completed for the JSW.

No edits to the **Final EIS** were made in response to this comment.

5.18 Freds Mountain Top Guest Facility – Comment: I reject this proposed action. Weather conditions as fog, high winds, blizzards, and other weather factors, which occur frequently, make this an undesirable location for this facility. Skiers of all abilities would desire to access this facility and those less skilled when confronted with adverse weather conditions, would not safely be able to ski down the mountain. Placing this facility at the top of Fred's Mountain creates a significant safety hazard. Lift closures during summertime periods also take place due to adverse weather condition potentially trapping people in the facility. The location of this facility also presents a significant impact to the visible scenic landscape and character of this environment. The facility would be visible for miles around within the Jedediah Smith Wilderness Area and Teton Mountain range along with affecting the scenic value from Teton County, Idaho valley. The facilities location is too close and visible to these wonderfully scenic areas. If this facility is accepted, routine provisions to the Dreamcatcher lift to allow skiers/visitors to the facility to ride down the lift when they may not be able to safely ski down, due fog or other weather conditions that exist after visiting the facility. (26b.16)

Disposition Code: Requires additional analysis in FEIS or Tech Report

Thank you for your comment regarding the scenery impacts resulting from proposed on-mountain improvements. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting and dark skies.

Additionally, please refer to wilderness **RTC 13.9** where it explains that the VQO of the JSW would be maintained.

No edits to the **Final EIS** were made in response to this comment.

5.19 I support Alternative 3, no boundary expansion of Grand Targhee with no restaurant on Fred's Mountain. If the decision allows a restaurant, at the very least, require that it be located below the ridgeline so the wilderness view will not be spoiled from all directions. (382.1)

Disposition Code: Already addressed in the EIS, no additional edits needed

Thank you for your comment regarding the scenery impacts resulting from proposed on-mountain improvements. Please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies. Fred's Mountain Top Guest Facility would be located below the ridgeline.

No edits to the **Final EIS** were made in response to this comment.

5.20 Any proposed night skiing operations would be in direct contradiction to the Dark Skies initiatives in Teton Valley, ID while also being in conflict with the Dark Skies certification recently awarded Teton County, WY. Night time activities and lighting would directly impact the view shed as well as wildlife in the area. We are not opposed to the addition of the proposed North Boundary and Crazy Horse lifts within the existing SUP. The addition of those lifts can enhance the overall visitor experience at Targhee. In summary, we are supportive of a MODIFIED Alternative 3, but NOT including the ridge-top developments. (428.3)

Thank you for your comment regarding the scenery impacts resulting from proposed on-mountain improvements. Please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies.

Additionally, as specified in scenery **RTC 5.3** a new PDC was added to **Table 2.4-1** on **page 46** of the **Final EIS** to minimize impacts to dark skies that states: "All lighting within the SUP boundary and proposed SUP boundary expansion shall comply with Teton County, Wyoming Dark Skies Land Development Regulation unless specifically exempted by a Forest Service Authorizing Official."

No edits to the **Final EIS** were made in response to this comment.

5.21 I do not oppose a restaurant at the top of Sacajawea lift. If there needs to be expansion to accommodate more skiers, I believe the area North of Blackfoot makes the most sense. (102.4)

Thank you for your comment regarding the scenery impacts resulting from proposed on-mountain improvements. Please refer to **pages 32-33** of the **Final EIS** where it explains the Sacajawea Restaurant and Guest Facility. This facility would serve the southern side of the resort including the existing Sacajawea and Colter areas along with the proposed Mono Trees area. Locating a facility near the Blackfoot lift would not provide service to users on the southern side of the resort.

No edits to the **Final EIS** were made in response to this comment.

5.22 My preference is for Alternative 3, with some changes to proposals for facilities withing the existing SUP area. I oppose the inclusion of mountaintop restaurants because of the visual intrusion on the horizon, the lights and glare that will be visible from Teton Valley and Grand Teton National Park. Grand Targhee's runs are not so long that skiers find it inconvenient to descend to the base area to visit a restaurant. In every direction I look there are no ridgeline structures, which is just one feature that makes this valley unique. I am also opposed to including gates along the northern boundary of the SUP for the same reasons I've given for opposing development of the South Bowl. (698.3) (479.1)

Thank you for your comment regarding the scenery impacts resulting from proposed on-mountain improvements. Please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies.

Additionally, please refer to NEPA **RTC 1.1** for more information on compliance with regulatory framework and the specific intention of the proposed action.

No edits to the **Final EIS** were made in response to this comment.

5.23 Neither the south bowl or mono trees are necessary to maintain the superb skiing experience grand Targhee provides already. Allowing for more parking is a crucial approval as well as allowing for more rooms for the public to stay on site. That would go hand in hand with allowing for better and more food service locations/options HOWEVER these should not be allowed to break the skyline view as observed from the valley floor and the lighting should be managed to be non evident after skiing hours from the valley floor as well. (103.2)

Thank you for your comment regarding the scenery impacts resulting from proposed on-mountain improvements. Please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies.

Please also refer to scenery **RTC 5.14** for more information on the 2019 First Amendment Master Plan – Planned Unit Development for Planned Resort which incorporates additional parking infrastructure.

No edits to the **Final EIS** were made in response to this comment.

5.24 I really can see Grand Targhee from my kitchen window. I do not want to see any expansion, nor a restaurant on top of that mountain spoiling the view of wilderness for the entire valley and wilderness area. Tourism is a huge industry here. Have the long-term and cumulative tourism impacts of spoiling this view being assessed and monetized? It will definitely impact my peace of mind and that of others. The impact of that needs to be addressed, and not flippantly. (382.5)

Thank you for your comment regarding the scenery impacts resulting from proposed on-mountain improvements. Please refer to scenery **RTC 5.10,** for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies.

Additionally, please refer to wilderness **RTC 13.9** where it explains that the VQO of the JSW would be maintained.

No edits to the **Final EIS** were made in response to this comment.

5.25 Page 86, the Viewpoint Analysis completely ignores the fact the proposed new buildings will have windows which will reflect sunlight much as a signal mirror does. Depending on the angle of the sun, these bright glares will be visible throughout Teton Valley in the afternoon and evening hours from west facing windows at the resort. Any east-facing window will reflect glares back towards Grand Teton National Park in the morning hours. While the building themselves may or may not be visible from the valley or the Park, the glare from the windows will be visible. You need to include this in the Viewpoint Analysis if it is to be complete and objective. (478.6)

Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG.

On **page 32** of the **Final EIS,** specifications for Fred's Mountain Top Guest Facility are described in which "The building would have simple, linear forms and utilize low-reflective materials to blend with the surrounding environment in sensitivity to viewsheds from GTNP and would comply with the Forest Service's Built Environment Image Guide (BEIG)."

Please also refer to the scenery specific PDCs in **Table 2.4-1 Project Design Criteria** on **pages 46-47** of the **Final EIS** that state:

- Windows on facilities shall have anti-reflective treatment, coating, or integral windows. Lift terminals shall have natural/neutral colors with anti reflectant materials. All facilities will have design review by CTNF authorized representative.
- To meet solar reflectivity standards and minimize visual impacts associated with reflectivity from installed infrastructure, all facilities shall be built with design elements that break up form, line, and texture to minimize reflectivity in accordance with FSM 2380. This includes any reflective surfaces (metal, glass, plastics, or other materials with smooth surfaces), that do not blend with the natural environment. They shall be covered, painted, stained, chemically treated, etched, sandblasted, corrugated, or otherwise treated to meet the solar reflectivity standards. The colors shall be muted, subdued colors because they blend well with the natural color scheme. Surface textures shall be increased or made coarser and recessed windows shall be used to reduce exposure to the sun and limit reflectivity. The specific requirements for reflectivity are as follows: reflective surfaces on the proposed facilities shall be painted with earth tones and natural colors or with dark non-reflective colors that blend with the forest background to meet an average neutral value of 4.5 or less as measured on the Munsell neutral scale.

No edits to the **Final EIS** were made in response to this comment.

5.26 As pointed out in the DEIS, the scenery analysis relies on the Visual Management System (USDA Forest Service 1974) because the 1997 Forest Plan relied on that, as directed by the 1982 planning rule. In 1995, the US Forest Service published the Scenery Management System (USDA Forest Service 1995), and the 2012 planning rule requires that for forest plan revisions (Brunswick 2018). However, the 2012 planning rule in the Federal Register includes plan development, revisions, and amendments, so the SMS should be used to be consistent with that rule. A fundamental difference between the Visual Management

System and the Scenery Management System (SMS) is the former was conducted by experts such as landscape architects and it (partially) relied on a degree of change, while the latter incorporates the perceptions and aesthetic judgements by people who view and value the landscape. The DEIS further invites the SMS approach. The Built Environment Guide is from 2001 and has nothing to do with the 1997 forest plan, yet it is used in the DEIS. Why not formally use the SMS system too, as required by the 2012 planning rule? (644.5)

Thank you for your comment. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, please refer to purpose and need **RTC 2.1** for more information on the proposed Fred's Mountain Top Guest Facility, and scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies. Additionally, please refer to NEPA **RTC 1.1** for more information on compliance with regulatory framework and the specific intention of the proposed action.

As described in scenery **RTC 5.1** and on **page 87** of the **Final EIS**, the Scenery Management System is the most recent Forest Service system for managing scenery resource although the 1997 CTNF Forest Plan uses the VMS, and therefore this project was analyzed with respect to the standards and guidelines described in the respective Forest Plan.

No edits to the **Final EIS** were made in response to this comment.

5.27 The report found that, "The relative proportions from the Snellen eye chart were extrapolated to determine the maximum distance from which a person with 20/20 vision could recognize a lift terminal or a building. Through this method it was determined that a viewer would not be able to recognize/identify project infrastructure at a distance greater than 6.9 miles. Therefore, the Zone of Potential Visibility was defined as a 6.9-mile buffer area from the top and bottom terminals of South Bowl lift and the proposed Fred's Mountain Top Guest Facility." This analysis was only performed for points representing the top and bottom of the proposed lifts. A more accurate analysis would include all lift towers, not just top and bottom terminals, using the approximate heights and locations of each tower. Additionally, what is the basis for the 6.9 miles. (685.12) (1066.3)

Thank you for your comment concerning the Zone of Potential Visibility. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG.

Additionally, on **page 7** of the **Scenery Technical Report**, describes that a viewer would not be able to recognize/identify project infrastructure at a distance greater than 6.9 miles, based on relative proportions were extracted from the Snellen eye chart and the metric that the meat height of the top and bottom terminals of the South Bowl lift and the proposed Fred's Mountain Top Guest Facility is 32 feet.

No edits to the **Final EIS** were made in response to this comment.

5.28 PLEASE require that GTR paint all lifts including the Colter lift with a non-reflective, wilderness harmonizing color. Aside from the environmental detraction during the day, it really sucks in the evening in Teton Valley when the setting sun shines on it and lights it

up like a beacon. If GTR management still lived in Teton Valley we believe it would be painted already. (598.3)

Thank you for your comment concerning the reflectivity of proposed projects. Please refer to scenery **RTC 5.1, 5.3, 5.4, 5.5,** and **5.26** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, please refer to PDC in **Table 2.4-1** on **page 46** of the **Final EIS** that states "Windows on facilities shall have anti-reflective treatment, coating, or integral windows. Lift terminals shall have natural/neutral colors with anti reflectant materials. All facilities will have design review by CTNF authorized representative."

No edits to the **Final EIS** were made in response to this comment.

5.29 Teton County Wyoming became the first County in the World to achieve a 'Dark Sky' designation in April. https://www.jhnewsandguide.com/valley/feature/teton-countys-dark-skies-are-astronomicalsuccess/article_4b70d21c-e919-4c2f-a965-cbcfa5f22333.html The County has worked hard and spent considerable time and money over a number of years to reach compliance with Dark Sky standards, in order to receive that designation. Of course, Teton County's LDR's are not enforceable on FS land, so Targhee would be on the "honor system" for making their lighting on the public lands compliant with County Dark Sky standards. The County takes that Dark Skies honor seriously and they do not want Targhee, which is in Teton County, to potentially tarnish that designation. Light pollution can have negative impacts on migrating birds and other wildlife, not to mention its impact on humans both aesthetically and physically. (626.4) (631.4) (24.5) (120.7) (117.1) (121.2) (120.1) (122.2) (140.2) (167.2) (306.1) (344.6) (355.2) (367.4) (379.2) (648.3) (760.2) (805.5) (916.8) (979.1) (1029.5) (1066.26) (1066.41) (1066.43) (457.109) (8b.3) (2b.4)

Thank you for your comment regarding the scenery impacts resulting from proposed on-mountain improvements. Please refer to scenery **RTC 5.10** for more information on night lighting and dark skies.

Specifically, as specified in scenery **RTC 5.3** a new PDC was added to **Table 2.4-1** on **page 46** of the **Final EIS** to minimize impacts to dark skies that states: "All lighting within the SUP boundary and proposed SUP boundary expansion shall comply with Teton County, Wyoming Dark Skies Land Development Regulation unless specifically exempted by a Forest Service Authorizing Official."

5.30 Though this DEIS states that considerable development can be seen from Table Mountain, indicating an existing impact to the viewshed, there is a large difference in wilderness quality between seeing a far-off town and close-up manicured ski runs with a chairlift. From much of the shoulder of Table Mountain, only the top shack of the Colter Lift is visible, and construction of ski runs, roads, and a new lift in South Bowl would be a substantial diminishment of the area's current natural state. Under the 1997 Forest Plan, South Bowl falls under Management Prescription 2.1.2 – Visual Quality Maintenance, which seeks to maintain existing views. The required change to Management Prescription 4.2– Special Use Permit Recreation Sites shows that viewsheds from the JSW would lose existing protections and, therefore, be diminished. (1b.5)

Thank you for your comment. As identified on **pages 203-204** of the **Final EIS** much of the JSW that borders GTR is identified under the management prescription 1.1.7 Designated Wilderness – Opportunity

Class II and the VQO. Further, as described on **page 88** of the **Final EIS**, VQOs identify how the landscape will be managed, the level of acceptable alteration of the natural landscape in the areas, and under what circumstance the alteration may occur under. The VQO of the JSW is *preservation* which means there are only ecological modifications allowed. This VQO assignment, however, is only pertinent to the landscape within the JSW boundaries, not the view of other areas from within the JSW. Although users would be able to view ski area infrastructure from within the JSW as identified on **pages 211-212** of the **Final EIS** this infrastructure would not exist within the JSW. Therefore, the VQO of the JSW would be maintained, as identified on **page 484** of **Appendix B** of the **Final EIS** where it states that all Alternatives would be consistent and in compliance with the JSW's VQO of *preservation*.

No edits were made to the **Final EIS** in response to this comment.

5.31 Teton Canyon is recognized by Teton County as a critical scenic resource and is protected under the Scenic Resources Overlay (SRO) established in the County's Land Development Regulations (LDRs) 2. This designation (5.2.2. B. 3.g) extends along the "south side of Alta Road from Lake Nola to the Targhee National Forest boundary." The area is valued for its broad, open meadow foreground framed by dense vegetation, which creates a dramatic visual setting for views of the western Teton Range. As such, Teton Canyon forms a key element of the scenic entry experience for visitors traveling through Alta to GTR. The preservation of these foreground views is central to maintaining the County's rural and western ranching character, which is a core intent of the SRO designation. Under the SRO standards, developments within the Teton Canyon Foreground must be strategically located-at the rear or side edges of open meadows, behind existing vegetation, or integrated into natural topography-to minimize their visual impact. Overall, the DEIS does not adequately analyze the proposal's compliance with Teton County LDR's for scenic resources or lighting standards, nor the impacts to visual resources within the Jedidiah Smith Wilderness and Grand Teton National Park. (489.7) (489.9)

Thank you for your comment. The project area as well as the discussed characteristic landscape including the existing Grand Targhee Resort SUP, South Bowl, and Mono Trees, are located on the CTNF and under the jurisdiction of the Forest Service. Further, as specified in **Table 2.4-1** on **page 45** of the **Final EIS** "GTR shall obtain all required federal, county, town, and state reviews, approvals, and/or permits prior to the start of construction." GTR will go through the proper permitting process with Teton County, Wyoming prior to construction of any infrastructure.

No edits to the **Final EIS** were made in response to this comment.

5.32 The viewshed analysis is faulty with sampling omissions because the viewpoints picked are not from where people are maximally impacted. Because I am a professional nature photographer, alteration to Mono Trees and South Bowl areas with ski lifts would impact my business. Mono Trees- Why are viewpoints picked for viewshed analysis from places where people are not impacted? There are obvious sampling omissions in viewpoints analyzed in DEIS. Cutting thousands of trees in Mono Trees to create ski runs is not consistent with the USFS legal obligation to manage forest lands for a desired future condition? The DEIS states that the view of Mono Trees would not be impaired from the Colter Bldg or for someone driving or biking on Hasting Lane because they are only

looking that way for a few seconds. What about the view for hundreds of residents of Alta, Tetonia, and Driggs who would see this every day? A glaring omission is not studying the view of Mono trees from Alta Church, library, and school. (729.4)

Thank you for your comments regarding viewpoints that were not analyzed in this analysis. Although there were no viewpoints situated at the Alta Church, library, school, and private residences in Alta, Wyoming or Driggs, Idaho, the following viewpoints are representative of viewpoints from these towns: Colter Building Rooftop, Driggs, Idaho (views 3 and 4), Hastings Lane, Driggs, Idaho (views 6 and 7), Teton Scenic Byway (view 20), and Tetonia, Idaho (views 21 and 22).

Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG.

No edits to the **Final EIS** were made in response to this comment.

5.33 Scenic view analysis were conducted locations in GTNP, the CTNF, and in Teton Valley. With each view, a time is associated the view, ie. the view would be seen by a viewer for seconds to minutes. These times seem to be grossly underestimated In many of the view analysis. For example, the view analysis from Table Mountain in the JSW indicates the view of the South Bowl infrastructure for would be for a few minutes. In reality, if one is walking down the trail from the summit of Table Mountain you will be looking directly at the South Bowl area for a few hours depending upon your hiking pace. The Hastings Lane analysis has a viewing time of seconds. This true if you are driving on Hastings Lane. However, what if you are walking your dog or live Hastings Lane? Residents will see that view continuously through the day from their bedroom, kitchen, living room, deck or lawn. This will be a much more significant impact. The time of day is also extremely important in the visual analysis. GTR is in the shadow as the sun rises and illuminated in the afternoon and at sunset. The visual analysis needs to be revised to account for actual use in each view. If this is done it will significantly increase the impact of the proposed infrastructure. The expansion of the ski area boundaries appears to be in conflict with the existing Forest plan's scenic protections and encroachment on the JS wilderness. (197.2)

Thank you for your comment regarding the Hastings Lane (views 6 and 7). As described in scenery **RTC 5.1**, throughout the viewpoint analysis on **pages 91-96 of the Final EIS** the existing condition of each viewpoint is described in which the duration that the proposed action can be seen from each viewpoint is determined based on the activity most common at each viewpoint. For instance, at Table Mountain (views 17 and 18) most of the viewers would be hiking or backcountry skiing and would only experience this view for several seconds. Further, at the Colter Building Rooftop, Driggs, Idaho (views 3 and 4), the view duration is expected to range from minutes to hours based on the restaurant setting at this viewpoint, whereas most of the viewers at the Hastings Lane, Driggs, Idaho (views 6 and 7), would be driving or biking resulting of a view duration of only several seconds (depending on mode of travel).

Additionally, please refer to scenery **RTC 5.3, 5.4, 5.5,** and **5.10** for more information regarding the proposed actions compliance with VQOs and the BEIG.

No edits to the **Final EIS** were made in response to this comment.

5.34 The proposed North Boundary lift would be visible from several places in the Jedediah Smith Wilderness and will facilitate new access into the Wilderness. Although a viewshed analysis was not conducted for the North Boundary lift, by using Google Earth to conduct our own analysis, we found that the lift will be visible from many places in South Leigh Creek, the top of Beards Mountain, and from Lilles Peak. It is likely that it would be visible from other areas as well. The FEIS should include a formal viewshed analysis of this lift. This viewshed analysis should include an analysis of nighttime impacts as well, if there is any potential for lights to be associated with the lift. (471.61) (1b.15)

Thank you for your comment specifically concerning visibility of the proposed North Boundary lift. Please refer to scenery **RTC 5.1, 5.3, 5.4, 5.5,** and **5.10** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, as identified on **pages 202-203** of the **Final EIS** much of the JSW that borders GTR is identified under the management prescription 1.1.7 Designated Wilderness – Opportunity Class II and the VQO. Further, as described on **page 88** of the **Final EIS**, VQOs identify how the landscape will be managed, the level of acceptable alteration of the natural landscape in the areas, and under what circumstance the alteration may occur under. The VQO of the JSW is *preservation* which means there are only ecological modifications allowed. This VQO assignment, however, is only pertinent to the landscape within the JSW boundaries, not the view of other areas from within the JSW. Although users would be able to view ski area infrastructure from within the JSW as identified on **pages 211-212** of the **Final EIS** this infrastructure would not exist within the JSW. Therefore, the VQO of the JSW would be maintained, as identified on **page 484** of **Appendix B** of the **Final EIS** where it states that all Alternatives would be consistent and in compliance with the JSW's VQO of *preservation*. Further, please refer to wilderness **RTC 13.1** and **13.4** for more information on the additional text that was added related to the North Boundary Lift and the JSW.

As described on **page 98 of the Final EIS** the visual analysis of the North Boundary Lift is included among Lifts and Lift Replacement within the Existing Special Use Permit Area. Additionally, it is stated that, "The proposed lifts would be indiscernible from views 3, 4, 6, 7, 20, 21, and 22, as they are outside the Zone of Potential Visibility due to distance (refer to Map 2); however, tree clearing for proposed lift corridors would be visible. This is illustrated in the visual simulation from the Colter Building Rooftop (Simulations 1 and 2)." Night lighting and glare is also considered in this section although the only proposed lift expected to operate in the evening (and therefore require night lighting) is the Palmer's Surface Platter. Additionally, text has been added to the Palmer Platter Surface Lift and Lights project description on **page 29** of the **Final EIS** that states: "The lights would operate seven days a week and would be turned off by 9pm."

Specifically, as specified in scenery **RTC 5.3** a new PDC was added to **Table 2.4-1** on **page 46** of the **Final EIS** to minimize impacts to dark skies that states: "All lighting within the SUP boundary and proposed SUP boundary expansion shall comply with Teton County, Wyoming Dark Skies Land Development Regulation unless specifically exempted by a Forest Service Authorizing Official."

5.35 The South Bowl development involves blasting and grading, as well as lift towers and terminals. The top terminal will require a large excavation (like the one for the Colter lift), and this could be quite an eyesore, especially from Table Mountain. The DEIS assumes that project components would not be visible beyond 6.9 miles. Nearly all of the landmarks in Table 1 are less than this distance. Driggs is further (e.g. 8 miles to Mono Trees), yet the simulation in the DEIS shows differences that are easy to see. The DEIS

states that the South Bowl and Mary's Nipple are visible from the Teewinot Mountain viewpoint location, which is its summit. From there, the east side of Fred's Mountain is visible, but the north ridge of Mount Owen blocks the view beyond it to the west. The upper South Bowl and all of Mary's east and south sides are visible from the Crooked Thumb, a gendarme north of Teewinot that is not readily accessible from Teewinot's summit. Was there an error in viewshed analysis? (644.7)

Thank you for your comment concerning possible errors in the viewshed analysis. Please refer to scenery **RTC 5.1, 5.3, 5.4, 5.5,** and **5.10** for more information regarding the proposed actions compliance with VQOs and the BEIG.

As described on **pages 6-7 of the Scenery Technical Report,** "A broad scale viewshed analysis of the regional visibility of the project was conducted as a means of analysis for the visual impacts that may occur outside of the immediate project area. The overall project "viewshed" is defined as the entire area from which the project could be potentially visible and may extend to surrounding mountain tops and adjacent valleys." Additionally, this section describes that the viewshed analysis was carried out in GIS and accurately accounts for topographic features but does not incorporate potentially obscuring features such as vegetation or existing structures. It is expected that existing vegetative screening would have the effect of considerably reducing the overall potential visibility of the project, dependent upon the specific location and vantage of the viewer.

The following text has been added to **page 92** of the **Final EIS** from the **Scenery Technical Report**, "The viewshed analysis accurately accounts for topographic features but does not incorporate potentially obscuring features such as vegetation or existing structures. It is expected that existing vegetative screening would reduce the overall potential visibility of the project, dependent upon the specific location and vantage of the viewer."

5.36 Chapter 3 Viewpoint Analysis report did not take into account Teton Valley ID residents who look at the Teton Range most constantly from our houses facing the Teton Range and how that view is going to affect residents daily experiences all year long. (916.7)

Thank you for your comment specifically concerning visibility of the proposed action from residents in Teton Valley, ID. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG. Please also refer to scenery **RTC 5.35** for more information on the viewshed analysis that was completed.

No edits to the **Final EIS** were made in response to this comment.

5.37 The report states, "The analysis uses point data for the proposed top and bottom terminals of South Bowl lift and the proposed Fred's Mountain Top Guest Facility and an assumed 32-foot facility height as target viewpoints." The DEIS does not provide information on where the proposed Fred's Mountain Top Guest Facility, or other facilities, may be constructed. Obviously, the location of this facility would directly affect where these facilities would be seen from. If the facility were to be constructed below the ridge line, with no components visible, nor lighting, this could eliminate our concerns. We are asking for clarification on the alternatives: is the proposal to construct a mountain top guest facility, described as a 32-foot tall 11,000 sq foot facility be entirely below the ridge

line or on the ridge line? The viewshed analysis is described as having been conducted using a single point to represent the building. This does not provide a sufficient analysis. This viewshed analysis should be run using the buildings full dimensions and height. (685.10)

Thank you for your comment. Please refer to scenery **RTC 5.10** for more information on the location of Fred's Mountain Top Guest Facility, night lighting and dark skies.

No edits were made to the Final EIS in response to this comment.

5.38 The report states, "The viewshed analysis used Digital Elevation Model data at 30-meter resolution from the National Elevation Dataset. For this "line of sight" assessment, all surrounding areas which were not specifically blocked by natural topography but had potential to have visibility were identified as being within the "Zone of Potential Visibility." Using a 30-meter resolution DEM (or approximately 98 feet) dataset is too large a resolution and therefore does not provide a sufficient analysis needed to adequately assess impacts of a 32-foot-tall structure to the viewshed. There are publicly available 1-meter (approximately 3 feet) resolution datasets that should be used instead. Using the 1-meter (approximately 3 feet) DEMs will provide a more accurate viewshed analysis for the size and scale of the buildings and facilities proposed. (685.11)

Thank you for your comment. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, please refer to purpose and need **RTC 2.1** for more information on the proposed Fred's Mountain Top Guest Facility, and scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies.

As described on **page 6** of the **Scenery Technical Report**, the following data specifications are detailed, "The viewshed analysis used Digital Elevation Model data at 30-meter resolution from the National Elevation Dataset. For this "line of sight" assessment, all surrounding areas which were not specifically blocked by natural topography but had potential to have visibility were identified as being within the "Zone of Potential Visibility."

The following description was added to **page 6** of the **Scenery Technical Report** and **page 92** of the **Final EIS**: "This analysis employed 30-meter resolution data rather than higher resolution datasets in order to accommodate a larger spatial scope for this viewshed analysis. Additionally, because this analysis does not incorporate the effects of vegetation, a 30-meter resolution dataset was sufficient for the level of detail included in this effects analysis."

5.39 In the SE Group's report, it was mentioned that 2 avalaunchers, bomb cache, ski lift, 7 ski trails, vault toilet, cat/construction maintenance access road, ski patrol facility and proposed Teton County snowmobile cache are all proposed to be constructed. These newly constructed features were not discussed in the viewshed analysis. These features and any other proposed features should be included in the viewshed analysis with approximate heights and locations associated with each feature to make it a complete analysis. Additionally, please clarify scope and location of additional proposed changes described in the DEIS that could impact viewsheds such as adding a ski patrol facility to the top of the proposed South Bowl lift and the details associated with improving a

communication site near the proposed Fred's Mountain Top Guest Facility. (685.13) (685.14)

Thank you for your comment. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, please refer to purpose and need **RTC 2.1** for more information on the proposed Fred's Mountain Top Guest Facility, and scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies.

As described on **pages 102-105** of the **Final EIS**, the proposed ski patrol facility, the cat/construction and maintenance route, two proposed avalaunchers, avalanche and snowmobile rescue caches, and the bottom terminal restrooms are considered in the general effects analysis of the proposed South Bowl projects, and may be visible from multiple locations within the adjusted SUP area and on adjacent NFS and NPS lands, including views 5, 8, 9, 10, 11, 15, 16, 17, 18, 19, and 23. Additionally, it is described that this proposed infrastructure, "would be indiscernible from views 16 and 19, as they are outside the Zone of Potential Visibility due to distance; however, the proposed ski trails, lift corridor, and cat/construction and maintenance route would be visible.

As described on **page 102** of the **Final EIS**, "The proposed ski patrol facility, avalaunchers, avalanche and snowmobile rescue caches, and restroom facility would result in additional impacts to scenery in South Bowl. These projects may be visible at foreground distance zones within the SUP adjustment area and middleground distance zones on adjacent NFS lands. The structures would be designed with simple, linear forms to blend with the surrounding environment and would comply with the BEIG."

No edits to the **Final EIS** were made in response to this comment.

5.40 I am in support of increased on mountain amenities such as a lodge adjacent to the top of Sacajewa lift, but NOT in favor of a lodge or restaurant at the top of Dream Catcher. One of the great things about living in Teton Valley is the dark night sky. Furthermore, this would be visible at the top of Fred's Mtn - not a good look. (164.1)

Thank you for your comment. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility, night lighting, and dark skies.

No edits to the **Final EIS** were made in response to this comment.

5.41 A surface lift is proposed to be installed on Palmer's Raceway trail in the Shoshone area called the Palmer Platter. Lighting is proposed on Palmer's Raceway as well. The proposed light towers would be installed on each side of the run, each one approximately 150 feet apart, for a total of 10 permanent light towers (5 on each side) proposed in the area. While there are obvious advantages to installation of the Palmer Platter, GTR should not go forward with the installation of the proposed light towers. Teton County, Idaho, is part of the Central Idaho Dark Sky Reserve, a large area renowned for its exceptional night sky quality and commitment to preserving dark skies. The reserve, designated by the International Dark-Sky Association (IDA), is a Gold Tier status site, indicating a high

level of darkness. The installation of the proposed light towers may contribute to the degradation of the Central Idaho Dark Sky Fleserve. (582.8)

Thank you for your comment. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG.

Additionally, text has been added to the Palmer Platter Surface Lift and Lights project description on **page 29** of the **Final EIS** that states: "The lights would operate seven days a week and would be turned off by 9pm."

Further, as specified in scenery **RTC 5.3** a new PDC was added to **Table 2.4-1** on **page 46** of the **Final EIS** to minimize impacts to dark skies that states: "All lighting within the SUP boundary and proposed SUP boundary expansion shall comply with Teton County, Wyoming Dark Skies Land Development Regulation unless specifically exempted by a Forest Service Authorizing Official."

5.42 More comment on proposals within SUA: P. 30 of DEIS suggests a guest facility at top of Shoshone Lift with "potential as dinner destination". I don't see how that is compatible with Driggs and Teton Valley, ID being dark sky communities. (729.22)

Thank you for your comment. Please refer to scenery **RTC 5.1, 5.3, 5.4,** and **5.5** for more information regarding the proposed actions compliance with VQOs and the BEIG. Additionally, please refer to scenery **RTC 5.10** for more information on night lighting and dark skies.

Additionally, as specified in scenery **RTC 5.3** a new PDC was added to **Table 2.4-1** on **page 46** of the **Final EIS** to minimize impacts to dark skies that states: "All lighting within the SUP boundary and proposed SUP boundary expansion shall comply with Teton County, Wyoming Dark Skies Land Development Regulation unless specifically exempted by a Forest Service Authorizing Official."

5.43 Palmer Platter surface lift with lights on Palmer's raceway would be a benefit to the training of young skiers. I similarly support a new teaching carpet. Because Driggs and Teton Valley are dark sky communities, lights should be turned off by 630pm. (729.1)

Thank you for your comment in support of the proposed Palmer's Platter surface lift. Please refer to scenery **RTC 5.41** for more information on the Palmer's Platter.

No edits to the **Final EIS** were made in response to this comment.

5.44 I am not in support of expanded lighting for ski training. The mountain is far too visible from nearly everywhere in town and this is a dark sky community. Additionally, schools are already closed Fridays and any kid on the ski team has afternoons off to train 2-3 of the other school days. So if they are already training 5-6 days a week, they don't need to add nights. We love and appreciate our dark sky community even if it means I can barely find my way to my front door on a dark night. It's totally worth it. All lights except snowcats should be off by dusk. Period. If you guys break the dark sky code, others will too and then you do ruin the town. (87.1)

Thank you for your comment. Please refer to scenery **RTC 5.10** for more information on night lighting and dark skies.

Additionally, as specified in scenery **RTC 5.3** a new PDC was added to **Table 2.4-1** on **page 46** of the **Final EIS** to minimize impacts to dark skies that states: "All lighting within the SUP boundary and proposed SUP boundary expansion shall comply with Teton County, Wyoming Dark Skies Land Development Regulation unless specifically exempted by a Forest Service Authorizing Official."

6. Noise

6.1 Beyond the ecological consequences, the expansion will also negatively affect individuals seeking the unique experience of venturing into the surrounding Wilderness for respite in areas free from human impact. On days when avalanche mitigation is conducted within the current resort boundaries, the sounds of explosives can be heard over two miles east along Peaked Ridge, well within the Wilderness area. Expanding into South Bowl would extend this audible impact even further, reaching the Wigwams and Table Mountain. Additionally, avalaunchers located in Teton Canyon would present a new and extremely disturbing noise, particularly in the morning when the Canyon is usually very quiet in winter. The introduction of additional roads, lifts, grooming equipment, and lighting in such close proximity to designated Wilderness will undeniably detract from the experience of those seeking to escape visual and audible signs of human activity. Our primary concern with expansion into the South Bowl area is noise in Teton Canyon, both for wildlife and recreational users. (174.3) (330.5) (344.2) (429.2) (433.4) (457.53) (471.36) (474.5) (580.2) (710.9) (729.11) (925.2) (336.3) (1064.4) (457.36) (1063.2) (760.1) (727.9)

Thank you for your comment. Please refer to wilderness **RTC 13.1** and **13.8** where it describes the auditory impacts that the JSW could experience. Specifically, on **page 211** of the **Final EIS** states the impacts the South Bowl avalaunchers would have on the soundscape of the JSW. Specifically, the avalaunchers would create temporary disturbances to the soundscape of the JSW with noise levels ranging from a quiet rural area (25 to 30 dBA) to thunder (120 dBA), which would differ from the current conditions that range from a quiet rural area to a snowmobile at a distance of 25 feet (100 dBA). Additionally, the soundscape of the JSW could be impacted during construction of the proposed projects as trees are removed and lifts are installed. Noise levels during this time could range from 80 dBA to 120 dBA. Depending on the perception of individual users, opportunities for solitude within the JSW could be reduced in the short and long term as a result of avalanche mitigation and construction. These impacts would be minorly adverse. These minorly adverse impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

6.2 Expanding into the Mono Trees area would significantly degrade the viewscape and soundscape of this currently undeveloped ridgeline. In addition, increased human activity, mechanized noise from construction, and year-round recreation would disrupt the quiet, backcountry acoustic environment that characterizes Mono Trees today. (484.43) (26b.24)

Thank you for your comment. Please refer to **pages 113** and **114** of the **Final EIS** where it describes the auditory impacts Mono Trees would experience as a result of the Proposed Action. During operation of Mono Trees it is anticipated that the soundscape would more closely resemble that which is currently associated with the existing SUP area. Noise levels would range from a quiet rural area (35 to 30 dBA) in the less developed extents to a level similar to a snowmobile at a distance of 25 feet (100 dBA). It is likely that operation noise in Mono Trees would be screened from Teton Canyon due to terrain and vegetation; however, noise in this area may be able to be heard from Ski Hill Road. In the winter this would create negligible impacts because there are few bikers on the road, most cars drive with their windows closed given cold temperatures, and wildlife are used to noise being present in this area given existing conditions. Summer impacts from operations would be negligible as there would be no operations in the summer unless construction or maintenance were needed, which would be for short periods of time. During construction of the proposed projects in Mono Trees a variety of construction vehicles could be used for the proposed projects. Noise levels from these vehicles could range from 80 to 90 dBA. Other construction machinery like helicopter, chainsaws, or explosives would cause higher noise levels in the project area ranging from 80 to 120 dBA. However, these construction noise impacts would generally be short-term and higher noise levels wouldn't typically occur during day-to-day operations as construction occurs intermittently.

These increases in noise and associated impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

Please also refer to **page 104-105** of the **Final EIS** for more information on the viewshed analysis done for Mono Trees. Specifically, the proposed project would change the aesthetic of Mono Trees when viewed from the City of Driggs; however, the ski trails would remain subordinate to the visual strength of the characteristic landscape. Further, with adherence with various PDC included on **pages 46-47** in **Table 2.4-1** in the **Final EIS**, visual resource impacts are expected to be minimal and the area would still be in compliance with VQOs of Partial Retention to Maximum Modification.

No edits were made to the **Final EIS** in response to this comment.

6.3 Missing detailed noise impact assessments from construction, avalaunchers, helicopters, and increased traffic. (457.108)

Thank you for your comment. Please refer to **RTC 6.2** and **pages 114 and 115** of the **Final EIS** where it describes the impacts from construction equipment and proposed operations of GTR. As described, operation of the proposed project would introduce new sound and noise into the South Bowl and Mono Trees area and construction of the project would introduce temporary noise impacts.

No edits were made to the **Final EIS** in response to this comment.

6.4 All special use arguments aside and first and foremost, the reason this proposed expansion will not be allowed; is that it will permanently change one of America's greatest national parks, Grand Teton National park. The expansion proposal is non-compliant with several National Park Service orders, including this one: In and adjacent to parks, the Service will monitor human activities that generate noise that adversely affects park

soundscapes, including noise caused by mechanical or electronic devices. The Service will take action to prevent or minimize all noise that through frequency, magnitude, or duration adversely affects the natural soundscape or other park resources or values, GTR's proposed expansion is noncompliant with several other National Park service regulations as well. (173.3)

Thank you for your comment. As described on **pages 89-90** of the **Final EIS**, Grand Teton National Park (GTNP) is 8 miles east of GTR. Further, within the 1975 Environmental Impact Statement Master Plan for GTNP there are no management objectives that speak towards maintaining auditory conditions or how to manage for auditory impacts. The National Park Service Order presented in this comment comes from the National Park Service Soundscape Management Policy 4.9 which provides policy for preserving the natural soundscapes of parks. This policy states "The frequencies, magnitudes, and durations of acceptable levels of unnatural sound will vary throughout a park, being generally greater in developed areas. In and adjacent to parks, the Service will monitor human activities that generate noise that adversely affects park soundscapes, including noise caused by mechanical or electronic devices. The Service will take action to prevent or minimize all noise that through frequency, magnitude, or duration adversely affects the natural soundscape or other park resources or values, or that exceeds levels that have been identified through monitoring as being acceptable to or appropriate for visitor uses at the sites being monitored." Given the spatial separation of GTNP from GTR, and changes in topography, along with infrastructure in between the two, auditory impacts on the Park from the Proposed Action were not assessed. Therefore, this issue was dismissed from further analysis.

No edits were made to the **Final EIS** in response to this comment

6.5 The DEIS falsely dismisses concerns over auditory impacts to Teton Canyon because OSV use is currently present in the Canyon. While we do not dispute the presence of OSV activity in Teton Canyon, at best a South Bowl expansion would increase the current anthropogenic noise in Teton Canyon, exacerbating existing impacts. More likely, this expansion would bring novel noise impacts to Teton Canyon given that it will bring new sources of noise (avalanche control, chairlift operation) and bring noise to otherwise quiet hours of the day (early morning avalanche control, grooming at night). The FEIS should revisit the noise analysis to consider these obvious and important impacts. (471.38) (476.8)

Thank you for your comment. Please refer to **pages 113 and 114** of the **Final EIS** where it describes the impacts to the soundscape within the South Bowl as a result of the Proposed Action. Specifically, through the implementation of the Proposed Action and construction of lift-served skiing in South Bowl, the soundscape would resemble a range of noise levels from a quiet rural area (25 to 30 dBA) to thunder (120 dBA). Operations in South Bowl would likely be heard by recreators within Teton Canyon. Further, the use of avalaunchers in the South Bowl would have an impact on the JSW as noise conditions under the Proposed Action would range from a quiet rural area to thunder.

Further, as described on **page 114 and 115** of the **Final EIS**, construction-generated noise would create short-term impacts. A variety of construction vehicles could be used for the proposed projects, and could include standard pickup trucks, diesel concrete trucks, and/or diesel flatbed semi-tractor trailers. Noise levels from diesel trucks typically ranges from 80 dBA to 90 dBA. Additionally, the use of heavy machinery like helicopters, chainsaws, or explosives to construct the project and clear trees would cause

higher noise levels ranging from 80 to 120 dBA. It is likely that the South Bowl would experience the greatest noise impact from helicopters as users are most likely to be within audible range.

These increases in noise and associated impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

6.6 The noise generated during this construction will be significant and will impact not only GTR's existing SUP but also lands outside of the existing SUP. (453.4)

Thank you for your comment. Please refer to **RTC 6.2**, **6.4**, and **6.5** where it describes the impacts to the soundscape of adjacent areas as a result of the construction of the proposed projects. As described, recreators in Teton Canyon and the JSW would be able to hear both operations and construction of the proposed project. These increases in noise and associated impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

6.7 Noise impacts from mitigation measures are not fully addressed. (457.62)

Thank you for your comment. Impacts from avalanche mitigation measures to the soundscape of the proposed expansion areas have been considered in the direct and indirect environmental consequences analysis on **pages 112–116** of the **Final EIS**. Mitigation measures that are implemented would not introduce new noise into the existing or proposed SUP than what construction or operation of the proposed project would create.

No edits were made to the **Final EIS** in response to this comment.

6.8 The study area does not specify the distance from the GTR SUP are that the analysis was performed. (1066.4)

Thank you for your comment. Please refer to **page 110** of the **Final EIS** where it describes the spatial scope of the noise analysis. The spatial bounds for the noise analysis are the existing and proposed GTR SUP areas and the adjacent public and private lands. These include the adjacent Teton Canyon and the JSW. A quantifiable distance was not given for the spatial scope of the analysis as different noise levels and frequencies can travel different distances, which is hard to quantify. Therefore, the spatial analysis was qualitative, to take into account these limitations.

No edits were made to the **Final EIS** in response to this comment.

6.9 Other resort operations will have auditory impacts as well. Snowmachines, grooming equipment, and chairlifts will all bring noise that degrades natural soundscapes in Teton

Canyon. Temperature inversions, snow quality, and wind speed and direction will all influence how far these sounds travel on any given day. There are a number of studies that have examined noise impacts of snowmobiles on natural soundscapes and wildlife. Winter Wildlands Alliance summarized these studies in a 2021 report. Anthropogenic disturbance to natural soundscapes impacts people's ability to experience solitude and has a profound impact on wildlife, causing changes in behavior, density and community structure, and reduced reproduction. (471.37) (595.2)

Thank you for your comment. Please refer to noise **RTC 6.1** and **6.5** for a description on how operation of the proposed project are expected to impact the soundscape of the JSW, South Bowl, and the greater Teton Canyon. Operations in South Bowl would likely be heard by recreators within Teton Canyon. Further, the use of avalaunchers in the South Bowl would have an impact on the JSW as noise conditions under the Proposed Action would range from a quiet rural area to thunder.

No edits were made to the **Final EIS** in response to this comment.

7. Socioeconomics

7.1 ***The proposed expansion will further strain an already overwhelmed transportation and housing infrastructure. Ski Hill Road and other access routes are not built to accommodate increased winter traffic. Teton Valley, Idaho is already facing a severe housing shortage that has displaced local workers and families. Resort expansion will only accelerate these pressures, with no plan to address affordable housing, road improvements, or emergency services. Moreover, the economic inequity of this expansion is unacceptable. While Teton County, Wyoming will capture the bulk of the financial gains - through lodging, sales taxes, and tourism revenue, Teton County, Idaho will bear the vast majority of the costs. These include increased road maintenance, emergency response needs, school enrollment, workforce housing shortages, and a declining quality of life for residents. There is no fair or functional mechanism in place to address this imbalance. Additionally, the types of jobs created by this expansion; low-skill, low-wage, temporary, and seasonal (and in some cases, high-skill but still low-wage), are not the kind of economic development Teton Valley needs more of. These positions typically do not pay enough to support a dignified life in Teton County without substantial community subsidies in the form of affordable housing and social support. The net result is increased economic strain on local infrastructure and services without a proportional benefit to the working residents of the valley. (4.6) (112.1) (6.3) (42.1) (97.1) (101.8) (103.4) (126.3) (140.6) (141.2) (156.1) (163.1) (165.1) (166.1) (166.3) (171.3) (188.4) (192.1) (300.2) (301.2) (302.2) (330.3) (332.1) (336.2) (343.2) (352.4) (369.2) (377.2) (394.1) (399.2) (413.1) (415.1) (433.5) (444.2) (448.1) (452.2) (456.1) (456.3) (456.8) (457.1) (457.11) (457.17) (457.21) (464.5) (476.9) (476.10) (476.19) (484.4) (495.1) (519.2) (524.2) (534.2) (550.3) (570.2) (574.5) (580.4) (621.2) (623.1) (624.1) (642.1) (648.4) (650.1) (653.3) (657.1) (665.1) (666.2) (667.1) (680.1) (697.3) (760.3) (761.1) (773.1) (789.2) (803.3) (916.6) (922.1) (922.2) (1021.2) (1029.7) (1063.3) (1064.5) (101.7) (358.10) (362.1) (368.1) (532.1) (541.2) (542.1) (593.2) (706.2) (727.10) (747.3) (751.1) (767.11) (1029.9) (438.1) (440.1) (453.6) (464.1) (468.1) (474.3) (519.1) (527.1) (599.4) (602.1) (605.1) (606.5) (611.2) (640.2) (651.2) (660.1)***

(693.1) (698.1) (724.9) (777.1) (791.1) (571.11) (493.2) (584.8) (715.4) (716.2) (727.16) (805.7) (819.7) (819.4) (971.7) (378.5) (457.40) (411.4) (6b.1) (3b.2) (5b.3) (18b.1) (26b.3)

The comment correctly identifies that the Proposed Action would incrementally increase pressures on transportation, housing, and public services in Teton County, Idaho. The **Draft EIS** and technical reports explicitly acknowledge these issues, quantify them, and identify the jurisdictional and fiscal context in which they would occur, including the revenue and cost imbalance raised in the comment.

The **Traffic and Parking Technical Report** identifies Ski Hill Road (Forest Highway 76) as the sole access to Grand Targhee Resort and documents existing traffic volumes, including in and around Driggs and at the resort entrance. The report concludes that the projects "could contribute to the back-up in Driggs and at the resort on busy days," (**page 18**) and that Grand Targhee would need to continue to employ a range of transportation demand management strategies (including transit and carpooling) to manage these effects. The **Final EIS** recognizes that transportation and road maintenance responsibilities are shared across jurisdictions and that Teton County, Idaho's road and bridge system is already fiscally constrained. The concern that Ski Hill Road and other access routes would experience additional winter traffic is substantiated and has been analyzed in detail with the **Traffic and Parking Technical Report** and summarized in the Final EIS; however, the analysis also shows these changes as incremental relative to existing and projected background traffic growth, with the levels of service on SH33 and other key corridors remaining within acceptable planning thresholds (Level of Service C or better) under all alternatives.

The comment's assertion that Teton Valley, Idaho faces a housing shortage and that additional resort driven employment would exacerbate this condition is consistent with the **Final EIS's** findings. The **Socioeconomics Technical Report** concludes that "housing availability and affordability is an ongoing issue in each county in the study area, but Teton County, ID and Teton County, WY experience more severe housing shortages and affordability issues than Madison and Bonneville counties." (**Socioeconomics Technical Report, page 61**). It further notes that increased employee housing needs under all action alternatives would contribute to the ongoing issue of the study area's lack of affordable housing, with the impact likely greatest in Teton County, Idaho where most of the regional workforce and many Grand Targhee employees currently live. The **Socioeconomics Technical Report** concludes that "employee housing needs are expected to increase the demand for both public affordable housing and private employee housing units, likely requiring increased funding and resources for these programs." (**Socioeconomics Technical Report, page 61**) The report also notes that Grand Targhee currently provides capacity for 96 employees in employee housing in Driggs and would need to continue implementing employee housing projects as staffing needs grow.

Regarding short-term rentals and displacement, the **Socioeconomics Technical Report** notes the growth of short-term rentals have contributed to limited availability and rising prices. Citing survey data, the report states that in 2021 approximately 18 percent of renters in Teton County, Idaho and 10 percent in Teton County, Wyoming reported having to leave their housing because it was converted to a short-term rental (**Socioeconomics Technical Report, pages 37-38 and pages 51-52**). It also acknowledges scoping comments expressing concern that resort driven growth could further displace working families and professional households from the valley. Thus, while there is no separate standalone "affordable housing plan" as part of the **Draft EIS**, the **Draft EIS** directly recognizes that all action alternatives—including the Proposed Action—would add housing pressure and potentially exacerbate affordability challenges in

Teton Valley, Idaho, and it identifies the need for continued employer provided housing and local housing programs to address these demands (**Socioeconomics Technical Report, page 61**).

The concern that Teton County, Wyoming would receive most of the revenue while Teton County, Idaho bears much of the cost was specifically raised during scoping and is addressed in the socioeconomics analysis. The **Socioeconomics Technical Report** summarizes scoping comments noting that increased demand for social services and infrastructure (including schools, emergency response, and utilities) would largely arise in Idaho, while state and county tax revenues and federal land payments linked to resort operations on National Forest System lands would primarily accrue to Wyoming. The report then provides detailed IMPLAN based estimates of economic output, employment, and tax revenues by state and county (**Socioeconomics Technical Report, page 6-7**). The analysis found that although Wyoming may experience proportionally more tax collections, residents and businesses in Teton Valley, Idaho, would continue to receive tax revenue benefits from project operations. The overall inter-county economic relationship was determined to remain consistent with current patterns. Further, cost and revenue sharing agreements between Teton County, Wyoming and Teton County, Idaho are outside of Forest Service purview.

The comment's concern that emergency services, schools, and other public services in Teton County, Idaho would be further strained is consistent with the **EIS's** treatment of human and social services. The **Socioeconomics Technical Report** provides detailed baseline profiles of emergency management, law enforcement, fire and EMS, schools, and human services across Teton, Madison, and Bonneville Counties in Idaho and in Teton County, Wyoming, including existing staffing levels, facilities, and known capacity challenges.

In the "Effects Common to All Alternatives" section, the report concludes that "demands for human and social services such as schools, emergency services, and public transportation would increase commensurate with the increase in visitors and FTEs projected under each alternative," (**Socioeconomics Technical Report, page 61-62**) with the greatest proportional impact expected in Teton County, Idaho because that is where much of the resort related workforce is expected to reside. The summary table of direct and indirect socioeconomic consequences reiterates that, for all action alternatives, housing demand would increase, human and social service demands would grow, and public transportation and infrastructure costs would rise alongside new visitation and jobs. NEPA's scope is disclosure and evaluation, not the allocation of local public service budgets. However, the **Final EIS** appropriately discloses that local jurisdictions, especially Teton County, Idaho, will need to plan for incremental increases in service demand if any action alternative is implemented.

The **Final EIS** also recognizes that base area development on private lands in Teton County, Wyoming—including lodging and additional parking—has already been approved under the county's PUDPR process and is analyzed as a reasonably foreseeable future action, not authorized or controlled by this Forest Service decision. That county level approval includes its own conditions for transportation demand management, employee housing, and local mitigation measures, and those mechanisms operate under Teton County, Wyoming's land use authority rather than through the federal permitting process.

Within the scope of the Forest Service's NEPA decision on on-mountain projects and special use authorizations, the agency cannot directly create mechanisms such as inter-county revenue sharing, housing exactions, or local road impact fees; those are matters of state law and local government

authority. Given that these topics were thoroughly analyzed in the **Final EIS** and technical reports, and no substantial information contradicting those findings has been provided, no changes are warranted.

7.2 On a similar note, the DEIS claims 10.4 million total taxes in the winter and 1 million in the summer for a total of 11.4 million "tax impacts" (page 119). Because the analysis includes all the revenue that the states keep (sales, lodging, etc.) this inflates and over represents local revenue to support the local infrastructure and services provided by both Teton counties who are responsible for the vast majority of government services needed to keep GTR in business (transportation, fire/EMS, disaster/emergency management, waste management, search and rescue, schools, housing, social services, etc.). On another note, 65% of estimated 11.4 million total tax implies that Teton County, WY gets over 7 million in total tax revenue from GTR annually which needs to be fact checked with Teton County, Wyoming. In addition, the cost burden on each county compared to the revenue is missing from the analysis.(13b.6)

The comment misinterprets the purpose and scale of the tax impact estimates and misstates the total tax impacts presented in the **Final EIS**. **Page 138 of the Final EIS** states that the total tax impacts from the new winter visitors would generate approximately $11.4 million annually and new summer visitors would generate approximately $1.8 million annually, for a total of $13.2 million annually. This $13.2 million represents the total estimated tax contributions across all taxing jurisdictions in both Idaho and Wyoming, including federal, state, county, and municipal governments. These figures do not represent local tax revenue available to each study area county specifically, but rather the cumulative total of all tax inflows. **Page 67** of the **Socioeconomics Technical Report** does include a breakdown of the $13.2 million by taxing entity and state. Under the Proposed Action, Teton County, Wyoming is estimated to receive approximately $319,400 in county tax revenue and the study area counties in Idaho are estimated to receive approximately $190,100 in county tax revenue.

The **Final EIS** and **Socioeconomics Technical Report** also recognize that the distribution of revenue does not necessarily correspond with the location of local government service demands. Although Teton County, Idaho provides many of the public services associated with access and workforce housing, the majority of tax receipts accrue to Wyoming-based entities due to the resort's physical location. **Table 3.2-33 on page 67** of the **Socioeconomics Technical Report** illustrates that approximately 64 percent of the overall tax impacts related to visitor spending accrue in Teton County, Wyoming. The report also recognizes that housing and social services impact "would likely be greatest in Teton County, ID as that is where much of the regional workforce and many GTR employees presently reside." (**Page 61**)

Regarding the comment's suggestion that the EIS should include a cost-benefit or fiscal burden comparison between the counties, such an analysis was determined to be outside the scope of NEPA review. The EIS focuses on identifying potential socioeconomic impacts, not on conducting detailed fiscal budgeting or intergovernmental cost apportionment.

The tax and economic output figures presented in the **Final EIS** are accurate representations of modeled gross tax contributions, and the **Socioeconomics Technical Report** provides further detail into the tax generated between municipal, county, state, and federal entities. No edits to the **Final EIS** are required.

A text edit in the **Final EIS** has been made to make the distribution of tax revenues more clear. Specifically on **page 135** of the **Final EIS** the text has been updated to state: "the distribution of projected

county tax revenues to Teton County, WY and the three Idaho counties remains relatively consistent across the alternatives."

7.3 There were 4 counties used in the analysis: Teton County, Wyoming; Teton County, Idaho; Bonneville County, Idaho; Madison County, Idaho. Page 130 in the DEIS has a blanket statement that Teton, WY would get 65% of all tax revenue generated and the 3 Idaho counties combined would get the remaining 35%. The only reason I can think of for including Bonneville and Madison Counties in the calculation is to inflate the percentage coming to Idaho and not provide a direct comparison between Teton County, Wyoming and Teton County, Idaho as should have been done by the consultant. By combining Teton County, Idaho with 2 much larger counties, the tax revenue is deceptively inflated. In addition, by combining sales tax revenue (which goes to the state of Idaho) with property tax revenue (stays local), the analysis does not adequately look at the revenue versus expenses specifically for Teton County, Idaho separately from the larger counties of Bonneville and Madison or the state in general. Therefore the true impact to Teton County, Idaho, the county most heavily impacted by a major expansion, is not clear in the analysis. (13b.5)

The study area analyzed in the **Socioeconomics Technical Report** includes four counties: Teton County, Idaho; Teton County, Wyoming; Madison County, Idaho; Bonneville County, Idaho. **Section 3.2.1 of the report (page 5)** states that this area was determined due to how socioeconomics affect the broader social and economic environment. These four counties were determined to be the area of "primary economic effect" due to their proximity to Grand Targhee Resort and the impacts to regional tourism, population, visitor spending, housing, and employment. Population centers within Madison County, Idaho and Bonneville County, Idaho are within 60-90 minutes of Grand Targhee Resort. Because Grand Targhee Resort draws visitors from this area, spending associated with their visit is captured by including them in our analysis.

The commenter correctly identifies that the majority (approximately 63.9 percent) of the total tax generation, as a result of additional winter visitation, would be generated by Teton County, Wyoming. Outside of tax revenue generation, there are associated visitor spending impacts that would generate economic output in the study area. **Table 3.2-23 and Table 3.2-24 on page 67 and page 68** of the **Socioeconomics Technical Report** illustrate this economic output breakdown. As derived through the IMPLAN model, new summer and winter spending in the study area would generate an additional annual output of approximately $74.6 million into the study area economy, which includes *direct, indirect, and induced impacts*. Approximately 58 percent of this output is attributable to Teton County, Wyoming. However, trip spending will generate approximately $31.1 million of economic output annually in the Idaho study area counties (Teton, Madison, and Bonneville).

Table 3.2-23 and Table 3.2-24 on **page 67 and page 68** of the **Socioeconomics Technical Report** also illustrate the type of tax impact generated between sub county general, sub county, county, state, and federal taxes.

The tax and economic output figures presented in the **Final EIS** are accurate representations of modeled gross tax contributions, and the **Socioeconomics Technical Report** provides further detail into the tax generated between municipal, county, state, and federal entities. No edits to the **Final EIS** are required.

7.4 The DEIS discusses PILT and SRS payments as if they are directly related to revenue from GTR. Payment in Lieu of Taxes for Teton County, Idaho is minimal and has nothing to do with whether GTR is expanded or not. The PILT revenue will remain the same because it is based on acreage of federal land in the Teton County, Idaho. This section seems to exist to confuse the public into thinking PILT payments are a result of the proposal, and they are not. (13b.7)

PILT payments are discussed in the **Socioeconomic Technical Report** and the **Final EIS** within the County Tax Revenue and Federal Land Payments sections. These sections illustrate existing conditions and discuss how the alternatives impact baseline conditions.

Federal land payments, including Forest Service payments, would not change as a result of the proposed action for any of the three Idaho counties in the study area as they have elected to receive the Secure Rural Schools Act Payments which are not tied to changes in annual revenue. Federal land payments would increase for Teton County, WY under each alternative as the county has elected to receive the 25 percent payments. **Table 3.2-35** in the **Socioeconomic Technical Report (page 86)** states that under each alternative, there would be an "increase in annual permit fees for GTR's operation on NFS lands and in federal land payments for Teton County, WY." but that "Federal land payments would not change for any of the three Idaho counties."

Nowhere in the **Final EIS** or the **Socioeconomic Technical Report** mention that PILT payments would fluctuate under any alternative. Rather, both documents state that the Forest Service "25 percent payments" would increase for Teton County, Wyoming, as it is the only county within the study area that elected to continue to receive the 25 percent payments. (**Final EIS**, **page 125**).

PILT payments do in fact fluctuate year over year, but for reasons outside of the proposed action. Changes in federal land acreage, population, inflation, revenue-sharing payments, and annual congressional appropriations can influence annual PILT payments.

No edits to the **Final EIS** were made in response to this comment.

7.5 In acquiring 120 acres of private land at the base of Grand Targhee Resort (GTR), operating under a special use permit, GTR was granted permission from Teton County Wyoming for extensive upgrades including several hundred houses & condos, and considerable commercial space. In light of the unsustainable growth in Teton Valley Idaho already, and the additional strains of even more development at GTR which Teton County Idaho is unable to absorb, I am in favor of Alternative 1. (663.1)

The Final EIS recognizes that base area development on private lands in Teton County, Wyoming—including lodging and additional parking—has already been approved under GTR's approved 2019 First Amended Master Plan process and is analyzed as a reasonably foreseeable future action, but is not authorized or controlled by this Forest Service decision. Your feedback has been recorded. No edits to the **Final EIS** were generated based on this comment.

7.6 Waste management from increased visitation will also strain the capacity of local landfills and create new litter and pollution problems, further decreasing the quality of both our beautiful outdoor and residential lands. (637.6)

Waste management as a result of increased visitation was not analyzed as part of the **Socioeconomic Technical Report** or other resource sections in the **Final EIS**. Waste management at Grand Targhee Resort is managed through existing agreements with Teton County, Idaho and is outside the scope of this NEPA analysis. If in fact waste management becomes an issue as a result of the proposed projects, GTR would collaborate with Teton County, Idaho to amend existing agreements.

No edits to the **Final EIS** were made in response to this comment.

7.7 The proposed actions could have disproportionate impacts to low income and minority populations in the area. The impacts of the proposed action and alternatives on low income and minority populations should be addressed, particularly with regard to socioeconomic impacts. This is a particularly important issue given the type of high cost recreational development being proposed, and the potential impacts on a small, rural community. If impacts are ignored, so is mitigation of those impacts. (557.8)

Analysis of disproportionate impacts to low income and minority populations in the area have been dismissed from the analysis as Executive Order 12898 that mandated that analysis has been rescinded. The Final EIS does consider impacts to housing affordability and availability, impacts to social and human services, and impacts to the economic composition of the study area.

Text has been added to the **Final EIS** on **page 1** that states: "On January 20, 2025, President Trump issued Executive Order (EO) 14154, *Unleashing American Energy*. Executive Order 14154 established and advanced the President's policies toward accelerated permitting and deemed previous guidance inconsistent with policies prioritizing energy. The CEQ withdrew its interim NEPA guidance for the consideration of greenhouse gas emissions and climate change (88 Fed. Reg. 1196; January 9, 2023) to better align with policy objectives established within EO 14154 (90 Fed. Reg. 22472; May 28, 2025). Executive Order 14154 directed that "all agencies shall adhere to only relevant legislated requirements for environmental considerations and any considerations beyond these requirements are eliminated (Section 6(a))." Executive Order 14154 rescinded executive orders which contained requirements to consider climate change in federal actions: EO 13990 Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis and EO 14008 Tackling the Climate Crisis at Home and Abroad (90 FR 8353; January 2025).

Additionally, on January 21, 2025, the President issued a Presidential Memorandum *Ending Illegal Discrimination and Restoring Merit-Based Opportunity* which revoked EOs 12898 of February 11, 1994, (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) to ensure Federal civil-rights laws "are enforced for the benefit of all Americans."

The USDA Forest Service has complied with NEPA requirements, including the Agency's regulations and procedures implementing NEPA at CFR 36 Part 220, effective November 19, 2020, consistent with the President's January 2025 EO and Memorandum. The Grand Targhee Resort Master Development Plan Project is an activity implementing a land management plan. This activity is subject to pre-decisional administrative review under subparts A and B of 36 CFR Part 218 and 219."

7.8 The DEIS is also lacking crucial research and analysis, including a comprehensive traffic impact study, detailed housing impact analysis and detailed studies of public recreation displacement impacts. (549.2)

Traffic, Housing, and Recreation analyses are available in the **Traffic, Socioeconomics, and Recreation Technical Reports**. A comprehensive traffic and parking impact analysis was completed in the **Traffic and Parking Technical Report**, which documents existing and projected traffic volumes, levels of service, parking demand, and construction traffic for Ski Hill Road and all key access routes under each alternative. This report includes detailed methodologies, traffic count data, and level of service analyses for winter and summer peak conditions, as well as cumulative effects with other reasonably foreseeable projects (**see Traffic and Parking Technical Report**). Findings from this technical report are summarized in the **Final EIS in Section 3.5 (Traffic and Parking, pages 146-175**), which describes baseline conditions, direct and indirect effects, and cumulative effects on traffic and parking for all alternatives.

The **Final EIS** and **Socioeconomics Technical Report** include a detailed housing impact analysis that addresses existing conditions and potential effects on housing availability and affordability. The affected environment discussion describes current housing supply, cost burden, and housing ratios in study area counties, including the prevalence of cost-burdened households and the relationship between resort-driven demand and local housing markets (**Socioeconomics Technical Report, pages 27-38, 61**).

Public recreation use is analyzed in the Recreation section of the **Final EIS** and in the associated **Recreation Technical Report**. The EIS describes existing recreation use patterns, including backcountry and sidecountry skiing in and around the resort, and evaluates how each alternative could affect opportunities, access, and user experience both within the SUP and in adjacent public lands (**Final EIS, pages 65-85**). No edits to the **Final EIS** are warranted in response to this comment.

7.9 The City has outstanding concerns about how the base area buildout of 450 units and 150,000sf of commercial will impact local services in Idaho, including: transportation, workforce housing, law enforcement, visitor services, emergency medical and recreation facilities. (496.1)

The Grand Targhee 2019 First Amended Master Plan PUDPR, which authorizes 450 units and 150,000 square feet of commercial/resort services on private land at the resort base, is explicitly identified and described as a reasonably foreseeable cumulative project in both the **Final EIS (page 85) and the Socioeconomic Technical Report Section 3.2.5.2 (pages 88-90**). During review of this text it was realized that the **Draft EIS** mistakenly reported 150,000 square feet of commercial/resort services, when in reality it is 12,300 square feet. Additionally, text was added to specify that there would be up to 450 units constructed. This text has been updated throughout the **Final EIS** and associated **Technical Reports**.

Traffic and parking impacts from increased visitation, including shifts in where visitors lodge as a result of additional base area units, are evaluated **in Final EIS Section 3.5 (Traffic and Parking) and in the Traffic and Parking Technical Report**. The **Final EIS** explains that base area development is analyzed as a cumulative action and that, if on mountain capacity increases are not matched by base area buildout, Grand Targhee would need to add dayskier parking on private lands in Driggs/Alta, further constraining traffic and parking decisions to the local jurisdictions that manage Ski Hill Road and SH33. The cumulative effects analysis can be found on **pages 167-175** of the **Final EIS**.

The recreation cumulative effects section on **pages 85-87** of the **Final EIS** recognizes that expanded on-mountain and base area development at Grand Targhee will attract additional winter and summer visitors to the broader area and that some of those visitors will also use municipally owned and National Forest recreation facilities in Teton County, Idaho. The **Final EIS** on **page 86** notes that recreation use trends are influenced by broader recreation participation and population growth trends that are occurring independent of development at Grand Targhee. In some cases, additional developed recreation opportunities at Grand Targhee Resort may relieve pressure on high-use recreation destinations as overall visitation to the region grows.

The **Final EIS** states that implementation of the PUD-PR is not dependent on any Forest Service decision on the on-mountain alternatives and that these private-land projects can proceed independently, but are nonetheless incorporated into the cumulative effects analyses for social and economic resources.

As associated impacts to transportation, housing, public safety, and recreation experience are analyzed and addressed in the relevant technical reports, no edits to the **Final EIS** are necessary.

7.10 Lastly, Teton County, Idaho, Teton County, Wyoming and the Alta, WY Solid Waste District jointly funded a study to analyze socio-economic impacts stemming from proposed development at GTR and on private lands. The report makes recommendations to consider whether and how the region can continue to provide adequate public services and support healthy housing and labor markets. Incorporating the results of this study into the Final Environmental Impact Statement (FEIS) will ensure more thoughtful planning of future growth. (489.19)

Please refer to the socioeconomics **RTC 7.1** for more information on the comprehensive Socioeconomic analysis that was done for this project. This project used IMPLAN modeling to determine estimates of economic output, employment, and tax revenues by state and county. This analysis was based on best available data at the time of publication.

The joint socioeconomic study completed by Teton County, Idaho; Teton County, Wyoming; and the separate study provided by the resort have been reviewed. The analysis completed in the **Final EIS** and **Socioeconomic Technical Report** was determined to be sufficient and thorough.

7.11 In addressing population growth, the DEIS uses a 1.1% estimate while Teton Co. Idaho in their Impact Fee document uses a 3.75% growth factor. Why is there such a discrepancy between the DEIS and TC Idaho? While it is noted that there will be increased demands on the social infrastructure, schools, healthcare, emergency services, etc. no actual analysis of costs and other impacts is specifically addressed. Impact related to housing costs has not been addressed. A comparison of resort communities similar to Teton Valley will offer valuable planning information. (445.6)

Thank you for your comment. The 1.1 percent growth rate in the **Final EIS** comes from state level demographic projections for the broader East Idaho region. The 3.75 percent factor in Teton County, Idaho's Impact Fee work reflects a county specific, planning level assumption that is not part of the NEPA record for this project.

The **Socioeconomics Technical Report** explains that baseline growth for the analysis is taken from the Idaho Department of Labor's population model for the East Idaho region (which includes Teton, Madison,

and Bonneville Counties), projecting an annual growth rate of approximately 1.1 percent between 2019 and 2029, and notes that Teton County, Idaho has historically grown faster than the regional average and may continue to do so. Specifically, the report states that the East Idaho region's population is expected to grow to about 256,000 residents by 2029 at this 1.1 percent annual rate, and that this regional projection is used because Idaho's state model does not provide county-specific projections.

Teton County, Idaho's own population history is also documented in the Affected Environment: the county grew approximately 240 percent between 1990 and 2020, with annual growth of 5.56 percent between 1990–2000 and 5.88 percent between 2000–2010, followed by slower growth from 2010–2020. (**Socioeconomic Technical Report, page 8**) The county Comprehensive Plan is quoted as predicting that such high rates are unlikely to be sustained and that growth is expected to slow through 2040 (**page 8**). The **Final EIS** then uses the Idaho Department of Labor's 1.1 percent regional projection as the baseline "background growth rate" in its effects common to all alternatives, recognizing that actual county-level growth may be somewhat higher or lower but relying on a standardized, published model rather than a single local planning assumption. (**pages 8-9**)

The **Final EIS** and **Socioeconomics Technical Report** include a detailed housing impact analysis that addresses existing conditions and potential effects on housing availability and affordability. The affected environment discussion describes current housing supply, cost burden, and housing ratios in study area counties, including the prevalence of cost-burdened households and the relationship between resort-driven demand and local housing markets (**Socioeconomics Technical Report, pages 27-38, 61**).

The comment suggests that a comparison to "resort communities similar to Teton Valley" would provide valuable planning information. The **Socioeconomic Technical Report** places the study area in a broader context by comparing travel and tourism related employment shares in each county to the U.S. as a whole, demonstrating that Teton County, Wyoming is highly tourism dependent and that Teton County, Idaho and the other study counties are somewhat more diversified but still above or near national levels for tourism employment. The report also compares wage levels in travel and tourism sectors to non-tourism sectors and national averages, illustrating the lower average wages and higher seasonal/parttime nature of resort employment. (**page 14-17**).

No edits to the **Final EIS** were made in response to this comment.

7.12 Further, as one of the largest employers in the region, Grand Targhee's future plans will have a direct and positive impact to the local economy. You would expect to increase job opportunities for the local community, while also increasing the tax base and providing needed resources for the counties in both Wyoming and Idaho. Indeed, local businesses throughout the Teton Valley each year would gain a larger and enriched customer base to draw from into the foreseeable future. (400.1) (472.2)

Please refer to the socioeconomics **RTC 7.1** for more information on the comprehensive Socioeconomic analysis that was completed for this project. The effects of the Proposed Action are detailed in the **Socioeconomic Technical Report** and summarized in **Section 3.4.4** in the **Final EIS**. The proposed projects are estimated to increase visitor spending, generate economic impacts, and increase employment opportunities. Thank you for your feedback regarding the **Draft EIS**. No edits or clarifications to the **Final EIS** have been generated as a result of this comment.

7.13 There is also a looming concern about increased taxation. Historically, resort expansions often shift the financial burden to local communities, whether through infrastructure upgrades, emergency services, or road maintenance. Land taxation is already of concern for middle-class residents. (367.3)

The EIS acknowledges that tax and fiscal conditions are an important part of the socioeconomic context, but detailed projections of future tax rates or property tax burdens on local residents are beyond the scope of this project level NEPA analysis.

No edits to the **Final EIS** were made in response to this comment.

7.14 The proposed increase in skier visits (e.g., Alternative 2 projects >330,000 annual winter visits, as per Section 3.1.4) for all action alternatives will undoubtedly exacerbate existing traffic congestion on Ski Hill Road and through our small towns. Our local roads, water systems, and emergency services are already strained, particularly during peak seasons. The Socioeconomic Study highlights on page 1 that the proposed expansion would double visitor capacity and nearly double resort employment, placing immense pressure on public services. It specifically notes the strain on the Teton County Fire District and Search and Rescue, as well as the Teton County Sheriff Department (which currently provides coverage on Ski Hill Road). The Community Assessment (page 15) further corroborates concerns regarding transportation, noting that "Ski Hill Road is often congested, particularly during peak hours and winter seasons" and warns of increased traffic congestion and potential safety concerns stemming from increased visitation. While DEIS Section 3.5 Traffic and Parking discusses mitigation like shuttles, these strategies seem inadequate for the projected increase in visitors and do not fully address the significant financial burden this will place on our local governments and taxpayers, as clearly analyzed in the Socioeconomic Study's discussion of Public Services. There is no demonstrated "need" for any additional capacity when our existing infrastructure cannot adequately support it. Even the increase in Permitted Skier Days to ~5,000 under Alternative 3 represents an unsustainable growth that our local communities cannot absorb without severe negative consequences. (358.7)

The **Final EIS** and technical reports explicitly analyze the resulting traffic, parking, and public service implications of increases in winter and summer visitation as a result of both the No Action and Action Alternatives. The **Final EIS** acknowledges that local roads, housing, and public services have constraints and that all action alternatives would increase pressure on these systems. **Appendix D in the Final EIS** (**page 547-623**), includes a summary table of how each alternative would impact specific resource areas, issues, and indicators. Within NEPA's scope, the Forest Service is required to disclose these effects and reasonably foreseeable mitigation, which the **Final EIS** does through detailed traffic, socioeconomics, and housing analyses; decisions about how much additional skier capacity local communities wish to accommodate, and how to finance associated infrastructure and services, fall to the affected counties and states using this information in their own policy and planning processes

The Purpose and Need for the Proposed Action is documented in **Chapter 1. Purpose and Need of the Final EIS** (**page 3-4**). The purpose and need statement in the Final EIS explains that the Forest Service is responding to a site-specific proposal from the permittee to improve the balance between terrain, lift

infrastructure, and visitation levels; address existing crowding and operational constraints; and provide a year-round recreation experience consistent with Forest Plan direction.

The comment's assertion that there is "no demonstrated 'need' for any additional capacity" and that even Alternative 3's increase in permitted skier days is "unsustainable" reflects a personal position about acceptable growth levels rather than a technical deficiency in the **Draft EIS**.

Because the **Final EIS** and its technical reports already quantify the project's incremental contribution to traffic congestion and parking demand, analyze public service and fiscal implications at the appropriate NEPA scale, and explain the project's purpose and need, this comment does not identify a gap that requires additional analysis or edits. The issues raised are therefore considered addressed in the existing documents, and no changes to the **Final EIS** are proposed in response.

7.15 That being said, please figure out how to incorporate Teton Valley infrastructure improvements to accommodate the increased traffic and demand this would create. Surcharge on daily tickets to help out TV infrastructure? (53.1)

Recommendations about infrastructure improvements or investments to address or mitigate the impact of increased traffic are outside of the scope of this analysis, and not needed for the Responsible Official to make an informed decision. No edits to the **Final EIS** were made in response to this comment.

7.16 GTR is a material employer in the local community. GTR constructed and operates sixteen employee housing units in Driggs, Idaho that provide a total of 96 bedroom units and house 112 employees. Draft EIS at 123. GTR will build additional employee housing in the future. Id.; Neher Socioeconomic Report, Appendix A at 9. GTR supports the community and its residents. Public commentary that the Project will negatively impact local communities, specifically Teton County, Idaho, are inaccurate. The Project is not anticipated to have a measurable impact on the cost or need for additional community services. Neher Socioeconomic Report, Appendix A at 6-7. Similarly, rising housing prices in Teton County, Idaho are "much more heavily influenced by statewide and national trends, dislocated workers from WY, and short-term rental conversions than from operations of GTR either past, current, or future." Id. at 9. The assertion by some that Idaho does not benefit from GTR is ridiculous and false. It is like saying that West Yellowstone, Montana does not benefit from Yellowstone National Park because it does not receive tax revenue from the Park. Of course GTR benefits Teton County, Idaho. Economic and cultural factors, outside the control of GTR, have contributed to an increase in population in the communities surrounding the Resort. The answer to these complex socioeconomic issues is not to preclude GTR from making critical improvements to plan for the future. Population and visitation to the Teton Valley is expected to increase at roughly the same level under all of the action alternatives. See Draft EIS at 125-27. The Proposed Action is the only alternative that will help GTR provide the same quality of skiing and the same guest experience that it does today, in the face of this projected increase in demand. (129.1) (647.18) (662.2)

As noted, the **Final EIS** recognizes that population and housing trends are driven by multiple factors beyond the Proposed Action. The socioeconomic effects of the Proposed Action are detailed in the **Socioeconomic Technical Report** and in **Section 3.4.4** of the **Final EIS**. The proposed projects are

estimated to increase visitor spending, generate economic impacts, and increase employment opportunities.

Thank you for your feedback regarding the **Draft EIS**. No edits or clarifications to the **Final EIS** have been generated as a result of this comment.

7.17 The proponent's proposed alternative 2 is predicted by the IMPLAN modeling software to generate the equivalent of 614 new FTEs. The bulk of these new employees, if not housed on private land at the base of GTR, would have to be housed in Teton County, ID. And the bulk of these new employees would work in the travel and tourism sector. The STR identified that in 2020 the average wage for workers in that sector was around $40,500 and that due to the discrepancy between that wage level and housing costs, 51 % of renters in Teton County, WY and 37% of renters living in Teton County, ID who reside in market housing are cost burdened. The report also estimated that roughly 65% of tax revenues generated by Alternative 2 would accrue to Teton County, WY, suggesting that it would be relatively more costly for Teton County, ID to subsidize the new housing needed to support employees generated from the expansion un less GTR shoulders a significant part of the cost. Teton County, ID, having seen a 58% increase in jobs between 2010 and 2021 and a 17% increase in residential units, is already facing an increasingly dire housing shortage, further emphasizing the need for GTR to either limit new-employee generation (likely meaning limiting expansion) or do more to ensure the burden to house the new employees does not fall on the public sector. While DEIS Section 3.4 Socioeconomics discusses housing impacts, it offers insufficient concrete solutions. The DEIS often limits its discussion to the resort's commitment to employee housing, stating that Grand Targhee Resort would continue to support housing opportunities for employees. This is not a comprehensive solution for the wider community, especially given the Socioeconomic Study's conclusion that "to the extent GTR's proposed expansion contributes to continued rapid growth in the region, it is likely to worsen the existing housing scarcity problem, particularly for affordable units". (142.1) (24.8) (496.2) (457.6) (187.2) (197.5) (374.1) (457.12) (457.13) (457.16) (457.55) (457.74) (457.85) (457.114) (478.8) (487.7) (489.17) (489.18) (490.3) (517.5) (518.2) (523.2) (532.3) (534.3) (534.6) (546.4) (549.4) (557.7) (574.6) (615.1) (636.5) (637.3) (645.7) (646.7) (646.5) (760.4) (332.2) (358.8) (565.1) (582.3) (590.2) (649.2) (653.4) (688.8) (689.8) (727.11) (761.2) (914.1) (1029.8) (1066.46) (426.1) (10b.1) (13b.9) (2b.2) (7b.5)

Please refer to the socioeconomics **RTC 7.2** for more information on the comprehensive Socioeconomic analysis, that included IMPLAN modeling, that was done for this project. The **Final EIS** and **Socioeconomics Technical Report** acknowledge that employment growth under Alternative 2 would increase pressure on an already tight regional housing market, particularly for lower wage tourism workers, but also explain that detailed housing production programs and local subsidy mechanisms are outside the scope of this project level NEPA decision. The documents disclose the scale of employment change, existing cost burdens, and the likely direction of effect on housing scarcity; they also describe Grand Targhee's existing and anticipated employee housing commitments, which are one part of but not a complete solution to broader community housing issues.

As with other fiscal issues, decisions about whether and how counties deploy tax revenues (for example, to support housing programs or infrastructure that benefits workers) are made through local policy and

budgeting processes, not by the Forest Service through this **Final EIS**. NEPA does not authorize the Forest Service to require specific local housing policies, tax subsidies, or caps on total regional employment; those are matters for local land use and housing authorities, working with the resort and other employers.

No edits were made to the **Final EIS** in response to this comment.

7.18 The DEIS fails to adequately address the cumulative impacts of this proposal coupled with the 450 housing units and 150,000 sf of commercial space proposed for the privately held lands at the base area. No attempt is made within the DEIS to quantify the additional employees needed to build and staff the additional lodging and resort operations, or how that may place additional burdens on Teton County, Idaho. (922.4)

Cumulative impacts of base area development and the Planned Unit Development for Planned Resort (PUD-PR) were discussed in the **Draft EIS** and associated technical reports. Please refer to the socioeconomics **RTC 7.9** for more information. No edits were made to the **Final EIS** in response to this comment.

7.19 The base area buildout would quadruple commercial space and double visitor capacity, straining housing, roads, and emergency services. A 2022 study concluded local Idaho governments would see "only costs" from this development. (737.3)

Cumulative impacts of base area development and the Planned Unit Development for Planned Resort (PUD-PR) were discussed in the **Draft EIS** and associated technical reports. Please refer to the socioeconomics **RTC 7.1** and **7.9** for more information. No edits were made to the **Final EIS** in response to this comment.

7.20 Teton County has outstanding concerns about how the base area buildout of 450 units and 150,000sf of commercial will impact local services in Idaho, including: transportation, workforce housing, law enforcement, visitor services, emergency medical and recreation facilities. This statement is misleading. Grand Targhee has always tried to provide housing for their employees. Teton County Idaho gets paid very well for the contracts they have for those base services, fire, police, emergency medical. They provide transportation buses not only for their employees but also for people who want to use the hill to ski, and local families. As for other services, restaurants, retail stores and the hospitality sector benefit greatly from the ski hill. I have been here since 1996 and the other item they provided was when things were slim and finding work was difficult because all the amenities we have now that didn't exist then, they provided jobs. Jobs to help the locals get through the winter. (662.1)

Grand Targhee Resort collaborates with Teton County Idaho and other county and federal land managers to support the guest, employee, and visitor experience. This comment correctly identifies that Grand Targhee supports employee housing and transportation services and that visitation to Grand Targhee supports broader economic impacts in the region. The socioeconomic impacts are quantitatively and qualitatively discussed in the **Socioeconomic Technical Report** and in **Section 3.4.4** in the **Final EIS**. No edits to the **Final EIS** have been generated as a result of this comment.

7.21 The existing impact fees and housing mitigation requirements compensate solely for the projected growth related to the private land development and not the development associated with expanding GTR's SUP and on mountain services. An updated impact fee analysis is essential to ensure new development adequately contributes to the costs it imposes. This should include a legally defensible nexus study and potentially a fee structure specific to the Resort Master Plan area. (489.15)

Inclusion of an impact fee assessment or housing mitigation is not required for this NEPA analysis. As identified on **page 45** of the Final EIS within **Table 2.4-1 Project Design Criteria,** GTR shall obtain all required federal, county, town, and state reviews, approvals, and/or permits prior to the start of construction. If during county, town, or state reviews an impact fee assessment or housing mitigation requirements is determined to be necessary, GTR would work through that permitting process prior to implementation of the project.

7.22 The impact of the SUP expansion on the affordability of skiing is not addressed. The increase in infrastructure at GTR has increased the fixed overhead costs at the resort. These costs have been passed on to skiers in increased lift pass fees. The cost of skiing is now outside the ability of many families to afford. Especially lowincome families. Skiing at GTR is now only available for the upper middle class. The expansion of infrastructure at GTR will increase overhead costs and result in even higher lift prices leading to an exclusive resort for wealthy individuals. Public land should be available for everyone one to enjoy. The document does not address the increased lift ticket costs associated with the SUP expansion and its associated impact on the ability of the average family to afford to ski at the resort. The analysis is inadequate. (322.1) (1066.64)

Thank you for your comment regarding ticket prices and affordability. The **Final EIS** and technical reports do not include a quantitative analysis of future lift ticket or season-pass prices or of how the proposed SUP expansion might change the affordability of skiing for lower-income households. Within NEPA, the Forest Service evaluates environmental and socioeconomic consequences of the proposed federal action on National Forest System lands, but it does not regulate or forecast a private concessionaire's pricing structure for access to permitted facilities on those lands. Pricing decisions by a private permittee are outside the scope of NEPA and beyond the Forest Service's decision authority. Within the permit area, the resort is authorized to charge for lift-served services, and NEPA does not provide a mechanism to set or cap those prices.

Because questions about whether lift ticket prices are too high for average or low-income families are primarily matters of business policy and social equity that extend beyond project-specific decision before the Forest Service, they are not analyzed in detail in the Final EIS. The socioeconomic analysis is therefore not considered inadequate for NEPA purposes for not modeling lift ticket affordability.

No edits to the **Final EIS** were made in response to this comment.

7.23 Our communities are cherished for their quiet, small-town atmosphere and direct access to wilderness. A significant expansion of the ski resort, with increased visitor numbers and associated commercial development threatens to irrevocably alter this character. The Socioeconomic Study, particularly its discussion of population growth and employment, underscores the transformative pressures already felt in Teton County, ID. The

Community Assessment highlights the threat to access to public lands and raises questions about the overall cumulative impacts that could fundamentally alter the existing rural character of Teton Valley. The Community Assessment (pages 16-17) further emphasizes that an expanded resort footprint and increased skier density could negatively impact the backcountry and Nordic ski experience, potentially shifting the character of the recreation away from dispersed and natural recreation opportunities. Beyond this, the increased operational noise from expanded lifts, snowmaking, avalanche mitigation, and grooming will further diminish the quiet enjoyment and natural soundscape valued by residents. The DEIS does not adequately consider the intangible loss of a beloved rural lifestyle and the sense of place that many residents value above all else. There is no demonstrated "need" for the resort to grow to a size that fundamentally changes the fabric of our home communities.(126.4) (164.3) (165.2) (332.3) (358.9) (366.1) (366.2) (398.7) (436.1) (438.2) (456.5) (457.119) (457.120) (462.16) (493.3) (540.3) (574.7) (599.5) (621.1) (637.7) (649.3) (690.3) (747.4) (4.5) (457.119) (13b.10)

The Purpose and Need for the Proposed Action is documented in **Chapter 1. Purpose and Need of the Final EIS** (**page 3-4**). The purpose and need statement in the **Final EIS** explains that the Forest Service is responding to a site-specific proposal from the permittee to improve the balance between terrain, lift infrastructure, and visitation levels; address existing crowding and operational constraints; and provide a year-round recreation experience consistent with Forest Plan direction.

The **Socioeconomics Technical Report** acknowledges that growth at Grand Targhee occurs within long-standing concerns about rural lifestyle, community character, and “sense of place” in Teton Valley. (**Section 3.2.3.10, page 51-52**). The **Socioeconomics Technical Report** includes descriptive material on community values and perceptions, explaining that Teton County, Idaho and Teton County, Wyoming are experiencing amenity-driven growth, increased tourism, and changing economies, which affect residents’ sense of rural character and quality of life. That discussion notes concerns about traffic, housing affordability, and the influence of tourism on traditional rural lifestyles, and it frames Grand Targhee as one of several contributors within a larger regional tourism and amenity economy. The discussion also notes that some residents highly value the existing rural setting and that additional resort development is perceived by some as a threat to community character, even when physical impacts are limited to National Forest System lands.

NEPA requires the agency to disclose and consider such social and cultural concerns, but it does not provide a way to quantify or “resolve” subjective feelings of loss of lifestyle. The EIS therefore identifies these issues, describes the pathways by which the project could influence them (for example, through increased visitation, employment, and associated housing demand), and places them in the context of ongoing regional growth that would continue under the No Action Alternative. The EIS also explains that regional population and visitation are expected to increase over time under all alternatives, including No Action, due to broader economic and cultural trends in the study area.

Because the **Final EIS** and **Socioeconomics Technical Report** already identify and discuss concerns about rural lifestyle and sense of place and clearly describe the project’s purpose and need and the availability of a No Action Alternative, the comment does not reveal a gap that requires additional analysis or edits. The issues raised are therefore considered addressed in the existing documents.

Please also refer to the recreation **RTC 4.78** and **4.79** for more information on the visitation analysis that was done for this project.

Because the **Final EIS** and **Socioeconomics Technical Report** already identify and discuss concerns about rural lifestyle and sense of place and clearly describe the project's purpose and need and the availability of a No Action Alternative, the comment does not reveal a gap that requires additional analysis or edits. The issues raised are therefore considered addressed in the existing documents.

7.24 The socioeconomic impacts of the proposed development projects at GTR include increased visitation, construction activities, and long-term economic effects. The consultant's study are encompasses Teton County, WY, Teton County, ID, Madison County, and Bonneville County. Why were Madison and Bonneville counties chosen to be included in the analysis? Please clarify. (457.9)

The study area analyzed in the **Socioeconomics Technical Report** includes four counties: Teton County, Idaho; Teton County, Wyoming; Madison County, Idaho; Bonneville County, Idaho. **Section 3.2.1 of the report (page 5)** states that this area was determined due to how socioeconomics affect the broader social and economic environment. These four counties were determined to be the area of "primary economic effect" due to their proximity to Grand Targhee Resort and the impacts to regional tourism, population, visitor spending, housing, and employment. Population centers within Madison County, Idaho and Bonneville County, Idaho are within 60-90 minutes of Grand Targhee Resort. Because Grand Targhee Resort draws visitors from this area, spending associated with their visit is captured by including them in our analysis. No edits were made to the **Final EIS** in response to this comment

7.25 The Socioeconomics Technical Report is inadequate in its examination of cumulative effects – not including private inholding projects – while highlighting the importance of balancing economic growth with community impacts. How would the balance be measured? How would the balance be achieved? Page 62 of the Socioeconomic Impact Study reads "These projects and potential visitation growth may have both positive and detrimental effects to local quality of life…" In our analysis, we will call the possible "detrimental effects," impacts. (457.10) (457.123)

Thank you for your comment. The commenter is referencing the direct and indirect analysis section in the **Socioeconomic Technical Report**. The analysis goes on to state that these impacts are expected to occur gradually over a period of ten years. These impacts have been taken into account by the Responsible Official. Additionally, a comprehensive analysis of cumulative effects in relation to socioeconomic resources has been completed for this project. Please refer to **pages 141-146** of the **Final EIS** for more information on the cumulative effects analysis. Under cumulative effects analysis for the Proposed Action it was determined that total economic output, jobs created, and taxes do not vary substantially when considering the study area as a whole.

These impacts have been taken into account in the decision. The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

7.26 Construction Timeline: Construction of the proposed projects would be expected to occur evenly across each construction season through 2033, indicating a gradual implementation over 10 years. We are writing this comment letter in mid 2025 – so 2033 projections are outdated at best. (457.14)

The commenter correctly identifies that the original anticipated construction timeline analyzed has been exceeded. IMPLAN modeling was completed using best available information, estimates, and timelines at the time of analysis. The economic impacts illustrated in **Table 3.2-25 of the Socioeconomic Technical Report (page 69)** that are expected to occur during the 10-year construction window are likely to be similar between 2023-2033 as they would be if that activity was occurring between 2026-2036. Other changes may also impact the annual economic output of construction activity, such as material and labor costs for construction and fluctuations in prevailing interest rates. These modeling exercises are meant to illustrate the future potential for visitor spending and construction activity to generate tax revenue and economic output, and are not to be used for budgeting purposes. Overall, the order of magnitude of economic impacts and tax generation are expected to remain consistent regardless of the final construction timeline, and actual annual output may be impacted by external factors not integrated into initial analyses (changes in costs of labor, materials, interest rates, etc.).

Please refer to the recreation **RTC 4.79** for more information on the updates to visitation numbers that were made in the Final EIS as well as construction periods.

No edits were made to the **Final EIS** in response to this comment.

7.27 This is not the right place or time for an expansion of Grand Targhee. The private proposal fails to account for the serious and escalating growth-related pressures already straining the Greater Teton area. By emphasizing increased skier capacity, new infrastructure, and expanded summer activities, the project would accelerate regional visitation and associated impacts—such as housing demand, traffic congestion, infrastructure strain, and loss of rural character—without offering any substantive mitigation strategy. These indirect but foreseeable consequences, already driving affordability crises and land use conflicts in Teton Valley and nearby communities, are not meaningfully addressed in the Purpose and Need or alternatives analysis. Instead, the DEIS treats socioeconomic growth as a benefit rather than acknowledging its dual role as a stressor on community and sustainability. This omission raises NEPA compliance concerns, as the law requires that agencies consider the full scope of direct, indirect, and cumulative impacts of a proposed action, including how it may compound existing socio-economic challenges in the surrounding region. The 625-page Draft Environmental Impact Statement is missing crucial research, including assessment of cumulative regional impacts from growth and tourism; comprehensive housing and community service impact evaluations; and a study of the cumulative effects of this development combined with other regional growth pressures facing Teton County, ID. (484.3) (518.5)

Thank you for your comment regarding mitigating the effects of additional visitation. Cumulative effects analyses are found in both the **Final EIS (Section 3.4.5, pages 141-146**) and supporting resource technical reports. The impacts of growth are not discussed in these documents as an unqualified benefit. The **Socioeconomic Technical Report** describes historic and projected population growth in all study area counties, noting rapid growth in Teton County, Idaho and the broader East Idaho region, and

explaining that these trends are driven by regional amenity migration and tourism, not solely by Grand Targhee Resort (**Socioeconomic Technical Report, pages 7-8**). The report also documents housing costs and cost burdens, including the percentage of cost-burdened renters and owners in the study area.

For each alternative, the report analyzes how changes in winter and summer visitation and associated employment affect regional jobs, income, and tax revenues, and qualitatively interprets what those changes mean for housing demand and local public services. (**Socioeconomic Technical Report, Section 3.2.4, page 52-86**).

The cumulative effects section of the **Socioeconomics Technical Report** explains that the project's effects occur within an already growing tourism-dependent regional economy and notes that employment growth associated with the action alternatives is likely to exacerbate existing scarcity of affordable housing, particularly for lower-wage workers. It also discusses how increased visitation affects demand for fire, EMS, and law-enforcement services, alongside increases in public revenues (**Socioeconomics Technical Report, Section 3.2.5, pp. 87–107**). **Chapter 3** of the **Final EIS** (**Section 3.4.4**) summarizes these indirect and cumulative effects, explicitly recognizing that growth has both benefits and costs for local communities. Please refer to the socioeconomics **RTC 7.1** for more information on the comprehensive Socioeconomic analysis that was completed for this project.

The commenter's concerns about housing, community services, and rural character are addressed in several places. Housing is addressed in the **Socioeconomic Technical Report** (**pages 27-38, 51-52, 61, 89-90**). These sections describe the existing housing conditions—including cost burdens and supply—then links projected employment growth under each alternative to this baseline and concludes that Alternative 2 and the other action alternatives would likely increase pressure on already tight housing markets, with particular concern for affordable units. This is summarized in the **Final EIS** on **pages 127–129**, and **135**.

For more information on the purpose and need for the project and changes that were made in the Final EIS, please refer to the purpose and need **RTC 2.1** and **2.13**. For more information on the parking, traffic, and transit analysis that was completed for this project, please refer to the traffic and parking **RTC 8.1, 8.3,** and **8.9.**

The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. The analysis and impacts have been taken into account by the Responsible Official and a decision was made based on those disclosures. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

7.28 The DEIS did not take into account the current construction of 21 short-term rental cabins at the base AND the new application for private land development currently going through TCWY that includes: 50 Lodging Units; 150,000 square feet of commercial development (over 2x size of the Jackson Hole Target store); proposed '135-key' hotel to replace the 16-room Targhee Lodge; Trap Bar to expand into vacant land east of the existing boundary; small administrative building. (476.22)

Thank you for your comment regarding the residential and private land development. Please refer to the socioeconomics **RTC 7.9** for more information on GTR's approved 2019 First Amended Master Plan. This project has been considered in the cumulative effects analysis throughout the **Final EIS**.

As described on **page 142** of the **Final EIS**, no portion of the implementation of projects approved under the PUD-PR [2019 First Amended Master Plan] are dependent, reliant, or connected to approval of any of the action alternatives by the Forest Service. GTR has been advancing projects on private land from the PUD-PR since their approval and would implement these projects regardless of projects being approved under this analysis. No edits were made to the **Final EIS** in response to this comment.

7.29 The document states that "No portion of the implementation of projects approved under the PUD-PR are dependent, reliant, or connect to approval of any of the action alternatives by the Forest Service." This statement is false. The action alternatives will directly affect the development and sale of infrastructure on private land at the base of GTR. The expansion of the SUP would increase the value of the private land and associated infrastructure at the base which will bring additional investment funding to the resort. This increased investment will be used to build the infrastructure in the expanded SUP and the base. This is standard ski are business practice. The base area development is not independent from the action alternatives and the development at the base and the development on the mountain are economically tied. These connected actions must be analyzed together. In addition, multiple sections within the EIS note that impacts such as parking are connected to infrastructure development at the base. The current analysis is inadequate. (1066.47)

The commenter is correct in stating that the Draft EIS said no portion of the implementation of projects approved under the2019 First Amended Master Plan – Planned Unit Development for Planned Resort are dependent, reliant, or connected to approval of any of the action alternatives by the Forest Service. The text goes on to state that GTR has been advancing projects on private land from the First Amended Master Plan – Planned Unit Development for Planned Resort since their approval and would implement these projects regardless of projects being approved under this analysis. These projects proposed at the base area are not considered a connected action as they don't automatically trigger other actions; can proceed without previous or simultaneous actions; and are not interdependent parts of a larger action. Please refer to the recreation **RTC 4.12** and **4.60** for more information on the cumulative effects analysis of GTR's approved 2019 First Amended Master Plan – Planned Unit Development for Planned Resort. The projects that are approved in the 2019 First Amended Master Plan – Planned Unit Development for Planned Resort are analyzed as cumulative effect projects under this analysis.

No edits were made to the **Final EIS** in response to this comment.

7.30 The document notes the population growth for the four study area counties from 2020 through the table 2029. Table 3.4-8 identifies the growth rates to 2033 but does not identify the period. The verbiage and the table present different information. Correct the inconsistency and provide the missing information so that the analysis can be understood. The table is meaningless without the information required to understand it. For example, there is no period provided for the numbers. The reviewer could not come up with the number presented in the table though multiple different iterations were tried.

The analysis cannot be recreated with the information provided and is therefore inadequate. (1066.44) (1066.45)

For all action alternatives, the background population growth rate for Teton County, Idaho is estimated at 1.1%. By 2033, this growth rate would add an additional 1,650 residents. The additional FTEs projected by alternative are an output of the IMPLAN modeling, showing the potential additional residents that would be associated with each Alternative. This table demonstrates the impact of each Alternative on the population if all new FTEs generated were to relocate to Teton County, Idaho. On page 125, of the Final EIS, the Population section states "As described previously, population growth in each of the study area counties is predicted to continue through 2029 at rates close to 1 percent." That is due to the Idaho Department of Labor's population model that projects the East Idaho region will "will grow at an annual rate of 1.1 percent between 2019 and 2029" (**Socioeconomics Technical Report, pages 52-53**). This projected population growth rate was applied to 2023 as that was the predicted construction completion date.

A footnote was added to **Table 3.4-8** on **page 131** of the **Final EIS** that states "Population projects to 2033 due to construction timeline" to provide more clarity on the construction timeline of the project.

7.31 The Resort Master Plan stipulates (pg.55): "The Resort shall inform the Teton County Planning Department in writing of any applications for new, additional, or expanded recreational amenities within the Forest Service Lands. Upon Forest Service approval of any new, additional or expanded recreational amenities, the Resort will apply to Teton County, Wyoming for new, additional, or expanded services (such as parking or transportation services) to support the new, additional or expanded recreational amenities permitted by the Forest Service. The application shall be processed as a Minor Amendment as described within the Master Plan. Approval of new, additional, or expanded services within the Resort to support the new, additional, or expanded recreational amenities shall be based on the LDRs, or if the LDRs are silent or ambiguous as to the density, intensity or scale of services required to serve the new, additional or expanded recreational amenities permitted on Forest Service lands , the Resort shall provide an independent calculation based on the LDR requirements for independent calculations for the applicable standard . " The DEIS does not adequately analyze the proposal's interconnectedness and cumulative impacts of proposed growth from the 201 9 Resort Master Plan to the proposed actions. (489.10)

Please refer the socioeconomics **RTC 7.29** for more information on GTR's approved First Amended Master Plan and the cumulative effects analysis that was completed for the Draft EIS. These projects that are approved under the First Amended Master Plan are not considered connected actions. No edits were made to the **Final EIS** in response to this comment.

7.32 The strain on local search-and-rescue teams due to increased backcountry use is mentioned but not analyzed in depth. Looking at the plans for the base area expansion and noting that at least one building will be 5 stories high. Can the local fire dept. respond in time to a 5 story fire??? Our current fire department in Idaho simply does not have the capacity for fighting a fire on the 5th story of a building. (457.28) (457.63) (457.112) (457.118) (464.2) (735.3)

While we appreciate and acknowledge the commentor's concerns regarding backcountry visitor safety, coordination between non Forest-Service entities as well as the availability of county search and rescue teams is beyond the scope of this analysis and unnecessary for the Responsible Official to make an informed decision regarding the anticipated public safety concerns regarding the expansion of GTR's SUP. Please refer to the public safety **RTC 10.2** for more information. No edits were made to the **Final EIS** in response to this comment.

7.33 The Comprehensive Plan includes the following policy: Policy 3.1.d: Cluster nonresidential development in existing locations. Nonresidential development not associated with agriculture should be clustered in Complete Neighborhoods and Planned Resorts where nonresidential character already exists. Centrally locating resort, commercial, and public/semi-public development preserves wildlife habitat, habitat connections, scenic viewsheds, rural character and the viability of Complete Neighborhoods. No new Planned Resorts should be created, and existing Planned Resorts should be limited to their existing footprint(emphasis added). Existing County resort, commercial, and civic uses outside of Complete Neighborhoods will be encouraged to redevelop in a manner that is more consistent with rural character. The DEIS does not adequately analyze the proposal's compliance with Teton County's Comprehensive Plan. (489.6)

As described on **page 45** of the **Final EIS** in **Table 2.4-1 Project Design Criteria** GTR shall obtain all required federal, county, town, and state reviews, approvals, and/or permits prior to the start of construction. Following the NEPA decision GTR would work with county, town, and state officials to receive the proper approvals. Additionally, proposed projects within the Final EIS occur on National Forest System lands and are under the jurisdiction of the United States Forest Service. The policy that is cited by the commenter is applicable to county lands within Teton County, Wyoming and not National Forest System Lands. No edits were made to the **Final EIS** in response to this comment.

7.34 Executive Order 12898 requires agencies to address environmental justice concerns, ensuring that minority and low-income populations are not disproportionately affected. The DEIS failed to analyze or mitigate impacts on vulnerable populations. (457.89)

Please refer to the socioeconomics **RTC 7.7** for more information on the rescinded Executive Order 12898 and how the Final EIS is in compliance with existing regulations. No edits were made to the **Final EIS** in response to this comment.

7.35 With the absence of CEQ guidance (terminated by EO Recission of CEQ Regulations), I have worked to understand this agency's regulatory position allowing this process to go forward. I have tried to delve into the procedure for NEPA per Forest Service Manual 1900 – Planning and specifically section 1950, Environmental Policy and Procedures. The USDA Forest Service Handbook states on page 3 that Forest Service Handbook shows CEQ Regulations for implementing requirements of NEPA with the Forest Service Regulations that supplement the CEQ regulations. It seems that the regulation no longer exists and the Forest Service handbook cannot be used without CEQ Regulation in place. (only supplemental information remains available for our use in review of the DEIS. (13b.11)

Please refer to the socioeconomics **RTC 7.7**, purpose and need **RTC 2.13**, as well as NEPA **RTC 1.1** for more information on the existing NEPA regulations that guide this project. No edits were made to the **Final EIS** in response to this comment.

7.36 I live in Driggs Idaho and the expansion to South Bowl and Mono Trees will be the largest single cause for a small rural town losing all sense of who and what we want to be. Teton Co. Idaho cannot provide the infrastructure to provide for the increase in traffic, road maintenance, control of Emergency services, Law Enforcement. We have had multiple murders, thefts, drug related traffic and personal injury issues with the increase in exposure from Covid. It is not necessary to expand beyond their current boundaries, which is larger than Jackson Hole Ski area. Our air traffic is not made for expansion, and it is maintained by Driggs City. Driggs City has multiple infractions with the EPA due to poor Sewage Plant care. Our streets cannot accommodate the traffic, currently we are backed up 3 blocks due to the stop light at Little (Ski Hill Rd) and Main Street. Our hospital is a very small hospital that needs to be rebuilt and cannot take on the increase that Targhee proposes with this destination resort. Our Social Services are maxed out, our non-profits are seeing a magnitude of increase in help with our basic needs; food, shelter, clothing, mental health, and safety. (File #1)Towns associated with Ski areas have a higher percentage of suicides as demonstrated in recent films and articles. (498.1)

Thank you for your comment. Analysis on Values, Beliefs, and Attitudes is provided in the **Final EIS** on **pages 136-137**. Please refer to this discussion for more information. Additionally, as described on **page 45** of the **Final EIS** in **Table 2.4-1 Project Design Criteria** GTR shall obtain all required federal, county, town, and state reviews, approvals, and/or permits prior to the start of construction. Following the NEPA decision GTR would work with county, town, and state officials to receive the proper approvals.

The comment's concerns reflect a personal position about existing infrastructure needs rather than a technical deficiency in the **Final EIS**. The **Final EIS** is a disclosure rather than a decision document. It is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. The analysis and impacts have been taken into account by the Responsible Official and a decision was made based on those disclosures. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made. No edits were made to the **Final EIS** in response to this comment.

7.37 Disclosure of economic information is necessary to support this element of the Purpose and Need statement. Indeed, to ensure success of a sustainable Grand Targhee, any action alternative must be demonstrated to be economically viable and sustainable. Notably, the DEIS fails to disclose the feasibility – economic and constructability – of the Proposed Action. Or other Alternatives save Alternative 1. For any of the alternatives presented demonstration of economic viability is necessary to ensure the decisionmaker is fully informed prior to a decision. (545.9) (545.18)

The financial feasibility of the proposed actions is not a requirement of NEPA. This information does not support the Responsible Official's ability to make an informed decision. The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. The analysis and impacts have been taken into account by the Responsible Official and a decision was made based on those disclosures. Please refer to the **Draft**

ROD for detail including discussion of rationale and how a proposed decision was made. No edits were made to the **Final EIS** in response to this comment.

7.38 Please add the socioeconomic report in Appendix A to the Project record and acknowledge the conclusions in the report in the Final EIS. GTR asked an independent economist, Chris Neher, to review the potential economic effects of the Project on Teton County, Idaho. Mr. Neher is a former instructor and research specialist at the University of Montana and has decades of experience working as an economic consultant specializing in environmental and natural resource economics and policy. Mr. Neher's study, Review of Potential Economic Effects of Grand Targhee Mountain Improvements Project on Teton County, Idaho (April 2025) ("Neher Socioeconomic Report"), is attached to this letter as Appendix A. (647.17)

Please refer to the socioeconomics **RTC 7.1, 7.10,** and **7.16** for more information on the comprehensive Socioeconomic analysis that was completed for this project. This analysis was based on IMPLAN modeling and best available data at the time of publication. The referenced report has not been added to the analysis as it does not determine a technical deficiency that is present within the **Draft EIS**. The report is in the project record. No edits were made to the **Final EIS** in response to this comment.

7.39 The BoCC recognizes the fundamental role of GTR to both our economy and our community. Many of our residents ski there regularly and recreate in the summer as well. Many work there, or in businesses that rely on Targhee visitors for a part of their revenue. Many would not be here if Targhee were not an available resource. We have a vested interest in the continued success of GTR; however, communities such as ours, that are heavily dependent on tourism, real estate and related construction are especially prone to the boom/bust cycles such as the 2008 bust. Currently we're in a boom phase, but that won't last forever. Speculative growth such as proposed in the MDP puts our economy in some peril, and this concern is not addressed at all in the DEIS. We find the DEIS deficient in this regard. (922.3)

Thank you for your comment regarding economic sustainability and the non-linear nature of economic trends. The **Socioeconomics Technical Report** provides reasonable estimates based on best available data as to the short-term and long-term impacts related to the proposed action. The report does not make predictions about potential economic downturns that would impact the viability of private development.

Information related to the Socioeconomic analysis completed for this project can be found in the **Socioeconomics Technical Report** and socioeconomic **RTC 7.1 and 7.30** discuss the economic and population growth dynamics for Teton County, Idaho and other study area counties. The **Socioeconomics Technical Report** does also include a No Action Alternative analysis (**pages 63-65**).

The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. The analysis and impacts have been taken into account by the Responsible Official and a decision was made based on those disclosures. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made. No edits were made to the **Final EIS** in response to this comment.

7.40 The EIS mentions the SHRED ACT as a way to bring a portion of the lease fee paid by GTR to the Federal government back to the local national forest. This act has not passed

and the US Treasury still gets the lease payment. It is misleading to mention an act that has not passed Congress. (13b.8)

Like the commenter mentions the **Final EIS** describes the SHRED Act (Ski Hill Resources for Economic Development) on **page 127**. It states that the act enables the Forest Service to retain a portion of the fees paid by ski areas operating on NFS lands. The Final EIS goes on to state on **page 135** that fees paid by GTR to the Forest Service would be subject to the SHRED Act of 2023, if passed, enabling the Forest Service to retain a portion of GTR's SUP fees for use elsewhere within the forest unit. See socioeconomics **RTC 7.4** for more discussion of FS payments.

The SHRED Act of 2023 has still not been passed, so the analysis in the **Final EIS** is valid, and if/when the Act is passed the local Forest Service would be able to retain a portion of GTR's SUP fees for use elsewhere within the forest unit. In the meantime, fees paid by GTR to the Forest Service go to the national treasury before being redistributed through programs such as the 25 Percent Payments and the Secure Rural Schools and Community Self-Determination Act.

8. Traffic and Parking

8.1 The Proposed Action Alternative (Alternative 2) would result in a 25 percent annual visitation increase from the No Action Alternative (Alternative 1), an increase of approximately 55,000 annual visitors. In addition, under the Proposed Action Alternative, there would be 2,790 vehicles seeking to access the resort on a winter day, compared to 1,660 under the no action alternative. Specifically, an additional 957 spaces will be needed for expansion, with the Master Plan for the base area estimating 450 parking spaces for full buildout. The DEIS does not sufficiently address how this increase will be managed. For example, the DEIS does not propose providing additional funding to Teton County, Idaho to help manage increased visitation nor does the DEIS provide a detailed plan for alleviating parking congestion. Grand Targhee Resort should work with Teton County, Idaho to implement a supplemental funding plan and construct and operate a park and ride facility that will be convenient enough for visitors to actually use it. This should include more frequent bus service and direct transportation to GTR from the park and ride facility. (1.1) (24.3) (139.1) (433.7) (37.1) (474.4) (582.2) (119.1) (386.1) (598.2) (26b.38) (502.1) (710.6) (138.1) (476.11) (484.12) (487.6) (532.2) (539.2) (557.6) (590.1) (611.3) (675.1) (711.12) (1066.50) (710.6) (9b.6) (12b.2) (6b.2)

Thank you for your comment. Please refer to **page 167** of the **Final EIS** where it describes the First Amended Master Plan – Planned Unit Development for Planned Resort which includes approved projects at GTR's base area on private land. This plan includes up to 450 accommodation units on private land. Additionally, it requires that one parking space be constructed for each accommodation unit, 2 spaces for a single-family residence, and 1.5 spaces for a cabin or attached dwelling unit. The discussion goes on to further explain that in the cumulative effects analysis for traffic and parking, 450 additional parking spaces was used as a conservative estimate for new spaces resulting from new units, although if more single-family homes or cabins are built, that figure may be higher. This additional 450 spaces would be the required addition beyond the current supply of parking.

The analysis in the Final EIS goes on to explain the cumulative effects for traffic and parking. Please refer to **pages 167-175** of the **Final EIS** where it describes the cumulative effects for traffic and parking.

Specifically, within the Traffic section it describes that additional vehicle trip calculation under the Proposed Action would result in 2,070 winter CCC day vehicles. It goes on to further describe that in the winter, with additional on-resort lodging and increased transit ridership, vehicle counts at the resort would decrease by 26 percent to 12 percent. The analysis goes on to further describe under the Parking section that with additional lift capacity provided by the proposed projects, the assumed commensurate increase in visitation, and increased lodging and transit ridership in accordance with the First Amended Master Plan – Planned Unit Development for Planned Resort 1,883 vehicles would seek to park at the resort when visitation is at the CCC (6,170 guests). With the existing, 1,455 parking spaces under existing conditions, plus the additional 450 spaces created by the First Amended Master Plan – Planned Unit Development for Planned Resort there would be a total of 1,905 parking spaces available under cumulative conditions. This would result in a small surplus of spaces (22 spaces) when visitation is at the CCC (6,170 guests). Overall, parking and user ridership of the bus system is outside of the CTNF's jurisdiction.

As is further described on **page 157** of the **Final EIS** since GTR's anticipated base area is on private land, development was previously approved by Teton County, Wyoming in 2019, and no part of its implementation is dependent upon the decision to be made under this EIS process. Therefore, no edits were made to the **Final EIS** in response to this comment.

8.2 Also, while I haven't seen any plans for it, a vertical parking structure at the base is a definite NEED. There needs to be more parking lots, near stateline and larger ones in town to allow mass transit to have an effect on reducing the line of cars on popular days. (431.3)

Thank you for your comment. Please refer to traffic and parking **RTC 8.1** for more information on the parking spaces that would be available at GTR under cumulative conditions.

Additionally, placing a vertical parking structure at the base area, which is on private land, is outside the scope of this project and jurisdiction of the CTNF. Further, cumulative conditions would result in an excess of 22 parking spaces when visitation is at CCC (6,170 guests). The additional need for offsite parking may be necessary in the future; however, an assessment of the need for additional parking at the state line is outside the CTNF's jurisdiction and was not considered. Therefore, no edits were made to the **Final EIS** in response to this comment.

8.3 Lastly, the bus system that has been implemented at Targhee is a good try, but very underutilized as it is inconvenient. The first suggestion would be to have the Jackson START system take over the program and run it like what is being done in that county. Two buses with thirty minute gaps does not entice a tremendous incentive to use the system. Compared to numerous other ski area roads, the highway is not the detractor that many claim it to be. The problem occurs when there is a backup with vehicles either waiting to be parked or with the parking lots filling up. At that point the road becomes a backlog of vehicles. With the inadequate parking, the bus system should be the most effective solution to move guests, but as currently arranged, it gets little use. (4.4) (120.8) (702.9) (330.4) (422.1) (532.7)

Thank you for your comment. Please refer to **page 151** of the **Final EIS** where it describes existing transit access to GTR. Under existing conditions the Teton Valley Bus Service provided by GTR goes from

Victor to GTR and back, and offered 15 trips per day between 6am and 10pm on the 2023-2024 winter schedule.

As is further described on **page 157** of the **Final EIS** under the Proposed Action transit ridership is assumed to remain at the same percentage of day guests and employees because the total number of guests and employees would increase under the Proposed Action, additional buses may be required to accommodate the anticipated increase in transit ridership.

Additionally, on **pages 167-175** of the **Final EIS** within the Cumulative Effects section it describes that under the First Amended Master Plan – Planned Unit Development for Planned Resort a Transportation Demand Management Program would be established. This Program would outline how the transit service would carry a minimum of 70 percent of total Employees At One Time at full build-out of the resort and a target of 30 percent of daily skiers at full build-out. Under the Plan GTR would also be required to promote carpooling and participate in locating, planning, and designing facilities to facilitate winter and summer day visitors carpooling and riding transit.

Further, as described on **page 170** of the **Final EIS** within the Transit section improvements to the transit system and specifically to the Teton Valley Bus Service to GTR, such as additional buses, additional trips, and perhaps additional infrastructure at bus stops, may be necessary to accommodate these changes under the Proposed Action, to a greater degree than the No Action Alternative.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.4 In terms of transportation infrastructure, securing locations for future bus parking is a critical first step that is missing within the analysis of the DEIS. Sites for transit facilities should be identified and procured in advance along key transit corridors. Coordinating closely with START Bus, the County can plan for necessary expansions in fleet size, driver recruitment, and maintenance capabilities. The Transportation Demand Management (TDM) Plan included in the Resort Master Plan will need to be revisited. Additional TDM strategies that should be considered include, but are not limited to, implementing paid parking at GTR. This encourages transit ridership-an approach proven successful at Teton Village's Stilson Transit Center – and associated parking revenues should be entirely used for transportation projects and programs, either in collaboration with or supplementing START Bus service. Combining paid parking with frequent and reliable shuttle services would incentivize visitors and workers to opt for public transportation. Free and/or preferentially located 3+ carpool parking should be implemented as a TOM strategy to encourage an increased occupancy of vehicles that drive to GTR. (489.16)

Thank you for your comment. Please refer to traffic and parking **RTC 8.3** for more information on the Transportation Demand Management Program and the proposed improvements to the transit system that was approved in GTR's First Amended Master Plan – Planned Unit Development for Planned Resort . This Plan was analyzed in the Draft EIS as a cumulative effects project as projects included in the plan are proposed on GTR's private lands. Given the Transportation Demand Management Program has not been fully developed, analyzing quantifiable aspects of the Program could not be completed. This is why a qualitative analysis was completed in regards to changes in transit as a result of the proposed projects. GTR's development and finalization of the Transportation Demand Management Program is separate of

this NEPA process and no part of its implementation is dependent on the decision to be made under this NEPA process. Therefore, no edits were made to the **Final EIS** in response to this comment.

8.5 The DEIS relies heavily on assumptions that increased transit use and base area lodging will mitigate traffic, but provides no binding commitments to build the base area or guarantee required ridership levels. It unreasonably assumes that increased skier capacity (CCC) will be absorbed by overnight guests, despite the likelihood of significant increases in regional day use. (484.10) (711.10)

Thank you for your comment. Please refer to traffic and parking **RTC 8.1** and **8.3** for more information on the expected cumulative conditions of parking and transit at GTR.

As is described on **pages 157-158** of the **Final EIS** since GTR's anticipated base area is on private land, development was previously approved by Teton County, Wyoming in 2019, and no part of its implementation is dependent upon the decision to be made under this EIS process. Implementation of the First Amended Master Plan – Planned Unit Development for Planned Resort is outside the scope of this project and under the jurisdiction of Teton County, Wyoming rather than the CTNF. Therefore, no edits were made to the **Final EIS** in response to this comment.

8.6 As a long time user of Targhee, both summer and winter, transportation to and parking at the resort is under existing usage entirely in adequate. The vague mitigation measures in the DEIS are not enough, and not enforceable in any case. (457.61) (514.1)

Thank you for your comment. Please refer to traffic and parking **RTC 8.1** and **8.3** for more information on the expected cumulative conditions of parking and transit at GTR.

Further, as is described on **pages 157-158** of the **Final EIS** since GTR's anticipated base area is on private land, development was previously approved by Teton County, Wyoming in 2019, and no part of its implementation is dependent upon the decision to be made under this EIS process. Implementation of the First Amended Master Plan – Planned Unit Development for Planned Resort is outside the scope of this project and under the jurisdiction of Teton County, Wyoming rather than the CTNF. Therefore, no edits were made to the **Final EIS** in response to this comment.

8.7 Rather than expand mountaintop guest facilities, Grand Targhee should create a modernized parking & shuttle service from Driggs to reduce the single-occupant vehicles driving to, and parking at, the mountain, which are major sources of greenhouse gases that foster the climate crisis (and shorter winters). (159.8)

Thank you for your comment. Please refer to traffic and parking **RTC 8.1** for more information on the proposed cumulative parking conditions at GTR.

Please also refer to **page 227** of the **Final EIS** where it explains the expected greenhouse gas emissions from increased winter visitation. Overall, when comparing the proposed increases in emissions to existing conditions it is unlikely that the small increases in emissions would cause pollutant concentrations to surpass the National Ambient Air Quality Standards. Therefore, no edits were made to the **Final EIS** in response to this comment.

8.8 The analysis of parking needs to accommodate the anticipated growth in visitation generated by any largescale expansion is based on unlikely assumptions and incomplete

related plans. In order to accommodate more visitors without increasing day skier parking, the DEIS analysis relies on the assumption that 70% of employees and 30% of day skiers will use public transportation or carpooling to reach the mountain; reaching this goal will depend on providing additional Park-and-Ride areas in Teton County, Idaho. The new City of Driggs Transportation Plan is only in draft form, and does not contain plans that would accommodate the parking needs of Alternatives 2, 4 or 5, nor does Teton County, Idaho have public funds sufficient to meet these needs. (398.8)

Thank you for your comment. Please refer to traffic and parking **RTC 8.3** for more information on the Transportation Demand Management Program and the proposed improvements to the transit system that was approved in GTR's First Amended Master Plan – Planned Unit Development for Planned Resort . This Plan was analyzed in the **Draft EIS** as a cumulative effects project as projects included in the plan are proposed on GTR's private lands. Given the Transportation Demand Management Program has not been fully developed, analyzing quantifiable aspects of the Program could not be completed. This is why a qualitative analysis was completed in regards to changes in transit as a result of the proposed projects. GTR's development and finalization of the Transportation Demand Management Program is separate of this NEPA process and no part of its implementation is dependent on the decision to be made under this NEPA process.

Additionally, as is described on **pages 157-158** of the **Final EIS** since GTR's anticipated base area is on private land, development was previously approved by Teton County, Wyoming in 2019, and no part of its implementation is dependent upon the decision to be made under this EIS process. Implementation of the First Amended Master Plan – Planned Unit Development for Planned Resort is outside the scope of this project and under the jurisdiction of Teton County, Wyoming rather than the CTNF. Therefore, no edits were made to the **Final EIS** in response to this comment.

8.9 I am writing to express my firm opposition to any expansion beyond the current boundaries of the Grand Targhee Ski Resort. Driggs' infrastructure is already under considerable strain and cannot reasonably support additional growth. There is only a single traffic light in town, and in just the last 2-3 years, it has become a known bottleneck for both local and commuter traffic. What was once a quiet, navigable town now experiences regular congestion - a clear sign that the infrastructure is being pushed to its limits. We live on Ski Hill Rd and the traffic has been known to back up for miles. The increased traffic on Ski Hill Road would not only be frustrating, but also increase safety concerns for all, particularly in winter months when road conditions are already hazardous. The intersection at Hwy 33 & E 2500 N will require a signal. In addition, E 2500 N is currently two lanes and difficult to widen because of the existing irrigation canals which run on both sides of the road. (370.1) (373.3) (375.3) (367.2) (333.2) (378.4) (484.9) (486.5) (549.3) (636.2) (637.4) (646.4) (648.5) (688.7) (689.7) (711.9) (747.2) (773.2) (819.3) (914.2) (916.1) (1066.48) (24.7) (84.1) (91.1) (159.5) (161.1) (194.1) (423.1) (476.16) (679.1) (1062.5) (44.1) (457.2) (2b.3) (21b.1) (5b.2) (7b.2) (8b.4) (15b.2) (16b.2)

Thank you for your comment. Please refer to **page 155** of the **Final EIS** where it describes the expected traffic conditions as a result of the proposed projects. As described the Proposed Action would result in additional visitation and additional vehicle trips. This increase in visitation and additional vehicle trips results in a 1 (SH 31) to 68 (Ski Hill Road prior to GTR parking lot entrance) percent increase in traffic volume on the roads accessing the resort.

Additionally, as shown in **Table 3.5-8** on **pages 156–157** of the **Final EIS** the level of service of the roads around or providing access to GTR range from level B to E. This indicates that the proposed projects may increase the number of vehicles traveling on roadways accessing GTR. This increase in traffic could contribute to the back-up in Driggs and at the resort on busy days. No change in level of service is anticipated for roadways other than Ski Hill Road associated with the Proposed Action. GTR would need to continue to employ a variety of strategies to manage transportation demand.

Further, as described on **page 170** of the **Final EIS**, under cumulative conditions with additional on-resort lodging and increased transit ridership, vehicle counts at GTR's entrance and Ski Hill Road in Driggs would decrease by 26 percent and 12 percent from the Proposed Action. This would result in 1,883 vehicles looking for parking at-one-time when visitation is at the CCC.

As described in traffic and parking **RTC 8.3** First Amended Master Plan – Planned Unit Development for Planned Resort includes a Transportation Demand Management Program that is expected to outline the proposed improvements to the transit system. This Plan was analyzed in the Draft EIS as a cumulative effects project as projects included in the plan are proposed on GTR's private lands. Given the Transportation Demand Management Program has not been fully developed, analyzing quantifiable aspects of the Program could not be completed. This is why a qualitative analysis was completed in regards to changes in transit as a result of the proposed projects. GTR's development and finalization of the Transportation Demand Management Program is separate of this NEPA process and no part of its implementation is dependent on the decision to be made under this NEPA process.

Finally, as is described on **pages 157-158** of the **Final EIS** since GTR's anticipated base area is on private land, development was previously approved by Teton County, Wyoming in 2019, and no part of its implementation is dependent upon the decision to be made under this EIS process. Implementation of the First Amended Master Plan – Planned Unit Development for Planned Resort is outside the scope of this project and under the jurisdiction of Teton County, Wyoming rather than the CTNF. Therefore, no edits were made to the **Final EIS** in response to this comment.

8.10 Additionally, the proposed expansion would further harm the environment and put local wildlife at greater risk. Wildlife-vehicle collisions have already increased significantly due to the rising traffic volumes and drivers speeding along Ski Hill Road. (370.2) (1066.49)

Thank you for your comment. Please refer to **pages 150-151** of the **Final EIS** where it describes the past vehicle collision data from 2017-2021. It states that between 2017-2020, from the intersection of Little Avenue to Ski Hill Road at the Wyoming border, there were five crashes reported, with two of them being wildlife-vehicle collisions. It was determined that due to the sample size of the data being too small conclusive trends were unable to be made.

Additionally, on **page 331-332** of the **Final EIS** it states that as visitation increases and traffic increases on highways and high-speed roadways, including Highway 33 and Ski Hill Road, wildlife habitat could be further fragmented and wildlife-vehicle collisions could increase.

These impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.11 Teton County Idaho Community Impacts: Increased traffic on all roads leading to the Ski Resort specifically but not limited to Ski Hill road will degrade the road and the cost for repair will be incurred by Teton County ID, not by GTR. The DEIS has not done a complete traffic and safety analysis on year-round use. (300.1) (301.1) (302.1) (444.1)

Thank you for your comment. Please refer to traffic and parking **RTC 8.1**, **8.3**, and **8.9** for more information on the direct and indirect impacts to parking, transit, and traffic as a result of the proposed projects.

Additionally, please refer to **pages 2–6** of the **Traffic and Parking Technical Report** for more information on the traffic analysis that was completed and existing data that was used to complete the analysis.

Given the **Draft EIS** included this analysis, no edits were made to the **Final EIS** in response to this comment.

8.12 A joint powers agreement between Wyoming and Idaho shall be required to mitigate congestion and safety issues. (565.2)

Thank you for your comment. Agreements between Wyoming and Idaho is a state agreement, and outside the jurisdiction of the CTNF. Additionally, as is described on **pages 157-158** of the **Final EIS** since GTR's anticipated base area is on private land, development was previously approved by Teton County, Wyoming in 2019, and no part of its implementation is dependent upon the decision to be made under this EIS process. Implementation of the First Amended Master Plan – Planned Unit Development for Planned Resort is outside the scope of this project and under the jurisdiction of Teton County, Wyoming rather than the CTNF.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.13 First, Targhee is already quite large, and the skier experience is awesome with the ability to feel solitude very easily available as it currently exists. The main problem Grand Targhee has is getting there. The road to Targhee limits the number of people who can get there. Until that access changes in a way that allows more skiers to get to Targhee, I don't think expanded terrain is needed. (420.1)

Thank you for your comment. Please refer to traffic and parking **RTC 8.9** for more information on the existing traffic conditions on Ski Hill Road and expected changes under the Proposed Action. However, under this project there is no proposed change to Ski Hill Road or how users access GTR. Analysis of expanding Ski Hill Road is outside the scope of this project as it has not been determined as a need or connected action. This was dismissed from further analysis and has not been analyzed in the Final EIS.

No edits were made to the **Final EIS** in response to this comment.

8.14 The community impacts will be destructive too. Housing is an expensive proposition in Driggs and Ski Hill Road is too busy now! Upgrades to Grand Targhee will impact the Teton Valley communities enough. Expansion would increase the Driggs and Teton, County Idaho housing issues, traffic issues beyond the areas ability to cope and easily

double the traffic on Ski Hill Road with Idaho receiving no financial benefit. If Targhee expands my taxes will increase and I and others will advocate for Teton County, Idaho to make Ski Hill Road a toll road. Has the impact of that been studied? The consequences of a need to expand Ski Hill Road and the cumulative impact on wildlife and the community needs further study. (382.3)

Thank you for your comment. Please refer to traffic and parking **RTC 8.9** for more information on the existing traffic conditions on Ski Hill Road and expected changes under the Proposed Action.

The analysis of cumulative effects to wildlife is explained on **pages 331-332** of the **Final EIS**. Additionally, analysis of cumulative effects to socioeconomics is described on **page 141-146** of the **Final EIS**.

Analysis of expanding Ski Hill Road is outside the scope of this project as it has not been determined as a need or connected action. This was dismissed from further analysis and has not been analyzed in the **Final EIS**. Therefore, no edits were made to the **Final EIS** in response to this comment.

8.15 Because of the ever increasing risk of wildfire and the imminent need for a second route to and from the resort, the current DEIS should consider the impacts of another road in and out of the resort. Just because GTR did not put it in their Master Development Plan for analysis by the Forest Service at this time, it should be analyzed as a cumulative impact of resort expansion and increasing numbers of skiers, residents, events, and overnight guests combined with the increasing risk of wildfire. It is worth mentioning that no one currently lives at GTR, but with the new cabins and other real estate development being proposed, residents and guests are going to start demanding a safe escape route in case of fire. This will most certainly become the Caribou Targhee National Forest's problem down the road if all of the growth and expansion that GTR wants (on public and private land) is approved. (13b.4)

Thank you for your comment. Analysis of the impacts from another access road to GTR was not included in the proposed project, and has not been determined as a cumulative effect project. Therefore, this has been dismissed from further analysis and was not included in the analysis in the Final EIS.

Additionally, please refer to vegetation **RTC 15.24** for more information on wildfire mitigation efforts and additional text added to the **Final EIS**. However, no edits were made to the **Final EIS** in response to this comment.

8.16 "On busy days in the winter, demand has exceeded parking supply, and cars have waited or been turned away when spaces are not available" "This analysis of traffic volumes illustrates that that the proposed projects may increase the number of vehicles traveling on roadways accessing GTR; therefore, implementation of the action alternatives could contribute to the back-up in Driggs and at the resort on busy days." Comment: The Traffic and Parking analysis has imparted that there is an existing problem under current operational conditions with further problems taking place even with Alternative I No Action. Proposed actions under other expansion Alternatives do not adequately address the significant increase in traffic and parking needs that would take place with any further expansion. Traffic issues in Driggs and Teton County Idaho also need to addressed for any further GTR expansion in this Draft EIS for this document to be of value. (26b.37)

Thank you for your comment. Please refer to traffic and parking **RTC 8.1**, **8.3**, and **8.9** for more information on expected changes and cumulative conditions of parking, transit, and traffic as a result of the proposed projects.

Additionally, as is described on **pages 157-158** of the **Final EIS** since GTR's anticipated base area is on private land, development was previously approved by Teton County, Wyoming in 2019, and no part of its implementation (proposed parking, increased transit, etc.) is dependent upon the decision to be made under this EIS process. Implementation of the First Amended Master Plan – Planned Unit Development for Planned Resort is outside the scope of this project and under the jurisdiction of Teton County, Wyoming rather than the CTNF.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.17 The Study Area did not include US 20 and SH 33 to Sugar City, Rexburg and Idaho Falls or SH31 and US 26 to Swan Valley and Idaho Falls. These roads will be travelled more heavily if the GTR expansion goes as planned and would need to be included in the study, especially due to their frequent winter closures due to wind, snow and frequent accidents. The agricultural traffic on these roadways could also be impacted through other seasons. (26b.5)

Thank you for your comment. Please refer to **page 147–149** of the **Final EIS** where it explains the location of traffic counters that were used in the traffic analysis. This includes GTR Resort (Ski Hill Road, prior to Parking Lot Entrance), Ski Hill Road (just east of the fork with Cemetery Road), SH 33 (2.4 miles south of Driggs traffic light), SH 33 (2.8 miles southeast of Victor), SH 33 (5.8 miles east of Newdale), SH 31 (3.5 miles north of Swan Valley), and WY-22 (west of WY-390).

Additionally, on **pages 3-4** of the **Traffic and Parking Technical Report** it explains where existing traffic volumes data was obtained. The traffic volumes were obtained from the Idaho Transportation Department's Automatic Traffic Recorder database and the Wyoming Department of Transportation Annual Automatic Traffic Recorder Report.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.18 Additionally, there is already a huge problem with speeding on Ski Hill Rd, the main access route to the resort. My family lives right off that road, have had an increasing number of close calls over the last few years with speeding motorists, and have ceased moving any animals on that road if we can help it. (10b.2)

Thank you for your comment. Please refer to traffic and parking **RTC 8.9** for more information on the expected cumulative conditions of traffic on Ski Hill Road and surrounding roads.

Speeding on Ski Hill Road is outside the scope of this project and not under the jurisdiction of the CTNF. The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.19 In almost every alternative, the traffic intersections analyzed fall into failing categories due to development, however, there is no discussion about what to do about this. There is no discussion about additional traffic lights, turn lanes, bypasses- any solutions. All the report does is identify the problems. GTR should be required to develop a complete traffic management plan that identifies solutions to the problems outlined in the traffic report, their cost to implement and maintain. (773.4)

Thank you for your comment. Please refer to traffic and parking **RTC 8.9** for more information on the expected cumulative conditions of traffic on Ski Hill Road.

The purpose of the traffic and parking analysis in the **Final EIS** and the **Traffic and Parking Technical Report** is to provide an analysis of the direct and indirect environmental consequences from the proposed projects. The purpose of this analysis is not to determine solutions, but rather to disclose the environmental consequences. Determination of additional traffic lights, turn lanes, bypasses, etc. is outside the jurisdiction of the CTNF. As specified on **page 55** of the **Traffic and Parking Technical Report,** Jorgensen Engineering has produced two Traffic Monitoring Reports in 2019 and 2021. These reports were produced in accordance with the approved 2019 First Amended Master Plan and the Transportation Demand Management Program that was identified in the Plan. Additional Traffic Monitoring Reports would be produced as the 2019 First Amended Master Plan is implemented.

Further, as specified on **page 45** of the **Final EIS** within **Table 2.4-1** GTR shall obtain all required federal, county, town, and state reviews, approvals, and/or permits prior to the start of construction. If during the county, town, or state permitting process traffic solutions like additional lights or turn lanes are determined necessary, these would be incorporated to meet permitting requirements. Therefore, no edits were made to the **Final EIS** in response to this comment.

8.20 The description does not disclose the nature of the transportation 'bottle neck' extant with Ski Hill Road. This is the true limiting factor for what the Proponent can do concerning 'expansion' or 'increase.' It is, practically, an insurmountable limiter. Any proposal must consider this and scale project proposals accordingly. A rigorous project feasibility analysis must be conducted and presented in a Supplemental DEIS. (545.10)

Thank you for your comment. Please refer to traffic and parking **RTC 8.9** and **8.19** for more information on expected cumulative conditions of traffic on Ski Hill Road and monitoring and reporting that would be completed.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.21 Safety Concerns with Road Access (Idaho State Highway 33): The expansion would significantly increase traffic on Idaho State Highway 33, a two-lane road already prone to hazardous winter conditions. The influx of visitors could overwhelm the road's capacity, increasing the risk of accidents and complicating emergency response times. The Idaho Department of Transportation has not proposed adequate upgrades to mitigate these safety concerns, which must be addressed before any expansion is approved. (171.2) (462.15) (929.1)

Thank you for your comment. Please refer to traffic and parking **RTC 8.9** and **8.17** for more information on the expected cumulative conditions of traffic on SH 33 as well as **Table 3.5-6** in the **Final EIS** on **page 155**.

Further, assessment of the potential needed upgrades to Ski Hill Road or other road infrastructure in Idaho is outside the jurisdiction of the CTNF. If a necessary upgrade is identified at a later time, that upgrade would be under the jurisdiction of the Idaho Department of Transportation.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.22 Been skiing there for years now and the lodging and parking can barely support the busy weekends. I think a more graded approach should be taken. Improve parking and expand the plaza area prior to doing new lifts hotel and restaurant. Also, the city roads in Driggs can't handle the influx of people. The highway needs to be expanded between Tetonia and Driggs and between Victor and Driggs. Targhee ski resort and Teton county need to work together on the infrastructure to the resort to support the future population if skiers prior to expanding the resort. (89.1)

Thank you for your comment. Please refer to traffic and parking **RTC 8.1** where GTR's approved First Amended Master Plan – Planned Unit Development for Planned Resort is described in further detail. Specifically, this Plan includes improvements to GTR's base area which is located on private land. Improvements like increased parking and transit have been approved under this Plan.

Please also refer to traffic and parking **RTC 8.9** and **8.19** for more information on expected cumulative conditions of traffic on the roads that access GTR as well as information on the local, town, and state permitting process that GTR shall go through prior to implementation of the proposed projects. Specifically, assessment of the potential needed upgrades to road infrastructure in Idaho is outside the jurisdiction of the CTNF. If a necessary upgrade is identified at a later time, that upgrade would be under the jurisdiction of the Idaho Department of Transportation. Overall, no edits were made to the **Final EIS** in response to this comment.

8.23 GTR First Amended Master Plan PUD – The document notes that the resort would be required to pay impact fees to Wyoming during construction. Impacts during construction on Idaho roads are similar and, in some cases, worse due to poorer road construction. The Document does not address economic impacts to Idaho road. The analysis in inadequate. (1066.54)

Thank you for your comment. Please refer to traffic and parking **RTC 8.9** and **8.17** for more information on the expected cumulative conditions of traffic on roads that access GTR, including on state highways that travel through Idaho.

Please also refer to **page 136** of the **Final EIS** where it describes the impacts to public transportation and infrastructure as a result of the proposed projects. Increased transportation demand and the associated public infrastructure costs are expected to be commensurate with the level of increase visitor spending. Teton County, Idaho has shared that recent funding levels have not been sufficient to address routine maintenance, deferred maintenance, and new investment in necessary road network connections and expansions. The State of Idaho and each county in the study area is expected to receive increased tax revenues from each of the alternatives; however, the majority of state and county tax revenues from

increased visitation to GTR, as well as any increases in federal land payments, are expected to accrue to Teton County, Wyoming, and the State of Wyoming under each alternative.

Further, as described on **pages 157-158** of the **Final EIS** since GTR's anticipated base area is on private land, development was previously approved by Teton County, Wyoming in 2019, and no part of its implementation is dependent upon the decision to be made under this EIS process. Implementation of the First Amended Master Plan – Planned Unit Development for Planned Resort is outside the scope of this project and under the jurisdiction of Teton County, Wyoming rather than the CTNF.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.24 The document notes that since the City of Driggs Transportation Plan did not identify improvements to the capacity or infrastructure issue with the Teton Valley Bus Service that these "not anticipated that these additional riders would result in measurable changes in service. The Transportation plan was issued in 2019 and did not anticipate the expansion proposed by GTR and therefore was not included in the plan. The assumption that it was not included in the plan is not a problem, is invalid. The transit analysis is inadequate. (1066.52)

Thank you for your comment. Please refer to traffic and parking **RTC 8.3** for more information on the transit analysis that was completed for this project. The analysis included the best available data at the time of publication.

Please also refer to **page 157** of the **Final EIS** where it states that the 2019 City of Driggs Transportation Plan did not identify existing capacity or infrastructure issues with the Teton Valley Bus Service to GTR, and did not identify improvements specific to the service; therefore, it is not anticipated that these additional riders would result in measurable changes to the service.

As is further described on **page 169** of the **Final EIS** within the Cumulative Effects discussion, improvements to the transit system and specifically to the Teton Valley Bus Service to GTR, such as additional buses, additional trips, and perhaps additional infrastructure at bus stops, may be necessary to accommodate these changes under the Proposed Action. Updates to the transit system and bus service is outside the scope of this project and under the jurisdiction of GTR and the City of Driggs.

Finally, as is further described on **page 157** of the **Final EIS** since GTR's anticipated base area is on private land, development was previously approved by Teton County, Wyoming in 2019, and no part of its implementation is dependent upon the decision to be made under this EIS process.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.25 Traffic and Parking The analysis does not include impacts to highway 33 from Sugar City to Tetonia. This highway is highly used by both commuters to the valley, tourists, and skiers. Highway 30 from Swan Valley also carries a significant portion of the traffic into the Teton Valley and should also be included in the analysis. (1066.5)

Thank you for your comment. Please refer to traffic and parking **RTC 8.9**, **8.17**, and **8.21** for more information on the expected cumulative conditions of traffic on SH 33.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.26 There is discussion regarding remote parking areas that would be fed by shuttles that travel to the resort. The Teton county, Wyoming letter likens the solution to the Simpson lot - the remote parking lot for the Jackson Hole resort. I was left to wonder if the Teton County, Wyoming Commissioners were recommending that this lot should be built in Wyoming. If so, that means that all the traffic must funnel through Teton Valley and up through Driggs to get to this remote parking area. A better solution would be a remote parking lot located somewhere off Route 33, however, the location of this must be carefully studied. Any large parking lot and shuttle buses will impact neighborhoods. Similar to the lot in Wilson, it would be good to have some sort of open space compensation, similar to R Park, as part of the development. The Wilson R Park has trails, open space, water, amenities, art, and public rest room facilities. A similar facility next to any remote parking lot would be good for the town of Driggs and Teton Valley and help mitigate the impact of a large parking lot leading GTR guests. (773.3)

Thank you for your comment. Please refer to traffic and parking **RTC 8.1**, **8.3**, and **8.9** for more information on the expected cumulative conditions for parking, transit, and traffic.

Analysis of location of parking lots not on NFS land is outside the scope of this project and the jurisdiction of the CTNF. Further, assessment of the potential needed upgrades to road infrastructure in Idaho is outside the jurisdiction of the CTNF. If a necessary upgrade is identified at a later time, that upgrade would be under the jurisdiction of the Idaho Department of Transportation.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.27 Transportation - the mobility and transportation impacts of the proposed expansion are of critical concern with the increase in skiers, guests and workers. The impacts will be predominately on Ski Hill Road however the regional transportation network will be impacted as well. Traffic congestion on Ski Hill Road, which is already significant, will increase creating safety hazards, deteriorating air quality and at times creating gridlock. Access for emergency vehicles will be extremely challenging during peak travel periods. The planned increase in use of transit will result in additional costs for Teton County, ID and require locations for in-town parking. (727.12)

Thank you for your comment. Please refer to traffic and parking **RTC 8.9** and **8.17** for more information on the transit analysis that was completed for this project.

Please also refer to **page 227** of the **Final EIS** where it explains the expected greenhouse gas emissions from increased winter visitation. Overall, when comparing the proposed increases in emissions to existing conditions it is unlikely that the small increases in emissions would cause pollutant concentrations to surpass the National Ambient Air Quality Standards.

Please also refer to **page 136** of the **Final EIS** where impacts to human and social services are discussed further. Demands for emergency services would increase commensurate with the increase in visitors and full time employees under each alternative. Impacts would likely be greatest in Teton County, Idaho as that is where much of the regional workforce related to GTR visitation currently reside

These impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize

the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.28 Ski Hill Road must be recognized as one of the main impediments to GTR expanding and to being allowed to advance any of the construction they desire on their in-holding. This two- lane road will never be widened. GTR has made hints about building a second ingress-egress road over South Leigh Creek. This road will never be permitted/built through the significant environmentally sensitive lands present in South Leigh Creek. For GTR and their consultants to continue to state the alleged use of transit is a viable genuine action to lessen parking and congestion problems is particularly offensive and a blatant disregard for public health, safety and welfare. Simply stated, a false and disingenuous statement. Transit does not perform in those manners when confined to a two-lane mountain road with substandard geometry. Transit buses might work very early each day to deliver resort employees, but once the public begins to arrive - all transit buses are captive in general traffic ques with the skier/rider vehicles. It is my fervent hope and expectation that you will issue a call for a Supplemental DEIS. This must be closely watched by you and your staff to ensure that the inadequacies and omissions of the analysis in this subject DEIS are cured in a SDEIS together with robust community engagement. (713.1) (13b.3)

Thank you for your comment. Please refer to traffic and parking **RTC 8.1**, **8.3**, and **8.9** for more information on the expected cumulative conditions for parking, transit, and traffic.

Analysis of additional access is not included in this project and therefore outside the scope of this project. Further, assessment of the potential needed upgrades to road infrastructure in Idaho or rider usership of the bus system is outside the jurisdiction of the CTNF. If a necessary upgrade is identified at a later time, that upgrade would be under the jurisdiction of the Idaho Department of Transportation.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.29 The DEIS does not adequately address many issues: Comprehensive traffic impact study to assess year-round congestion and safety implications, especially on Ski Hill Road and the Hwy 33 intersection in Driggs. (534.1) (623.2) (645.6) (716.3) (727.15) (805.6) (490.1) (362.2) (517.4) (518.1) (735.2) (822.2)

Thank you for your comment. Please refer to traffic and parking **RTC 8.9** and **8.17** for more information on the traffic analysis that was completed for this project.

Please also refer to traffic and parking **RTC 8.19** for more information on the traffic monitoring that has been completed by Jorgensen Engineering, and the additional monitoring and reporting that would occur as GTR's approved First Amended Master Plan – Planned Unit Development for Planned Resort is implemented.

No edits were made to the **Final EIS** in response to this comment.

8.30 I have lived in other resort towns where major development was taking place at the ski areas. What was a pleasant peaceful drive to the resort turned into a speedway of gravel

trucks and large semis. Where are the studies regarding the safety, noise pollution, and air pollution on the humans, wildlife, water, etc. from these major construction projects? (476.12)

Thank you for your comment. Please refer to traffic and parking **RTC 8.1**, **8.3**, and **8.9** for more information on the parking, transit, and traffic analyses that were completed for this project as well as traffic and parking **RTC 8.32** for more information on construction traffic.

Please also refer to **pages 185-192**, **217-233**, **282-332**, and **346-366** of the **Final EIS** for more information on the public safety, air quality, wildlife, and water analyses, respectively, that were completed for this project.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.31 Transit projections are inconsistent and lack transparency: current CCC is 3,720 with 18% skier transit use (~670 riders), but proposed CCC is 6,170 requiring 1,851 riders per day (30%). No data is provided for current employee transit use, making the 70% target unsubstantiated. Despite this, the DEIS claims no "measurable" increase in bus service is necessary—an implausible conclusion. Transit and parking infrastructure required by expansion should be resolved now, not by future base area development that may or may not happen. The Forest Service must supplement the DEIS with a full analysis of traffic, including construction traffic, parking and transit impacts needs and mitigation. (484.13) (711.13)

Thank you for your comment. Please refer to **RTC RTC 8.3** for more information on the transit analysis that was completed for this project. The analysis included the best available data at the time of publication.

Please also refer to **RTC 8.24** for more information on the updates to the transit system that may be necessary to accommodate changes under the Proposed Action

Overall, no edits were made to the **Final EIS** in response to this comment.

8.32 Construction traffic, projected at 10–20 truck trips per day in summer, also lacks adequate safety analysis, especially for narrow roads and school zones in Alta. Impacts on local residents' quality of life are not addressed. (484.11) (711.11)

Thank you for your comment. Please refer to **page 158** of the **Final EIS** where it explains the expected construction trips that would occur as a result of the proposed projects. Under the Proposed Action, 2,933 truck trips are anticipated for tree removal and an additional 10,000 truck trips are anticipated for construction and staging of projects. Construction vehicle traffic represents a temporary increase in traffic that would occur during a set construction period, which is assumed to be each summer up to 2033. Construction trips would be routed around the downtown core of the City of Driggs as best as possible to avoid city traffic. The trips would be a temporary increase to traffic, during the summer when winter ski traffic is not present and resulting in minor impacts to the roadways. Since these impacts are temporary and minor in nature, it is expected that there would not be an increase in safety concern related to construction traffic.

Please also refer to **pages 136-137** of the **Final EIS** where it explains the expected impacts to quality of life as a result of the proposed projects.

Overall, no edits were made to the **Final EIS** in response to this comment.

8.33 I see no mention in the DEIS of the EIS that the Utah Department of Transportation (UDOT) released a few years ago concerning Little Cottonwood Canyon outside of Salt Lake City. The SE Group should be well aware of this EIS. This EIS addressed the extreme traffic problems and hours-long traffic jams in Little Cottonwood Canyons caused by the continued expansion of the Alta and Snowbird Ski resorts. UDOT's proposed alternative was to spend more than $1.5 Billion (yes, billion with a "b") taxpayer dollars to mitigate the traffic problem caused by the Alta and Snowbird expansion. The USFS would be well advised to familiarize themselves with what happened in Little Cottonwood Canyon (and what is happening in the adjacent Big Cottonwood Canyon) because of ski area expansion. This is a cautionary tale of what can, and will, happen if Grand Targhee is permitted to continue to expand. The Targhee DEIS should compare and contrast Little Cottonwood Canyon to Targhee and demonstrate conclusively that the requested expansion does not put Idaho tax payers in the same situation as Utah taxpayers. (478.7)

The Little Cottonwood Canyon Final EIS that the Utah Department of Transportation published on August 31, 2022, does not contain site-specific data to GTR or the region; therefore, it is outside the scope of this project and does not inform the decision on this project.

Therefore, no edits were made to the **Final EIS** in response to this comment.

8.34 I live on Targhee Towne Rd. in Alta, WY. In early 2025 speed limits on the Idaho section of Ski Hill Rd were raised from a previous 45 mph to 35 mph due to safety concerns. I anticipate that if Targhee develops under any of the other Options, the traffic on Ski Hill Road will continue to increase and another (future) speed limit reduction will be necessitated. Over the anticipated remainder of my residence in Alta, it's not unreasonable that an additional speed limit reduction will result in extra travel time from my home to Driggs and cost me many hours/days of commuting. I don't want to lose these hours/days, that I could spend in more productive/enjoyable pursuits, to commuting. I am sure that many of the folks who utilize Ski Hill Road to access Driggs feel the same way. (421.1)

Thank you for your comment. Please refer to traffic and parking **RTC 8.9** and **8.17** for more information on the traffic analysis that was done for this project.

Overall, changes in speed limits on Ski Hill Road are outside the scope of this project.

The analysis was determined to be sufficient and no edits were made to the **Final EIS** in response to this comment.

8.35 The document notes implementing "incentives" for carpooling. These incentives are not detailed. Do these include charging for parking and/or limiting parking to visitors staying at the base facilities? Additional details are required to analyze the impacts of increased visitations. (1066.53) (1066.55)

Thank you for your comment. Please refer to **pages 167-168** of the **Final EIS** where it describes the approved First Amended Master Plan – Planned Unit Development for Planned Resort . Within this Plan is a Transportation Demand Management Program that would require GTR to promote carpooling and participate in locating, planning, and designing facilities to facilitate winter and summer day visitors carpooling and riding transit. These carpooling plans are included in the First Amended Master Plan – Planned Unit Development for Planned Resort which is under the jurisdiction of Teton County, Wyoming and not the CTNF. Detailing carpooling plans is outside the scope of this project.

Therefore, no edits were made to the **Final EIS** in response to this comment.

8.36 The projected increase in visitation at GTR will place unsustainable pressure on Ski Hill Road and other local routes, intensifying congestion and safety concerns. Robust transportation planning and infrastructure upgrades are imperative to mitigate impacts and ensure safety. We recommend a Transportation Demand Management program to include improving road infrastructure, carpool incentives, and measures to reduce single-occupancy vehicle trips. (457.115)

Thank you for your comment. Please refer to traffic and parking **RTC 8.9** and **8.17** for more information on the traffic analysis that was completed for this project.

Please also refer to **page 167** of the **Final EIS** where it describes the approved First Amended Master Plan – Planned Unit Development for Planned Resort Within this Plan is a Transportation Demand Management Program which would include improvements to transit services and plans to improve carpooling to GTR. This Program may address traffic and safety related issues, but implementation of this Plan is outside the scope of this NEPA process, and under the jurisdiction of Teton County, Wyoming.

The analysis was determined to be sufficient and no edits were made to the **Final EIS** in response to this comment.

9. Cultural Resources

9.1 Although the cultural resource assessment evaluates potential impacts on historic properties and cultural resources, it does not explicitly address Tribal cultural sites, sacred areas, or traditional uses of the land, which are critical to the Tribes. (457.44)

Thank you for your comment. The commenter expresses general concern regarding the project's impact on Tribal cultural sites, sacred areas, or traditional uses of land. Analyses on the project's impact on Tribal cultural sites, sacred areas, or traditional uses of land has been completed. Specifically, on **page 176** of the **Final EIS**, survey methodology is described in which Metcalf Archeological Consultants, Inc, conducted a Class I and Class III resource inventory within GTR's special use permit. Inventory methodology details that specific attention was given to ridgelines with expansive views, which are sometimes the location of certain types of Native American sites, including ones that are often of interest to Native American tribes. Additionally, it is described that upon discovery of cultural materials, the immediate area was more intensively examined to determine the nature and extent of the resource, define a boundary, and determine if the resource should be considered a site, an isolated find, or a non-site.

Further, **page 179** of the **Final EIS** and **pages 17-19** of the **Class III Cultural Resource Inventory Evaluation** detail the inventory results, which covered 1,586 acres of the full project area and identified

eleven cultural resources, including 10 sites and one isolated find. These included three historic arborglyph sites, two prehistoric chipped stone material scatters, three historic structures in the base area of the ski resort, one historic trail, one historic road, and one prehistoric chipped stone isolated find. However, it was highlighted that all remaining cultural resources were recommended as not eligible for the National Register of Historic Places (NRHP) and no further work is recommended.

The analysis goes on to describe what historic sites and Tribal and cultural resources may be impacted. On **pages 182-183** of the **Final EIS** it describes that several sites may be impacted due to the proposed development, specifically in the Mono Trees SUP expansion area, where multiple cultural resources recommended not eligible or unevaluated for NRHP occur. As identified in **Table 2.4-1 Project Design Criteria** on **page 47** of the **Final EIS**, further testing (or site avoidance) is recommended to determine NRHP recommendation for the unevaluated site, in which lithic scatter was documented along proposed access road/skiway, within the Mono Trees SUP expansion area.

As demonstrated in **Appendix B: Forest Plan Consistency Analysis** on **page 484** of the **Final EIS**, tribal consultation with the Shoshone-Bannock Tribes was carried out during the initial project scoping process and revisited in 2021. This effort demonstrates compliance with Tribal Coordination Standards #1, which are found to be consistent under all project alternatives. Specifically, to date there have been no site-specific concerns communicated to the CTNF regarding cultural sites, traditional use areas or other significant areas of interest to the Shoshone-Bannock Tribes. Continued communication throughout this NEPA process with the Shoshone-Bannock Tribes has occurred and will continue to occur. To further clarify what historic sites, and Tribal and cultural resources were analyzed the following text was modified in **Section 3.6.5. Irreversible And Irretrievable Commitments Of Resources** on **page 185** of the **Final EIS**, “Since all action alternatives would avoid NRHP-eligible and unevaluated cultural resources, including tribal cultural sites, sacred areas, or traditional uses of the land, all action alternatives (as well as the no action alternative) were determined to have no irreversible and/or irretrievable commitments of cultural resources.”

9.2 Multiple federal, state, and local permits will be required – including Section 106 consultation under the National Historic Preservation Act. Missing or incomplete permits can result in noncompliance. (457.93)

NEPA projects are required to receive concurrence from the State Historic Preservation Office on the determination of findings from the Class III resource survey. Specifically, on **pages 175-176** of the **Final EIS**, it is mentioned that that following permits or approvals may be required to implement the Proposed Action: United States Fish and Wildlife Service, Endangered Species Act; Formal Section 7 Consultation, Army Corps of Engineers, Clean Water Act, Section 404 Permit; State Historic Preservation Office, National Historic Preservation Act, Section 106 Consultation; United States Environmental Protection Agency (EPA) Federal Construction General Permit for stormwater discharges; Any applicable state or other permits required by local governments.

The Final EIS goes on to state on **page 176** and on **page 7** of the **Class III Cultural Resource Inventory Evaluation**, that the Programmatic Agreement (PA) provides for several process stipulations governing how the Forest Service will implement its compliance with Section 106 of the National Historic Preservation Act (NHPA) at a programmatic level. The intent of the PA is to streamline the SHPO consultation process and allow for timelier implementation and approvals and permitting activities for its programs and for activities of proponents and applicants operating on federal lands under Forest Service

administration. This is particularly true for projects for which a finding of "no historic properties affected" is made by the Forest Service.

Text was added on **page 180** of the **Final EIS** to clarify the SHPO concurrence process that has occurred. This additional text states "The final Class III resource report was accepted by the CTNF and was submitted to the Wyoming SHPO for official consultation and concurrence on March 29, 2023. The Wyoming SHPO office concurred with that the development of the proposed project would not affect historic properties on March 6, 2024. However, they did not concur with the NRHP eligibility for three sites at GTR including the Sioux Lodge, Targhee Lodge, and the Nature Center Building. They recommended that these three sites remain NRHP unevaluated pending additional research into the historic context of the resort buildings. They also recommended that the East Alta Ski Road be considered NRHP not eligible. No project actions would occur on the Sioux Lodge, Targhee Lodge, the Nature Center Building, or East Alta Ski Road."

10. Public Safety

10.1 The DEIS points out the avalanche safety situation, and although not quantified, it appears that expansion into the South Bowl would allow avalanche control and ski patrol services there, but more skiers than now would likely to ski into nearby avalanche-prone terrain outside of the controlled area. So there is probably no net gain in safety. The chutes within the cliffy area below Mary's is probably what the DEIS is referring to (Figure 21). This terrain requires more skill, and slides are probably more frequent than in the South Bowl, where if memory serves me well, slides tend to be very large and infrequent. Large storm events could build unstable snow on top of skier-compacted and bomb-stabilized slopes. Under such circumstances, the slopes and lift would be closed. The backcountry gates can still be closed under these circumstances too, so the hazard to the public, whether the expansion happens or not is about the same. Increased skier safety does not justify expansion into the South Bowl. If county search and rescue is burdened by South Bowl incidents, an arrangement with GTR ski patrol should be pursued to have primary responsibility and first-responder status go to GTR's ski patrol. (101.5) (162.9) (693.14) (532.4) (644.18) (665.3) (711.8) (476.4) (197.3) (295.1) (729.10) (1066.38) (12b.3) (26b.4)

Thank you for your comment. The **Final EIS** does address the concerns that are raised in this comment. Specifically, that the Proposed Action would serve to address existing safety concerns within South Bowl, but may result in the displacement of backcountry users to the other areas outside the GTR SUP. The **Final EIS** is clear in disclosing that access to South Bowl is uniquely convenient under existing conditions, and should South Bowl be incorporated into GTR's SUP, other backcountry terrain may not hold a similar easy-to-access appeal, thus making it difficult to accurately predict and quantify user behavior. As described in **Table 2.4-1** on **page 46** of the **Final EIS,** GTR would "develop an Operation and Boundary Management Plan to guide users exiting the permit boundary to the adjacent backcountry terrain through established and maintained exit points." This plan would allow for iterative and adaptive management of backcountry access based on user patterns that are difficult to predict beforehand. This plan would be reviewed and approved by the CTNF before implementation.

Increased skier safety is not the sole reason for expanding GTR's SUP into South Bowl. However, it is acknowledged that such an expansion would ease current safety concerns associated with the existing use

of the area. Additionally, primary responsibility and first-responder status would be shifted to GTR's ski patrol should this area be incorporated into SUP, which would not occur should the area not be incorporated into the SUP.

No edits were made to the **Final EIS** in response to this comment.

10.2 However, what is even more concerning is that this use will also drive up the need for Search and Rescue efforts as outlined in this DEIS, "...However, as a result of the South Bowl projects, some skiers may travel farther from GTR and into the JSW in other uncontrolled and avalanche-prone terrain. As skiers move farther away from the GTR boundary, they are also moving farther from Search and Rescue resources, further increasing their risk in the event of an avalanche…" Considering the remote and high consequence terrain that skiers are likely to be displaced into when faced with the loss of South Bowl, these Search and Rescue resources will likely need to be completed with the help of a helicopter which has additional conflicts with the management directives that the CTNF is tasked with upholding in regard to the JSW. (620.7) (711.6) (711.7) (205.1) (457.39)

Thank you for your comment. Backcountry users have access to the JSW wilderness under existing conditions as well as under the Proposed Action. However, we recognize that additional users may be displaced to the JSW should South Bowl be incorporated into GTR's SUP. As described on **page 46** of the **Final EIS,** GTR would "develop an Operation and Boundary Management Plan to guide users exiting the permit boundary to the adjacent backcountry terrain through established and maintained exit points", which would aid in mitigating users entering the JSW.

The equipment, including helicopters, that search and rescue operators choose to use based on meeting situational need and regulations are outside of the scope of this analysis, as the Forest Service has no decision authority over these entities and backcountry users assume the risk of unconfined recreation on public lands.

No edits were made to the **Final EIS** in response to this comment.

10.3 The remote GTR area is very challenging for search and rescue operations. In 2010, the death of a lost skier from GTR, revealed deep problems with Teton County ID and WY coordination in their rescue efforts. (https://www.spokesman.com/stories/2010/aug/09/rescuers-sued-skier-death/) Have coordination problems between the counties been resolved, or are there even more issues now with the large growth of both counties and the number of visitors? Are there adequate services now for search & rescue and emergency medical care, and will there be in the future? (697.21)

Thank you for your comment. While we appreciate and acknowledge the commentor's concerns regarding backcountry visitor safety, coordination between non Forest-Service entities as well as the availability of county search and rescue teams is beyond the scope of this analysis. Search and rescue services are the jurisdiction of local law enforcement agencies.

No edits were made to the **Final EIS** in response to this comment.

10.4 Does this make the area safer? No, it does not make the area safer. Developing the South Bowl will only increase injuries because the planned lifts will put 1,800 skiers to the top of the mountain per hour. The more people that are in the area increases the higher the likelihood of injury or death. Grand Targhee or Grand Fogee has many days of low light visibility. The South Bowl is not an area you want the public in during these low light days. There is a series of couloirs in the area that have a microclimates of their own. The massive cliff band there creates thermal heating of the snow that causes wet slides even during freezing temperatures. The entire area is south-facing, receives ample sun, causing thermal heating of the snow. This thermal heating can cause unexpected, destructive wet slides. Inbound avalanches happen. Two in- bounds avalanche deaths were located on the new Kachina Peak expansion area at Taos Ski Valley on January 17, 2019. Kachina Peak opened from a popular backcountry area to lift access February 12, 2015.9 Five patrollers and snow scientists have died in in-bounds avalanches. On Dec. 1 2019, 5 people were buried in an inbounds avalanche in the Experts Chutes of Jackson Hole Ski Resort. In the 20 years that I have been snowboarding in the "South Bowl," we have not had any lost skiers, major or minor injuries that would require search and rescue. (710.10)

Thank you for your comment. We appreciate the commentor's concerns regarding public safety should South Bowl be incorporated into the GTR SUP, the issue of additional accidents that may or may not occur within the SUP boundary is beyond the scope of this analysis. By recreating within resort boundaries during operational periods, users acknowledge risks associated with winter recreation. As discussed on **pages 186-187** of the **Final EIS**, should South Bowl be incorporated into GTR's SUP, measures would be taken to reduce the risk of avalanche hazards. Additionally, as described on **page 46** of the **Final EIS,** GTR would "develop an Operation and Boundary Management Plan to guide users exiting the permit boundary to the adjacent backcountry terrain through established and maintained exit points." This may include closing gates during periods of elevated avalanche risk. Incorporation of the South Bowl zone into the SUP would only serve to reduce exposure to avalanche danger for guests of GTR in this zone.

No edits were made to the **Final EIS** in response to this comment.

10.5 The true scope of avalanche mitigation to ensure that the South Bowl area is "safe" to ski/ride is unclear in the DEIS. It is stated that "Additional safety practices in South Bowl include the use of avalaunchers to disrupt unstable snowpack, boot packing applicable terrain, adding two rescue caches, providing adequate signage to inform users of avalanche hazards, and the use of machinery such as winch snow cats to pack and groom the snow. Two avalaunchers and a bomb cache that would store avalauncher rounds are proposed at the base of the South Bowl Lift"7. There is no mention of how many bombs, either hand charges or avalauncher rounds, will be detonated. From the map, the location of the two avalaunchers is shown. It appears the GTR patrol will be shooting bombs towards the Colter lift area. Will Colter be closed until GTR Patrol finishes using the avalaunchers? (710.8)

Thank you for your comment. While we appreciate the commenter's concerns regarding the use of avalaunchers, the specific operation of these devices would be outlined in a forthcoming Operations and Boundary Plan, as described on **page 46** of the **Final EIS**. This plan would be reviewed and approved by

the CTNF before implementation. As with existing use of avalanche mitigation equipment within GTR, avalauncher use would not be "free-reign," and would be required to adhere to existing standards and safety measures to ensure public safety.

No edits were made to the **Final EIS** in response to this comment.

10.6 The DEIS states that avalanche control would be important for the safety of skiers in South Bowl. Avalanche control would be disruptive not only for Bighorn Sheep but also recreators in Teton Canyon. Teton Canyon is a popular destination in all seasons, and a developed South Bowl would adversely affect that experience both visually and from noise pollution. (584.5)

Thank you for your comment. Regarding impacts to bighorn sheep as a result of the use of avalanche mitigation equipment, please see **page 316** of the **Final EIS**.

Auditory impacts that the use of avalanche mitigation equipment would have on recreators near GTR is analyzed on **pages 114-116 and 209-211** of the **Final EIS**.

No edits were made to the **Final EIS** in response to this comment.

10.7 Expansion into the South Bowl and Mono Trees also would require extensive avalanche mitigation. (541.6)

Thank you for your comment. Alternatives that propose the expansion of GTR's SUP into South Bowl would include additional avalanche mitigation equipment and efforts. The EIS discloses that Mono Trees has "The existing Mono Trees area that is currently outside of the SUP boundary has low avalanche risk…" (**page 187** of the **Final EIS**). No avalanche mitigation infrastructure is proposed for this area, although regular ski patrol operations would occur to ensure safe conditions.

No edits were made to the **Final EIS** in response to this comment.

10.8 If public safety is a legitimate concern driving the proposal to expand Targhee's SUP into South Bowl, and the CTNF believes a South Bowl expansion would solve this concern, then the FEIS should provide data to support this justification. Publicly available avalanche center data does not extend beyond the past three seasons, but the CTNF could no doubt obtain additional historical data from the avalanche center upon request. The CTNF could also request information from Teton County, Wyoming (and Idaho) Search and Rescue (SAR) to learn how many, if any, SAR incidents have occurred in South Bowl in winter. These numbers should be compared to the number of accidents and incidents requiring ski patrol or SAR within the SUP boundary. While we do not have any of these data, it stands to reason that people are far more likely to be injured in-bounds than in the backcountry purely because there are more skiers— and more inexperienced skiers—inbounds. Therefore, from a public safety perspective, expanding the ski resort into South Bowl would likely decrease public safety. (471.33)

Thank you for your comment. The **Draft EIS** did not conclude that expanding GTR's SUP boundary into South Bowl would categorically improve public safety. Rather, it identifies that this is a complex issue and that expanding into South Bowl would decrease the risk of avalanche-skier interactions. Any quantification of inbounds skier injuries that may occur within South Bowl, should it be incorporated into

GTR's SUP, would not be comparable to backcountry injuries that have occurred in South Bowl as the nature of the risks are inherently different. Injuries are expected to occur within South Bowl under all alternatives, and alternatives that incorporate South Bowl into GTR's SUP would result in additional visitation to this area while simultaneously increasing ski patrol oversight of the area and greatly reducing the likelihood of avalanches. Ski patrol oversight of this area would be outlined in a forthcoming Operations and Boundary Plan, as described on **page 46** of the **Final EIS**. This plan would be reviewed and approved by the CTNF before implementation.

No edits were made to the **Final EIS** in response to this comment.

10.9 The document suggests the building of a search and rescue cache in Teton Canyon. This suggests that there will be the need for additional search and rescue efforts due to the expansion of the SUP and likely the additional skiers skiing into Teton canyon from the resort. The impacts of additional out of bounds skiers and the resulting search and rescue are not adequately analyzed. (1066.19)

Thank you for your comment. It is assumed that the rescue cache referred to by the commenter is the proposed snowmobile rescue cache described on **page 31** of the **Final EIS**. As stated on this page, "This project component would be relevant with or without the inclusion of the South Bowl boundary expansion as backcountry usership of this area is anticipated regardless of South Bowl projects."

Impacts from changes in out-of-bounds skiers and resulting search and rescue operations are analyzed for each alternative in **Section 3.7.3** of the **Final EIS**.

No edits were made to the **Final EIS** in response to this comment.

10.10 Snowmobile Rescue Cache – The document notes that "this project would be relevant with or without the inclusion of the south bowl boundary expansion because backcountry usership in this area is anticipated regardless of the South Bowl project." This is an important winter habitat for bighorn sheep. Backcountry skiing should be discouraged in this area, not encouraged. (1066.20)

Thank you for your comment. Regulation of existing visitor access to adjacent public lands to protect wildlife habitat is beyond the scope of analysis of the proposed project. As backcountry skiing occurring in this area is anticipated to continue under all alternatives, this rescue cache would potentially serve as an important public safety function to address the existing and continued use of the area.

No edits were made to the **Final EIS** in response to this comment.

10.11 Grand Targhee expansion projects would allow access to several already accessible areas within Targhee's boundary. Given the nature of the expansions, they would help limit skier-related backcountry accidents and avalanches. The sheriff's office and the search and rescue teams would have less dangerous responses to the terrain off of South Bowl. (22.1)

Thank you for your comment. The commenter is in agreement with the analysis included in the **Draft EIS**, that the proposed expansion would potentially limit skier-related backcountry accidents, avalanche incidents, and provide increased ski patrol oversight to more quickly allocate resources and respond to

incidents. Anticipated impacts to skier-related backcountry accidents and avalanches as a result of the project are analyzed in **Section 3.7.3** of the **Final EIS**.

No edits were made to the **Final EIS** in response to this comment.

10.12 Additionally, Targhee has stated that the rope line in South Bowl has been a challenge to manage. Expansion into South Bowl would position skiers directly above the cliff band known as The Apostles - expert terrain that requires careful navigation. Expanding into South Bowl would create a huge increase in potential for members of the public to put themselves in significant danger with this cliff band while also endangering Grand Targhee's emergency personnel, along with members of our volunteer Search & Rescue teams. (673.4)

Thank you for your comment. As described on **page 46** of the **Final EIS,** GTR would "develop an Operation and Boundary Management Plan to guide users exiting the permit boundary to the adjacent backcountry terrain through established and maintained exit points." This plan would allow for iterative and adaptive management of backcountry access based on user patterns that are difficult to predict beforehand. This plan would be reviewed and approved by the CTNF before implementation. Anticipated impacts to skier-related backcountry accidents and avalanches as a result of the project are analyzed in **Section 3.7.3** on **pages 188-193** of the **Final EIS**.

No edits were made to the **Final EIS** in response to this comment.

10.13 The DEIS fails to adequately assess emergency response limitations tied to the proposed expansion, especially along Ski Hill Road (SHR), the only access route to Grand Targhee Resort (GTR). This represents a serious oversight given the potential for increased visitation, risk exposure, and strain on limited local emergency resources. Ski Hill Road is a narrow, two-lane, mountainous road prone to dangerous winter conditions and closures. The DEIS acknowledges higher visitor capacity and emergency demand, but lacks any modeling or quantitative assessment of how increased traffic, congestion, or winter closures on Ski Hill Road could delay EMS, fire, or SAR response. Exacerbating emergency response time via Ski Hill Road is the lack of emergency services in close proximity to Grand Targhee Resort. Emergency services in the Alta area are extremely limited, there are only two Teton County SAR (TCSAR) members residing in Alta. Primary EMS and SAR response relies on resources in Jackson, WY or Driggs, ID. This is particularly alarming during peak hours or extreme weather, when emergency access may be most critical yet most compromised. The DEIS fails to identify or evaluate any emergency service mitigation measures for Ski Hill Road, such as avalanche control, plowing standards, SAR/EMS staging areas, chain enforcement, emergency pull outs or bypass lanes. Without such measures, emergency response on high-volume days could become dangerously delayed, endangering the public and burdening already stretched county resources. (123.1) (711.5) (916.9) (484.6) (484.7) (615.2)

Thank you for your comment. While we appreciate the commenter's concerns regarding emergency response limitations, these issues are beyond the scope of analysis as the Forest Service has no authority over the infrastructure that may be used for emergency response operations, or the emergency response entities themselves. Please refer to the **Traffic and Parking Technical Report** prepared for this project for a full analysis of anticipated traffic conditions. Backcountry visitors assume the risk of injury and/or

death when recreating on public lands. The proposed project would, however, serve to improve the operability of GTR's ski patrol operations, which may be used as appropriate to serve SUP adjacent terrain.

No edits were made to the **Final EIS** in response to this comment.

10.14 Chapter 3 Emergency services will likely becoming from Driggs, ID because the Teton County WY emergency services are over the mountain 45 miles away. Driggs, ID emergency services are already stretched to it's maximum and Teton County ID residences are having substantial tax increases for their services currently. (916.5) (8b.5)

Thank you for your comment. While we appreciate the commenter's concerns regarding emergency response limitations, these issues are beyond the scope of analysis as the Forest Service has no authority over the infrastructure that may be used for emergency response operations, or the emergency response entities themselves. Please refer to the **Traffic and Parking Technical Report** prepared for this project for a full analysis of anticipated traffic conditions.

No edits were made to the **Final EIS** in response to this comment.

10.15 The socioeconomic effects are already being felt in Teton Valley, Idaho. Teton Valley, Idaho, does not get any revenue from GTR. Our roads are in bad shape, and many need to be rebuilt. The roads are becoming overcrowded also. Our EMS services are being spread out thin, and it is only a matter of time before an ambulance being sent to GTR and a medical emergency somewhere else in the valley leaves our EMS services without an ambulance to respond to another emergency in Idaho. GTR needs to have its own EMS to respond to medical emergencies at the resort. Until they have their own EMS, I ask the USFS to choose Alternative 1, no action, until these services can be provided. (710.4)

Thank you for your comment. While we appreciate the commenter's concerns regarding road condition and emergency response limitations, these issues are beyond the scope of analysis as the Forest Service has no authority over the infrastructure that may be used for emergency response operations, or the emergency response entities themselves. Please refer to the **Traffic and Parking Technical Report** prepared for this project for a full analysis of anticipated traffic conditions.

No edits were made to the **Final EIS** in response to this comment.

10.16 The expansion of GTR and the build-out of the Master Plan for the private land will increase visitation and the overnight population at GTR and the surrounding area. Our concern is how this will influence TCFPD's emergency services call volume and raise demand for emergency services and fire prevention efforts. Additional building and development will likely also require additional prevention, inspection, and WUI mitigation efforts by JHFEMS. The DEIS does not adequately analyze the proposal's impacts on emergency services and wild land fire mitigation impacts, particularly those services provided by JHFEMS. (489.13)

Thank you for your comment. Please refer to public safety **RTC 10.13**. Specifically, while we appreciate the commenter's concerns regarding emergency response limitations, these issues are beyond the scope of analysis as the Forest Service has no authority over the infrastructure that may be used for emergency

response operations, or the emergency response entities themselves. Please refer to the **Traffic and Parking Technical Report** prepared for this project for a full analysis of anticipated traffic conditions.

No edits were made to the **Final EIS** in response to this comment.

10.17 There is absolutely no need for GTR to expand its SUP boundaries into South Bowl for safety. If GTR wants to keep unprepared guests or powder seekers out of South Bowl, they should build a better fence. Right now, the "fence" runs from the top of Peaked to the Al Dante gate. It is made out of 4x4 posts, and there are two loose ropes strung between these posts to create a "fence". This "fence" can be easily ducked at any point between the top of Peaked and the Al Dante gate. If the resort wants to keep its guests safe and within the current SUP boundaries, GTR needs to install a more effective fence. (710.7)

Thank you for your comment. The **Draft EIS** did not conclude that expanding GTR's SUP boundary into South Bowl would categorically improve public safety. Rather, it identifies that this is a complex issue and that expanding into South Bowl would decrease the risk of avalanche-skier interactions.

While visitors to the resort may lose resort privileges for leaving resort boundaries except for at designated exit points, GTR operates on public lands, and cannot legally prevent visitors from accessing adjacent public lands. Backcountry users assume the risk of backcountry travel. As described in **Table 2.4-**1 on **page 46** of the **Final EIS,** GTR would "develop an Operation and Boundary Management Plan to guide users exiting the permit boundary to the adjacent backcountry terrain through established and maintained exit points." This plan would allow for iterative and adaptive management of backcountry access based on user patterns that are difficult to predict beforehand. This plan would be reviewed and approved by the CTNF before implementation.

No edits were made to the **Final EIS** in response to this comment.

10.18 I was Director of Nursing at Teton Valley hospital from late 2007 to 2009. The hospital is the first line of care for injuries at the ski area. While our local health care system has grown and improved since then, the emergency services, while still stellar in quality, are still limited in the number of beds and staff. The expansion projects many thousands of skiers per year. How will a significant influx of visitors, who will need emergent care, be handled? (636.6) (688.9) (637.5) (689.9)

Thank you for your comment. While we appreciate the commenter's concerns regarding emergency response limitations, these issues are beyond the scope of analysis as the Forest Service has no authority over the infrastructure that may be used for emergency response operations or the emergency response entities themselves. No edits were made to the **Final EIS** in response to this comment.

10.19 Additionally, the DEIS does not address Safety Issues for natural disasters (wildfires, earthquakes, etc.) (476.21)

Thank you for your comment. Emergency response plans that address the risk of natural disasters and other safety issues are included in GTR's Operating and Boundary Plan, the specifics of which are outside the scope of analysis necessary for the Responsible Official to be reasonably informed as to the

anticipated effects of the proposed project. The Operating and Boundary plan would be reviewed and approved by the CTNF before implementation.

No edits were made to the **Final EIS** in response to this comment.

10.20 If Grand Targhee is concerned about public safety stemming from backcountry use in South Bowl and/or a related strain on their ski patrol, we would encourage the resort to close the El Dente gate and the gap in the rope line that allows easy access back into the SUP along the Colter Lift. These gates have created an attractive nuisance with easy backcountry access to South Bowl that is appealing to less-experienced backcountry skiers who may be unfamiliar with assessing avalanche risk. The "side country" experience these new gates facilitate may also lure experienced backcountry skiers into a false sense of complacency regarding avalanche danger. If this is indeed a public safety concern (and, again, the DEIS lacks data to support such an assumption), it would logically follow that expanding the SUP into South Bowl will only exacerbate this issue. (471.34)

Thank you for your comment. The **Draft EIS** did not conclude that expanding GTR's SUP boundary into South Bowl would categorically improve public safety. Rather, it identifies that this is a complex issue and that expanding into South Bowl would decrease the risk of avalanche-skier interactions. While the commenter is correct that the backcountry access gates and their operation are controlled by GTR, the specifics of GTR's Operations and Boundary Plan are beyond the scope of this analysis.

No edits were made to the **Final EIS** in response to this comment.

10.21 TBCA has learned that CTNF staff has suggested to the Teton County, WY Board of County Commissioners that avalanche mitigation be allowed in South Bowl, even if the South Bowl expansion is denied. It is suggested that this mitigation will improve safety for out-of-bounds skiers. TBCA strongly disagrees! Avalanche mitigation will create serious hazards for backcountry travelers, particularly those electing to ascend to South Bowl from below or winter camp on its lower slopes. Avalanche mitigation outside the boundaries of a ski area is NOT a normal practice at ski areas. For example, JHMR does not control terrain outside its permitted use area, such as Rock Springs Canyon and Granite Canyon. The mantra for those exiting JHMR and other ski areas is that you are expected to have the knowledge, equipment, and partners. The common mantra for all backcountry travel, is "if you don't know, don't go!" TBCA suggests that if GTR were to control the area for avalanches, it would encourage those without proper training to ski those areas, which would result in more accidents, as well as significantly increase GTR's liability exposure. (571.8)

Thank you for your comment. Avalanche mitigation within South Bowl without the expansion of GTR's SUP is not proposed and is outside the scope of this analysis. If GTR performs avalanche mitigation in which the runout zones of the triggered avalanche enter South Bowl, GTR would manage those runout zones in accordance with their approved Operation and Boundary Plan. Further, should South Bowl be incorporated into GTR's SUP and as described in **Table 2.4-1** on **page 46** of the **Final EIS,** GTR would "develop an Operation and Boundary Management Plan to guide users exiting the permit boundary to the adjacent backcountry terrain through established and maintained exit points." This plan would also,

"describe both physical closures and operational measures to be taken", and be reviewed and approved by the CTNF before implementation.

No edits were made to the **Final EIS** in response to this comment.

10.22 The proposed boundary adjustment in South Bowl will help alleviate a significant operational burden and improve guest safety. The increase in side-country skiing of South Bowl adjacent to the ski area by skiers who leave the Resort boundary has caused continued and increasing operational and safety issues for GTR. GTR ski patrol frequently responds to calls from skiers that venture out of the boundary unprepared. Adding the proposed terrain in South Bowl to the Resort special use permit boundary for lift-served skiing will allow GTR to conduct avalanche mitigation and provide safe access to the area. (647.9) (346.1)

Thank you for your comment. The commenter is in agreement with the analysis included in the **Draft EIS**, that the proposed expansion would limit skier-related backcountry accidents, avalanche incidents, and provide increased ski patrol oversight to more quickly allocate resources and respond to incidents. Anticipated impacts to skier-related backcountry accidents and avalanches as a result of the project are analyzed in **Section 3.7.3** of the **Final EIS**.

No edits were made to the **Final EIS** in response to this comment.

10.23 The DEIS for Public Safety should be sent back to SE Group and rewritten. This section of the document is poorly written, and the references are not accredited or scientific. There are so many publications describing avalanche terrain, direction of slopes, etc, that could have been used. The references used for this publication include: REI, an outdoor recreation retailer, and Snowbrains, an online ski blog. (710.12)

Thank you for your comment. We appreciate your concern regarding the quality of sources used in the analysis, however we feel that the sources used include best available data at the time of analysis and are adequate to provide sufficient validity to the analysis. No edits were made to the **Final EIS** in response to this comment.

10.24 The EIS does not address public safety within the proposed SUP other than just that of avalanche control. It does not address the safety risks associated with the new terrain, the increased risk due to limited ski patrol resources, or the increased risk to skiers that exit the boundary of the ski are and ski down further into Teton Canyon. (1066.6)

Thank you for your comment. Anticipated impacts to skier-related backcountry accidents and avalanches as a result of the project are analyzed in **Section 3.7.3** of the **Final EIS**. Additionally, as described in **Table 2.4-1** on **page 46** of the **Final EIS,** GTR would "develop an Operation and Boundary Management Plan to guide users exiting the permit boundary to the adjacent backcountry terrain through established and maintained exit points."

No edits were made to the **Final EIS** in response to this comment.

10.25 Additionally, the document notes that an Operational and Boundary Management Plan would be prepared. This document should be provided as part of the NEPA analysis to ensure the impacts are fully understood. (1066.14)

Thank you for your comment. The specifics of the Operational and Boundary Management Plan, is noted in **Table 2.4-1** on **page 46** of the **Final EIS**. The Operation and Boundary Management Plan only implements approved projects, which would result in impacts disclosed in the **Final EIS**. This plan would go through a separate Forest Service review and approval process to ensure that it would support the operational effectiveness of GTR. Additionally, this Plan may be designed in such a way as to be revised and improved over time due to changing operational conditions.

No edits were made to the **Final EIS** in response to this comment.

10.26 No data provided for avalanche mitigation below the new SUP boundary. No data to back up said rescues in South Bowl. There are no reports on the Bridger Teton Avalanche Center's website concerning skiers being caught in avalanches in the South Bowl area. No studies on the funneling of more skiers onto the one trail that takes them back to the base area. (476.17)

Thank you for your comment. The **Draft EIS** did not conclude that expanding GTR's SUP boundary into South Bowl would categorically improve public safety. Rather, it identifies that this is a complex issue and that expanding into South Bowl would decrease the risk of avalanche-skier interactions. The ski patrol oversight of this area would be outlined in a forthcoming Operations and Boundary Plan, as described on **page 46** of the **Final EIS**. This plan would be reviewed and approved by the CTNF before implementation.

No edits were made to the **Final EIS** in response to this comment.

10.27 The Forest Service must supplement the DEIS with a focused, site-specific Emergency Response and Public Safety Analysis that includes: quantitative modeling of emergency response times during peak and impaired conditions on Ski Hill Road; an assessment of the coordination and capacity of local SAR and EMS providers; mitigation strategies to address emergency access delays; analysis of avalanche hazards and user displacement in South Bowl and adjacent public lands, and; an evaluation of whether rescue resources are adequate given the proposed terrain expansion. Without this analysis, the DEIS fails to meet NEPA's requirement to fully evaluate and mitigate critical public safety impacts. (484.8)

Thank you for your comment. While we appreciate the commenter's concerns regarding emergency response limitations, these issues are beyond the scope of analysis as the Forest Service has no authority over the infrastructure that may be used for emergency response operations, or the emergency response entities themselves. Please refer to the **Traffic and Parking Technical Report** prepared for this project for a full analysis of anticipated traffic conditions. Backcountry visitors assume the risk of injury and/or death when recreating on public lands. The proposed project would, however, serve to improve the operability of GTR's ski patrol operations, which may be used as appropriate to serve SUP adjacent terrain.

No edits were made to the **Final EIS** in response to this comment.

10.28 Lightning Ridge Guest Facility – The document notes that the facility would offer beverages. Would this include alcoholic beverages. If so, the addition risk to public safety of impaired skiers is not adequately analyzed. (1066.15)

Thank you for your comment. The proposed Lightning Ridge Guest Facility is described on **page 27** of the **Final EIS**. Analysis of the potential inebriation of visitors is beyond the scope of the analysis, although ski patrol and GTR employees are trained to handle inebriated guests.

No edits were made to the **Final EIS** in response to this comment.

11. Livestock and Grazing

11.1 To be clear, none of the five Alternatives outlined in the GTR Development plan eliminate livestock grazing in the current GTR footprint or in the proposed resort boundary expansion into the Mono Trees or South Bowl areas. However, if adopted, Alternatives 2 and 5 will have significant impacts on the permittee, making it difficult for him to assure the health and safety of his herd in the near term and outer years. The proposed expansion (Alternatives 2 and 5) of GTR boundary into the Mill Creek/Teton grazing allotment threatens the welfare of the livestock (cattle) grazing the allotment as well as the ability of the permittee to manage the herd both during construction and thereafter when the landscape has been altered. (294.1) (294.3) (294.4) (342.1) (342.3) (342.4)

Thank you for your comment. The commenter expresses general concern regarding the effect of project alternatives on the livestock permittee, specifically the welfare of livestock and the ability of the permittee to manage the herd. However, **pages 196-197** of the **Final EIS**, describe that three grazing allotments are located adjacent to the study area. These include the Leigh Creek, Fred's Mountain, and Mill Creek/ Teton Allotment. Approximately 110 acres of the Mill Creek / Teton Allotment overlap with the southern portion of the GTR SUP. This section describes that Fred's Mountain allotment is located directly adjacent to GTR's SUP, and occasionally, livestock will drift into Rick's Basin. Additionally, **Exhibit 3.8-1,** on **page 196** of the **Final EIS,** demonstrates the overlap between these allotments and the existing SUP boundary.

Pages 197-200 of the **Final EIS** describe the impact that the proposed action alternatives would have on adjacent grazing allotments. Specifically, the proposed action would result in an approximately 720-acre overlap with the Mill Creek / Teton Allotment, and Alternative 4 would result in an approximately 220-acre overlap with the Mill Creek / Teton Allotment. Furthermore, it is noted that the Proposed Action may have potential impacts on livestock, including the densification of summer recreational opportunities.

Page 198 of the **Final EIS** also describes that existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer, and these activities may disrupt the area for livestock. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily, and vegetation would be restored following construction, as indicated in the vegetation-specific PDC. Please refer to the vegetation **RTC 15.7** for more information.

Table 2.4-1 Project Design Criteria on **page 55** of the **Final EIS** addresses the potential increase in land use conflicts and describes the required cooperation efforts that would occur between GTR, the Forest Service, and the grazing permittee. Livestock and grazing-specific PDC that states, "Should issues arise between the operations of existing livestock, specifically cattle, and grazing permit holders and GTR, GTR will cooperate with the Forest Service and livestock and grazing permittee and take measures, including but not limited to, the installation of vegetative buffers and fencing to protect the interests of

both permit holders as directed by the Forest Service. Any reasonable installation costs of vegetative buffers or fencing construction and maintenance would be borne by GTR."

Section 3.8.2 Federal, State, and Local Policy and Guidance on **pages 194-195** of the **Final EIS** references the project's compliance with various regulatory frameworks. This includes FSM 2200, which outlines authorities, objectives, policies, and responsibilities related to range management on NFS lands, and the 1997 Forest Plan, which details Forest Plan Management Prescription Characterizations within the Study Area and provides sets of objectives and requirements for specific land areas.

No edits were made to the **Final EIS** in response to this comment.

11.2 The Mill Creek/Teton allotment is one of 11 grazing allotments located in the Teton Basin Ranger District of the CTNF. The permittee, Mr. Clyde Waddell is authorized to use the allotment, divided into 3 areas, to graze 55 cow/calf pairs from June 16 to September 30, 2025. He has been the permit holder for X years under an FS system that grants permits for a 10-year period. If the FS grants GTR the option to expand its boundaries it calls into question the commitment of the FS to continue the traditional multi-use system of management in the Tetons. For over 100 years the FS has supported livestock grazing on NFS lands, providing a valuable resource to the livestock owners as well as other forest users. (294.2) (342.2)

Thank you for your comment. The commenter expresses general concern regarding the effect of the project on traditional multi-use management in the Tetons, and general Forest Service support for grazing permittees. However, **pages 196-197** of the **Final EIS**, describe that three grazing allotments are located adjacent to the study area. These include the Leigh Creek, Fred's Mountain, and Mill Creek/ Teton Allotment. Approximately 110 acres of the Mill Creek / Teton Allotment overlap with the southern portion of the GTR SUP. This section describes that Fred's Mountain allotment is located directly adjacent to GTR's SUP, and occasionally livestock will drift into Rick's Basin. Additionally, **Exhibit 3.8-1,** on **page 196** of the **Final EIS,** demonstrates the overlap between these allotments and the existing SUP boundary. Please refer to the livestock and grazing **RTC 11.1** for more information.

Pages 197-200 of the **Final EIS**, describe the impact that the proposed action alternatives would have on adjacent grazing allotments. Specifically, the proposed action would result in an approximately 720-acre overlap with the Mill Creek / Teton Allotment, and Alternative 4 would result in an approximately 220-acre overlap with the Mill Creek / Teton Allotment. Furthermore, it is noted that the Proposed Action may have potential impacts on livestock, including the densification of summer recreational opportunities.

Additionally, **pages 197-198** of the **Final EIS** also describe that existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer, and these activities may disrupt the area for livestock. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily, and vegetation would be restored following construction, as indicated in the vegetation-specific PDC. Please refer to the vegetation **RTC 15.7** for more information.

Table 2.4-1 Project Design Criteria on **page 55** of the **Final EIS** addresses the potential increase in land use conflicts and describes the required cooperation efforts that would occur between GTR, the Forest

Service, and the grazing permittee. Livestock and grazing-specific PDC that states, “Should issues arise between the operations of existing livestock, specifically cattle, and grazing permit holders and GTR, GTR will cooperate with the Forest Service and livestock and grazing permittee and take measures, including but not limited to, the installation of vegetative buffers and fencing to protect the interests of both permit holders as directed by the Forest Service. Any reasonable installation costs of vegetative buffers or fencing construction and maintenance would be borne by GTR.”

No edits were made to the **Final EIS** in response to this comment.

11.3 The grazing permit holder, Mr. Clyde Waddell, is a full-time rancher who has resided in Teton Valley for most of his life. He and his son work year-round raising Black Angus beef cattle and derive the bulk of their income from sales of cattle each fall. His operation is extensive, encompassing all aspects of breeding, calving, raising and selling and would not be economically viable without access to FS lands each summer for grazing. Loss of use of the Mill Creek/Teton allotment for a period of years may force a reduction in the size of the herd, resulting in a significant loss in income. (294.6) (342.6)

Thank you for your comment. The commenter expresses general concern regarding a possible loss of income resulting from the project's overlap with the Mill Creek / Teton Allotment. However, **pages 196-197** of the **Final EIS**, describe that three grazing allotments are located adjacent to the study area. These include the Leigh Creek, Fred’s Mountain, and Mill Creek/ Teton Allotment. Approximately 110 acres of the Mill Creek / Teton Allotment overlap with the southern portion of the GTR SUP. This section describes that Fred’s Mountain allotment is located directly adjacent to GTR’s SUP, and occasionally livestock will drift into Rick’s Basin. Additionally, **Exhibit 3.8-1,** on **page 196** of the **Final EIS,** demonstrates the overlap between these allotments and the existing SUP boundary. Please refer to the livestock and grazing **RTC 11.1** and **11.2** for more information.

Specifically, **pages 197-198** of the **Final EIS** describe that existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer, and these activities may disrupt the area for livestock. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily, and vegetation would be restored following construction, as indicated in the vegetation-specific PDC. Please refer to the vegetation **RTC 15.7** for more information.

Additional text was added to **page 198** of the **Final EIS**, stating, “Forage availability would be reduced due to overlap of the SUP boundary and the Mill Creek/Teton grazing allotment. Specifically, construction of the Mono Tree lift and related activities could temporarily displace permitted livestock. The Forest Service, grazing permittees, and GTR shall coordinate before and during construction to minimize impacts on grazing operations as is specified in PDC included in **Table 2.4-1**.” to provide clarification.

11.4 The negative impacts of the expansion of GTR into the core of the Mill Creek/Teton allotment will make a large part of the allotment unusable for a period of 3 or more years. Construction of roads, lifts, and ski runs will eliminate the vegetation, natural terrain, and water sources that sustain the grazing operation in the summer months. Slash piles, excavations, and burning operations will exclude grazing. Restoration of vegetation will

be a slow process and will alter the character and suitability of the range for many years. (294.5) (342.5)

Thank you for your comment. The commenter expresses general concern regarding the longevity of the project's impact on the overlapping allotments. However, **pages 196-197** of the **Final EIS**, describe that three grazing allotments are located adjacent to the study area. These include the Leigh Creek, Fred's Mountain, and Mill Creek/ Teton Allotment. Approximately 110 acres of the Mill Creek / Teton Allotment overlap with the southern portion of the GTR SUP. This section describes that Fred's Mountain allotment is located directly adjacent to GTR's SUP, and occasionally livestock will drift into Rick's Basin. Additionally, **Exhibit 3.8-1,** on **page 196** of the **Final EIS,** demonstrates the overlap between these allotments and the existing SUP boundary. Please refer to the livestock and grazing RTC **11.1, 11.2,** and **11.3** for more information.

Additionally, **pages 197-198** of the **Final EIS** also describe that existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer, and these activities may disrupt the area for livestock. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily, and vegetation would be restored following construction, as indicated in the vegetation-specific PDC. Therefore, impacts on vegetation within the allotments would not occur for 3 years, as mentioned in this comment. Please refer to the vegetation **RTC 15.7** for more information.

Further, **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS** addresses the potential increase in land use conflicts and describes the required cooperation efforts that would occur between GTR, the Forest Service, and the grazing permittee. Livestock and grazing-specific PDC that states, "Should issues arise between the operations of existing livestock, specifically cattle, and grazing permit holders and GTR, GTR will cooperate with the Forest Service and livestock and grazing permittee and take measures, including but not limited to, the installation of vegetative buffers and fencing to protect the interests of both permit holders as directed by the Forest Service. Any reasonable installation costs of vegetative buffers or fencing construction and maintenance would be borne by GTR."

No edits were made to the **Final EIS** in response to this comment.

11.5 Alternative 2, if approved, would expand GTR's existing boundary into the Mono Trees and South Bowl areas. The South Bowl area is not grazed by cattle due to the steep terrain. In the Mono Trees area, approximately 720 acres would be the locus of considerable development, including a new lift, ski runs, roads and a base area. While slightly less than the entire area of the Mill Creek/Teton allotment, its large size and the nature of the transformation of the landscape would make it unusable as a grazing allotment during construction and for 2-5 years thereafter. (294.10) (342.10)

Thank you for your comment. The commenter expresses general concern regarding the longevity of the project's impact on the overlapping allotments. However, **pages 196-197** of the **Final EIS**, describe that three grazing allotments are located adjacent to the study area. These include the Leigh Creek, Fred's Mountain, and Mill Creek/ Teton Allotment. Approximately 110 acres of the Mill Creek / Teton Allotment overlap with the southern portion of the GTR SUP. This section describes that Fred's Mountain allotment is located directly adjacent to GTR's SUP, and occasionally livestock will drift into Rick's Basin.

Additionally, **Exhibit 3.8-1,** on **page 196** of the **Final EIS,** demonstrates the overlap between these allotments and the existing SUP boundary. Please refer to the livestock and grazing RTC **11.3** and **11.4** for more information.

Specifically, **pages 197-198** of the **Final EIS** describe that existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer, and these activities may disrupt the area for livestock. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily, and vegetation would be restored following construction, as indicated in the vegetation-specific PDC. Please refer to the vegetation **RTC 15.7** for more information.

Additional text was added to **page 198** of the **Final EIS**, stating, "Although temporary impacts to vegetation within the overlapping allotments would occur during construction, permittees would be consulted to minimize loss of forage and displacement of livestock."

11.6 With the loss of so much acreage, the Mill Creek/Teton allotment would not be capable of supporting the herd during the July 20-August 14th timeframe. Neither would the allotment be economically feasible to the permittee. The increased management time and complexity represents an additional burden to both GTR and the permittee. (294.12) (342.12)

Thank you for your comment. Additional text was added to **page 198** of the **Final EIS**, stating, "Although temporary impacts to vegetation within the overlapping allotments would occur during construction, permittees would be consulted to minimize loss of forage and displacement of livestock."

Additionally, the following text was added to **page 199** of the **Final EIS**, to describe further the impacts from Alternatives 2 and 4 on the Mill Creek / Teton Allotment: "Even during construction implementation, the area of the project overlapping with the Mill Creek/ Teton Allotment would not consist entirely of ground disturbing activities. Therefore, the PDCs included in **Table 2.4-1** address the loss of land viable for grazing within the allotment and would reduce the displacement of livestock."

The following text was also added to **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS**, to mitigate the project's impacts on viable vegetation within the overlapping grazing allotment, thus avoiding losses in viable grazing acreage and income from production: "GTR shall coordinate with the Forest Service and grazing permittee to sequence construction activities to avoid, to the extent practicable, eliminating all viable summer grazing forage within the Mill Creek Teton Allotment during any given grazing season. GTR shall provide advance notice to the Forest Service and grazing permittee regarding the timing and location of proposed summer construction activities within areas overlapping the allotment, including expected duration and intensity of activities. Where feasible, GTR shall schedule intensive ground-disturbing activities to occur outside of peak grazing periods or in areas not actively grazed during a particular rotation cycle."

11.7 If either Alternatives 2 or 5 are approved, the FS will require GTR to compensate Clyde Waddell for lost revenue and increased expenses for each year the Mono Trees area is unavailable for grazing due to construction and/or restoration of vegetation. The exact amount of compensation will be negotiated between GTR and Mr. Waddell. (294.23) (342.23)

Thank you for your comment. The commenter expresses general concern regarding a possible loss of income resulting from the project's overlap with the Mill Creek / Teton Allotment. However, **pages 196-197** of the **Final EIS**, describe that three grazing allotments are located adjacent to the study area. These include the Leigh Creek, Fred's Mountain, and Mill Creek/ Teton Allotment. Approximately 110 acres of the Mill Creek / Teton Allotment overlap with the southern portion of the GTR SUP. This section describes that Fred's Mountain allotment is located directly adjacent to GTR's SUP, and occasionally livestock will drift into Rick's Basin. Additionally, **Exhibit 3.8-1,** on **page 196** of the **Final EIS,** demonstrates the overlap between these allotments and the existing SUP boundary. Please refer to the livestock and grazing **RTC 11.1** and **11.2** for more information.

Specifically, **pages 197-198** of the **Final EIS** describe that existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer, and these activities may disrupt the area for livestock. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily, and vegetation would be restored following construction, as indicated in the vegetation-specific PDC. Please refer to the vegetation **RTC 15.7** for more information.

Additional text was added to **page 198** of the **Final EIS**, stating, "Although temporary impacts to vegetation within the overlapping allotments would occur during construction, permittees would be consulted to minimize loss of forage and displacement of livestock."

11.8 If either Alternatives 2 or 5 are approved, the FS will require GTR to submit an updated vegetation plan, a summer operating plan, and a specific livestock management plan prior to initiation of projects that overlap the Mill Creek/Teton allotment. (294.27) (342.27)

Thank you for your comment. The commenter mentions that various plans, including a vegetation plan, a summer operating plan, and a livestock-specific management plan, would be required to discuss the grazing allotments that overlap with the project. However, **pages 196-197** of the **Final EIS**, describe that three grazing allotments are located adjacent to the study area. These include the Leigh Creek, Fred's Mountain, and Mill Creek/ Teton Allotment. Approximately 110 acres of the Mill Creek / Teton Allotment overlap with the southern portion of the GTR SUP. This section describes that Fred's Mountain allotment is located directly adjacent to GTR's SUP, and occasionally, livestock will drift into Rick's Basin. Additionally, **Exhibit 3.8-1,** on **page 196** of the **Final EIS,** demonstrates the overlap between these allotments and the existing SUP boundary.

Specifically, **pages 197-198** of the **Final EIS** describe that existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer, and these activities may disrupt the area for livestock. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily, and vegetation would be restored following construction, as indicated in the vegetation-specific PDC. Please refer to the vegetation **RTC 15.7** for more information.

Additional text was added to **page 198** of the **Final EIS**, stating, "Although temporary impacts to vegetation within the overlapping allotments would occur during construction, permittees would be consulted to minimize loss of forage and displacement of livestock."

Additionally, the following text was added to **page 199** of the **Final EIS**, to describe further the impacts from Alternatives 2 and 4 on the Mill Creek / Teton Allotment: "Even during construction implementation, the area of the project overlapping with the Mill Creek/ Teton allotment would not consist entirely of ground disturbing activities. Therefore, the PDCs included in **Table 2.4-1** address the loss of land viable for grazing within the allotment and would reduce the displacement of livestock."

The following text was added to **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS**, to mitigate the project's impacts on viable vegetation within the overlapping grazing allotment, thus avoiding losses in viable grazing acreage and income from production: "GTR shall coordinate with the Forest Service and grazing permittee to sequence construction activities to avoid, to the extent practicable, eliminating all viable summer grazing forage within the Mill Creek Teton Allotment during any given grazing season. GTR shall provide advance notice to the Forest Service and grazing permittee regarding the timing and location of proposed summer construction activities within areas overlapping the allotment, including expected duration and intensity of activities. Where feasible, GTR shall schedule intensive ground-disturbing activities to occur outside of peak grazing periods or in areas not actively grazed during a particular rotation cycle."

11.9 In many aspects the EIS is an impressive document that details proposed actions and impacts of actions under each of 5 alternatives in the GTR Master Plan for the CTNF. Tables, figures, diagrams, and text detail the direct and indirect consequences of each action on each entity in the forest impact area. The level of detail is notable. But when it comes to the project design criteria for livestock and grazing there is a paucity of detail. For example, the total acreage in the Mono Trees area that will be disturbed by vegetation clearing and or grading is not clear. Tree removal, chipping, slash pile burning, soil erosion, noxious weed invasion, construction roads, construction equipment, gravel, stockpiles, and applications of chemical herbicides are incompatible with livestock grazing. There are no details on how GTR and the permittee will coordinate their respective operations during this time. (294.7) (342.7)

Thank you for your comment. The commenter expresses general concern regarding the amount of vegetation clearing would be associated with alternatives with specific respect to the loss land viable for grazing. However, **pages 196-197** of the **Final EIS**, describe that three grazing allotments are located adjacent to the study area. These include the Leigh Creek, Fred's Mountain, and Mill Creek/ Teton Allotment. Approximately 110 acres of the Mill Creek / Teton Allotment overlap with the southern portion of the GTR SUP. This section describes that Fred's Mountain allotment is located directly adjacent to GTR's SUP, and occasionally livestock will drift into Rick's Basin. Additionally, **Exhibit 3.8-1,** on **page 196** of the **Final EIS,** demonstrates the overlap between these allotments and the existing SUP boundary.

In **Table 2.2-1 Projected Disturbance Under the Proposed Action** on **pages 23-24** of the **Final EIS**, the acreage corresponding with various disturbance types (tree clearing, grading, glading, and selective tree clearing) and project components is detailed. An equivalent table is also provided for Alternative 3 on **pages 37** of the **Final EIS**, and Alternative 4 on **pages 39-40** of the **Final EIS**. These disturbance summaries analyze the proposed project improvements with respect to the ground disturbance required to implement them; therefore, any details not included in the text can be found in the disturbance summary. In this regard, these acreages are applied to the direct and indirect environmental consequences section for

each resource, demonstrating potential impacts associated with the calculated ground disturbance. Please refer to the vegetation **RTC 15.2** for more information.

As mentioned on **page 38** of the **Final EIS**, prior to starting construction activities, GTR shall develop a Construction Implementation Plan for Forest Service Review and Authorization. Furthermore, **Table 2.4-1 Project Design Criteri**a on **pages 44-56** describes that the plan would include a post-construction revegetation and restoration strategy along with the following information: plan construction management, timber management, erosion control and drainage management, and noxious weed management.

Specifically, **pages 197-200** of the **Final EIS** describe that existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer, and these activities may disrupt the area for livestock. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily, and vegetation would be restored following construction, as indicated in the vegetation-specific PDC. Please refer to the vegetation **RTC 15.7** for more information.

The following text was added to **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS**, to mitigate the project's impacts on viable vegetation within the overlapping grazing allotment, thus avoiding losses in viable grazing acreage and income from production: "GTR shall coordinate with the Forest Service and grazing permittee to sequence construction activities to avoid, to the extent practicable, eliminating all viable summer grazing forage within the Mill Creek Teton Allotment during any given grazing season. GTR shall provide advance notice to the Forest Service and grazing permittee regarding the timing and location of proposed summer construction activities within areas overlapping the allotment, including expected duration and intensity of activities. Where feasible, GTR shall schedule intensive ground-disturbing activities to occur outside of peak grazing periods or in areas not actively grazed during a particular rotation cycle."

11.10 While not expressly stated, it appears that the permittee will be excluded from the Mill Creek/Teton allotment for an extended period. The PDC stipulates that GTR will contribute funds for fencing, but no details are provided on the type of fencing, the location, and the duration. Further GTR is required to produce, at some unspecified time, a summer operating plan. It is unclear if this management plan includes only the construction phase or its lengthy aftermath. Given the scale and scope of the proposed buildout of a Mono Trees lift, ski runs and a base of operation, it is remarkable that no details are provided to the grazing permittee on how he will maintain his operation. (294.8) (342.8)

Thank you for your comment. Additional text was added to **page 193** of the **Final EIS**, stating, "Although temporary impacts to vegetation within the overlapping allotments would occur during construction, permittees would be consulted to minimize loss of forage and displacement of livestock."

Additionally, the following text was added to **page 199** of the **Final EIS**, to describe further the impacts from Alternatives 2 and 4 on the Mill Creek / Teton Allotment: "Even during construction implementation, the area of the project overlapping with the Mill Creek/ Teton allotment would not consist entirely of ground disturbing activities. Therefore, the PDCs included in **Table 2.4-1** address the loss of land viable for grazing within the allotment and would reduce the displacement of livestock."

The following text was added to **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS**, to mitigate the project's impacts on viable vegetation within the overlapping grazing allotment, thus avoiding losses in viable grazing acreage and income from production: "GTR shall coordinate with the Forest Service and grazing permittee to sequence construction activities to avoid, to the extent practicable, eliminating all viable summer grazing forage within the Mill Creek Teton Allotment during any given grazing season. GTR shall provide advance notice to the Forest Service and grazing permittee regarding the timing and location of proposed summer construction activities within areas overlapping the allotment, including expected duration and intensity of activities. Where feasible, GTR shall schedule intensive ground-disturbing activities to occur outside of peak grazing periods or in areas not actively grazed during a particular rotation cycle."

11.11 EIS maps show that the proposed Mono Trees ski area will overlay both Mill Creek and a contributing natural spring. Both are important to the ability of graze cattle. No mention is made of how this will be managed. The directive calls for the FS to approve the installation of vegetative buffers, fencing and other unnamed measures to protect the interests of both parties. It is unclear how vegetative buffers will function to impede the travel of cattle into and through construction zones and/or technical base area operations. Permanent or semi-permanent fencing comprised of metal posts and barbed wire are a better solution. However, the presence of wildlife in the forest will impact the efficacy of any barrier fencing and will require daily inspections to ensure the integrity of the barrier. The new lift lines, runs and trails will change grazing patterns, resulting in herd migration into areas of resort operation. More information about the location of the fencing would be important to gauge how this would be managed. Similarly, GTR is required to use vegetation barriers to exclude cattle from portions of the grazing allotment. Vegetative barriers/buffers have never been used to restrict movement of livestock on a grazing allotment or wildlife in a forest setting. Their primary use is for control of erosion. (294.9) (342.9) (294.15) (342.15)

Thank you for your comment. The commenter expresses concern regarding vegetation barriers mentioned in the PDC highlighted in **Table 2.4-1 Project Design Criteria** on **pages 44-56** of the **Final EIS.** However, the following text was added to **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS**, to mitigate the project's impacts on viable vegetation within the overlapping grazing allotment, thus avoiding losses in viable grazing acreage and income from production: "GTR shall coordinate with the Forest Service and grazing permittee to sequence construction activities to avoid, to the extent practicable, eliminating all viable summer grazing forage within the Mill Creek Teton Allotment during any given grazing season. GTR shall provide advance notice to the Forest Service and grazing permittee regarding the timing and location of proposed summer construction activities within areas overlapping the allotment, including expected duration and intensity of activities. Where feasible, GTR shall schedule intensive ground-disturbing activities to occur outside of peak grazing periods or in areas not actively grazed during a particular rotation cycle."

Additionally, the following text was added to **page 199** of the **Final EIS**, to describe further the impacts from Alternatives 2 and 4 on the Mill Creek / Teton Allotment: "Even during construction implementation, the area of the project overlapping with the Mill Creek/ Teton allotment would not consist entirely of ground disturbing activities. Therefore, the PDCs included in **Table 2.4-1** address the loss of land viable for grazing within the allotment and would reduce the displacement of livestock."

Additionally, **pages 196-197** of the **Final EIS**, describe that three grazing allotments are located adjacent to the study area. These include the Leigh Creek, Fred's Mountain, and Mill Creek/ Teton Allotment. Approximately 110 acres of the Mill Creek / Teton Allotment overlap with the southern portion of the GTR SUP. This section describes that Fred's Mountain allotment is located directly adjacent to GTR's SUP, and occasionally livestock will drift into Rick's Basin. Additionally, **Exhibit 3.8-1,** on **page 196** of the **Final EIS,** demonstrates the overlap between these allotments and the existing SUP boundary. Please refer to the livestock and grazing **RTC 11.8** for more information.

Finally, **pages 197-200** of the **Final EIS** describe that existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer, and these activities may disrupt the area for livestock. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily, and vegetation would be restored following construction, as indicated in the vegetation-specific PDC. Please refer to the vegetation **RTC 15.7** for more information.

11.12 The project design criteria outlined in the EIS for revegetation are reasonable if followed. Fencing and weed management are clearly defined and would ultimately result in an area that is suitable for grazing and would safeguard the ability of both the resort and the grazing activities to co-exist with the newly created ski runs in Mono Trees. (294.20) (342.20)

Thank you for your comment. The commenter expresses general support for the following mitigation measure mentioned in **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS**: "Should issues arise between the operations of existing livestock, specifically cattle, and grazing permit holders and GTR, GTR will cooperate with the Forest Service and livestock and grazing permittee and take measures, including but not limited to, the installation of vegetative buffers and fencing to protect the interests of both permit holders as directed by the Forest Service. Any reasonable installation costs of vegetative buffers or fencing construction and maintenance shall be borne by GTR." However, **pages 197-200** of the **Final EIS** describe that existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer, and these activities may disrupt the area for livestock. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily, and vegetation would be restored following construction, as indicated in the vegetation-specific PDC. Please refer to the vegetation **RTC 15.7** for more information.

As mentioned on **page 42** of the **Final EIS**, prior to starting construction activities, GTR shall develop a Construction Implementation Plan for Forest Service Review and Authorization. Furthermore, **Table 2.4-1 Project Design Criteri**a on **pages 44-45** describes that the plan would include a post-construction revegetation and restoration strategy along with the following information: plan construction management, timber management, erosion control and drainage management, and noxious weed management. Please refer to the livestock and grazing **RTC 11.9** and **11.10** for more information. No edits were made to the **Final EIS** in response to this comment.

11.13 If either Alternatives 2 or 5 are approved, the FS and WYDOT will commit to the installation fencing on both sides of Ski Hill Road with an underpass to protect migrating wildlife and cattle. Basic road safety should be a requirement. (294.28) (342.28)

Thank you for your comment. The commenter expresses support for the installation of fencing to protect wildlife and cattle along Ski Hill Road. However, **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS** addresses the potential increase in land use conflicts and describes the required cooperation efforts that would occur between GTR, the Forest Service, and the grazing permittee. Livestock and grazing-specific PDC that states, "Should issues arise between the operations of existing livestock, specifically cattle, and grazing permit holders and GTR, GTR will cooperate with the Forest Service and livestock and grazing permittee and take measures, including but not limited to, the installation of vegetative buffers and fencing to protect the interests of both permit holders as directed by the Forest Service. Any reasonable installation costs of vegetative buffers or fencing construction and maintenance would be borne by GTR."

Pages 197-200 of the **Final EIS** describe that existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer, and these activities may disrupt the area for livestock. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily, and vegetation would be restored following construction, as indicated in the vegetation-specific PDC. Please refer to the livestock and grazing **RTC 11.7 and 11.10** for more information.

As mentioned on **page 42** of the **Final EIS**, prior to starting construction activities, GTR shall develop a Construction Implementation Plan for Forest Service Review and Authorization. Furthermore, **Table 2.4-1 Project Design Criteri**a on **pages 44-45** describes that the plan would include a post-construction revegetation and restoration strategy along with the following information: plan construction management, timber management, erosion control and drainage management, and noxious weed management. Please refer to the livestock and grazing **RTC 11.9** and **11.10** for more information. No edits were made to the **Final EIS** in response to this comment.

11.14 If either Alternatives 2 or 5 are approved, the FS will require GTR to install permanent fencing around the entire Mono Trees area for the period of time when it is under construction and restoration and to protect equipment and structures (294.24) (294.25) (342.24) (342.25)

Thank you for your comment. The commenter expresses concern regarding the Forest Service's commitment to constructing vegetation barriers surrounding the Mono Trees area. However, **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS** addresses the potential increase in land use conflicts and describes the required cooperation efforts that would occur between GTR, the Forest Service, and the grazing permittee. Livestock and grazing-specific PDC that states, "Should issues arise between the operations of existing livestock, specifically cattle, and grazing permit holders and GTR, GTR will cooperate with the Forest Service and livestock and grazing permittee and take measures, including but not limited to, the installation of vegetative buffers and fencing to protect the interests of both permit holders as directed by the Forest Service. Any reasonable installation costs of vegetative buffers or fencing construction and maintenance would be borne by GTR."

The following text was added to **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS**, to mitigate the project's impacts on viable vegetation within the overlapping grazing allotment, thus avoiding losses in viable grazing acreage and income from production: "GTR shall coordinate with the Forest Service and grazing permittee to sequence construction activities to avoid, to the extent practicable, eliminating all viable summer grazing forage within the Mill Creek Teton Allotment during any given grazing season. GTR shall provide advance notice to the Forest Service and grazing permittee regarding the timing and location of proposed summer construction activities within areas overlapping the allotment, including expected duration and intensity of activities. Where feasible, GTR shall schedule intensive ground-disturbing activities to occur outside of peak grazing periods or in areas not actively grazed during a particular rotation cycle."

11.15 In addition, it is likely that the expansion of roads and trails will result in increased summer usage by hikers and mountain bikers. Interactions with grazing cattle could result in emotional and physical trauma to users. (294.11) (342.11)

Thank you for your comment. The commenter expresses concern regarding the project resulting in possible conflict between summer trail users and livestock. However, **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS** addresses the potential increase in land use conflicts and describes the required cooperation efforts that would occur between GTR, the Forest Service, and the grazing permittee. Livestock and grazing-specific PDC that states, "Should issues arise between the operations of existing livestock, specifically cattle, and grazing permit holders and GTR, GTR will cooperate with the Forest Service and livestock and grazing permittee and take measures, including but not limited to, the installation of vegetative buffers and fencing to protect the interests of both permit holders as directed by the Forest Service. Any reasonable installation costs of vegetative buffers or fencing construction and maintenance would be borne by GTR."

Additionally, the following text has been added to **page 198** of the **Final EIS**, because although visitation may increase as a result of the proposed alternatives, interactions with livestock is not expected to increase: "If user created routes increase in this area, then this incidental livestock drift may increase, although this would be confined with respect to livestock and grazing PDCs." Please refer to the livestock and grazing RTC **11.13** for more information.

11.16 Alternative 5, if approved, would expand GTR's existing boundary into the Mono Trees area. As in Alternative 2, the impacts to livestock and grazing would be significant due to the removal of trees, vegetation and disruption of natural springs, wetlands, and Mill Creek. Increased visitation will also bring trail users and cattle into conflict. With the loss of so much acreage, the Mill Creek/Teton allotment would not be capable of supporting the herd during the July 20-August 14th timeframe. Neither would the allotment be economically feasible to the permittee. The increased management time and complexity represents an additional burden to both GTR and the permittee. (294.13) (342.13)

Thank you for your comment. Additional text was added to **page 198** of the **Final EIS**, stating, "Although temporary impacts to vegetation within the overlapping allotments would occur during construction, permittees would be consulted to minimize loss of forage and displacement of livestock."

Additionally, the following text was added to **page 199** of the **Final EIS**, to describe further the impacts from Alternatives 2 and 4 on the Mill Creek / Teton Allotment: "Even during construction

implementation, the area of the project overlapping with the Mill Creek/ Teton allotment would not consist entirely of ground disturbing activities. Therefore, the PDCs included in **Table 2.4-1** address the loss of land viable for grazing within the allotment and would reduce the displacement of livestock."

The following text was added to **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS**, to mitigate the project's impacts on viable vegetation within the overlapping grazing allotment, thus avoiding losses in viable grazing acreage and income from production: "GTR shall coordinate with the Forest Service and grazing permittee to sequence construction activities to avoid, to the extent practicable, eliminating all viable summer grazing forage within the Mill Creek Teton Allotment during any given grazing season. GTR shall provide advance notice to the Forest Service and grazing permittee regarding the timing and location of proposed summer construction activities within areas overlapping the allotment, including expected duration and intensity of activities. Where feasible, GTR shall schedule intensive ground-disturbing activities to occur outside of peak grazing periods or in areas not actively grazed during a particular rotation cycle."

11.17 Alternative 3, if approved, would not result in an expansion of the current GTR boundary, but would increase allotment recreation during the summer months. GTR plans to increase road and trail building in the area that both operations currently share. This would result in more human use and an increased likelihood of human and livestock interactions. Mountain biking, hiking and trail use with dogs would occur on the same terrain occupied by over 100 cows, calves and bulls. (294.14) (342.14)

Thank you for your comment. The commenter expresses concern regarding the project resulting in possible conflict between summer trail users and livestock. However, **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS** addresses the potential increase in land use conflicts and describes the required cooperation efforts that would occur between GTR, the Forest Service, and the grazing permittee. Livestock and grazing-specific PDC that states, "Should issues arise between the operations of existing livestock, specifically cattle, and grazing permit holders and GTR, GTR will cooperate with the Forest Service and livestock and grazing permittee and take measures, including but not limited to, the installation of vegetative buffers and fencing to protect the interests of both permit holders as directed by the Forest Service. Any reasonable installation costs of vegetative buffers or fencing construction and maintenance would be borne by GTR."

Additionally, the following text has been added to **page 198** of the **Final EIS**, because although visitation may increase as a result of the proposed alternatives, interactions with livestock is not expected to increase: "If user created routes increase in this area, then this incidental livestock drift may increase, although this would be confined with respect to livestock and grazing PDCs." Please refer to the livestock and grazing **RTC 11.13** and **11.15** for more information.

11.18 Adoption of any of the Alternatives will result in increased visitor traffic on Ski Hill Road. Alternatives 2 and 5 will result in significant increases in road use. Ski Hill Road traverses the Mill Creek/Teton Allotment. Typically, the cattle traverse the road daily to utilize forage and water during the months of June and July. This presents a safety hazard to drivers. The Project design criteria do not address how minimize collisions. Currently there are 2 signs warning motorists that there are free-ranging cattle. More could be done to exclude cows from the road by installing fencing and an underpass. Wildlife underpasses have been successfully used throughout Wyoming to prevent highway collisions with

migrating wildlife. An underpass would protect both wildlife and cattle and improve public safety on Ski Hill Road. (294.22) (342.22)

Thank you for your comment. The commenter expresses concern for increased traffic and road use along Ski Hill Road, as well as possible safety hazards associated with free-ranging cattle. However, **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS** addresses the potential increase in land use conflicts and describes the required cooperation efforts that would occur between GTR, the Forest Service, and the grazing permittee. Livestock and grazing-specific PDC that states, "Should issues arise between the operations of existing livestock, specifically cattle, and grazing permit holders and GTR, GTR will cooperate with the Forest Service and livestock and grazing permittee and take measures, including but not limited to, the installation of vegetative buffers and fencing to protect the interests of both permit holders as directed by the Forest Service. Any reasonable installation costs of vegetative buffers or fencing construction and maintenance would be borne by GTR."

Pages 197-200 of the **Final EIS** describe that existing and future livestock and grazing could be impacted by the construction of the previously undeveloped South Bowl and Mono Trees areas. Construction of administrative routes, facilities, trails, and lifts would occur in the summer, and these activities may disrupt the area for livestock. While construction may pose a challenge to livestock grazing permittees and change grazing patterns for the duration of construction activities, the impacts would only occur temporarily, and vegetation would be restored following construction, as indicated in the vegetation-specific PDC. Please refer to the livestock and grazing **RTC 11.7, 11.10,** and **11,13** for more information.

As mentioned on **page 42** of the **Final EIS**, prior to starting construction activities, GTR shall develop a Construction Implementation Plan for Forest Service Review and Authorization. Furthermore, **Table 2.4-1 Project Design Criteri**a on **pages 44-45** describes that the plan would include a post-construction revegetation and restoration strategy along with the following information: plan construction management, timber management, erosion control and drainage management, and noxious weed management. Please refer to the livestock and grazing **RTC 11.9** and **11.10** for more information. No edits to the **Final EIS** were made in response to this comment.

11.19 If either Alternatives 2 or 5 are approved, the FS will modify the current grazing regulations to provide a waiver of the 4-year non-use period on the Mill Creek Allotment while it undergoes restoration. Under current regulations, the permittee would forfeit the grazing right if the allotment was not used for 4 years. The new regulation would wave this requirement during the time of construction and restoration of vegetation. (294.26) (342.26)

Thank you for your comment. Please refer to the vegetation **RTC 15.7** for more information.

Additional text was added to **page 198** of the **Final EIS**, stating, "Although temporary impacts to vegetation within the overlapping allotments would occur during construction, permittees would be consulted to minimize loss of forage and displacement of livestock."

Additionally, the following text was added to **page 199** of the **Final EIS**, to describe further the impacts from Alternatives 2 and 4 on the Mill Creek / Teton Allotment: "Even during construction implementation, the area of the project overlapping with the Mill Creek/ Teton allotment would not

consist entirely of ground disturbing activities. Therefore, the PDCs included in **Table 2.4-1** address the loss of land viable for grazing within the allotment and would reduce the displacement of livestock."

The following text was added to **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS**, to mitigate the project's impacts on viable vegetation within the overlapping grazing allotment, thus avoiding losses in viable grazing acreage and income from production: "GTR shall coordinate with the Forest Service and grazing permittee to sequence construction activities to avoid, to the extent practicable, eliminating all viable summer grazing forage within the Mill Creek Teton Allotment during any given grazing season. GTR shall provide advance notice to the Forest Service and grazing permittee regarding the timing and location of proposed summer construction activities within areas overlapping the allotment, including expected duration and intensity of activities. Where feasible, GTR shall schedule intensive ground-disturbing activities to occur outside of peak grazing periods or in areas not actively grazed during a particular rotation cycle."

12. Air Quality

12.1 The section on air pollution states that the nearest population centers are in Idaho Falls and Jackson. It states that the increased visitation in alt. 2 would contribute less than .2% to highway vehicle emissions in Wy, and would not be enough to negatively impact air quality in the area. The section on air pollution does not even recognize local communities like Driggs or Teton County, ID. What about the spike in air pollution in downtown Driggs when 20-50 cars are frequently backed up at the solo traffic light? An air quality data analysis needs to be done in downtown Driggs, Idaho via a supplemental EIS. This would be a reasonable because a Purple Air quality monitor could be installed in downtown Driggs to get baseline studies. The cost would be less than $300. Local air pollution baseline data should be included in FEIS. (205.2) (729.3) (486.4) (701.4) (478.5) 26b.6)

Thank you for your comment. Please refer to **pages 221-222** of the **Final EIS** where it describes the population centers that are analyzed in the air quality analysis. The two population centers that are analyzed are Jackson, WY and Idaho Falls, ID. The reason these two population centers were chosen were because these are the closest locations to the project area that the U.S. Environmental Protection Agency (EPA) has air quality monitoring sites. Text has been added to the **Final EIS** on **page 221** that states "The nearest population centers with U.S. EPA air quality monitoring sites in proximity to GTR…" These two locations also have historical data that was used in the analysis to understand how the Proposed Action would change these existing conditions. Although Driggs, ID is in closer proximity to the project area, it does not have a U.S. EPA air quality monitoring site. Best available data was used in this analysis. Please refer to the hyperlink associated with U.S. EPA 2022a in Chapter 5 with the full reference table for more information on the air quality monitoring sites.

12.2 There is an air quality monitor placed near the stoplight in Driggs. It has increased in the amount of measurable pollution in the air and continues to worsen. Additional traffic from Jackson, Swan Valley, Rexburg, Idaho Falls contributes to this problem. Consider how allowing construction vehicles, workers, and all others involved with the magnitude of this build out will contribute to this already lingering problem. (498.2)

Thank you for your comment. Please refer to air quality **RTC 12.1** for more information on why air quality monitoring sites from Jackson, WY and Idaho Falls, ID are used instead of one from Driggs, ID.

Please also refer to **pages 221-222** of the **Final EIS** where it provides the air quality index of both Jackson and Idaho Falls. Both Jackson's and Idaho Falls's air quality index has ranged from "good" to "moderate" since 2001. Additionally, on **page 220** of the **Final EIS** it provides existing conditions of emissions from vehicle traffic for the State of Wyoming. These existing conditions of air quality and vehicle emissions are then used in the direct and indirect environmental consequences section to understand how the Proposed Action would impact air quality. Overall, as described on **pages 225-228** of the **Final EIS** from construction and timber removal the Proposed Action would contribute to an increase of less than 0.1 percent or less of off-highway vehicle emissions in Wyoming on an annual basis and would contribute 5,460 lbs of CO_2 daily or 0.1 percent or less increase in total transportation emissions. From operations $PM_{2.5}$ would increase approximately 4 lbs, SO_x would increase less than 1lb, CH_4 would increase approximately 2.4 lbs in the winter, and 62,000 lbs of CO_2 or less than 0.2 percent increase in daily CO_2 emissions would be contributed to the atmosphere. All of these contributions are not large enough to negatively impact the air quality of the area.

No additional edits were made to the **Final EIS** in response to this comment.

12.3 Missing quantitative analysis of short– and long–term emissions from construction activities, including particulate matter and greenhouse gas emissions. (457.104)

Thank you for your comment. Please refer to air quality **RTC 12.2** which describes the quantitative analysis that was done to determine how particulate matter and greenhouse gas emissions are expected to change as a result of the Proposed Action. Specifically, as described on **pages 225-228** of the **Final EIS** from construction and timber removal the Proposed Action would contribute to an increase of less than 0.1 percent or less of off-highway vehicle emissions in Wyoming on an annual basis and would contribute 5,460 lbs of CO_2 daily or 0.1 percent or less increase in total transportation emissions. From operations $PM_{2.5}$ would increase approximately 4 lbs, SO_x would increase less than 1lb, CH_4 would increase approximately 2.4 lbs in the winter, and 62,000 lbs of CO_2 or less than 0.2 percent increase in daily CO_2 emissions would be contributed to the atmosphere. All of these contributions are not large enough to negatively impact the air quality of the area.

No additional edits were made to the **Final EIS** in response to this comment.

12.4 The Draft EIS states that GTR would construct Project elements over a period of 10 years, but the inventory only presents estimated daily emissions. The expansion projects are being constructed over multiple years; therefore, presenting the emissions inventory in daily quantities does not reveal how emissions could change from year to year and obscures the overall impacts that development activities could have on an annual basis. The GTR is proposing a variety of different expansion projects, and as such these would have varying degrees of air quality impacts depending on their size, duration, intensity, equipment, and what time of year they would take place. Therefore, we recommend providing the emissions inventory in annual emission rates based on GTR's projected construction plan. (668.18)

Disposition Code: Requires clarification to text in FEIS or in tech report

Thank you for your comment. Please refer to **Table 3.10-3** on **page 222** of the **Final EIS** where it provides existing conditions of the total emissions from highway vehicles in tons/year and tons/day and the existing traffic and construction vehicle emissions in lbs/day. In order to understand the contributions of greenhouse gas emissions the Proposed Action would make, additional vehicle trips were calculated for both construction and operations processes. These vehicle trip calculations are done within **Section 3.5 Traffic and Parking** on **pages 152-167** of the **Final EIS**. These vehicle trip calculations are done per day to understand how visitor traffic would change on a daily basis in order for GTR to understand the comfortable carrying capacity of the proposed upgraded resort. Additionally, the emissions of criteria pollutants and greenhouse gases like CO, NO_x, O_3, $PM_{2.5}$, PM_{10}, SO_x, CO_2, and CH_4 have averaging times of less than or equal to 24 hours, so their emissions were described in relation to daily concentrations as that is how they are regulated in accordance with NAAQS.

However, to provide more comprehension for how these concentrations could change year-over-year as construction requirements change, text has been added to the **Final EIS** on **page 227** that states "Emissions of criteria pollutants and greenhouse gases like CO, NO_x, O_3, $PM_{2.5}$, PM_{10}, SO_x, CO_2, and CH_4 do have the potential to change year-over-year during the construction period and from tree removal for the proposed project. As different projects are constructed/trees are removed, different types of construction/heavy-duty equipment may be required, which could alter the levels of certain criteria pollutants or greenhouse gases. However, given daily emissions are not expected to significantly alter existing conditions or create a non-attainment area, changes in different construction or tree removal processes year-over-year are not expected to alter the overall concentrations of criteria pollutants or greenhouse gases in the region. Impacts on a yearly basis would be negligible similar to daily impacts."

12.5 We also note that the Draft EIS and the Air Quality Technical Report only provide general descriptions of the equipment anticipated for use in the construction of the Project. We appreciate the basic calculations of truck loads, forest clearing, and truck trips for the Project as a whole is discussed, but a comprehensive construction inventory is missing. To accurately estimate emission rates, a construction inventory typically includes estimated equipment counts, equipment type, size of equipment engines (horsepower), hours of operation, etc. Table 1G in the Air Quality Technical Report summarizes and breaks down each of the greenhouse gas emissions for construction as a whole and while this is helpful information for characterizing emission generating activities, it is unclear how and with what method these emission estimates were derived. We recommend the Final EIS include the inputs and assumptions (e.g., emission factors, equipment size, number of emitting units for all classes, hours of use) used in calculating emission estimates listed in Table 1G, which could be used to develop the recommended annual emission inventories, so that the information is verifiable and can further inform the analysis of air quality impacts. (668.19)

Thank you for your comment. Please refer to **pages 16-17** of the **Air Quality Technical Report** where it explains how emissions were estimated for this project. Specifically, the air quality analysis estimates the quantity of pollutants emitted as a result of each alternative, but does not quantify the resulting concentration of these pollutants. Emission increases are provided as a percent change to convey the order of magnitude of impacts that could result from the proposed projects.

As described on **pages 225-228** of the **Final EIS** from construction and timber removal the Proposed Action would contribute to an increase of less than 0.1 percent or less of off-highway vehicle emissions in

Wyoming on an annual basis and would contribute 5,460 lbs of CO_2 daily or 0.1 percent or less increase in total transportation emissions. From operations $PM_{2.5}$ would increase approximately 4 lbs, SO_x would increase less than 1lb, CH_4 would increase approximately 2.4 lbs in the winter, and 62,000 lbs of CO_2 or less than 0.2 percent increase in daily CO_2 emissions would be contributed to the atmosphere. All of these contributions are not large enough to negatively impact the air quality of the area.

No additional edits were made to the **Final EIS** in response to this comment.

12.6 In addition to providing an estimate of air pollutant emissions on an annual level, we recommend that the Final EIS provide an assessment of the impacts of these emissions to human health and the surrounding environment. As part of such an assessment, we recommend contextualizing these emissions, for example, by comparing them to other typical sources of emissions such as vehicular traffic, and the known effects of those emission sources, so that the outputs of these analyses can be translated to more meaningful outcomes that the public can understand. Some relevant outcomes that we recommend discussing include: Impacts from each of the criteria pollutants (ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide, and lead), including with respect to their respective NAAQS; Impacts to AQRVs in potentially impacted Class I areas and any other relevant areas identified in collaboration with any cooperating agencies and federal land managers; and Impacts that could result from exposure to hazardous air pollutants (HAPs) based on relevant health-based risk thresholds for HAPs. Consideration of these impacts with respect to existing air quality and sensitive receptors at a more localized scale would be an important part of such a meaningful analysis. The EPA recommends that the Forest Service avoid including percentage comparisons between planning-level and state (i.e., Wyoming annual emission totals) in the NEPA document, as such comparisons inappropriately minimize the significance of planning level emissions. While project-level emissions may appear small compared to total state levels, such emissions have more local impacts that are important to consider and mitigate or avoid. (668.20)

Thank you for your comment. The commenter recommends that the **Final EIS** provide expanded analysis of air pollutant emissions in terms of health and environmental impacts.

As discussed on **page 217-218** of the **Final EIS** National Ambient Air Quality Standards (NAAQS) are presented and their concentration levels are identified. These standards represent the pollutant concentrations that protect public health and public welfare. On **pages 225–228** of the **Final EIS** and as described in **RTC 12.3**, the analysis evaluated both construction and operational emissions relative to NAAQS. Because project-generated pollutant concentrations, when combined with existing conditions, are well below applicable NAAQS thresholds. The project would not result in adverse human health or environmental effects. Therefore, further quantitative human health risk modeling was not necessary to meet NEPA or Clean Air Act requirements.

Regarding air quality related values (AQRVs) and Class I and II areas on **pages 220-221** of the **Final EIS** specifically notes the JSW which is the closest Class II area. As described on **pages 225–228** of the **Final EIS** and as described in **RTC 12.3**, the analysis determined that localized emissions during construction or operation are not of sufficient magnitude or duration to measurable affect visibility, deposition, or other

AQRVs in that or any other Class I or II area. Therefore, formal AQRV modeling was not warranted based on emission magnitudes.

Further, hazardous air pollutants (HAPs) were also considered in this analysis. HAPs are anticipated to occur in small quantities primarily from diesel combustion during equipment use. An analysis of off-highway vehicles (diesel vehicles) was done on **page 222** of the **Final EIS**. These emissions would be temporary, dispersed, and minor compared to regional existing conditions, which are regulated under federal and state air quality programs. Given the temporary nature, and low magnitude of emissions, project-level HAPs concentrations would not approach levels known to cause adverse health effects.

Finally, comparisons to planning-level or statewide totals, such as the Wyoming or Teton County, WY emission inventories, were provided to understand impacts to Wyoming Air Quality Standards and Regulations. Please refer to **pages 4-6** of the **Air Quality Technical Report** for more information. The analysis approach aligns with NEPA best practices by focusing on incremental, localized effects relative to the applicable federal and state regulatory standards. This ensures that local short-term impacts were considered in sufficient detail for decision-making.

No edits were made to the **Final EIS** in response to this comment.

12.7 Fugitive dust must be controlled and minimized when clearing or leveling land. For activities such as earthmoving, excavation, movement of trucks, cutting of pavement, or movement of construction equipment over access roads or cleared land, or for demolition, frequent watering and/or chemical stabilization is required. For particularly large areas of dirt exposed to wind, the installation of silt fencing as a wind break is recommended, especially near residential areas and local businesses. (638.1) (457.35)

Thank you for your comment. The commenter is generally concerned with dust levels during project implementation and requests that mitigation measures be put in place to minimize dust.

As described on **page 47** of the **Final EIS** within **Table 2.4-1 Project Design Criteria** there are PDC included in the Proposed Action that would mitigate dust. Specifically, PDC state that to the extent feasible, promptly install site improvements and rehabilitate the site to reduce the potential for dust emissions. Minimize creation of dust when using mechanical equipment (heavy equipment and vehicles). And, water, as necessary and practicable, grading areas, including lift terminal areas and busy construction routes, to prevent excessive amounts of dust. In the absence of natural precipitation, water of these areas should occur, as practicable. Through the inclusion of these PDC, fugitive dust would be minimized during project implementation.

No edits were made to the **Final EIS** in response to this comment.

12.8 Co2 emissions according to recent news are increasing again worldwide. In the draft air quality report for this DEIS, it is stated: "The addition of new trails, snow-making capability, and infrastructure at GTR represent irretrievable contributions to air quality, because the emissions that would be generated from the construction of the proposed projects and increased visitation cannot be retrieved. However, these emissions are not considered irreversible due to offsetting and mitigation that could possibly occur in the future." Why does the DEIS not include mitigations for reducing emissions through either offsetting or mitigation? What will happen if air quality standards are exceeded in

adjacent Forest Service Wilderness areas or in Grand Teton National Park? What mitigation can be included to reduce vehicle traffic to the resort? Why was a traffic study and plan not included in this DEIS? (724.10)

Thank you for your comment. The commenter is referencing **page 28** of the **Air Quality Technical Report** and **page 233** of the **Final EIS**. This section describes the irreversible and irretrievable commitments of resources as it relates to air quality resources. Further in this section it describes some offsetting and mitigation measures that could take place including carbon sequestration through vegetation if vegetation was allowed to regrow after removal, as well as additional measures that could be put into place to reduce vehicular and construction emissions that might impact air quality.

Further, please refer to **pages 244-246** of the **Final EIS** within **Section 3.11 Climate Change** that describes the climate adaptation measures GTR is already taking to minimize its impact on climate change. As described in this section GTR is a part of Protect Our Winters and the National Ski Areas Association Climate Challenge. GTR also has put into place a vehicle idling policy and has joined the NSAA sustainable slopes charter. Through participation in these programs and implementing additional adaptation strategies, GTR is taking measures to reduce their impact on climate change.

Please also refer to air quality **RTC 12.6** where it describes that emissions during construction or operation are not of sufficient magnitude or duration to measurable affect visibility, deposition, or other AQRVs in any Class I or II area. There would be no effect on the airshed of the JSW.

Please also refer to **Section 3.5 Traffic and Parking** in the **Final EIS** that includes an analysis of existing and anticipated future traffic volumes, a quantification of exiting and proposed parking supply for day and destination visitors to GTR under existing and proposed conditions, and a discussion of potential impacts from construction traffic and access routes.

No edits were made to the **Final EIS** in response to this comment.

12.9 As stated in the Draft EIS, GTR is surrounded by Class I and Class II airsheds, including national wilderness areas, Yellowstone and Grand Teton National Parks. While we appreciate these sensitive airsheds were identified and monitoring plans have been established under the 1997 Targhee Forest Plan, the Draft EIS and Air Quality Technical Report do not identify any mitigation plans should those areas be impacted by the Project. We recommend that as part of the monitoring plan, the Forest Service identify a mitigation strategy that would be implemented should air quality impacts be detected. (668.21)

Thank you for your comment. As described in the air quality **RTC 12.6** air quality emission impacts are discussed on **pages 220-221** of the **Final EIS**. This section specifically notes the JSW which is the closest Class II area. As described on **pages 225–228** of the **Final EIS** and as described in **RTC 12.3**, the analysis determined that localized emissions during construction or operation are not of sufficient magnitude or duration to measurable affect visibility, deposition, or other air quality impacts to Class I or II areas. Therefore, identifying a formal monitoring plan and mitigation strategy was not deemed necessary for adjacent Class I and II areas.

No edits were made to the **Final EIS** in response to this comment.

12.10 Use of the equipment involved, vehicles and helicopters, would also create a large amount of pollution from their emissions. (595.3)

Thank you for your comment. Please refer to air quality **RTC 12.2** which describes the quantitative analysis that was done to determine how particulate matter and greenhouse gas emissions are expected to change as a result of the Proposed Action. Specifically, as described on **pages 225-228** of the **Final EIS** from construction and timber removal the Proposed Action would contribute to an increase of less than 0.1 percent or less of off-highway vehicle emissions in Wyoming on an annual basis and would contribute 5,460 lbs of CO_2 daily or 0.1 percent or less increase in total transportation emissions. From operations $PM_{2.5}$ would increase approximately 4 lbs, SO_x would increase less than 1lb, CH_4 would increase approximately 2.4 lbs in the winter, and 62,000 lbs of CO_2 or less than 0.2 percent increase in daily CO_2 emissions would be contributed to the atmosphere. All of these contributions are not large enough to negatively impact the air quality of the area.

No additional edits were made to the **Final EIS** in response to this comment.

12.11 Grand Targhee has significantly increased the amount of terrain groomed. The grooming impacts air quality and night pollution. Expansion into the SUP would increase result in additional grooming. The EIS does not address the air quality impacts associated with the increase in grooming. (1066.7)

Thank you for your comment. As described in air quality **RTC 12.15** the source of pollutants from the proposed projects would be primarily motor vehicles (highway and off-highway) and the quantity of emissions would be less than "significant" per Wyoming Air Quality Standards and Regulations. **Pages 222-224** of the **Final EIS** where it explains how emissions were estimated for this project. Specifically, the air quality analysis estimates the quantity of pollutants emitted as a result of each alternative, but does not quantify the resulting concentration of these pollutants. Given the complexity of air quality and weather patterns impacting pollutant concentrations, predicting pollutant concentrations would require the use of complex models which are not required for this NEPA analysis. Additionally, given the expected small increase in grooming in the existing and proposed SUP areas, it is not expected that additional emissions of criteria pollutants or greenhouse gases from grooming would alter existing concentrations of emissions significantly. Incremental increase in grooming would not alter existing concentrations of criteria pollutants in the region or create a non-attainment area. Therefore, impacts to air quality from grooming is expected to be negligible.

12.12 For generators and other pollution-emitting sources that will be utilized during the project or installed for the proposed ski lifts, it is recommended that the New Source Review (NSR) Program be contacted to ascertain whether a permit is required. This should be done prior to installation. (638.2)

Thank you for your comment. As described on **pages 21-22** of the **Final EIS** under **Section 1.11 Other Necessary Permits or Consultation** the Forest Service assumes no responsibility for enforcing laws, regulations, or ordinances under the jurisdiction of other governmental agencies. Forest Service regulations require permittees to abide by applicable laws and conditions imposed by other jurisdictions. The New Source Review (NSR) program is a Clean Air Act program that requires preconstruction permits for new or modified stationary sources of air pollution. The specific requirements vary depending on the area's air quality and the type of source. Specifically, facilities must get a permit before construction or modification if they are considered "major" and will cause a "significant" increase in regulated pollutants.

However, as stated in **previous responses,** the quantity of emissions would be less than "significant" per Wyoming Air Quality Standards and Regulations. Additionally, as stated on **page 224** in the **Final EIS** under the **Compliance with Federal, State, and Local Regulations,** annual emissions under the Proposed Action would not be considered "significant" by Wyoming standards. Therefore, the Proposed Action is in adherence with the Clean Air Act and it is unlikely that GTR would need to obtain a NSR program permit for the proposed facilities.

No additional edits were made to the **Final EIS** in response to this comment.

12.13 Additionally, for large-scale burning in accordance with the requirements of Chapter 10, Section 4 of the Wyoming Air Quality Standards and Regulations (WAQSR), burners conducting large-scale vegetative burning (slash piles, broadcast burns, wildland fires, with emissions >0.25 tons PM10 per day), are required to register these burns with the AQD. Burners must receive a burn ID from the AQD prior to conducting the burns. Small-scale burning operations are covered under Chapter 10, Section 2. (638.3)

Thank you for your comment. Please refer to **pages 226-227** of the **Final EIS** where it provides analysis on impacts from construction and timber removal, including burning of trees. Specifically, the analysis states that in the case of burning, vegetation and felled trees would be burned on site, adhering to State of Wyoming Burn Permit parameters and CTNF for pile size and the timing of burning. Compliance with CTNF and state regulations on this burning activity would mitigate impacts on air quality.

No additional edits were made to the **Final EIS** in response to this comment.

12.14 The document does not identify the increased power requirements and associate impacts. Also, the analysis does not identify the backup generator requirements for lifts and facilities and its associated impacts. (1066.58)

Thank you for your comment. Please refer to **page 227** of the **Final EIS** for information on the additional power and maintenance the proposed infrastructure would need. Overall, new ski area infrastructure would require additional power and maintenance, however, as GTR's power source is primarily renewables that do not result in the emission of pollutants, this is not expected to generate substantial additional pollutant emissions and is expected to have negligible impacts on air quality.

Additionally, as articulated in air quality **RTC 12.3** since the source of pollutants from the proposed projects would be primarily motor vehicles and the quantity of emissions would be less than "significant" per Wyoming Air Quality Standards and Regulations, the air quality analysis does not use the complex models that might be necessary for more significant sources and emissions. Therefore, analysis on backup generators for lifts was not completed as it was dismissed from further analysis.

No additional edits were made to the **Final EIS** in response to this comment.

12.15 Analysis of emissions from construction and operations need more detailed modeling of pollutant concentrations and their compliance with National Ambient Air Quality Standards (NAAQS). (457.22)

Thank you for your comment. Please refer to **pages 222-224** of the **Final EIS** where it explains how emissions were estimated for this project. Specifically, the air quality analysis estimates the quantity of

pollutants emitted as a result of each alternative, but does not quantify the resulting concentration of these pollutants. Given the complexity of air quality and weather patterns impacting pollutant concentrations, predicting pollutant concentrations would require the use of complex models. The source of pollutants from the proposed projects would be primarily motor vehicles (highway and off-highway) and the quantity of emissions would be less than "significant" per Wyoming Air Quality Standards and Regulations. Therefore, the air quality analysis does not use the complex models that might be necessary for more significant sources and emissions.

No additional edits were made to the **Final EIS** in response to this comment.

12.16 NAAQS standards in Section 3.10.2, page 211-212. This section does not reflect the most current 2024 NAAQS standards for primary 1-year PM2.5 and secondary 1-year sulfur dioxide (erroneously included as a 3-hour standard). Additionally, Wyoming does not have any non-attainment areas for PM2.5 or sulfur dioxide for an alternative standard to be employed. (638.4)

Thank you for your comment. The commenter provided updated information and standards for the NAAQS table. As a result, text has been updated in **Table 3.10-1 EPA NAAQS** on **pages 217-218** in the **Final EIS** and in **Table 1A EPA NAAQS** on **page 3** in the **Air Quality Technical Report**. Specifically, the NAAQS level for primary sources of $PM_{2.5}$ with a 1-year averaging time is now 9.0 ug/m^3 instead of 12.0 ug/m^3, and the averaging time and NAAQS level for secondary sources of sulfur dioxide has been updated to 1 year and 10ppb, respectively. The reference for this table has also been updated to be U.S. EPA 2024. Please refer to the table for more information.

Additionally, as stated on **pages 217-219** of the **Final EIS** the GTR project area and the surrounding Class I and II Wilderness areas are not located in any U.S. Environmental Protection Agency designated non-attainment areas for ozone, particulate matter, carbon monoxide, lead, nitrogen dioxide, or sulfur dioxide.

12.17 Lack of analysis of increased vehicle traffic and its contribution to regional air pollution. (457.105)

Thank you for your comment. Please refer to air quality **RTC 12.2** which describes the quantitative analysis that was done to determine how particulate matter and greenhouse gas emissions are expected to change as a result of the Proposed Action. Specifically, as described on **pages 225-228** of the **Final EIS** from construction and timber removal the Proposed Action would contribute to an increase of less than 0.1 percent or less of off-highway vehicle emissions in Wyoming on an annual basis and would contribute 5,460 lbs of CO_2 daily or 0.1 percent or less increase in total transportation emissions. From operations $PM_{2.5}$ would increase approximately 4 lbs, SO_x would increase less than 1lb, CH_4 would increase approximately 2.4 lbs in the winter, and 62,000 lbs of CO_2 or less than 0.2 percent increase in daily CO_2 emissions would be contributed to the atmosphere. All of these contributions are not large enough to negatively impact the air quality of the area.

No additional edits were made to the **Final EIS** in response to this comment.

13. Wilderness

13.1 The proposed expansion into South Bowl would have far-reaching impacts on the viewscape, soundscape, and wilderness character not only within the project area but also in the adjacent Jedediah Smith Wilderness. Currently, South Bowl offers expansive, undeveloped views of alpine ridges and forested basins, forming a visual and acoustic buffer that protects the wilderness experience in the Jedediah Smith. Construction of lift infrastructure, ski runs, avalanche mitigation, night grooming, and year-round recreational development would introduce unnatural visual elements and mechanized noise that could carry well into the wilderness boundary undermining the sense of solitude, natural quiet, and scenic integrity that the Wilderness Act is intended to preserve. These changes would fragment the visual and ecological continuity of the landscape and diminish the backcountry experience for National Park visitors, wilderness users, and those using Teton Canyon. The intrusion of industrial-scale recreation at the wilderness edge risks undermining the integrity of the Jedediah Smith Wilderness—threatening not just this landscape, but the broader commitment to preserving wild, undeveloped public lands across the nation. (5.1) (24.1) (56.1) (83.1) (377.3) (379.4) (420.3) (445.4) (457.86) (457.111) (484.31) (513.2) (528.1) (538.6) (538.7) (574.4) (580.1) (645.3) (649.1) (696.1) (697.17) (698.2) (737.2) (813.1) (1029.6) (1066.57) (174.1) (462.12) (378.2) (771.3) (772.1) (711.30) (811.3) (819.1)

Thank you for your comment. Please refer to **Section 3.9 Wilderness** on **pages 201-204** of the **Final EIS** where a summary of the analysis done in the **Wilderness Technical Report** is provided. Specifically, this section analyzes how the proposed projects could cause indirect impacts on the wilderness character or wilderness users of the JSW. The project would have no direct effects on the JSW as no construction of infrastructure would occur on NFS lands within the JSW. Specifically, on **page 202** it states that the Wyoming Wilderness Act of 1984 made note of buffer zones around designated wilderness areas: *Congress does not intend that the designation of wilderness areas in the State of Wyoming lead to the creation of protective perimeters or buffer zones around each wilderness area. The fact that nonwilderness activities or uses can be seen or heard from within any wilderness area shall not, of itself, preclude such activities or uses up to the boundary of the wilderness area.* Therefore, the proposed projects within South Bowl are not in violation of the Wyoming Wilderness Act of 1984.

Further, as described on **pages 209-211** of the **Final EIS** the construction of Fred's Mountain Top Guest Facility as well as the access administrative route within South Bowl has the potential to facilitate easier access to neighboring NFS lands and would result in an increase in user access to the JSW during the summer. However, through the inclusion of PDC as identified in **Table 2.4-1** in the **Final EIS** signage, rope lines, and measures such as those preventing guests from bringing overnight bags on lifts would be designed around new project components and would be continued to be enforced. Other PDC includes measures to mitigate material entering the JSW from outside the boundary during construction of the proposed projects.

Additionally as described on **page 210** of the **Final EIS**, although the South Bowl lift would not provide direct access to the JSW, over the snow travel into the JSW could increase as skiers and snowboarders would be in closer proximity backcountry terrain.

Further discussion on the wilderness characteristics that could be impacted as a result of the proposed projects are included on **pages 211-212** of the **Final EIS**. Specifically, the untrammeled nature, natural quality, and opportunities for solitude or primitive and unconfined recreation from within the JSW could be reduced in both the short term and long term. Short-term impacts include temporary audio and visual impacts during the construction of the proposed projects. Long-term impacts include visual impacts to users of the JSW as facilities, operations, towers, and chairs would be visible from Mary's Saddle trail and the northeast side of Fred's Mountain. Along with this, new proposed downhill mountain biking trails may increase the visitation to GTR during the summer, thus contributing to the long-term impacts of the proposed project to the perceived solitude within the JSW's boundaries. South Bowl avalauanchers could also cause auditory impacts. Overall, short- and long-term effects related to untrammeled nature, natural quality, and opportunities for solitude or primitive and unconfined recreation would be minorly adverse.

No edits were made to the **Final EIS** in response to this comment.

13.2 As proposed, this restaurant would be located a mere 100-feet from the Jedediah Smith Wilderness boundary. While we understand that the SUP borders the Wilderness, building a large, destination restaurant within spiting distance of the Wilderness boundary is a significant escalation of infrastructure beyond what currently exists. This would be extremely impactful to Wilderness character and conflicts with the CTNF's management goals and responsibilities for the Jedediah Smith Wilderness. As described in the DEIS, this facility has the potential to generate additional trips into the Wilderness that could occur through unsanctioned access points; it would mar scenic viewsheds throughout the Wilderness; and has the potential to introduce trash and other anthropogenic pollution into the Wilderness area. Because the restaurant would be situated uphill from the Wilderness, litter from outside diners or other restaurant visitors could blow into the Wilderness and fuel or wastewater spills could enter the Wilderness area. (428.2) (429.1) (471.57) (620.9) (729.21) (398.9)

Thank you for your comment. Please refer to wilderness **RTC 13.1** and **pages 209-211** of the **Final EIS** where it describes the impacts the Fred's Mountain Top Guest Facility would have on the JSW. Specifically, during the summer the facility could increase access and visitation to the JSW. In the winter the facility could decrease the opportunities for solitude or primitive and unconfined recreation as users of the JSW would be able to see and hear the facility in the long term.

Further as described in wilderness **RTC 13.1** and on **page 202** of the **Final EIS** the Wyoming Wilderness Act of 1984 provides a note on buffer zones around designated wilderness areas and that the fact that nonwilderness activities or uses can be seen or heard from within any wilderness area shall not, of itself, preclude such activities or uses up to the boundary of the wilderness area.

PDC have also been included in **Table 2.4-1** in the **Final EIS** that requires mitigation measures to be put in place so that construction material does not enter the JSW from within the existing SUP boundary of GTR.

The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

13.3 According to the Draft Wilderness Technical Report, the proposed project "cannot alter… primitive to semiprimitive non-motorized qualities". This should preclude any activity, including noise from outdoor concerts, development or infrastructure which encroaches on the Jedediah Smith Wilderness. The 'Top Guest Facility' will result in increased visitation and impacts to the Wilderness. Construction will cause "… audio and visual impacts on the users of Jedediah Smith Wilderness, including blasting and the use of helicopters." This will not be a temporary problem. The expanded ski terrain will result in increased helicopter or snow machine rescues, intrusions that will violate the wilderness values the Forest Service is mandated to protect. (470.1)

Thank you for your comment. The commenter is referencing **Section 1.2.4 Recreation Opportunity Spectrum** on **page 4** of the **Wilderness Technical Report**. The Recreation Opportunity Spectrum (ROS) is a tool used by the Forest Service managers to classify different outdoor experiences on NFS lands. The ROS of the JSW is semi-primitive non-motorized, which means that the JSW must maintain the dominance of unmodified and natural-appearing settings, and the absence of roads. No project actions would modify the JSW or construct roads within the JSW; therefore, there would not be direct effects on the JSW. The ROS would be maintained. The only impacts the JSW would experience would be indirect ones in the form of increased noise, visual impacts, and visitation during both the summer and winter.

Further as described in wilderness **RTC 13.1** the Wyoming Wilderness Act of 1984 does not preclude nonwilderness uses up to the boundary of the wilderness area.

No edits were made to the **Final EIS** in response to this comment.

13.4 The DEIS lacks meaningful analysis of the proposed North Boundary lift. Although this lift would be located within the existing SUP area, it will likely have meaningful impacts on Wilderness character within the Jedediah Smith Wilderness. (471.60) (471.62) (697.20) (711.43)

Thank you for your comment. On **page 210** of the **Final EIS** and **page 10** of the **Wilderness Technical Report** text has been added that describes the impacts the North Boundary Lift would have on the JSW. Specifically, “Further, the North Boundary Lift could have the potential of creating an easier access point for users to the JSW as well as neighboring NFS lands. However, through the incorporation of PDC included in **Table 2.4-1** enforceable closures by GTR that prohibit guests from accessing the JSW through non-designated access points would be implemented. Signage, rope lines, and measures such as those preventing guests from bringing overnight bags on lifts would be designed around new project components and continue to be enforced. These PDC would mitigate impacts to the JSW. Furthermore, the North Boundary lift is not planned to operate outside of the winter months.”

Text has also been updated on **page 212** of the **Final EIS** and **page 11** of the **Wilderness Technical Report** that states “In the long-term, operation of Fred’s Mountain Top Guest Facility, Dreamcatcher Lift, South Bowl Lift, North Boundary Lift, and Crazy Horse Lift may create visual impacts for users of the JSW as facilities and operations, towers, and chairs would be visible from Mary’s Saddle trail and the northeast side of Fred’s Mountain, respectively (see **Section 3.2** for more information).” Users of the JSW may be able to see proposed ski area infrastructure as they are recreating within the JSW. Considerable infrastructure can already be seen from Table Mountain and the additional structures could negatively affect the sense of solitude and reduce opportunities for primitive and unconfined recreation. Overall,

short- and long-term effects related to opportunities for solitude or primitive and unconfined recreation would be minorly adverse.

13.5 Throughout the DEIS the authors outline a myriad of impacts to Wilderness. In Section 3.9.4 on direct and indirect consequences, they introduce the scale of "no effect, minorly adverse, and adverse" and then go on to make the argument throughout the assessment that because none of the development components occur within the JSW all impacts are therefore indirect and can only possibly be "minorly adverse". Just because the project isn't occurring in the Wilderness doesn't mean the impacts are not. Please reconsider this scale of impact and realize the flaws in the conclusions you have drawn. (620.5)

Thank you for your comment. Please refer to **page 208** of the **Final EIS** where it describes the scale that is used to understand effects to the JSW. Due to the subjective nature of wilderness experience, effects on this experience can differ between user. As such, a scale was created with three categories to easily decipher between effects and to understand the scale of impact. The scale has three categories, no effect, minorly adverse, and adverse.

Text has been updated on **page 208** of the **Final EIS** to clarify the adverse effects in the scale. Specifically, text has been updated to state “On this scale, adverse impacts are ones that directly impact the characteristics of the wilderness area and have a close spatial proximity to the wilderness area or are within the wilderness area. For example, this could be introducing non-natural structures, construction of trails, visual intrusions, or loud unnatural sounds for long durations.” The text goes on to state that minorly adverse effects are those that indirectly impact the wilderness area or are temporary in nature and are further separated spatially from the wilderness area. Noise generation from nearby construction would be a minorly adverse impact as it would impact the solitude of the wilderness area. The no effect impact is given to actions that either do not directly or indirectly impact a wilderness characteristic or there are specific PDC that are included that would minimize impacts.

Overall, as described on **pages 209-212** of the **Final EIS**, the Proposed Action would have minorly adverse impacts on the wilderness characteristics of untrammeled, natural, and opportunities for solitude or primitive and unconfined recreation.

13.6 Use within the JSW is projected to increase if the South Bowl project component is adopted, simply due to the ski lift support that would allow skiers to gain elevation within terrain that was once much harder to access. Furthermore, skiers who are currently content with the access they have to the backcountry terrain available in South Bowl would be displaced into the JSW if South Bowl becomes inbound terrain as proposed. Use in and of itself has impacts to both solitude and wildlife habitat, and for this reason alone, we object to the South Bowl expansion. (620.6) (1b.4)

Thank you for your comment. Please refer to wilderness **RTC 13.1** for more information on the effects the Proposed Action would have on wilderness resources. Specifically, as described on **page 210** of the **Final EIS** the South Bowl Lift, although it would not provide direct access to the JSW, it would provide over the snow travel and use could increase as skiers and snowboarders would be in closer proximity to backcountry terrain. Further the new extent of GTR would likely entice additional users to venture beyond the boundary of GTR into adjacent lands that provide backcountry skiing; however, only a minimal number of users would be anticipated to access the JSW, as this route would involve much more involved route finding skills and longer travel during winter conditions. Visitor encounters within the

JSW could increase as a result and impact the opportunities for solitude or primitive and unconfined recreation. However, this changed condition is not expected to generate a substantial number of user encounters and in the context of the greater extent of the JSW, opportunities for solitude or primitive and unconfined recreation would not be affected.

The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

13.7 The argument that the on-mountain facilities may be visible from the wilderness is true. Many manmade structures are visible from wilderness areas all over the country. If wilderness areas were to be created where there would be no manmade structure, airplane route or development in sight, it would be difficult to establish many wilderness areas or the areas would be limited in size. And there is no validity to the concept that there are buffer areas to be established around wilderness areas to prevent a user from seeing something manmade. A perfect example of this is the wilderness boundary immediately adjacent to the eastern Targhee Ski Area boundary. (702.3)

Thank you for your comment. The commenter is in agreement with the analysis of direct and indirect environmental consequences in relation to wilderness characteristics as found on **pages 206-208** of the **Final EIS**. As described in wilderness **RTCs 13.1** and **13.4**, users may be able to see proposed infrastructure at GTR from within the JSW. Considerable infrastructure can already be seen from Table Mountain and the additional structures could negatively affect the sense of solitude and reduce opportunities for primitive and unconfined recreation. Overall, short- and long-term effects related to opportunities for solitude or primitive and unconfined recreation would be minorly adverse.

No edits were made to the **Final EIS** in response to this comment.

13.8 While acknowledging noise impacts from avalaunchers and construction, the DEIS does not fully address how these impacts align with wilderness character preservation, and compliance with the 1997 Targhee Forest Plan, as required under NEPA. (457.69) (471.4)

Thank you for your comment. Please refer to **page 211** of the **Final EIS** where it describes the impacts the South Bowl avalaunchers would have on the soundscape of the JSW. Specifically, the avalaunchers would create temporary disturbances to the soundscape of the JSW with noise levels ranging from a quiet rural area (25 to 30 dBA) to thunder (120 dBA), which would differ from the current conditions that range from a quiet rural area to a snowmobile at a distance of 25 feet (100 dBA). Additionally, the soundscape of the JSW could be impacted during construction of the proposed projects as trees are removed and lifts are installed. Noise levels during this time could range from 80 dBA to 120 dBA. Depending on the perception of individual users, opportunities for solitude within the JSW could be reduced in the short and long term as a result of avalanche mitigation and construction. These impacts would be minorly adverse.

Additionally, as described on **page 212** of the **Final EIS** impacts associated with operation of the South Bowl avalaunchers, and accessibility impacts are possible in the long term. This would have minorly

adverse impacts on the wilderness characteristic of opportunities for solitude or primitive and unconfined recreation.

Further, as described on **page 3** of the **Wilderness Technical Report** much of the JSW that borders GTR is identified under the management prescription 1.1.7 Designated Wilderness – Opportunity Class II. As identified on **page 484** of **Appendix B** of the **Final EIS** there are two standards and one guideline for wilderness resources. All Alternatives would be consistent and in compliance with the identified standards and guidelines.

No edits were made to the **Final EIS** in response to this comment.

13.9 The DEIS recognizes the potential impacts to scenery (e.g., page 7 and 8) and the conflict with the 1997 Targhee National Forest plan. As the DEIS mentions. the expansion into the South Bowl and Mono Trees will change how Grand Targhee Resort looks from various places. In the Targhee National Forest Plan, the visual quality objective for the nearby Jedediah Wilderness (JSW) is "preservation" (page III-72). Even if the expansion areas (South Bowl and Mono Trees) are converted to a "Special Use Permit Recreation Site", the infrastructure and tree-cutting within these areas would impact that objective. This objective is a forest plan standard. (644.4)

Thank you for your comment. As identified on **pages 202-203** of the **Final EIS** much of the JSW that borders GTR is identified under the management prescription 1.1.7 Designated Wilderness – Opportunity Class II and the VQO. Further, as described on **page 88** of the **Final EIS**, VQOs identify how the landscape will be managed, the level of acceptable alteration of the natural landscape in the areas, and under what circumstance the alteration may occur under. The VQO of the JSW is *preservation* which means there are only ecological modifications allowed. This VQO assignment, however, is only pertinent to the landscape within the JSW boundaries, not the view of other areas from within the JSW. Although users would be able to view ski area infrastructure from within the JSW as identified on **page 209-212** of the **Final EIS** this infrastructure would not exist within the JSW. Therefore, the VQO of the JSW would be maintained, as identified on **page 484** of **Appendix B** of the **Final EIS** where it states that all Alternatives would be consistent and in compliance with the JSW's VQO of *preservation*.

No edits were made to the **Final EIS** in response to this comment.

13.10 I am against the expansion as requested and would be appalled if the USFS approved expansion outside Grand Targhee's present footprint. It would violate the Wilderness Act of 1967 which they are bound to protect and uphold. (186.1) (457.91) (17b.1) (21b.2)

Thank you for your comment. Please refer to **pages 201-204** of the **Final EIS** where it explains the Wilderness Act of 1964. Specifically, under the Wilderness Act of 1964 there are restrictions that apply to these lands that include: no commercial enterprises; no permanent roads; no temporary roads; no use of motor vehicles, motorized equipment, or motorboats; no landing of aircraft; no other form of mechanical transport; and no structure or installation. As described on **pages 209-212** of the **Final EIS** there would only be indirect impacts on the JSW under the Proposed Action. Specifically, there would be no effect to the undeveloped wilderness characteristic as there would not be any installation of infrastructure within the JSW. Therefore, the Proposed Action would not be in violation of the Wilderness Act of 1964.

Additionally, as explained in wilderness **RTC 13.1** there would be minorly adverse impacts on the wilderness characteristics of untrammeled, natural, and opportunities for solitude or primitive and unconfined recreation. Specific PDC would be implemented as identified in **Table 2.4-1** on **pages 44-56** of the **Final EIS** to minimize impacts on wilderness characteristics. These minorly adverse impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

Additionally, the Proposed Action would be in compliance with the 1997 Forest Plan as described under wilderness **RTC 13.8** as no standards or guidelines would be violated for wilderness resources.

No edits were made to the **Final EIS** in response to this comment.

13.11 Please note that WWA understands that the Wyoming Wilderness Act of 1984 in designating the JSW explicitly states the prohibition of buffer zones: "Congress does not intend that the designation of wilderness areas in the State of Wyoming lead to the creation of protective perimeters or buffer zones around each wilderness area. The fact that nonwilderness activities or uses can be seen or heard from within any wilderness area shall not, of itself, preclude such activities or uses up to the boundary of the wilderness area." One could assume this as a green light for GTR to expand freely up to the boundary of the JSW. We defend however, that the concern here is not one regarding buffer zones, but instead the impacts to the wilderness character within the Wilderness boundary that both the 1964 Wilderness Act, the 1984 Wyoming Wilderness Act and the 1997 Forest plan give clear direction to manage for. In Alternatives 4 and 5 within the DEIS, the South Bowl expansion has been moved from the wilderness boundary, if what we were concerned about was a buffer zone, this would solve our concerns. However, it does not because the buffer zone was never what we were asking for. For one, it is clear in the '84 Act that this is not a requirement of the designation, but what's more is that a buffer zone does not solve the impacts we are concerned with– a commercially driven spike in Wilderness use and adjacent development that impacts opportunities for solitude, degrades wildlife habitat, increases to Search and Rescue efforts within the Wilderness, and results in countless activities (construction, avalanche control, infrastructure) that will impact Wilderness values the Forest is tasked with protecting. (620.4)

Thank you for your comment. Please refer to wilderness **RTC 13.1** and **13.6** for more information on the buffer zones the Wyoming Wilderness Act of 1984 made note of and the effects the Proposed Action would have on wilderness resources and wilderness characteristics. Specifically, as described on **pages 209-212** of the **Final EIS** there would be minorly adverse impacts on wilderness characteristics of untrammeled, natural and opportunities for solitude or primitive and unconfined recreation. PDC are included in the Proposed Action as identified in **Table 2.4-1** on **pages 44-56** of the **Final EIS** to minimize impacts to wilderness resources. These minorly adverse impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a decision was made.

No edits were made to the **Final EIS** in response to this comment.

13.12 Degradation to opportunities for solitude, primitive recreation and physical and mental challenge will result from an increase in use of and access to the Wilderness as provided by the South Bowl expansion. Skiing is a celebrated form of primitive recreation, and when Wilderness is accessed via human power for the purpose of skiing, the law is being upheld. However, when these protected lands are accessed by lift, this clear management parameter, that reserves these lands for primitive recreation, is neglected. Recall that explicitly stated in the Wyoming Wilderness Act of 1984 is the responsibility of the CTNF to manage the JSW as to preserve these qualities for all Americans, and not turn a blind eye to this responsibility for the benefit of a private ski resort (a commercial enterprise) and its paying customers: "The purposes of this Act are to -- designate certain National Forest System lands in Wyoming for inclusion in the National Wilderness Preservation System in order to preserve the wilderness character of the land and to protect watersheds and wildlife habitat, preserve scenic and historic resources, and promote scientific research, primitive recreation, solitude, physical and mental challenge, and inspiration for the benefit of all of the American people." With this clear direction, it seems obvious that the projected impacts of the South Bowl expansion are out of line with the law that protects this neighboring Wilderness and should be removed from this planning process. (620.8)

Thank you for your comment. Please refer to wilderness **RTC 13.1** and **13.6** for more information on the effects the Proposed Action would have on wilderness resources and wilderness characteristics. Specifically, as described on **pages 209-212** of the **Final EIS** there would be minorly adverse impacts on wilderness characteristics of untrammeled, natural, and opportunities for solitude or primitive and unconfined recreation. PDC are included in the Proposed Action as identified in **Table 2.4-1** on **pages 44-56** of the **Final EIS** to minimize impacts to wilderness resources. These minorly adverse impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

13.13 Include strong language prohibiting gates along the north boundary- Only in final reviews of this DEIS did WWA realize the potential risk to the JSW posed by the North Boundary development presented in Alternative 3. As you expand up to the north boundary, we ask that you include strong language that prohibits the inclusion of backcountry gates that would enable GTR's paying customers to ride a lift, exit the boundary of the ski resort through a designated gate, access a commercial experience within lands protected as Wilderness, easily return to the motorized convenience of a lift, and repeat the experience. The access of the Wilderness via the resort's commercial lift support conflicts with clear management outlined in the Wilderness Act of 1964 that prohibits commercial enterprise from occurring within any Wilderness area: "Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act." An increased human presence and an ease of access to areas within the

Wilderness that have not been easily accessed before, pose a tremendous threat to these lands and the characteristics we have discussed many times within our comment already. A Snowsports Industries America report shows a well known trend that backcountry use is far greater in areas that can be accessed from lift-served terrain. Please remedy this concern and add clear language that would prohibit the addition of north boundary backcountry gates. (620.10) (571.7)

Thank you for your comment. Please refer to wilderness **RTC 13.4** where it describes the additional text that has been added to the **Final EIS** to describe the North Boundary Lift and the potential impacts it could have on wilderness resources. Impacts on wilderness resources from the North Boundary Lift would be similar to other lift infrastructure in close proximity to the JSW. There is a potential for increased access to the JSW as over the snow travel during the winter months would be easier and in the summer users would be in closer proximity to the JSW, easing access. However, through the inclusion of PDC as identified in **Table 2.4-1** on **pages 44-56** of the **Final EIS** signage, rope lines, and measures such as those preventing guests from bringing overnight bags on lifts would be designed around new project components and would be continued to be enforced. Other PDC includes measures to mitigate material entering the JSW from outside the boundary during construction of the proposed projects. PDC are intended to create enforceable closures by GTR that prohibit guests from accessing the JSW through non-designated access points as is done under existing conditions.

These impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

13.14 Permitting a SUP expansion into South Bowl will also bring significant impacts to, and conflict with management direction for, the Jedediah Smith Wilderness (JSW). Specifically, increased commercially-driven winter use in the JSW brought about by a South Bowl expansion would be counter to the CTNF's obligation to maintain Wilderness character in the Wilderness and fail to align with Forest Plan direction to prioritize maintenance of the natural diversity of wildlife species. (471.10)

Thank you for your comment. Please refer to wilderness **RTC 13.1** and **13.6** for more information on the effects the Proposed Action would have on wilderness resources and wilderness characteristics. Specifically, as described on **pages 209-212** of the **Final EIS** there would be minorly adverse impacts on wilderness characteristics of untrammeled, natural, and opportunities for solitude or primitive and unconfined recreation. PDC are included in the Proposed Action as identified in **Table 2.4-1** on **pages 44-56** of the **Final EIS** to minimize impacts to wilderness resources. These minorly adverse impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

13.15 I understand that the Targhee expansion violates the Wilderness Act of 1963. If a suit is filed, does Targhee bear the cost, or is the cost taken out of my tax money and what are the full impacts of that? (382.6)

Thank you for your comment. Please refer to wilderness **RTC 13.10** where it describes further that the Proposed Action would not violate the Wilderness Act of 1964. As described on **pages 209-212** of the **Final EIS** there would only be indirect impacts on the JSW under the Proposed Action. Specifically, there would be no effect to the undeveloped wilderness characteristic as there would not be any installation of infrastructure within the JSW. Additionally, as explained in wilderness **RTC 13.1** there would be minorly adverse impacts on the wilderness characteristics of untrammeled, natural, and opportunities for solitude or primitive and unconfined recreation. Specific PDC would be implemented as identified in **Table 2.4-1** on **pages 44-56** of the **Final EIS** to minimize impacts on wilderness characteristics. Therefore, the Proposed Action would not be in violation of the Wilderness Act of 1964.

These minorly adverse impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

13.16 Finally, although the addition of a new gate into South Leigh Creek is not discussed in the DEIS, it is a distinct possibility that Grand Targhee would decide to install such a gate in the future if this lift is built. Backcountry gates are installed at a ski area's discretion and do not require Forest Service consideration under NEPA. Just to the north of the top terminal of this proposed lift there is a great deal of high-quality ski terrain that would be easily accessed once the lift is installed. Even without a gate, this lift will almost certainly generate additional trips into the Wilderness through unsanctioned access points. (471.63)

Thank you for your comment. The commenter is generally concerned with the concerned with the construction of the North Boundary Lift and the ease of access to the JSW this lift would create. Please refer to wilderness **RTC 13.4** where it describes the additional text that has been added to the Final EIS to provide analysis on the installation of the North Boundary Lift and how it would impact the JSW. Impacts on wilderness resources from the North Boundary Lift would be similar to other lift infrastructure in close proximity to the JSW. There is a potential for increased access to the JSW as over the snow travel during the winter months would be easier and in the summer users would be in closer proximity to the JSW, easing access.

Additionally, please refer to wilderness **RTC 13.13** for more information on backcountry gates and closures. As the commenter identifies, the Forest Service is not required to analyze locations of backcountry gates within NEPA. However, through the inclusion of PDC as identified in **Table 2.4-1** on **pages 44-56** of the **Final EIS** signage, rope lines, and measures such as those preventing guests from bringing overnight bags on lifts would be designed around new project components and would be continued to be enforced. Other PDC includes measures to mitigate material entering the JSW from outside the boundary during construction of the proposed projects. PDC are intended to create enforceable closures by GTR that prohibit guests from accessing the JSW through non-designated access points as is done under existing conditions.

As further described in wilderness **RTC 13.1** there would be minorly adverse impacts on the wilderness characteristics of untrammeled, natural, and opportunities for solitude or primitive and unconfined recreation. An increased number of users would be expected to enter the JSW as a result of the Proposed Action. However, in the context of the greater extent of the JSW, opportunities for solitude or primitive and unconfined recreation would not be affected.

These minorly adverse impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

13.17 Increasing the burden and risk of emergency rescuers as naive visitors get lost or injured wandering away from the developed area and into the Wilderness. Search and Rescue efforts will further degrade Wilderness qualities. (697.19)

Thank you for your comment. Please refer to wilderness **RTC 13.1** where it describes that the Proposed Action would have minorly adverse effects on wilderness characteristics of untrammeled, natural, and opportunities for solitude or primitive and unconfined recreation. The Proposed Action could increase the number of users entering the JSW as access would be easier.

Additionally, please refer to **pages 189-191** of the **Final EIS** where it states the incorporation of South Bowl into the GTR SUP would provide easier access into the surrounding backcountry terrain. This could increase the number of skiers entering uncontrolled terrain, which could require additional search and rescue response. It is also possible that occasional emergency services would be required in areas farther from the resort under the Proposed Action. Although there would be impacts on Search and Rescue resources the Proposed Action could address concerns about the increase in backcountry use in the South Bowl by providing additional ski patrol facilities and public safety resources within this area and eliminating unmanaged backcountry use within the area most proximate to the developed terrain network of GTR. Overall, additional search and rescue visits to the JSW could impact wilderness characteristics of untrammeled and opportunities for solitude or primitive and unconfined recreation in a similar way that user visits would. These impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

14. Climate Change

14.1 I appreciate that the DEIS considers climate change. Per the DEIS, under the "best case" scenario considered from a climate perspective, the median maximum temperature in this region is projected to rise approximately 5°F and the median minimum temperature is projected to rise approximately 6°F and precipitation is expected to become highly variable. And, as the DEIS describes, increasing temperatures and decreasing snowfall will continue to compress the ski season on both ends, decreasing days of viable skiing and overall snowfall. While the DEIS appears to indicate that snowmaking is the saving

grace to this problem-that resorts can simply make snow to compensate for a loss of natural snow-this "solution" ignores the climate cost of snowmaking (exacerbating the underlying issue), the viability of snowmaking in water-stressed ecosystems, and the environmental impacts of snowmaking. Why permit expansion onto a south facing slope in South Bowl given the reality of a changing climate? Similarly, why allow expansion into the lower elevation Mono Trees? (693.12) (159.2) (471.39) (487.5) (502.3) (571.4) (584.3) (120.2) (693.10) (729.13) (1029.3) (452.1) (12b.5) (22b.1)

Thank you for your comment. The commenter is correct in stating that the Draft EIS considered climate change and provided an analysis on impacts. Specifically, please refer to **pages 247-249** of the **Final EIS** where it describes the southern aspect of the slopes in South Bowl. Specifically, it states that snow management would be necessary in the South Bowl due to the southern aspect of the slopes, but that the slopes within the South Bowl also have easterly facing slopes as well. It also states that the lift and terrain configuration is largely above tree line and stay within higher elevations that have longer snow residence times (SRT). Additionally, **page 249** of the **Final EIS** describes how the low elevation nature of Mono Trees may make it difficult for consistent SRTs into the future. Low elevation areas like Mono Trees are expected to experience midwinter rain and more rain-on-snow flooding as climate change progresses.

Currently, however, the South Bowl and Mono Trees are not proposed to receive supplemental snowmaking within this project, as the only areas that are proposed to receive snowmaking would be located within the lower mountain of the existing SUP as identified in **Figure 6** on **page 402** of the **Final EIS**. If snowmaking is determined to be needed in the future, it would need to go through a separate NEPA analysis. No edits to the **Final EIS** were made in response to this comment.

14.2 Ski resorts are inherently vulnerable to the growing impacts of climate change. As snowpack becomes less reliable and temperatures continue to rise, expanding skiable terrain at high environmental cost is both shortsighted and risky. Resources would be better spent on diversifying sustainable, year-round tourism options rather than doubling down on a snow-dependent model with a precarious future. (378.3) (819.2)

Thank you for your comment. The **Draft EIS** did consider climate change in the analysis. Please refer to **Section 3.11 Climate Change** on **pages 233-254** of the **Final EIS** where it describes the effect of proposed projects at GTR on climate change in the region and the effects climate change would have on the proposed projects and future operations at GTR. This section provides analysis on how temperature, precipitation, shifts in downhill ski length, and snowpack and snowmaking are expected to change as climate change progresses into the future. The section also analyzes how these changes due to climate change would impact the proposed projects into the future.

Additionally, non-winter and multi-season recreation opportunities and projects were also analyzed in the **Draft EIS**. Please also refer to **page 34-36** of the **Final EIS** where it describes the non-winter and alternative activities that are proposed under this project. Multi-season activities that are proposed include 6 miles of downhill biking trails, 2 miles of hiking trails, 21 miles of multi-use trails, and other activities located within the Summer Activity Zone that could range from a canopy tour/fly line, zip line, and an aerial adventure course. Additionally, **Section 3.1.4 Direct and Indirect Environmental Consequences** on **pages 74-75** of the **Final EIS** describes the impacts on multi-season recreation that the proposed project would have. Overall, GTR would expand their multi-season and summer activities and the proposed projects would broaden the diversity of users able to participate.

No edits to the **Final EIS** were made in response to this comment.

14.3 With winterscapes threatened by warming climate, we need to maintain access for a variety of winter recreation activities and not approve projects that will preclude other winter users in the future. (170.2)

The **Draft EIS** did consider impacts to other recreation uses. Please refer to **pages 75-77** of the **Final EIS** where it describes the proposed projects effects on recreation in surrounding NFS lands including to Mono Trees, Teton Canyon, and South Leigh Canyon. Specifically, it states that under the Proposed Action the terrain in the South Bowl would no longer exist as an opportunity for backcountry recreation during the winter months. By removing this backcountry terrain, use of Teton Canyon, South Leigh Canyon, and potentially other areas of the CTNF could increase.

Additionally, multi-season and alternative winter activities were analyzed in the **Draft EIS**. Specifically, please refer to **RTC 14.2** where it describes the multi-season recreation opportunities that are proposed within this project. Along with these, as described on **page 36** of the **Final EIS** other alternative winter activities are also proposed within this project. This includes a snow tubing facility, Nordic trails, snowshoe trails, and fat biking opportunities. Further as described on **pages 74-75** of the **Final EIS**, the development of additional alternative winter activities would improve access to Rick's Basin and provide a more durable winter experience for guests who seek alternate winter activities.

The **Draft EIS** also analyzed climate change. Please refer to **Section 3.11 Climate Change** on **pages 233-252** of the **Final EIS** where it describes the effect of proposed projects at GTR on climate change in the region and the effects climate change would have on the proposed projects and future operations at GTR.

No edits to the **Final EIS** were made in response to this comment.

14.4 The DEIS provides insufficient analysis of the project's long-term viability and wisdom given the escalating impacts of climate change on the Greater Yellowstone Area (GYA). The Greater Yellowstone Climate Assessment (June 2021) projects that the GYA has already warmed by 2.3°F (1.3°C) since 1950, with annual snowfall below 8,000 feet declining by 25% (nearly 24 inches). Critically for a ski resort, this assessment forecasts the average winter snowline in the GYA to rise to at least 10,000 feet by the end of the century, even under scenarios with substantial greenhouse gas reductions, meaning more precipitation will fall as rain, making shoulder seasons for the ski industry less reliable, less predictable, and fundamentally altering snow quality. Furthermore, earlier snowmelt (peak stream runoff now occurs, on average, 8 days earlier than in 1950) exacerbates summer drought and wildfire risk, directly impacting the ecological and recreational systems Grand Targhee depends on. This proposed expansion lacks a robust assessment of its climate resilience and its potential to exacerbate climate impacts, making its long-term 'need' fiscally and environmentally questionable given these undeniable regional trends. (358.14) (26b.26)

The **Draft EIS** did analyze climate change in relation to the region GTR is located in. Please refer to **Section 3.11 Climate Change** on **pages 233-252** of the **Final EIS** where it describes the effect of proposed projects at GTR on climate change in the region and the effects climate change would have on

the proposed projects and future operations at GTR. This section provides analysis on how temperature, precipitation, shifts in downhill ski length, and snowpack and snowmaking are expected to change as climate change progresses into the future. The section also analyzes how these changes due to climate change would impact the proposed projects into the future.

Executive Orders 13990, 14008, 14957, and 14072 were all repealed by the Trump Administration on January 20, 2025, and January 21, 2025, by Executive Order 14154 and a Presidential Memorandum. These executive orders outlined different strategies for analyzing climate change in NEPA and different goals for mitigating effects from climate change. Given these Executive Orders have been repealed, complying with them is a legal impossibility. The CTNF verifies that it has complied with NEPA requirements, including the Agency's regulations and procedures implementing NEPA at CFR 36 Part 220, effective November 19, 2020, consistent with the President's January 2025 Executive Order and Memorandum. Therefore, no edits to the **Final EIS** were made in response to this comment.

14.5 Visitation and Resort Capacity do not account for ongoing impacts of climate change affecting the timing and the numbers of skier visitors during the winter season. The proposed anticipated annual visitation numbers are simply based on expanded terrain facilities within the GTR SUP and with the expanded SUP proposal without any realistic methodology for it to be based on. National numbers for skier days have declined and with climate change concerns, further declines are expected. (26b.26)

The **Draft EIS** did analyze changes in visitation. Please refer to **Section 3.1 Recreation** on **pages 60-87** of the **Final EIS** where it describes the existing visitation to the resort and the projected visitation under the Proposed Action. As proposed projects are built and new terrain opened visitation is expected to increase as indicated in **Table 3.1-5. Visitation Projections – Alternative 2** on **pages 72-73** of the **Final EIS**. These visitation estimates are based on proprietary data provided by GTR that is assessed in growth projection models to determine the approximate number of visitors expected year over year. Please refer to recreation **RTC 4.79** for more information on how this table was updated between the **Draft EIS** and **Final EIS**.

Further, as described in climate change **RTC 14.2** non-winter and alternative activities that are proposed under this project. Multi-season activities that are proposed include 6 miles of downhill biking trails, 2 miles of hiking trails, 21 miles of multi-use trails, and other activities located within the Summer Activity Zone that could range from a canopy tour/fly line, zip line, and an aerial adventure course. These additional multi-season activities would supplement winter downhill skiing at GTR and provide more shoulder season visitation and activities.

No edits to the **Final EIS** were made in response to this comment.

14.6 Our snowpack is predicted to gradually decrease in the future. Why would you expand a business that will slowly go out of business and/or require more resources (water - a highly sought-after resource) to function in the future? Especially if the expansion of the business has a permanent negative effect on local taxpayers, wildlife, and the mountain itself? (642.2)

Thank you for your comment. Please refer to **Section 3.11 Climate Change** on **pages 233-252** of the **Final EIS** where it describes the effect of proposed projects at GTR on climate change in the region and the effects climate change would have on the proposed projects and future operations at GTR. This

section provides analysis on how temperature, precipitation, shifts in downhill ski length, and snowpack and snowmaking are expected to change as climate change progresses into the future. The section also analyzes how these changes due to climate change would impact the proposed projects into the future. Both short- and long-term impacts are described in detail throughout **Section 3.11.4 Direct and Indirect Environmental Consequences** on **pages 246-251** of the **Final EIS**. This section provides analysis on each alternative climate change impacts on proposed projects and operations as well as potential contributions of proposed projects to climate change.

Additionally, **pages 30-31** of the **Final EIS** under the Snowmaking section describes that as required by GTR's SUP, water sufficiency for existing and proposed operations is documented in a water sufficiency letter that is on file with the CTNF. This letter has determined that GTR's infrastructure can produce sufficient water to operate and provide for the activities authorized in its operating plan. As GTR continues to develop their base area and infrastructure on private lands their groundwater resources would have to be expanded. GTR would then apply for a new well permit with the Wyoming State Engineer's Office and then develop up to two additional wells on private land to meet the future water supply demands associated with the proposed snowmaking coverage.

Further, if more snowmaking is determined to be necessary in the future, this would need to be analyzed and approved under a separate NEPA process and GTR would also have to get approval from the Wyoming State Engineer's Office for more water use.

The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits to the **Final EIS** were made in response to this comment.

14.7 As established earlier in these comments, and in section 3.11 of the DEIS, Grand Targhee—along with the larger region—will experience shorter, warmer winters in the coming years. Indeed, this trend has already begun. The DEIS indicates that Mono Trees does not have long-term viability for downhill skiing without snowmaking, and that the potential for snowmaking at this elevation is also unlikely in the long-term. Given the many significant impacts a Mono Trees expansion would have on CTNF resources, including wildlife, water, and recreation opportunities, along with the questionable long-term value of this area for commercial downhill skiing, it is not in the public interest to permit this expansion. (471.51)

Thank you for your comment. Please refer to climate change **RTC 14.1** and **page 249** of the **Final EIS** where it describes that SRTs at lower elevation areas like Mono Trees would decrease, potentially prompting the need for snowmaking in the future. If snowmaking is deemed necessary, this would need to be analyzed and approved under a separate NEPA process.

Additionally, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

Given this analysis was included in the **Draft EIS**, no edits to the **Final EIS** were made in response to this comment.

14.8 The DEIS does not adequately address how warming trends, reduced snowpack, and shorter ski seasons could affect the viability of the proposed projects. NEPA requires a thorough analysis of foreseeable environmental changes. (457.56) (457.71) (457.82) (457.88) (457.107) (748.2)

Thank you for your comment. Please refer to **Section 3.11 Climate Change** on **pages 233-252** of the **Final EIS** where it describes the effect of proposed projects at GTR on climate change in the region and the effects climate change would have on the proposed projects and future operations at GTR. This section provides analysis on how temperature, precipitation, shifts in downhill ski length, and snowpack and snowmaking are expected to change as climate change progresses into the future. The section also analyzes how these changes due to climate change would impact the proposed projects into the future. Both short- and long-term impacts are described in detail throughout **Section 3.11.4 Direct and Indirect Environmental Consequences** on **pages 246-251** of the **Final EIS**. This section provides analysis on each alternative climate change impacts on proposed projects and operations as well as potential contributions of proposed projects to climate change.

As further described in climate change **RTC 14.4** Executive Orders 13990, 14008, 14957, and 14072 were all repealed by the Trump Administration on January 20, 2025, and January 21, 2025, by Executive Order 14154 and a Presidential Memorandum. These executive orders outlined different strategies for analyzing climate change in NEPA and different goals for mitigating effects from climate change. Given these Executive Orders have been repealed, complying with them is a legal impossibility. Therefore, NEPA does not require an in-depth analysis on climate change and the climate change section within the **Final EIS** was included in response to scoping comments. Therefore, no edits to the **Final EIS** were made in response to this comment.

14.9 Missing quantitative analysis of greenhouse gas emissions from construction, snowmaking, and increased visitation. (457.106)

Thank you for your comment. Please refer to climate change **RTC 14.13** and **Section 3.10 Air Quality** where it provides a quantitative analysis of greenhouse gas emissions from construction and timber removal as well as from and operation/maintenance of the proposed project. Given this analysis was included in the **Draft EIS**, no edits to the **Final EIS** were made in response to this comment.

14.10 How will GTR's operations and infrastructure adapt to projected climate change impacts – reduced snowpack and increased temperatures? (457.26)

Thank you for your comment. Please refer to **pages 247–249** of the **Final EIS** where it describes climate change impacts on proposed projects and operations. This section describes how climate change could impact the proposed projects and what climate adaptation actions GTR may have to take in order to mitigate effects from climate change on the proposed projects. Specifically, on **pages 244-246** of the **Final EIS** it describes that adaptation strategies could range from implementing new snowmaking infrastructure and constructing additional ski runs at higher elevations to increasing the available shoulder season and multi-season recreational opportunities. If any of these climate adaptation actions need to take place on NFS lands or are not included within this NEPA analysis, they would need to go through a separate NEPA analysis process to ensure that no sensitive resources would be impacted.

Given the analysis includes adaptation strategies, no edits to the **Final EIS** were made in response to this comment.

14.11 In addition, however, we question the sense, or longevity, of expanding resort skiing infrastructure onto a south-facing slope when climate change is threatening the viability of skiing as a long-term activity. We fear that if the South Bowl expansion were to be permitted it would eventually lead to the establishment of summer resort activities in this area, which would bring even greater impacts to the resources addressed in these comments. (471.7)

Thank you for your comment. Please refer to climate change **RTC 14.1** and **pages 247-249** of the **Final EIS** where it describes the southern aspect of slopes within the South Bowl and the longevity of snow on these slopes. As further described on **page 248** of the **Final EIS**, if snowmaking was determined to be necessary for the South Bowl this would need to be analyzed under a separate NEPA process. Similarly, if GTR determined that South Bowl would be better suited for summer resort activities, this change in terrain use would need to be analyzed and approved under a separate NEPA process.

Given this analysis was included in the **Draft EIS**, no edits to the **Final EIS** were made in response to this comment.

14.12 Long-term impacts of climate change are not significantly addressed throughout the alternatives. We recommend stronger commitments to sustainability – including reducing greenhouse gas emissions, conserving water, and protecting natural habitat. (457.121)

Thank you for your comment. The **Draft EIS** did consider long-term impacts from climate change. Please refer to **Section 3.11 Climate Change** on **pages 249–250** of the **Final EIS** where it describes the effect of proposed projects at GTR on climate change in the region and the effects climate change would have on the proposed projects and future operations at GTR. This section provides analysis on how temperature, precipitation, shifts in downhill ski length, and snowpack and snowmaking are expected to change as climate change progresses into the future. The section also analyzes how these changes due to climate change would impact the proposed projects into the future. Both short- and long-term impacts are described in detail throughout **Section 3.11.4 Direct and Indirect Environmental Consequences** on **pages 246-251** of the **Final EIS**. This section provides analysis on each alternative climate change impacts on proposed projects and operations as well as potential contributions of proposed projects to climate change.

Additionally, as described in climate change **RTC 14.4** Executive Orders that required the in-depth analysis of the effects of climate change on the project and the project's effects on climate change were repealed in January 2025. This means that doing a full analysis on climate change is not required by NEPA. A robust analysis was included based on comments received during the scoping period.

This analysis also included an assessment of the increase in greenhouse gas emissions from the proposed project. Please also refer to **RTC 14.13** for information on how **Section 3.10 Air Quality** provides an analysis on greenhouse gas emissions.

Further, **page 31** of the **Final EIS** under the Snowmaking section describes that as required by GTR's SUP, water sufficiency for existing and proposed operations is documented in a water sufficiency letter that is on file with the CTNF. This letter has determined that GTR's infrastructure can produce sufficient water to operate and provide for the activities authorized in its operating plan. As GTR continues to develop their base area and infrastructure on private lands their groundwater resources would have to be

expanded. GTR would then apply for a new well permit with the Wyoming State Engineer's Office and then develop up to two additional wells on private land to meet the future water supply demands associated with the proposed snowmaking coverage.

For more information on impacts to and protecting of natural habitat please refer to **Chapter 3** within the **Final EIS** that describes impacts to both human and biological resources.

Given all of these analyses were included in the **Draft EIS**, no edits to the **Final EIS** were made in response to this comment.

14.13 Page 246 is embarrassingly weak on the environmental impact of the resort expansion. I did not see in the DEIS how many tons of carbon would be emitted into the atmosphere because of tree burning and the other aspects of the expansion. You should explicitly estimate and state the tons of carbon that will be released for every alternative. (478.3)

Thank you for your comment. The commenter is referencing **Section 3.11.6 Irreversible and Irretrievable Commitments of Resources** on **page 252** of the **Final EIS**. Please also reference **pages 249–250** of the **Final EIS** where it describes the direct and indirect environmental consequences to climate change and as a result of the project. This section provides analysis on how temperature, precipitation, shifts in downhill ski length, and snowpack and snowmaking are expected to change as climate change progresses into the future. The section also analyzes how these changes due to climate change would impact the proposed projects into the future.

Please also refer to climate change **RTC 14.4** where it explains that Executive Orders that required the in-depth analysis of the effects of climate change on the project and the project's effects on climate change were repealed in January 2025. This means that doing a full analysis on the tons of carbon released as a result of the project is not required by NEPA. However, **Section 3.10 Air Quality** does provide an analysis on the tons of carbon that would be released under each alternative. Specifically, as described on **page 225** of the **Final EIS**, under the Proposed Action CO_2 emissions would increase by approximately 5,460 lbs (2.5 tons) daily. This contribution would result in a 0.1 or less percent increase in total transportation emissions in Wyoming, which is not expected to contribute to the degradation of air quality in the state or area. This approximately 0.1 percent contribution would be negligible.

Additionally, as described on **pages 226-227** of the **Final EIS**, all trees that are removed for construction of the project would be removed over the snow or hand cut, piled, and burned. Trees to be burned would be burned on site and adhere to State of Wyoming Burn Permit parameters and CTNF for pile size and timing of burning. There would be short-term release of pollutant emissions and compliance with CTNF and state regulations would mitigate impacts to air quality.

Given this analysis was included in the **Draft EIS**, no edits to the **Final EIS** were made in response to this comment.

14.14 A conservative estimate for the number of trees that would be cut for ski runs, lift, and a road would be 6000 to 20,000 trees. This estimate is derived by quoting the DEIS that 89.5 acres would be cleared. One can assume about 200 trees per acre. There is no analysis of the loss of Co2 sequestration from taking out thousands of trees. (729.6)

Thank you for your comment. The commenter is referencing **Table 2.2-4. Projected Disturbance Under the Alternative 5** on **pages 40-41** of the **Final EIS** which outlines the acres and type of disturbance that would occur from different activities under Alternative 5. For each alternative there is a table that describes the projected disturbance under each proposed project activity. As described in climate change **RTC 14.4** Executive Orders that required the in-depth analysis of the effects of climate change on the project and the project's effects on climate change were repealed in January 2025. This means that doing a full CO_2 sequestration analysis was dismissed from detailed analysis and is not required by NEPA. **Section 3.11 Climate Change** on **pages 249–250** of the **Final EIS** does provide an analysis on how temperature, precipitation, shifts in downhill ski season length, and snowpack and snowmaking are expected to change as climate change progresses into the future. The section also analyzes how these changes due to climate change would impact the proposed projects into the future.

No edits to the **Final EIS** were made in response to this comment.

14.15 Page 246, speculative comments such as "…which could be reversed in the long-term if vegetation were allowed to regrow" and "… measures could be put into place to reduce vehicular and construction emissions" must be deleted for at least two reason (1) they show clear bias in favor of the expansion (2) there is no supporting evidence that they will ever happen are included for the sole reason of minimizing and dismissing the real impacts. The entire DEIS needs to be scrubbed of biased, unsupported speculative comments such as these. (478.4)

Thank you for your comment. The commenter is referencing **Section 3.11.6 Irreversible and Irretrievable Commitments of Resources** on **page 252** of the **Final EIS**. An irreversible or irretrievable commitment of resources describes the impacts on or losses to resources that cannot be recovered or reversed, respectively. These are given specific meaning in their application to disclosures made under an EIS. Definitions are provided by the Forest Service Handbook 1909.15. Specifically, an irreversible commitment of resources describes the loss of future options, primarily in relation to nonrenewable resources over the long term. For example, factors like soil productivity are only renewable over a period of time stretching thousands of years. An action that would decrease soil productivity would be an irreversible commitment of resources. In comparison, an irretrievable commitment of resources is one that applies to the loss of production, harvest, or use of natural resources for an identifiable term where the use could return after that term. An example of this would be the permanent conversion of wetlands into a parking lot. Within this section it states that the addition of new trails, snowmaking capability, and infrastructure represents irretrievable contributions to climate change as the emissions would be generated from the construction of the project and increased visitation would contribute to climate change and be influenced by climate change. These emissions would have already occurred and cannot be undone. It goes on to state that the contribution of emissions to the atmosphere as a result of construction or increased visitation is not considered irreversible as in the long term, climate adaptation measures could be taken to reduce future emissions or reduce the impact of climate change on the proposed projects. This section describes these climate adaptation measures as "offsetting or mitigation measures" as in the long term GTR could take actions to offset their contributions to climate change or regional emission concentrations. Therefore, the project would have irretrievable commitments of resources but would not have irreversible commitments of resources.

No edits to the **Final EIS** were made in response to this comment.

15. Vegetation

15.1 Most importantly would be the impact of expansion on the plants, animals and insects as listed in the draft EIS. Road building, tree removal, infrastructure, and avalanche control will significantly degrade the environment, vegetation, habitat of the species listed in the EIS. This alone is sufficient to exclude expansion of the Special Use Permit into these areas and the Greater Yellowstone Ecosystem. The EIS does not address the importance of the GYE. (15.1) (332.4)

Thank you for your comment expressing general concern with the project's impact on vegetation and plant, animal, and insect habitat. On **page 252** of the **Final EIS**, **page 4** of the **Botany Biological Evaluation,** and **page 5** of the **Biological Assessment**, the scope of this analysis describes that species included in the analysis were identified as federally listed endangered, threatened, proposed, or candidate and/or Region 4 sensitive species, Species of Local Concern (SOLC), and Wyoming Natural Diversity Database (WYNDD) Species of Concern. This section of the **Final EIS** also demonstrates that old growth vegetation and the presence of noxious weeds were also assessed. As stated in the **Final EIS**, excluding whitebark pine, there are 11 Forest Service Region 4 Sensitive Species listed, 0 SOLC, and 65 WYNDD Species of Concern with potential to occur within the project area. Based on this and the types of habitat common to the project area, it was determined that six species were considered likely to occur in the project area, of which four are Forest Service Region 4 Sensitive Species.

On **pages 255-258** of the **Final EIS**, the occurrence of whitebark pine, Payson's bladderpod, keeled bladderpod, and brightgreen spleenwort within the project is described in relation to the proposed action, and disturbance is outlined for each project feature. Additionally, the effects to whitebark pine and keeled bladderpod resulting from the proposed action are detailed in **Tables 3.12-5, 3.12-6, 3.12-7, 3.12-8, 3.12-9, 3.12-10,** and **3.12-11** of the **Final EIS**. Additionally, on **page 254** of the **Final EIS**, the analysis of Whitebark Pine explicitly places the project in the context of the GYE: "Pre-project surveys in 2020 determined that 70 percent of WBPs within the Greater Yellowstone Ecosystem are infected with white pine blister rust". Furthermore, the analysis for species like the Grizzly Bear relies on the "Teton Bear Analysis Unit (BAU), referenced on **page 287** of the **Final EIS**, which is described as a management unit integrated into the broader GYE recovery strategy.

Impacts to forested vegetation are primarily described in **Section 3.13 Wildlife** in the **Final EIS** and **Wildlife Biological Evaluation: Table 3.13-3** on **page 314** of the **Final EIS** displays forested habitat which would be converted to Grass/Forb, and **Table 2** on **page 21** of the **Wildlife Biological Evaluation** shows acres of disturbance by vegetative cover type. **Section 3.12. Vegetation** on **pages 252-282** of the **Final EIS** focuses primarily on whitebark pine, old growth/late seral, and sensitive plants. In **Table 3.12-12** on **pages 270** of the **Final EIS**, the existing percentage of late seral and old growth within the project area is reported, as well as the percent decrease based on proposed project impacts.

As identified in **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would limit disturbance to threatened, endangered, proposed, and candidate species, Region 4 sensitive species, and Species of Local Concern (SOLC).

Additionally, in **Table 3** on **pages 17-30** of the **Botany Biological Evaluation** as well as **pages 266-270** of the **Final EIS**, text was updated to more clearly describe the effects on Payson's bladderpod, keeled bladderpod, and brightgreen spleenwort. Text now describes that all action alternatives were given the

following determinations: *May Impact Individuals or Their Habitat but would Not Likely Contribute to a Trend Toward Federal Listing or Cause a Loss of Population Viability* for Payson's bladderpod (*Lesquerella paysonii)*, keeled bladderpod (*Lesquerella carinata var. carinata)*, and brightgreen spleenwort (*Asplenium trichomanes-ramosum)*.

On **page 271** of the **Final EIS**, it is highlighted that the proposed action would result in the potential for existing populations of noxious weeds to spread into South Bowl and Mono Trees proposed SUP areas or increase density within the existing SUP . However, compliance with Executive Order 13112; reducing the threat of weed spread, and managing existing weed populations, will rely on the establishment of the Noxious Weed Management Plan or the implementation of management measures outlined in **Table 2.4-1** of the **Final EIS**.

Furthermore, regarding habitat loss and fragmentation for federally listed and sensitive species, **Section 3.13, Wildlife and Habitat Fragmentation (Animals)**, specifically addresses this concern. On **page 282**, the scope of analysis also describes the analysis of "federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species". Additionally, in **Section 3.13.6** on **page 332** of the **Final EIS**, it states, "Tree removal related to the proposed projects would represent an irretrievable effect to some habitat... However, this is not considered an irreversible commitment because habitat (vegetation) is a renewable resource." Habitat fragmentation is also summarized in **Appendix D. Comparison Summary of Direct and Indirect Environmental Consequences**, on **page 597** of the **Final EIS**, "The Draft EIS contains an analysis of habitat fragmentation as it relates to specific species... included under the respective species sub-heading within Section 3.13.4."

In regard to insects, the determination of effects for the Western Bumble Bee is discussed in **Appendix D. Comparison Summary of Direct and Indirect Environmental Consequences**, on **page 594** of the **Final EIS**: "Would likely impact individuals, but not have significant impacts to the overall population" **Page 594** of the **Final EIS** also mentions that the Monarch Butterfly, was given a determination of "Not likely to jeopardize the continued existence of the species."

On **page 265** of the **Final EIS**, avalanche control is specifically linked to vegetation damage, in which "proposed avalanche control could also indirectly impact individual WBP... avalanche control by GTR has the potential to increase the frequency of avalanches." **Page 316** of the **Final EIS** also supports the finding that avalanche control, "particularly within the proposed South Bowl area is also likely to impact bighorn sheep... noise-intensive avalanche mitigation activities are likely to further deter bighorn sheep from using habitat".

No edits were made to the **Final EIS** in response to this comment.

15.2 The GTR projects involve a substantial amount of vegetation removal — particularly trees — for all of the alternatives except the No Action. For alternative 3, the least active of the action alternatives, the amount of tree clearing alone is 28.4 acres, while it is 107.4 acres for grading and tree clearing. Glading is 294.9 acres, but the amount of tree clearing involved is unclear. In the DEIS, Figure 2 on page 388 shows glading areas that seem to add-up to 295 acres, but the "grading and tree clearing" is not explicitly shown. I assume that the "proposed ski trails" areas are where the grading and tree clearing will occur. Today's vegetation at Grand Targhee Resort is very similar to what was there before

resort development (Figure 7), and it is difficult to understand why so much glading, grading, and clearing is necessary now. Most of, if not all of the time, there is not a shortage of skiable acres, and skiing in the existing forested areas is not excessively challenging under the usual snow conditions. (644.9) (476.15)

Thank you for your comment concerning the amount of vegetation removal involved with Alternative 3. **Table 2.2-2** on **page 37** of the **Final EIS** details the type of disturbance associated with each project component of Alternative 3. Additionally, on **pages 36-38** of the **Final EIS**, total acreage for each disturbance type is separated by project component.

On **page 23** of the **Final EIS**, tree clearing, grading, glading, and selective tree clearing are described as separate activities; however, some project components occurring in vegetated areas would require both grading and tree clearing. These areas are explicitly summarized for Alternative 3 in **Table 2.2-2** of the **Final EIS**. Disturbance areas solely requiring tree clearing are also summarized separately.

Figure 2 on **page 398** of the **Final EIS**, displays proposed ski trails and glades for all project alternatives. As described in **Table 2.2-2** of the **Final EIS**, the proposed terrain development, would require grading, tree clearing, and glading. In some areas, grading or tree clearing would be the only necessary action based on existing conditions; however, certain circumstances would require both tree clearing and grading together.

Furthermore, it appears as if the commenter is referencing inaccurate acreage totals. **Table 3.14-3** on **pages 339-340** of the **Final EIS**, displays the overall acres of disturbance for each soil map unit and specifically breaks down disturbance acreage by grading and vegetation clearing for Alternative 3. Additionally, proposed disturbances are color-coded by type and displayed in **Figures 1-5** on **pages 397-401** of the **Final EIS**.

As identified in **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, vegetation specific PDC and mitigation measures would require a Post-Construction Revegetation and Rehabilitation Plan to revegetate all disturbed areas.

Additionally, the commenter mentions that skiing in existing forested areas is not excessively challenging under usual snow conditions. However, on **page 4** of the **Final EIS** is specifically described that, “GTR identified a need to improve the recreational experience and address shortcomings in their terrain offerings and operations”. **Page 72** of the **Final EIS** also states, “The expanded terrain would address the Purpose and Need of providing additional undeveloped, minimally maintained lift-served terrain and additional traditionally cleared alpine trails to enhance terrain variety and skiing experiences at GTR.” These statements indicate that the proposed terrain improvements are indeed necessary and deeply rooted in the project’s purpose and need.

No edits were made to the **Final EIS** in response to this comment.

15.3 Long–Term Landscape Changes – Permanent infrastructure will reduce natural conditions, increase impermeable surfaces, and require years of revegetation efforts to stabilize disturbed areas. (457.38) (457.100)

Thank you for your comment regarding long-term landscape changes, such as reductions in natural conditions, and increased impermeable surfaces, which would require revegetation efforts. However, on

page 346 of the **Final EIS**, Past, Present, and Reasonably Foreseeable Future Projects describe that permanent structures, such as access administrative routes, buildings, and multi-use trails would result in increased impermeable surfaces causing higher runoff and higher mass movement potential. Additionally, in **Table 2.4-1** on **page 50** in the **Final EIS**, states, "Riparian areas that experience any loss of vegetation... will be re-vegetated immediately after construction with native vegetation." The Forest Service requires the implementation of PDC and BMPs to minimize impacts to soil resources and sedimentation to waterways. Groundwater impact and slope-stabilization are also discussed on **pages 355-256** of the **Final EIS**, in which it is stated that the project would require "an aggressive BMP plan to protect public water systems by avoiding sensitive areas or highly erosive soils, minimizing runoff, erosion, and sediment delivery to streams; implementing more aggressive sediment slope-stabilization like contour-felled logs, contour trenches, and straw bales placed in staggered tiers on the slope; mulch treatments like dry mulches and hydromulches to prevent the movement of fine sediment through the Bighorn Dolomite; vegetative buffers would be maintained adjacent to intermittent or perennial drainages and wetlands, to the extent possible; soil disturbing activities would be avoided during periods of rain or wet soils; and including cross drains and drain dips for mountain biking trails and administrative routes to disperse runoff and erosion."

Furthermore, as identified in **Table 2.4-1 Project Design Criteria** on **pages 44-56** of the **Final EIS**, general, scenery, and vegetation specific PDC and mitigation measures would require a Post-Construction Revegetation and Rehabilitation Plan to revegetate all disturbed areas. Additionally, BMP #3 on **page 349** of the **Final EIS**, describes that stabilization and revegetation of disturbed slopes is necessary to meet forest guidelines and protect water resources. Additionally, successful revegetation is also needed and may require multiple plantings of native ground cover.

No edits were made to the **Final EIS** in response to this comment.

15.4 Grading could impact the ground vegetation, and this is important for various wildlife species. Even though they are common, ski areas use and animal habitat can co-exist better if native vegetation is protected as much as possible. The design criteria for grading seems to handle this, but there is a lot of proposed grading (mentioned previously here) that appears excessive, and recent glading (I guess, not sure what glading really is) near the base area and around the Shoshone lift appear excessive to me. (644.11)

Thank you for your comment, which expresses general concern regarding the amount of grading involved with the proposed action. In **Table 2.2-1** on **pages 23-24** of the **Final EIS**, the type of disturbance associated with each project component of the proposed action is detailed. Additionally, **pages 23-41** of the **Final EIS** describe the disturbance area and disturbance type separated by project component. Please refer to the vegetation **RTC 15.2** for more information.

Details surrounding the upgrade and realignment of Shoshone lift are described on **page 29** of the **Final EIS**. Specifically, the new teaching terrain and teaching carpet near the base area, and glading beneath the Shoshone lift are described on **pages 29-30** of the **Final EIS**.

Additionally, the purpose and need for action described on **page 4** of the **Final EIS**, states the need to "enhance skiing experience for various ability levels of guests, by providing an appropriate learning progression in an uncongested beginner area and increasing the quantity of beginner, intermediate, and

advanced-intermediate terrain to meet current and anticipated public demand." Disturbance surrounding the bottom of the Shoshone lift and base area is intended to create an improved beginner area and gladed skiing experiences appropriate for beginner guests that utilize this area.

Additionally, please refer to **Table 2.4-1** on **pages 44-45** of the **Final EIS** where it explains that GTR shall develop a Post-Construction and Revegetation Management Plan as part of their Construction Implementation Plan. The Revegetation Management Plan would ensure that proper seed mixes are used and revegetation of disturbed areas occurs.

Furthermore, on **page 272** of the **Final EIS**, in **Table 3.12-14. Estimated Impacts by Disturbance Type to WBP Individuals and Small Stands Under the Proposed Action**, disturbance types are categorized into "Glading (40 percent Tree Removal)" and "Groomable Glades (40 percent tree removal)" versus "Grading and Tree Clearing (100 percent tree removal)." This further outlines the details of the glading analyzed as a partial removal activity, distinct from clear-cutting. However, specific volumes of cut timber would be dependent on the standing timber present during implementation. Although this cannot be specifically detailed, glading projects typically consist of the removal of smaller diameter trees (under 8 inches in diameter) as well as hazard trees in which ski areas operating under a SUP FS-2700-5b are authorized to cut. This additional text has been added to the **Final EIS** on **page 24**.

15.5 NEPA requires identification of 'irreversible and irretrievable' commitments of resources. The DEIS does not fully address how vegetation removal, wildlife displacement, and habitat fragmentation could have long-term consequences. (457.75)

Thank you for your comment expressing concern about the long-term consequences of vegetation removal, wildlife displacement, and habitat fragmentation. On **page 282** of the **Final EIS**, irreversible and irretrievable commitments of vegetation are described in which overstory removal and impacts to vegetation are not considered irreversible, given timber and plant species are renewable in the long-term.

Additionally, on **pages 332** of the **Final EIS**, irreversible and irretrievable commitments of wildlife are described in which tree removal related to the proposed projects would represent an irretrievable effect to some habitat for some *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species*, and species of local concern, as well as migratory birds within the SUP area. However, this is not considered an irreversible commitment because habitat (vegetation) is a renewable resource. Please refer to the wildlife **RTC 16.1** for more information.

As identified in **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, vegetation specific PDC and mitigation measures would require a Post-Construction Revegetation and Rehabilitation Plan to revegetate all disturbed areas.

No edits were made to the **Final EIS** in response to this comment.

15.6 This valley is one of the most beautiful IN THE WORLD, and we have been around the world. The calypso orchid, seen in my photo grows here, abundant columbine, beautiful birds, moose, bear, all are at home here. Such diversity and grandeur spoiled again by man???? Why???? (204.1)

Thank you for your comment expressing opposition to the action alternatives due to the natural beauty of various wildflowers and wildlife in the area. The purpose and need for action described on **page 4** of the

Final EIS, the need to “improve the recreational experience and address shortcomings in their terrain offerings and operations in order to remain viable in the competitive destination skier/rider market.” explains the need for the project.

On **pages 87-88** of the **Final EIS**, it is disclosed that the proposed expansion would change the VQO of the expansion areas from "Visual Quality Maintenance" to "Maximum Modification" or "Special Use Authorization Recreation Sites" to accommodate the development. It is also acknowledged that projects will introduce form, line, color, and texture not presently common in the area. **Pages 91-96** of the **Final EIS**, analyze impacts to specific viewpoints which include impacts to the view from Table Mountain, Grand Teton, and Teton Canyon, noting that while some projects are subordinate, others (like the Mono Trees expansion) would alter the appearance of the area and add to the “developed character of the landscape.” However, as identified in **Table 2.4-1 Project Design Criteria** on **pages 44-45**, the general-specific mitigation measures detail a Post-Construction and Revegetation Management Plan as part of their Construction Implementation Plan. The Revegetation Management Plan would ensure that proper seed mixes are used and revegetation of disturbed areas occurs.

Furthermore, while the specific species the commenter references (the calypso orchid and columbine) are not individually analyzed as threatened species in the **Final EIS**, **page 254** of the **Final EIS** addresses the “subalpine herbaceous communities” where these wildflowers typically grow. Furthermore, **page 11** of the **Botany Biological Evaluation** describes the existing condition of the project area, noting the presence of “subalpine herbaceous communities” and “mixed conifer forests” that support diverse plant life. **Pages 261-280** of the **Final EIS** detail the direct impacts to these vegetation communities, including the removal of trees and grading of soil which would impact the habitat for these plants.

Regarding the commenter's concern of the proposed project’s effect on birds, **pages 122-129** of the **Wildlife Biological Evaluation**, discuss migratory birds, identify species of conservation concern, and acknowledge impacts to habitats such as riparian areas and coniferous forests. Specific sections analyze impacts to the Great Grey Owl, Boreal Owl, Flammulated Owl, and American Goshawk, noting that tree clearing will impact nesting territories.

Regarding the commenter's concern of the proposed project’s direct and indirect effects on mammals such as moose and grizzly bears, **pages 107-108** of the **Wildlife Biological Evaluation** confirm that moose winter habitat is present within the project area and address the project’s direct and indirect impacts on the species. Regarding grizzly bears, on **pages 45-48** of the **Biological Assessment**, it is stated that the proposed project would convert up to 735 acres of “secure” grizzly bear habitat to “nonsecure habitat,” and goes on to give the determination, “may affect, and is likely to adversely affect,” due to increased human-bear conflicts and habitat loss.

Additionally, considering the previously mentioned direct and indirect environmental consequences, **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, identifies vegetation-specific PDC and mitigation measures which would require the CTNF to be notified prior to or during project implementation, if previously undocumented or unknown occurrences of threatened, endangered, proposed, or sensitive plants are encountered within the project area.

Furthermore, vegetation-specific PDC and mitigation measures in **Table 2.4-1 Project Design Criteria** on **pages 44-56** of the **Final EIS**, would require construction practices and operations to avoid impacting

native plant communities through the designation of formal access paths in heavy-use areas and other appropriate means.

No edits were made to the **Final EIS** in response to this comment.

15.7 Under Alternatives 2 and 5 a substantial portion of the highest quality vegetation needed to sustain grazing in the Mono Trees area would be removed during grading operations. The forage on the lower slopes and open meadows is the value of the allotment. Higher elevation areas have dense timber. The loss of these high value areas during construction diminishes the value of the entire allotment. It is unreasonable to expect that the permittee could sustain his operation for the duration of the construction and revegetation. It must be a condition of the expansion that the permittee is compensated for the loss of revenue during this time. (294.19) (342.19)

Thank you for your comment expressing concern with the presence and quality of vegetation needed to sustain grazing in the Mono Trees area during and post-construction. As identified in **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require a Post-Construction Revegetation and Rehabilitation Plan to revegetate all disturbed areas.

Additionally, as identified in **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS**, livestock and grazing-specific PDC and mitigation measures would require GTR to cooperate with the Forest Service and livestock and grazing permittee and take measures, including but not limited to, the installation of vegetative buffers and fencing to protect the interests of both permit holders as directed by the Forest Service. Any reasonable installation costs of vegetative buffers or fencing construction and maintenance shall be borne by GTR.

The commenter also refers to concerns specifically addressed in the livestock and grazing **RTC 11.1**, which address the impact of the proposed project construction on grazing.

No edits were made to the **Final EIS** in response to this comment.

15.8 North Boundary lift - I adamantly oppose this lift because of the impacts to the aspen grove. This area should be protected for the health of the precious aspen grove, habitat for wildlife, and the beauty and solitude it provides for human enjoyment. The importance of the serenity this area provides cannot be underestimated. It is sorely needed in today's frenetic world. (120.4) (121.3) (122.3) (140.3) (167.3) (379.3) (476.13) (622.1) (767.6)

Thank you for your comment concerning the proposed North Boundary Lift. It is worth noting that this project component is within the existing SUP boundary, which is managed under as Management Prescription 4.2 – *Special Use Permit Recreation Sites* under the Targhee Forest Plan. The Targhee National Forest revised Forest Plan and other applicable Forest Service policy is described in **Section 1.9 Consistency with Forest Service Policy** of the **Final EIS**. As it relates to vegetation, Management Prescription 4.2 – *Special Use Permit Recreation Sites* says the following, "Generally you would find a variety of vegetation conditions from sagebrush to forested land within these areas. The forest cover would vary from mature trees to young seedling and sapling trees. The forest would generally be in a healthy, vigorous condition to provide for safety and provide for a friendly, relaxed outdoor experience. The area around the special use facility would generally exhibit a variety of visual conditions, depending on past insect, disease, and fire activity and management's response to those disturbances."

Regarding the commenter's concerns about wildlife habitat, **Table 3** on **page 18** of the **Wildlife Biological Evaluation** quantifies the specific acreage of aspen and conifer forest that would be impacted by grading and tree clearing for proposed project elements within GTR's existing SUP. Furthermore, **pages 303-331** of the **Final EIS**, the conversion of forested habitat to developed terrain and its potential effects on local wildlife populations.

Regarding the commenter's concerns about solitude, **pages 206-216** of the **Final EIS** explicitly analyzes impacts on "Opportunities for Solitude", acknowledging that new infrastructure near the resort boundary may affect the sense of seclusion for users in the adjacent JSW.

However, as identified in **Table 2.4-1 Project Design Criteria** on **pages 46-47** of the **Final EIS**, scenery-specific PDC and mitigation measures would limit impacts to the scenic character of aspen groves. Specifically, these PDC would require GTR to construct structures and lift components with materials which blend with the landscape character, as is practicable, and meet FSM 2380 policy for color and reflectivity, which is 4.5 on the Munsell neutral value color scale. Building designs will be submitted to the Forest Service for review and approval. Furthermore, **Table 2.4-1 Project Design Criteria** on **page 46** of the **Final EIS** describes that scenery-specific PDC and mitigation measures would require trail edges to be feathered or scalloped to provide a variable line, thereby minimizing linear cuts in overstory vegetation. Larger inter-trail tree islands shall be maintained to minimize the impact of cleared trails. Trees shall be retained, where possible, to provide species and size diversity, maintain forest cover, and screen facilities.

Additionally, the following PDC has been added to **Table 2.4-1 Project Design Criteria** on **page 47** of the **Final EIS**, specifically recommending selective thinning and glading operations to encourage aspen growth to offset the removal of mature aspen in instances such as the proposed North Boundary Lift: "Project components requiring selective tree clearing and glading would encourage the retention of aspen in any age or size class."

15.9 Missing detailed assessments of impacts on sensitive plant species like whitebark pine, old growth forests, and late-seral stage vegetation. (444.5) (457.98)

Disposition Code: Already addressed in EIS no additional edits needed

Section 3.12 Vegetation of the **Final EIS** summarizes the *Biological Assessment for Whitebark Pine* (**Biological Assessment**), the *Biological Evaluation for Botany* (Botany BE), the *Old Growth Forest Assessment* (**Old Growth Assessment**), and the *Noxious Weed Risk Assessment* (**Noxious Weed Risk Assessment**), all of which are available on the project website.

On **page 252** of the **Final EIS** and **page 4** of the **Botany Biological Evaluation**, describe that species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* TNF SOLC, and Wyoming Natural Diversity Database (WYNDD) Species of Concern. This section of the **Final EIS** also demonstrates that old growth vegetation and the presence of noxious weeds were also assessed. As stated in the **Final EIS**, excluding whitebark pine, there are 11 Forest Service Region 4 Sensitive Species listed, 0 SOLC, and 65 WYNDD Species of Concern with potential to occur within the project area. Based on this and the types of habitat common to the project area it was determined that six species were considered likely to occur in the

project area, of which four are Forest Service Region 4 Sensitive Species. Please refer to vegetation **RTC 15.1** for more information.

Additionally, on **pages 262-266** of the **Final EIS**, occurrence of whitebark pine within the project is described in relation to the proposed action, and potential impacts to WBP Surveyed Trees are outlined in **Table 3.12-8** on **page 265** of the **Final EIS**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, 3.12-7, and 3.12-8** of the **Final EIS**. Additionally, **pages 52-55** of the **Biological Assessment** and **pages 262-266** of the **Final EIS**, quantify the acreage of whitebark pine habitat affected by the proposed action. Additionally, as identified in **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require Whitebark pine Plus Trees to be clearly labeled and labels maintained by Forest Service personnel and Plus Trees shall be preserved and protected from project impacts. Additionally prior to development in areas with known or suspected Whitebark pine cover, pre-construction surveys shall be conducted to map the approximate areas and densities of whitebark pine trees to be impacted, and this information would be used to help avoid impacting or removing Whitebark pine trees when practicable. PDC on **page 49** of the **Final EIS** also states, "During tree removal for new disturbances (e.g., runs and trails), selectively retain 5-needle pine (whitebark pine and limber pine) and instead remove alternate tree species. Retain tree islands of WBP and limber pine in proposed ski runs, particularly at higher elevations to increase visibility during low visibility conditions and help minimize loss of WBP. If not practicable, mature 5-needle pine (whitebark pine and limber pine) removal will be approved by the Forest Service after site-specific review. Maintenance of existing runs (mowing) is allowed to continue as it has in the past. Any grading maintenance will select for species other than WBP and limber pine."

Table 2.4-1 on **page 49** of the **Final EIS** also describes GTR's commitment to obtaining Whitebark Pine Friendly Ski Area Certification from the Whitebark Pine Ecosystem Foundation prior to project implementation. Certification requirements include implementation of a whitebark pine education program, developing a conservation plan that includes mitigation for impacted whitebark pine, and implementing a monitoring program to assess population status and conservation success.

In regard to old growth and late seral vegetation, the **Old Growth Assessment** titled "GIS Late Seral and Old Growth Forest Assessment" analyzes the estimated impacts to Targhee Principal Watersheds 19 and 20 resulting from proposed project components. This analysis is summarized in **Section 3.12 Vegetation** on **pages 252-282** of the **Final EIS**, and in **Appendix D. Comparison Summary of Direct and Indirect Environmental Consequences** on **page 602** of the **Final** EIS proposed impacts as a result of the Action Alternatives.

No edits were made to the **Final EIS** in response to this comment.

15.10 Page 249 mentions the Whitebark "Plus Trees" which exhibit genetic resistance to white pine blister rust. Regardless of which option is selected, a complete assessment must be conducted by an independent entity to identify all the Plus Trees in the study area. And regardless of which option is selected, each of the Plus Trees must be fully protected. They should not be permitted to be cut down or harmed. Detailing how each Plus Tree will be protected should be included in the DEIS/EIS. (478.2)

Thank you for your comment concerning whitebark pine and the identification of "plus trees." **Pages 262-266** of the **Final EIS**, occurrence of whitebark pine within the project is described in relation to the

proposed action, and potential impacts to WBP Surveyed Trees are outlined in **Table 3.12-8**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, and 3.12-7** of the **Final EIS**. Please refer to vegetation **RTC 15.9** for more information.

Additionally, as detailed on **pages 35-36** of the **Biological Assessment**, surveys were conducted by both Forest Service personnel and independent biological contractors (Alder Environmental) to identify and assess Whitebark Pine populations. These surveys identified three Plus Trees within the project area (one of which was lost to natural windthrow in 2022).

As identified in **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require Whitebark pine Plus Trees to be clearly labeled and labels maintained by Forest Service personnel and Plus Trees shall be preserved and protected from project impacts. Additionally, prior to development in areas with known or suspected Whitebark pine cover, pre-construction surveys shall be conducted to map the approximate areas and densities of whitebark pine trees to be impacted, and this information would be used to help avoid impacting or removing Whitebark pine trees when practicable.

Additional PDC in **Table 2.4-1 Project Design Criteria** on **pages 47-49** of the **Final EIS**, include various mitigation measures specific to whitebark pine; limiting motorized travel in whitebark pine habitat, requiring 5-needle pine to be retained during tree removal from trail and other infrastructure maintenance activities, and educating resort employees on ecology, importance, protection, and recovery prior to implementing projects in WBP habitat.

No edits were made to the **Final EIS** in response to this comment.

15.11 Expansion into the Mono Trees would result in a significant impact to wildlife, in particular Canada lynx and Goshawks. It would also result in the removal of thousands of trees, many of which are old growth Fir and Spruce. Whitebark Pine are present in the area which are considered "Threatened" under the Endangered Species Act. While erosion would need to be controlled, this extensive tree removal could put downstream water bodies at risk if not done properly. (584.2)

Thank you for your comment concerning the proposed project expansion into Mono Trees and the associated impacts to wildlife such as Canada Lynx and Goshawks. **Section 3.12 Wildlife** of the Final EIS summarizes the *Biological Assessment for Whitebark Pine* (**Biological Assessment**), the *Biological Evaluation for Botany* (Botany BE), the *Old Growth Forest Assessment* (**Old Growth Assessment**), and the *Noxious Weed Risk Assessment* (**Noxious Weed Risk Assessment**), all of which are available on the project website. Additionally, **Section 5.1 Canada Lynx** on **pages 39-45** of the **Biological Assessment** analyzes the Mono Trees area as Canada Lynx habitat, concluding that while it serves as a travel corridor, it lacks the prey density (snowshoe hare) required for primary foraging habitat. Furthermore, **Section 4.8 American Goshawk**, on **pages 60-72** of the **Wildlife Biological Evaluation**, acknowledges that the proposed expansion overlaps a known nesting territory. In **Appendix B Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards and Guidelines**, on **pages 467-468** of the **Final EIS**, it is stated that the project overlap with American Goshawk habitat would require a Forest Plan Amendment because the proposed tree removal is inconsistent with standard nesting buffers.

On **pages 332** of the **Final EIS**, irreversible and irretrievable commitments of wildlife are described in which tree removal related to the proposed projects would represent an irretrievable effect to some habitat for some *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species*, and species of local concern, as well as migratory birds within the SUP area. However, this is not considered an irreversible commitment because habitat (vegetation) is a renewable resource. Please refer to the wildlife **RTC 16.1, 16.66, and 16.77** for more information.

Additionally, the commenter expresses general concern regarding the project's impact to forests, including old growth spruce and fir, and whitebark pine. As described on **page 252** of the **Final EIS**, and **page 4** of the **Botany Biological Evaluation**, the scope of this analysis describes that species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* TNF SOLC, and Wyoming Natural Diversity Database (WYNDD) Species of Concern. This section of the **Final EIS** also demonstrates that old growth vegetation and the presence of noxious weeds was also assessed. As stated in the **Final EIS**, excluding whitebark pine, there are 11 Forest Service Region 4 Sensitive Species listed, 0 SOLC, and 65 WYNDD Species of Concern with potential to occur within the project area. Based on this and the types of habitat common to the project area it was determined that six species were considered likely to occur in the project area, of which four are Forest Service Region 4 Sensitive Species.

As addressed on **pages 262-266** of the **Final EIS**, occurrence of whitebark pine within the project is described in relation to the proposed action, and potential impacts to WBP Surveyed Trees are outlined in **Table 3.12-8**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, 3.12-7, and 3.12-8** of the **Final EIS**. Please refer to vegetation **RTC 15.9** and **15.10** for more information on the proposed projects direct and indirect effects on whitebark pine.

As mentioned on **page 270** of the **Final EIS**, under the Proposed Action, there is expected to be minimal direct impacts to late seral and old growth stands. Impacts to old growth and late seral stage stands could occur from grading and tree clearing within the existing and proposed SUP area. Additionally, **Table 3.12-12** on **page 270** of the **Final EIS** reports the existing percentage of late seral and old growth within the project area, as well as the percent decrease resulting from the proposed project impacts. Additionally, **Table 3.12-12** on **page 270** of the **Final EIS**, the existing percentage of late seral and old growth within the project area is reported, as well as the percent decrease based on proposed project impacts, and **Table 2** on **pages 3-4** of the **Old Growth Assessment** identifies proposed impacts across all alternatives to late seral and potential old growth forests in TPW 19 and TPW 20. Please refer to vegetation **RTC 15.1**, **15.9,** and **15.10** for more information on the proposed project's direct and indirect effects on whitebark pine and old growth forests.

Additionally, **Section 3.15 Hydrology** on **pages 346-366** of the **Final EIS** identifies that the Mono Trees area contains erodible soil formations (Hominy Peak and Darby Formations). Consequently, the analysis states that development in this specific area would require a more aggressive application of BMPs than typical operations to prevent sediment transport to downstream water bodies. On **page 45** of the **Final EIS**, specific Soils, Geohydrology, Hydrology, and Wetlands PDC are referenced to include a Post-Construction Revegetation and Restoration Plan in each Construction Implementation Plan that has "Protocols for managing disturbed areas to maintain sufficient ground cover to prevent increased runoff and erosion. Ground cover, as a combination of revegetation, woody debris, fine organic matter, surface rocks, and mulch, shall be 70 percent of natural background cover following reclamation activities to

minimize erosion. Revegetation success and ground cover effectiveness shall be determined in consultation with the Forest Service resource specialists." These measures would mitigate possible downstream effects from tree removal. Please refer to the hydrology **RTC 18.1** for more information.

Furthermore, as identified in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require Whitebark pine Plus Trees to be clearly labeled and labels maintained by Forest Service personnel and Plus Trees shall be preserved and protected from project impacts. Additionally prior to development in areas with known or suspected Whitebark pine cover, pre-construction surveys shall be conducted to map the approximate areas and densities of Whitebark pine trees to be impacted, and this information would be used to help avoid impacting or removing Whitebark pine trees when practicable. Furthermore, as identified in **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would limit disturbance to threatened, endangered, proposed, and candidate species, Region 4 sensitive species, Species of Local Concern (SOLC).

No edits were made to the **Final EIS** in response to this comment.

15.12 The proposed expansion, particularly the development of new high-elevation ski terrain and lift alignments (such as the Mono Trees and South Bowl areas, and even new North Ridge alignments, as outlined in the action alternatives), poses a direct and significant threat to Whitebark Pine (Pinus albicaulis). This species was formally listed as threatened under the Endangered Species Act in December 2022. Whitebark Pine is a keystone species critical for high-elevation ecosystems, providing food for wildlife (including grizzly bears) and stabilizing snowpack. The DEIS's analysis of vegetation impacts (Section 3.12 Vegetation) must be reevaluated to specifically and rigorously address the direct removal, fragmentation, and increased disturbance to Whitebark Pine populations. The 1997 Forest Plan states that the Forest Service "maintain, and where possible, increase unique and difficult-to-replace elements…such as whitebark pine" yet the DEIS PDC's make statements like "pre-construction surveys will be used to help avoid impacting or removing whitebark pine trees when practicable". That should not be good enough. Any cutting of this threatened species for new ski terrain is a gravely concerning impact that should lead to its complete avoidance, particularly given its crucial ecological role and precarious conservation status. Additionally, there would be residual impacts to other resources as a result - ie. watershed hydrology; slower forest succession; decrease in grizzly food sources; complete disturbance of the symbiotic relationship between Clark's Nutcrackers and White Bark Pines. (358.3) (321.2) (332.7) (343.1) (344.4) (398.3) (409.1) (411.6) (429.4) (453.2) (462.11) (471.17) (471.23) (471.25) (471.28) (471.29) (484.30) (484.45) (502.4) (505.1) (520.2) (537.9) (541.5) (542.5) (557.5) (571.10) (582.5) (587.2) (599.3) (644.13) (656.2) (673.6) (680.3) (693.5) (697.12) (711.28) (711.29) (711.41) (714.1) (720.7) (724.3) (729.23) (767.7) (922.7) (1064.2) (1066.32) (1075.6) (1075.7)

Thank you for your comment regarding the proposed project's impacts on whitebark pine. As described on **page 252** of the **Final EIS** and **page 4** of the **Botany Biological Evaluation**, species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* CTNF SOLC, and Wyoming Natural Diversity Database (WYNDD) Species of Concern, which includes whitebark pine. Please refer to vegetation **RTC 15.1**, **15.9**, and **15.10** for more information.

On **pages 262-266** of the **Final EIS**, occurrence of whitebark pine within the project is described in relation to the proposed action, and potential impacts to WBP Surveyed Trees are outlined in **Table 3.12-8**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, 3.12-7, and 3.12-8** of the **Final EIS**.

Pages 255-257 of the **Final EIS** address whitebark pine's significance as a keystone species, in which residual impacts to other resources may be experienced if individual trees and small stands are impacted. This section also describes possible effects to watershed hydrology, slower forest succession, and a decrease in food sources for grizzly bears and Clark's Nutcracker in relation to whitebark.

Additionally, as identified in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require Whitebark pine Plus Trees to be clearly labeled and labels maintained by Forest Service personnel and Plus Trees shall be preserved and protected from project impacts. Additionally prior to development in areas with known or suspected Whitebark pine cover, pre-construction surveys shall be conducted to map the approximate areas and densities of Whitebark pine trees to be impacted, and this information would be used to help avoid impacting or removing Whitebark pine trees when practicable.

Table 2.4-1 on **page 49** of the **Final EIS** also describes GTR's commitment to obtaining Whitebark Pine Friendly Ski Area Certification from the Whitebark Pine Ecosystem Foundation prior to project implementation. Certification requirements include implementation of a whitebark pine education program, developing a conservation plan that includes mitigation for impacted whitebark pine, and implementing a monitoring program to assess population status and conservation success.

Furthermore, on **pages 252-254**, **Section 3.12.2,** and **page 266** of the **Final EIS** describe that the Proposed Action would not meet the intent of Vegetation Guideline 8. This is due to the direct impacts on WBP habitat that would occur under this alternative; however, at the scale of the *1997 Forest Plan* area, WBP population viability would not be threatened. Amendments to the *1997 Forest Plan* would not be pursued for this species as the aforementioned inconsistency is with a guideline rather than a standard. Please refer to the **Wildlife and Botany Biological Assessment** for more information.

No edits to the **Final EIS** were made in response to this comment.

15.13 The DEIS is very confusing on the topic of Old Growth; page 246 cites Old Growth Forest Assessment, "available on the project web site", but I could find no such document. The Botany BE page 7 states that "The Forest Service has recommended an amendment to Vegetation Section Standards and Guidelines #6, Old Growth and Late Seral Forest Stages, Guideline A (page III- 12) that would deem the guideline unapplicable to the project. The guideline states: A: In each principal watershed, the combination of old growth and late seral forest stage acres will be 20 percent or more of the forested acres. Where it exists, at least half of this (ten percent of the forested acres) should meet old growth characteristics." This at least deserves explanation. I am alarmed how casually CTNF may discard the Forest Plan standards and guidelines when they conflict with GTR's ambitious 'Needs'. I expect more responsibility from USFS, and am discouraged by the apparent flippancy. The loss and degradation of mature mixed-conifer stands in the Mono Trees area is of great concern. The DEIS fails to examine the future consequences of forest removal here. With south and west-facing slopes, this zone will be increasingly vulnerable to high winds and early snowmelt brought by climate change and extreme

weather events. Remaining trees may have poor chances of survival. It seems a needless sacrifice, since early snowmelt will render this area increasingly less valuable for GTR. (697.13) (102.1) (658.3) (673.5) (23b.4) (27b.4)

Thank you for your comment regarding the project's impact on old-growth and late-seral forests, and the recommended amendment of Vegetation Section Standards and Guidelines #6. As described on **page 263** of the **Final EIS**, under the Proposed Action, there is expected to be minimal direct impacts to late seral and old growth stands. Impacts to old growth and late seral stage stands could occur from grading and tree clearing within the existing and proposed SUP area. Please refer to the vegetation **RTC 15.11** for more information. Additionally, we apologize for the confusion regarding the availability of the **Old Growth Assessment**. This specialist report is now available on the project website and was used to inform the analysis in **Section 3.12 Vegetation**, on **pages 246-274** of the **Final EIS**.

In **Table 3.12-12** on **page 270** of the **Final EIS**, the existing percentage of late seral and old growth within the project area is reported, as well as the percent decrease based on proposed project impacts, and **Table 2** on **pages 3-4** of the **Old Growth Assessment** identifies proposed impacts across all alternatives to late seral and potential old growth forests in TPW 19 and TPW 20.

On **page 448-452** in **Appendix B: Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards**, of the **Final EIS**, the project is deemed consistent with Vegetation Section Standards and Guidelines #6. This section demonstrates that the project impacts less than 1 percent of the late seral/old growth forest in the applicable watersheds. Therefore, the project remains consistent with the standard to maintain 20 percent or more of these forest types, and the specific numeric threshold is met without discarding the standard. The text the commenter referenced in the **Botany Biological Evaluation** regarding an amendment reflects a procedural recommendation, but the quantitative analysis in the **Final EIS** demonstrates that the specific numeric threshold of the standard is met. Furthermore, this section details that the proposed project area includes Teton Creek (TPW 19) and Leigh Creek (TPW 20) watersheds. Resource analysis utilizing the best available data has determined that all action alternatives would impact less than a percent of the late seral and old growth stands in these watersheds. The 20 percent or more threshold of old growth and late seral stands within the study area TPWs would be maintained or negligibly impacted by the action alternatives under a variety of modeling scenarios utilizing the best available existing and reliable data; therefore, indicating compliance with this guideline for TPW 19 and TPW 20 as described in Vegetation Section Standards and Guidelines #6, Old Growth and Late Seral Forest Stages, Guideline A (page III-12).

Furthermore, as identified in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require Whitebark pine Plus Trees to be clearly labeled and labels maintained by Forest Service personnel and Plus Trees shall be preserved and protected from project impacts. Additionally prior to development in areas with known or suspected Whitebark pine cover, pre-construction surveys shall be conducted to map the approximate areas and densities of Whitebark pine trees to be impacted, and this information would be used to help avoid impacting or removing Whitebark pine trees when practicable. Additionally, as identified in **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would limit disturbance to threatened, endangered, proposed, and candidate species, Region 4 sensitive species, Species of Local Concern (SOLC).

Section 3.11 Climate Change on **pages 233-252** of the **Final EIS** analyzes the Mono Trees area's vulnerability to climate change. We acknowledge your concern regarding elevation and snowpack; however, the analysis explicitly states that SRTs (Snow Residence Times) at lower elevations would decrease, and that low-elevation areas like Mono Trees are expected to experience midwinter rain... leading to midwinter flooding and unstable snowpacks. This analysis discloses the risks associated with developing skiing infrastructure in lower-elevation zones compared to higher-elevation zones.

Additionally, the following sentence has been removed and text further clarified on **page 7** of the **Botany Biological Evaluation**, as it is no longer applicable to this project: "The Forest Service has recommended an amendment to Vegetation Section Standards and Guidelines #6, Old Growth and Late Seral Forest Stages, Guideline A (page III- 12) that would deem the guideline unapplicable to the project. The guidelines states:

A: In each principal watershed, the combination of old growth and late seral forest stage acres will be 20 percent or more of the forested acres. Where it exists, at least half of this (ten percent of the forested acres) should meet old growth characteristics."

15.14 There is some discussion among those of us closely following this process that the Mono Trees Old Growth Analysis fails to comply with decisions made by Federal District Judge B. Lynn Winmill. In 2000, Judge Winmill initially rejected the Squirrel Meadows Land Swap saying the Forest Service failed to accurately predict the effects of the growth the swap would entail, that the public was not fully engaged with the FS in receiving adequate and accurate information and being allowed to comment, and that the whole process violates the Targhee Forest Plan. (701.5)

Thank you for your comment referring to **Section 1.5 – Public Involvement** and **Chapter 4** of the **Final EIS**, which highlights the extensive public outreach and governments, agencies, and organizations that were contacted during scoping. **Section 1.5** of the **Final EIS** has been updated to described public outreach that occurred during the **Draft EIS** comment period, including additional public meetings and comment processing.

The **Final EIS** relies on the **Old Growth Assessment** (dated January 17, 2025). As noted on **pages 1-2** of the **Old Growth Assessment** and **Section 3.12 Vegetation** of the **Final EIS**, the agency discloses that this is a geospatial analysis and that specific on-the-ground surveys for old growth were not conducted for this specific report. However, regarding the Mono Trees area specifically, the analysis utilized the "Vegetation Analysis for the Targhee National Forest Lynx Analysis Unit (LAU)." As detailed on **page 2** of the **Old Growth Assessment**, this LAU dataset is considered the "most accurate data set" available and was derived using both remote sensing and ground truthing to map old growth stages. The analysis confirms that this higher-quality data covers "the majority of Mono Trees (>90%)," providing a higher level of accuracy for this specific expansion area than for the wider watershed analysis.

Additionally, to address concerns about the accuracy of effect predictions, the **Final EIS** employed a "conservative estimate" approach, in which datasets were less precise, and stands were classified as "potential old growth" to ensure the analysis did not underestimate the presence of this resource. Based on this conservative modeling, **page 449** in **Appendix B: Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards**, of the **Final EIS**, the project is deemed consistent with Vegetation Section Standards and Guidelines, and all action alternatives are consistent with old

growth standards and guidelines; less than 1% of the late seral/old growth forest in the Principal Watersheds (TPW 19 and 20) would be impacted, maintaining the required 20% retention threshold.

Furthermore, on **page 270** of the **Final EIS**, under the Proposed Action, there is expected to be minimal direct impacts to late seral and old growth stands. Impacts to old growth and late seral stage stands could occur from grading and tree clearing within the existing and proposed SUP area. **Table 3.12-12** on **page 270** of the **Final EIS**, the existing percentage of late seral and old growth within the project area is reported, as well as the percent decrease based on proposed project impacts, and **Table 2** on **page 3** of the **Old Growth Assessment** identifies proposed impacts across all alternatives to late seral and potential old growth forests in TPW 19 and TPW 20. Please refer to vegetation **RTC 15.11** and **15.13** for more information on Guideline #6.

As identified in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require Whitebark pine Plus Trees to be clearly labeled and labels maintained by Forest Service personnel and Plus Trees shall be preserved and protected from project impacts. Additionally, prior to development in areas with known or suspected Whitebark pine cover, pre-construction surveys shall be conducted to map the approximate areas and densities of Whitebark pine trees to be impacted, and this information would be used to help avoid impacting or removing Whitebark pine trees when practicable. Additionally, as identified in **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would limit disturbance to threatened, endangered, proposed, and candidate species, Region 4 sensitive species, Species of Local Concern (SOLC).

No edits were made to the **Final EIS** in response to this comment.

15.15 The 1997 Forest Plan includes protections for the species in Vegetation Guideline 8, which states, "Maintain, and where possible, increase unique or difficult-to-replace elements or habitats such as whitebark pine, and areas of high species diversity, such as aspen, riparian zones, etc." Removal of WBP individuals for expansion, glading, and ski run creation would be in opposition to the spirit of this guideline. Beyond the Forest Plan, allowing Targhee to remove WBP for either expansion or within its existing SUP boundary would violate the section 4(d) rule in the ESA, which prohibits removal of WBP on federally managed lands, except in certain circumstances. Those exceptions generally cover conservation and research objectives, along with Tribal uses, but ski resort expansion is not included in the list of exceptions. (1075.8)

Thank you for your comment regarding the proposed project's impacts on whitebark pine. As described on **page 252** of the **Final EIS** and **page 4** of the **Botany Biological Evaluation**, species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* CTNF SOLC, and Wyoming Natural Diversity Database (WYNDD) Species of Concern, which includes whitebark pine. Please refer to vegetation **RTC 15.1**, **15.9**, **15.10** and **15.12** for more information.

On **pages 255-257** of the **Final EIS**, occurrence of whitebark pine within the project is described in relation to the proposed action, and potential impacts to WBP Surveyed Trees are outlined in **Table 3.12-8**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, 3.12-7, and 3.12-8** of the **Final EIS**.

Specifically, as it relates to this comment, **page 266** of the **Final EIS** states, "Despite PDC, the Proposed Action would not meet the intent of Vegetation Guideline 8, as described in Section 3.12.2. This is due to the direct impacts to WBP habitat that would occur under this alternative; however, at the scale of the 1997 Forest Plan area, WBP population viability would not be threatened. Amendments to the 1997 Forest Plan would not be pursued for this species as the aforementioned inconsistency is with a guideline rather than a standard." Please refer to the **Wildlife and Botany Biological Assessment** for more information.

As identified in **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require Whitebark pine Plus Trees to be clearly labeled and labels maintained by Forest Service personnel and Plus Trees shall be preserved and protected from project impacts. Additionally, prior to development in areas with known or suspected Whitebark pine cover, pre-construction surveys shall be conducted to map the approximate areas and densities of Whitebark pine trees to be impacted, and this information would be used to help avoid impacting or removing Whitebark pine trees when practicable.

Additionally, as identified in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS**, vegetation-specific PDC and mitigation measures describe GTR's commitment to obtaining Whitebark Pine Friendly Ski Area Certification from the Whitebark Pine Ecosystem Foundation prior to project implementation. Certification requirements include implementation of a whitebark pine education program, developing a conservation plan that includes mitigation for impacted whitebark pine, and implementing a monitoring program to assess population status and conservation success.

Page 262-266 of the **Final EIS** addresses whitebark pine's significance as a keystone species, in which residual impacts to other resources may be experienced if individual trees and small stands are impacted. This section also describes possible effects to watershed hydrology, slower forest succession, and a decrease in food sources for grizzly bears and Clark's Nutcracker in relation to whitebark.

No edits were made to the **Final EIS** in response to this comment.

15.16 If the Forest Service wishes to develop a mitigation measure that could coincide with the approval of the ski area beyond its existing permitted boundary, there are numerous ski areas and other permitted recreational facilities that are developing Whitebark Pine nurseries. Contractors or employees are collecting seeds, having them germinated at nurseries, and then planting the seedlings within their permitted boundary. This has been successful at numerous high-elevation ski areas in the west and should be a measure that is implemented at Targhee. (702.8)

Thank you for your comment regarding the proposed project's impacts on whitebark pine. As described in on **page 252** of the **Final EIS** and **page 4** of the **Botany Biological Evaluation**, species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* CTNF SOLC, and Wyoming Natural Diversity Database (WYNDD) Species of Concern, which includes whitebark pine. Please refer to vegetation **RTC 15.1**, **15.9**, **15.10** and **15.15** for more information.

Specifically, **Table 2.4-1** on **pages 49** of the **Final EIS** also describes GTR's commitment to obtaining Whitebark Pine Friendly Ski Area Certification from the Whitebark Pine Ecosystem Foundation prior to project implementation. Certification requirements include implementation of a whitebark pine education

program, developing a conservation plan that includes mitigation for impacted whitebark pine, and implementing a monitoring program to assess population status and conservation success.

On **pages 255-257** of the **Final EIS**, the occurrence of whitebark pine within the project is described in relation to the proposed action, and potential impacts to WBP Surveyed Trees are outlined in **Table 3.12-8**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, 3.12-7, and 3.12-8** of the **Final EIS**.

Additionally, as identified in **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require Whitebark pine Plus Trees to be clearly labeled and labels maintained by Forest Service personnel and Plus Trees shall be preserved and protected from project impacts. Additionally, prior to development in areas with known or suspected Whitebark pine cover, pre-construction surveys shall be conducted to map the approximate areas and densities of Whitebark pine trees to be impacted, and this information would be used to help avoid impacting or removing Whitebark pine trees when practicable.

Furthermore, **pages 262-266** of the **Final EIS** address whitebark pine's significance as a keystone species, in which residual impacts to other resources may be experienced if individual trees and small stands are impacted. This section also describes possible effects to watershed hydrology, slower forest succession, and a decrease in food sources for grizzly bears and Clark's Nutcracker in relation to whitebark.

No edits to the **Final EIS** were made in response to this comment.

15.17 The removal of Whitebark Pine is unacceptable as this species is now listed as threatened, it is a keystone species and impacts to it will have far-reaching effects. According to the DEIS, almost 20 acres of whitebark pine would be impacted by this development, yet the DEIS is deficient in its study of their removal. The SE group only looked at trees through binoculars to verify if they are cone-bearing, this is not a valid confirmation as they do not bear cones every year nor until a certain age. Whitebark are absent from the species listed in the DEIS in Appendix B: Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards and Guidelines p. 446. (476.5)

Thank you for your comment regarding the proposed project's impacts on whitebark pine. As described on **page 252** of the **Final EIS** and **page 4** of the **Botany Biological Evaluation**, species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* CTNF SOLC, and Wyoming Natural Diversity Database (WYNDD) Species of Concern, which includes whitebark pine. Please refer to vegetation **RTC 15.1**, **15.9**, **15.10**, **15.15,** and **15.16** for more information.

On **pages 255-257** of the **Final EIS**, occurrence of whitebark pine within the project is described in relation to the proposed action, and potential impacts to WBP Surveyed Trees are outlined in **Table 3.12-8**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, 3.12-7, and 3.12-8** of the **Final EIS**.

Specific field reconnaissance methods are detailed on **page 35** of the **Biological Assessment**, in which cone-bearing and non-cone-bearing whitebark pine trees were differentiated based on the presence of

cones. Additionally, status on **page 346** of the **Biological Assessment** described the following: Roughly one-third of all observed trees bore female cones. Non-cone-bearing trees were young seedlings, saplings, or larger, unhealthy individuals that may have previously bore cones. Most documented trees were considered healthy or moderately healthy, but many dead trees were also observed (these were not documented). Symptoms of blister rust were observed on roughly one-quarter of trees.

As identified in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require Whitebark pine Plus Trees to be clearly labeled and labels maintained by Forest Service personnel and Plus Trees shall be preserved and protected from project impacts. Additionally prior to development in areas with known or suspected Whitebark pine cover, pre-construction surveys shall be conducted to map the approximate areas and densities of Whitebark pine trees to be impacted, and this information would be used to help avoid impacting or removing Whitebark pine trees when practicable.

Furthermore, **page 453** of the **Final EIS** in **Appendix B: Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards and Guidelines**, describes that all alternatives are consistent with Vegetation Standard #4: Information on the presence of listed threatened, endangered or sensitive plant species will be included in all assessments for vegetation and/or ground disturbing management activities. Appropriate protection and mitigation measures will be applied to the management activities. This standard includes whitebark pine.

No edits were made to the **Final EIS** in response to this comment.

15.18 The DEIS does not provide information about the individual trees that would be removed in the event of a South Bowl expansion, including estimated age or blister rust prevalence. Younger whitebark pine are the future of the species—they are the future cone bearers and hold potential for both blister rust and mountain pine beetle resistance. Removing young, or cone bearing, whitebark pine forecloses on this future. The DEIS does not explain how the removal of individual trees will not result in "take" of this species, as defined and prohibited by the ESA. The Forest Service must explain whether and how it intends to apply the Section 4(d) rule for whitebark pine in evaluating any take of this species as a result of this project. The Forest Service has not explained how the removal of whitebark pine for purposes of this project fits within one of the Section 4(d) rule's exemptions for take of this species. The Forest Service should avoid any take of this threatened species and must reassess the proposed project's design elements to ensure the continued conservation and recovery of this critically imperiled species. The resulting biological opinion must include information on anticipated take and measures to avoid take of this federally protected species. As a relatively new ESA-listed species, this biological opinion will be among the first conducted to assess the impacts of a project like this (i.e., ski area expansion) on whitebark pine. (471.27) (471.30) (471.54) (478.1)

Thank you for your comment. As described on **page 252** of the **Final EIS** and **page 4** of the **Botany Biological Evaluation**, species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* CTNF SOLC, and Wyoming Natural Diversity Database (WYNDD) Species of Concern, which includes whitebark pine. Please refer to vegetation **RTC 15.1**, **15.9**, **15.10**, **15.15, 15.16**, and **15.17** for more information.

On **pages 255-257** of the **Final EIS**, occurrence of whitebark pine within the project is described in relation to the proposed action, and potential impacts to "individual" WBP Surveyed Trees are outlined in **Table 3.12-8**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, 3.12-7, and 3.12-8** of the **Final EIS**.

Tables 13-16 on **pages 52-53** of the **Biological Assessment** display estimated impacts to areas, density, and individuals and small stands of whitebark pine for each alternative. Additionally, impacts to whitebark pine are summarized; total tree clearing is estimated to impact approximately 282 identified trees or small stands for Alternative 2 and 280 identified trees or small stands for Alternative 4. Alternative 3 would impact approximately 181 identified trees or small stands, while 183 identified trees or small stands would be impacted under Alternative 5.

Page 43 of the **Biological Assessment** and **pages 253-254** of the **Final EIS** describe that formal consultation with USFWS is a separate process that is subject only to regulations that implement ESA, and is only required if a project is determined to adversely affect a federally listed species. The Forest Service is completing USFWS formal consultation relative to impacts to WBP. This process will result in the aforementioned biological opinion.

Additionally, as identified in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS,** vegetation-specific PDC will help ensure that project impacts are minimized and that preservation of WBP is prioritized following project implementation. These include requiring that WBP management guidelines be included in an updated Vegetation Plan as required to be part of the Special Use Permit for Grand Targhee Resort, that WBP Plus Trees be preserved and protected, that WBP trees be selectively retained when practicable during tree removal for glades or trails, and that resort employees are trained to avoid harming WBP during maintenance activities.

Furthermore, PDC in **Table 2.4-1 Project Design Criteria** on **pages 49** of the **Final EIS**, include various mitigation measures specific to whitebark pine; limiting motorized travel in whitebark pine habitat, requiring 5-needle pine to be retained during tree removal from trail and other infrastructure maintenance activities, and educating resort employees on ecology, importance, protection, and recovery prior to implementing projects in WBP habitat.

No edits were made to the **Final EIS** in response to this comment.

15.19 We cannot find any evidence that South Bowl has ever been officially surveyed for blister rust resistant whitebark pine following Forest Service protocols. The three "plus trees" identified in the DEIS are within the current SUP. While we appreciate that these trees would be protected from the proposed actions, their presence indicates a high potential for other trees in the area to also be blister rust resistant. As the CTNF is surely aware, promoting rust resistant trees is a high priority for whitebark pine conservation in the Greater Yellowstone area. Taking actions that would eliminate potentially rust-resistant trees goes against this priority. (471.26)

Thank you for your comment concerning the presence of Whitebark pine Plus Trees in South Bowl. As described on **page 252** of the **Final EIS** and **page 4** of the **Botany Biological Evaluation**, species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* CTNF SOLC, and Wyoming Natural Diversity

Database (WYNDD) Species of Concern, which includes whitebark pine. Please refer to vegetation **RTC 15.1**, **15.9**, **15.10**, **15.15, 15.16**, **15.17,** and **15.18** for more information.

On **pages 255-257** of the **Final EIS**, occurrence of Whitebark pine within the project is described in relation to the proposed action, and potential impacts to WBP Surveyed Trees are outlined in **Table 3.12-8**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, 3.12-7, and 3.12-8** of the **Final EIS**.

Specific field reconnaissance methods are detailed on **page 34** of the **Biological Assessment**, in which field botanists recorded count or density, presence of female cones, health, and presence of flagging or cankers (considered symptoms of blister rust; Hoff, 1992) within the project area, which included South Bowl. Additionally, status on **page 35** of the **Biological Assessment** described the following: Most documented trees were considered healthy or moderately healthy, but many dead trees were also observed (these were not documented). Symptoms of blister rust were observed on roughly one-quarter of trees.

Additionally, as identified in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require Whitebark pine Plus Trees to be clearly labeled and labels maintained by Forest Service personnel and Plus Trees shall be preserved and protected from project impacts. Additionally, prior to development in areas with known or suspected Whitebark pine cover, pre-construction surveys shall be conducted to map the approximate areas and densities of Whitebark pine trees to be impacted, and this information would be used to help avoid impacting or removing Whitebark pine trees when practicable. These surveys would help in identifying Whitebark pine trees within the project area (existing SUP, South Bowl, and Mono Trees) to ensure that proper protocols and mitigation measures are put in place prior to construction occurring. The additional designation of Whitebark pine plus trees is not under the jurisdiction of the CTNF. The CTNF would continue to follow existing protocols that are in place for Whitebark pine trees.

Furthermore, **Table 2.4-1** on **page 49** of the **Final EIS** also describes GTR's commitment to obtaining Whitebark Pine Friendly Ski Area Certification from the Whitebark Pine Ecosystem Foundation prior to project implementation. Certification requirements include implementation of a whitebark pine education program, developing a conservation plan that includes mitigation for impacted whitebark pine, and implementing a monitoring program to assess population status and conservation success.

The following text from the **Biological Assessment** describing specific attention to whitebark pine Plus Trees has been added to **page 265** of the **Final EIS**: "Three Plus Trees, WBP trees that have been identified to exhibit genetic resistance to white pine blister rust, were identified in 2016 by the CTNF and were confirmed by Forest Service surveys in 2020. One of the Plus Trees blew over in a wind event in 2022 resulting in two recorded plus trees at GTR. These Plus Trees are on the eastern end of the existing SUP. Implementation of various PDC as identified in **Table 2.4-1** as well as GTR's commitment as to being a Whitebark Pine Friendly Ski Area Certification from the Whitebark Pine Ecosystem Foundation would assist in mitigating impacts to Plus Trees."

15.20 The DEIS classifies individual whitebark pine as cone-bearing, non-cone bearing trees, and mixed (cone bearing and non-cone bearing) and concludes that no cone-bearing trees would be impacted by the Proposed Actions but that non-cone bearing and mixed trees would be impacted. However, unless a tree is dead or its upper (cone-bearing branches) have been impacted by blister rust, it has the potential to bear cones. Whitebark pine are a masting species and individual trees do not produce cones every

year. In addition, whitebark do not reach maturity and become cone bearing until they are 30-50 years old. We cannot find a reference to or explanation of "mixed" trees in the literature and it is unclear what the DEIS is referencing with this terminology. Therefore, we are assuming that the "mixed" trees discussed in the DEIS are either cone bearing or have the potential to be cone-bearing. The FEIS should provide more clarity on both mixed and non-cone bearing trees—how they were identified and why they were classified as such—and update the analysis and findings related to whitebark pine accordingly. (471.24)

Thank you for your comment. As described on **page 252** of the **Final EIS** and **page 4** of the **Botany Biological Evaluation**, species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* CTNF SOLC, and Wyoming Natural Diversity Database (WYNDD) Species of Concern, which includes whitebark pine. Please refer to vegetation **RTC 15.1, 15.9, 15.10, 15.15, 15.16, 15.17, 15.18**, and **15.19** for more information.

On **pages 255-257** of the **Final EIS**, occurrence of whitebark pine within the project is described in relation to the proposed action, and potential impacts to WBP Surveyed Trees are outlined in **Table 3.12-8**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, 3.12-7, and 3.12-8** of the **Final EIS**. Specifically, on **page 265** of the **Final EIS** it states: "The Proposed Action would cause a direct reduction in WBP within both the existing and proposed SUP. Under the Proposed Action approximately 1.13 percent of the WBP habitat within the project area would be reduced. This equates to approximately 0.13 percent of the TPWs and prime habitat for the WBP."

Specific field reconnaissance methods are detailed on **pages 34-35** of the **Biological Assessment**, in which cone-bearing, non-cone-bearing, and mixed whitebark pine trees were differentiated based on the presence of cones. Text has been clarified on **pages 33-35** of the **Biological Assessment** and **page 255** of the **Final EIS** to better explain the differences between cone bearing, non-cone bearing, and mixed WBP. Additionally, status on **page 35-36** of the **Biological Assessment**, described the following: Roughly one-third of all observed trees bore female cones. Non-cone-bearing trees were young seedlings, saplings, or larger, unhealthy individuals that may have previously bore cones. Most documented trees were considered healthy or moderately healthy, but many dead trees were also observed (these were not documented). Symptoms of blister rust were observed on roughly one-quarter of trees.

As identified in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require Whitebark pine Plus Trees to be clearly labeled and labels maintained by Forest Service personnel and Plus Trees shall be preserved and protected from project impacts. Additionally prior to development in areas with known or suspected Whitebark pine cover, pre-construction surveys shall be conducted to map the approximate areas and densities of Whitebark pine trees to be impacted, and this information would be used to help avoid impacting or removing Whitebark pine trees when practicable.

Furthermore, **page 453** of the **Final EIS** in **Appendix B: Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards and Guidelines**, describes that all alternatives are consistent with Vegetation Standard #4: Information on the presence of listed threatened, endangered or sensitive plant species will be included in all assessments for vegetation and/or ground disturbing

management activities. Appropriate protection and mitigation measures will be applied to the management activities. This standard includes whitebark pine.

The following text from the **Biological Assessment** was added to **page 255** of the **Final EIS** describing field methodology for inventorying whitebark pine: "Cone bearing status was recorded based on observed presence of female cones at the time of field surveys. WBP is a masting species, with synchronous high cone production occurring intermittently (often every 2-5 years), and relatively low cone production in other years. Individual trees typically do not produce substantial cone crops annually.[2] WBP is also slow to reach reproductive maturity and generally does not begin producing cones until approximately 30-50 years of age.[3] Given these ecological characteristics, cone-bearing status was categorized into three field-based classes representing observable conditions at the time of survey. Trees with visible, confirmed female cones were classified as "cone-bearing." Trees where cones were not observed, despite adequate visibility of the crown, were classified as "non-cone bearing." Trees where cone presence or absence could not be reliably determined due to visual limitations (e.g., distance, topography, canopy position, or crown structure) were classified as "mixed" (refer to the **Wildlife and Botany BA** for more information).

15.21 Repeat photography of scenes from late July 1872 showing Fred's and Peaked Mountain show stable vegetation types over the century, and many trees and shrubs extent then are still there today (Figures 11 to 15). In 2020, a wind-thrown whitebark pine along the south ridge of Fred's Mountain that was cut leaving a stump, provides a convenient, precise age for a typical sized tree (Figures 15 to 17). Ring counts at the stump were 249 years, so the likely establishment year was around 1770. This is not an unusual age for mature looking whitebark pine. Near Holly Lake in Grand Teton National Park, several living whitebark pines were cored and their establishment years ranged from 1324 to 1919; most established between 1600 and 1800. (Kelly 2014). In the Gros Ventre Valley on the Bridger-Teton National Forest, establishment years for sampled limber pine started in 1322 (Wise 2010). Given all of the above, the vegetation patches at Grand Targhee Resort are quite stable due to plant longevity and slow reproductive rates, so, impacts from tree cutting and grading will be long-lasting. Yet, most soil surfaces are frequently disturbed by pocket gophers. The herbaceous vegetation is adapted to this (as well as the underground herbivory), and established trees, especially conifers, are resistant to it. The stone pines are aptly named: they tend to establish on rocky sites that limit pocket gopher activity, and have limited reproductive success in meadow sites where soils disturbance is so high. This situation has implications for stone pine restoration. Meadow sites are easy to plant trees in, but most if not all of the trees will likely succumb to pocket gopher disturbance. Rocky sites are more protected, but harder to plant trees in. Natural regeneration from bird-dispersed seeds is slow and apparently sporadic. With a warmer climate likely ahead, sites will probably favor limber pine over whitebark pine. There are some young trees here and there, and they can be identified with a quick and relatively cheap genetic test (Alongi et al. 2019) to infer trends. (644.12)

Thank you for your comment. As described on **page 252** of the **Final EIS** and **page 4** of the **Botany Biological Evaluation**, species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* CTNF SOLC,

[2] Crone et al. 2011
[3] Perkins et al. 2016

and Wyoming Natural Diversity Database (WYNDD) Species of Concern, which includes whitebark pine. Please refer to vegetation **RTC 15.1**, **15.9**, **15.10**, **15.15, 15.16**, **15.17, 15.18, 15.19,** and **15.20** for more information.

On **pages 255-257** of the **Final EIS**, occurrence of whitebark pine within the project is described in relation to the proposed action, and potential impacts to "individual" WBP Surveyed Trees are outlined in **Table 3.12-8**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, 3.12-7, and 3.12-8** of the **Final EIS**.

Tables 13-16 on **pages 52-53** of the **Biological Assessment**, display estimated impacts to areas, density, and individuals and small stands of whitebark pine for each alternative. Additionally impacts to whitebark pine are summarized; total tree clearing is estimated to impact approximately 282 identified trees or small stands for Alternative 2 and 280 identified trees or small stands for Alternative 4. Alternative 3 would impact approximately 181 identified trees or small stands, while 183 identified trees or small stands would be impacted under Alternative 5.

As identified in **Table 2.4-1 Project Design Criteria** on **pages 49** of the **Final EIS**, vegetation-specific PDC will help ensure that project impacts are minimized and that preservation of WBP is prioritized following project implementation. These include requiring that WBP management guidelines be included in an updated Vegetation Plan as required to be part of the Special Use Permit for Grand Targhee Resort, that WBP Plus Trees be preserved and protected, that WBP trees be selectively retained when practicable during tree removal for glades or trails, and that resort employees are trained to avoid harming WBP during maintenance activities.

Additional PDC in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS**, include various mitigation measures specific to whitebark pine; limiting motorized travel in whitebark pine habitat, requiring 5-needle pine to be retained during tree removal from trail and other infrastructure maintenance activities, and educating resort employees on ecology, importance, protection, and recovery prior to implementing projects in WBP habitat.

Table 2.4-1 on **page 49** of the **Final EIS** also describes GTR's commitment to obtaining Whitebark Pine Friendly Ski Area Certification from the Whitebark Pine Ecosystem Foundation prior to project implementation. Certification requirements include implementation of a whitebark pine education program, developing a conservation plan that includes mitigation for impacted whitebark pine, and implementing a monitoring program to assess population status and conservation success.

No edits were made to the **Final EIS** in response to this comment.

15.22 Although whitebark pine is listed as Threatened under the ESA, limber pine has similar ecological traits and should have similar attention. Both have large nutritious seeds that are primarily animal dispersed (Hutchins 1990). Clark's nutcracker disperses both species (Schuster and Mitton 1991, Schoettle and. Rochelle 2000). The nutcracker and other seed-eating birds depend on other conifers besides whitebark pine (Douglas fir, limber and lodgepole pine, Engelmann spruce, and subalpine fir at GTR), so protecting the entire seed resource is important to protecting the nutcracker and in turn whitebark pine. (644.10)

Thank you for your comment regarding the proposed project's impacts on tree species in addition to those disclosed for whitebark pine. As described on **page 252** of the **Final EIS** and **page 4** of the **Botany Biological Evaluation**, describes that species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* CTNF SOLC, and Wyoming Natural Diversity Database (WYNDD) Species of Concern, which includes whitebark pine. Please refer to vegetation **RTC 15.1**, **15.9**, **15.10**, **15.15, 15.16**, **15.17, 15.18, 15.19, 15.20,** and **15.21** for more information.

Although specific impacts associated with project alternatives did not address limber pine, **Table 2.2-1** on **pages 23-24** of the **Final EIS** detail general tree clearing, grading, and glading associated with each project component. Additionally, **Tables 13-16** on **pages 52-53** of the **Biological Assessment**, display estimated impacts to areas, density, and individuals and small stands of whitebark pine for each alternative. Additionally, impacts to whitebark pine are summarized; total tree clearing is estimated to impact approximately 282 identified trees or small stands for Alternative 2 and 280 identified trees or small stands for Alternative 4. Alternative 3 would impact approximately 181 identified trees or small stands, while 183 identified trees or small stands would be impacted under Alternative 5.

Pages 262-266 of the **Final EIS** address whitebark pine's significance as a keystone species, in which residual impacts to other resources may be experienced if individual trees and small stands are impacted. This section also describes possible affects to watershed hydrology, slower forest succession, and a decrease in food sources for grizzly bears and Clark's Nutcracker is relation to whitebark.

On **pages 255-257** of the **Final EIS**, occurrence of whitebark pine within the project area is described in relation to the proposed action, and potential impacts to WBP Surveyed Trees are outlined in **Table 3.12-8**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, 3.12-7, and 3.12-8** of the **Final EIS**.

Additionally, as identified in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS**, vegetation-specific PDC and mitigation measures The Proposed Action would cause a direct reduction in WBP within both the existing and proposed SUP. Under the Proposed Action approximately 1.13 percent of the WBP habitat within the project area would be reduced. This equates to approximately 0.13 percent of the TPWs and prime habitat for the WBP.

Furthermore, as identified in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS**, vegetation-specific PDC and mitigation measures describe GTR's commitment to obtaining Whitebark Pine Friendly Ski Area Certification from the Whitebark Pine Ecosystem Foundation prior to project implementation. Certification requirements include implementation of a whitebark pine education program, developing a conservation plan that includes mitigation for impacted whitebark pine, and implementing a monitoring program to assess population status and conservation success.

The following PDC in **Table 2.4-1 Project Design Criteria** on **page 49** of the **Final EIS** was modified to include mitigation measures for limber pine as they are suggested for whitebark pine and 5-needle pine: "During tree removal for new disturbances (e.g., runs and trails), selectively retain 5-needle pine (whitebark pine and limber pine) and instead remove alternate tree species. Retain tree islands of WBP and limber pine in proposed ski runs, particularly at higher elevations to increase visibility during low visibility conditions and help minimize loss of WBP. If not practicable, mature 5-needle pine (whitebark pine and limber pine) removal will be approved by the Forest Service after site-specific review.

Maintenance of existing runs (mowing) is allowed to continue as it has in the past. Any grading maintenance will select for species other than WBP and limber pine."

15.23 On page 322 of the DEIS it states "Woody Residue Requirements for Materials three inches in Diameter or larger - Sustain site productivity by providing the [following] minimum amounts of woody residue dispersed on the site [from the Woody Residue Requirement for Woody Materials >= 3 Inches in Diameter table in the 1997 Forest Plan]" ... Where is the pertinent information from the Table? It needs to be provided in the DEIS. It's not even in the Design Criteria. (477.4)

Thank you for your comment concerning the incorporation of Forest-Wide Guidelines for Soil Quality/Forested Ecosystems as a PDC in the **Final EIS**. However, we wish to clarify that the pertinent information from the 1997 Forest Plan table is included in the **Final EIS**. On **pages 338-339** of the **Final EIS**, consistency with the 1997 Forest Plan states that the following PDC would ensure that disturbed areas sustain woody residue requirements for materials three inches in diameter or larger (meeting Guideline 2): During construction, maintenance and operations, stockpile topsoil to the extent possible to maintain organic matter; 2) Prior to construction, soil surveys and measurements of thicknesses of A or organic horizons would be completed within the disturbance area to ensure no net loss of soil organic matter. GTR would hire a qualified soil scientist to complete soil surveys and measurements. Reports would be submitted as specified in the Construction Plan; 3) A post-construction revegetation and restoration plan that includes methodology, locations, vegetative mixes and soil amendments; and 4) During site preparation treatments, avoid disturbing concentrated areas of soil wood to the greatest degree feasible.

Additionally, on **page 441** in **Appendix B: Forest Plan Consistency Analysis for Forest-wide and Management Prescription 4.2 Standards**, of the **Final EIS**, the project is deemed consistent with Soil Quality/Forested Ecosystems Guideline #2. Further validation is provided, highlighting why each alternative is consistent with this guideline. Additionally, please refer to **Table A** on **pages 522-523** of the **Final EIS**, which summarizes the specific tonnage of woody material (3-5 tons or 5-10 tons) required per Forest Habitat Type (e.g., Douglas-fir, Lodgepole pine) to maintain soil health. This requirement is operationalized in PDC, **Table 2.4-1 Project Design Criteria**, on **page 51** of the **Final EIS**, which states, "Where practicable and deemed safe, woody debris will be left in place to preserve existing logs in size classes 1, 2 and 3' to ensure compliance with the guideline."

No edits were made to the **Final EIS** in response to this comment.

15.24 The proposed expansion of GTR, as outlined in the DEIS, underscores the critical need for coordinated wildfire mitigation efforts, particularly considering the Teton County Community Wildfire Protection Plan (CWPP). The expansion plans include extending GTR's boundaries into areas identified as high-risk zones for wildfire due to dense vegetation and proximity to developed areas. The CWPP emphasizes the necessity of creating defensible spaces and implementing fuel reduction strategies to mitigate wildfire risks in WUI. The DEIS does not adequately incorporate Teton County's CWPP and new WUI code into standards for wildfire mitigation. (489.11) (355.4) (489.12) (697.18) (710.5) (727.5)

Thank you for your comment expressing concern with the assessment's reference to the critical need for coordinated wildfire mitigation efforts. On **pages 281-282** of the **Final EIS**, it is stated that projects such as the South Valley and Teton Canyon Hazardous Fuels Reduction and Red Creek Caribou Prescribed Fire Projects are intended to reduce the severity of impacts from large wildfires, as described in reference to the impact on the mitigation of noxious and invasive species. On **pages 429-438** in **Appendix A: Forest Plan Cumulative Effects** of the **Final EIS**, consider recent wildfire mitigation projects in the area such as the South Valley Hazardous Fuels Reduction Project EA, Red Creek Prescribed Fire CE, Teton Canyon Hazardous Fuels Reduction, and the Caribou Prescribed Fire Restoration EA in relation to project impacts.

Additionally, as identified in **Table 2.4-1 Project Design Criteria** on **page 55** of the **Final EIS**, fire and fuels-specific PDC and mitigation measures would require GTR to comply with local Fuels Mitigation Standards for proposed structures.

Further, the CTNF does not have jurisdiction over compliance with the Teton County Community Wildfire Protection Plan and therefore cannot mandate GTR to comply with it. GTR would need to coordinate with Teton County, Wyoming to understand compliance with the Community Wildfire Protection Plan. Additionally, as mentioned in **Table 2.4-1 Project Design Criteria** on **page 45** of the **Final EIS**, GTR shall obtain all required federal, county, town, and state reviews, approvals, and/or permits prior to the start of construction.

No edits to the **Final EIS** were made in response to this comment.

15.25 The proposed glading in Mono Trees will provide a public recreation benefit while simultaneously allowing GTR to clear beetle-impacted trees, support forest health, and reduce wildfire fuel. The Mono Trees area has seen an increasing amount of tree mortality due to predation from the mountain pine beetle. Implementation of the glading proposed in Mono Trees will support forest health and reduce wildfire fuels through the removal of this timber. (647.13)

Thank you for your comment supporting the proposed action described on **pages 22-36** of the **Final EIS**, due to the objectives to benefit recreational use and reduce wildfire hazard surrounding GTR. In **Section 3.1 Recreation**, the **Final EIS** analyzes the recreational benefits of this expansion. The analysis confirms your assessment, stating that the Mono Trees area would provide additional developed and undeveloped terrain for intermediate and advanced intermediate skiers, including gladed skiing opportunities, which would support a skills progression.

Regarding forest health and wildfire fuels, the **Final EIS** acknowledges the intersection of the proposed expansion with ongoing forest management objectives. As detailed on **page 58** of the **Wildlife Biological Evaluation**, the Teton Canyon Hazardous Fuels Reduction Project is an approved vegetation management project located within portions of the proposed Mono Trees expansion area. **Page 332** of the **Final EIS** recognizes that mechanical treatments in this area are designed to "reduce fuel loadings and the risk of severe wildfire." Additionally, **page 42** of the **Final EIS** notes that hazard trees identified during construction would be removed for safety, and analyzes the removal of approximately 40% of trees for glading, which reduces stand density and may contribute to forest health objectives regarding mountain pine beetle resilience. Additionally, **page 82** of the **Wildlife Biological Evaluation** explicitly acknowledges that the 40% tree removal technique used for glading is similar in intensity to the Teton Canyon Hazardous Fuels Reduction Project.

No edits were made to the **Final EIS** in response to this comment.

15.26 The Noxious Weed Risk Assessment (Risk Assessment) is overall sufficient and should decrease the probability of noxious weed and IAGs becoming problematic. The Department recommends in addition to the commitments outlined in the Risk Assessment, that trails be surveyed every year for consistency with other locations in the Early Detection and Rapid Response approach outlined under criteria number 9(c) in section 2. Noxious Weeds and IAGs can establish and spread quickly and the potential for that to occur on trails is equal to that in the other areas surveyed annually. (25b.19)

Thank you for your comment, generally agreeing with the Noxious Week Risk Assessment, but encourages further compliance with the Early Detection and Rapid Response approach outlined in **Table 2.4-1** on **pages 44-56** of the **Final EIS**.

On **page 252** of the **Final EIS** and **page 4** of the **Botany Biological Evaluation**, the scope of this analysis describes that species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* CTNF SOLC, and Wyoming Natural Diversity Database (WYNDD) Species of Concern. This section of the **Final EIS** also demonstrates that old-growth vegetation and the presence of noxious weeds were also assessed.

On **page 271** of the **Final EIS**, it is highlighted that the proposed action would result in the potential for existing populations of noxious weeds to spread into South Bowl and Mono Trees proposed SUP areas or increase density within the existing SUP. However, compliance with Executive Order 13112, reducing the threat of weed spread, and managing existing weed populations, will rely on the establishment of the Noxious Weed Management Plan or the implementation of management measures outlined in **Table 2.4-1** of the **Final EIS**.

Furthermore, as identified in **Table 2.4-1 Project Design Criteria** on **page 47-49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require GTR to establish Weed Prevention and Management Program that applies to the entire SUP area. The Forest Service must approve this plan and include sections on prevention, early detection and rapid response, control and management, and restoration. Additionally, **Table 2.4-1 Project Design Criteria** on **pages 44-45** of the **Final EIS** describes that a Construction Implementation Plan would be required as part of project PDCs which would require post construction monitoring of areas. Specifically, this PDC states, "Prior to initiating construction activities on NFS lands, GTR shall develop a comprehensive Construction Implementation Plan (CIP) for projects they intend to construct (as included in this EIS) each construction season. The CIP shall detail how the project(s) planned for construction are consistent with, and will comply with, the Record of Decision. The CIP shall detail planned construction/implementation methodologies sufficient to demonstrate compliance with, and fulfillment of, all applicable Project Design Criteria. If, during the course of implementation, GTR fails to adhere to the CIP, the Forest Service has the authority to suspend construction or operations. The CIP(s) shall be submitted for Forest Service construction authorization prior to initiation of any specific project and include the following information as appropriate for the project(s) being undertaken…Noxious Weed Management: Weed control methodologies including equipment cleaning, pretreatment, and post-construction monitoring and treatment."

No edits to the **Final EIS** were made in response to this comment.

15.27 Ground disturbance will likely spread invasive species and noxious weeds, further degrading native plant communities. Executive Order 13112 compliance is lacking – leading to risks of spreading invasive species during construction without sufficient mitigation measures. (457.32) (457.92) (457.99) (497.5)

Thank you for your comment expressing concern with the analysis of invasive species and noxious weeds. However, on **page 252** of the **Final EIS** and **page 4** of the **Botany Biological Evaluation**, the scope of this analysis describes that species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive plant species,* CTNF SOLC, and Wyoming Natural Diversity Database (WYNDD) Species of Concern. This section of the **Final EIS** also demonstrates that old-growth vegetation and the presence of noxious weeds were assessed.

The **Noxious Weed Risk Assessment** assesses the risk of noxious weeds by examining the potential for 1) introduction from outside the project area, 2) establishment in habitats conducive to weeds, and 3) spread within the project area during and after project construction. This report also details occurrences of noxious weeds in the project area, weed control measures, and various risk scenarios associated with each action alternative. On **pages 3-6** of the report also details specific PDC are emphasized to prevent the introduction and spread of noxious weeds prior to, during, and post-construction. Additionally, **Table 2.4-1 Project Design Criteria** on **pages 44-45** of the **Final EIS** describes that a Construction Implementation Plan would be required as part of project PDCs which would require post construction monitoring and treatment of disturbed areas to mitigate the spread of noxious and invasive species.

Additionally, on **page 271** of the **Final EIS**, it is highlighted that the proposed action would result in the potential for existing populations of noxious weeds to spread into South Bowl and Mono Trees proposed SUP areas or increase density within the existing SUP. However, compliance with Executive Order 13112, reducing the threat of weed spread, and managing existing weed populations, will rely on the establishment of the Noxious Weed Management Plan or the implementation of management measures outlined in **Table 2.4-1** of the **Final EIS**.

As identified in **Table 2.4-1 Project Design Criteria** on **pages 47-49** of the **Final EIS**, vegetation-specific PDC and mitigation measures would require GTR to establish Weed Prevention and Management Program that applies to the entire SUP area. The Forest Service must approve this plan and include sections on prevention, early detection and rapid response, control and management, and restoration.

No edits were made to the **Final EIS** in response to this comment.

16. Wildlife

16.1 The Targhee expansion project as proposed would have catastrophic impacts on local wildlife, erasing critical habitat for key species. The "South Bowl" area is the north slope of Teton Canyon where there is vital winter, birthing, and summer range; important migratory pathways; and mineral licks for many ungulates like bighorn sheep, mule deer, elk, mountain goat, and moose. The bighorn sheep population in Teton Valley is at risk of localized extinction, and the loss of this habitat could be a death knell for this unique species in Teton Valley. Additionally, other species utilize this important area including cougar, wolverine, black and grizzly bear, coyote, and even potentially wolf and lynx. The Forest Service previously agreed to work with the Wyoming Department of Fish and

Game to improve this critical wildlife habitat. The upper Mill Creek Canyon impacted by this expansion proposal in the "Mono Trees" area contains some of the last local wilderness security habitat for elk, deer, and moose; winter range for moose; and nesting habitat for raptors including goshawks, great gray owls, and boreal owls. The current DEIS does not provide adequate data regarding impacts to wildlife regarding this expansion. In some cases, the data is insufficient and in others, it is missing. This project cannot be allowed to move forward without critical assessment to impacts. (739.1) (112.2) (100.1) (126.1) (131.1) (386.3) (159.1) (201.3) (332.6) (352.2) (355.1) (380.1) (394.2) (455.1) (457.5) (457.33) (457.95) (457.96) (471.5) (493.1) (495.2) (498.3) (523.1) (524.1) (535.1) (538.3) (538.4) (540.1) (541.4) (570.3) (574.2) (574.3) (582.6) (611.1) (623.3) (636.3) (640.3) (645.1) (646.1) (648.2) (661.1) (680.2) (690.2) (693.6) (710.13) (715.2) (716.4) (719.1) (720.1) (724.2) (728.1) (735.1) (737.1) (740.1) (742.1) (747.1) (761.3) (767.1) (769.5) (822.3) (971.2) (1062.4) (1064.1) (362.4) (367.1) (373.4) (375.4) (377.1) (378.1) (381.1) (411.5) (428.1) (451.2) (456.10) (457.3) (464.4) (486.6) (499.1) (513.1) (517.2) (546.2) (580.3) (593.3) (727.2) (542.4) (171.1) (174.2) (301.12) (302.12) (300.12) (693.2) (27b.1) (382.2) (650.2) (457.51) (6b.3) (7b.3) (8b.1) (12b.4) (15b.3) (16b.3) (24b.1) (24b.3)

Thank you for your comment regarding the project's impact on wildlife species and associated wintering, birthing, and summer range; important migratory pathways; and mineral licks. On **page 282** of the **Final EIS** and **page 14** of the **Wildlife Biological Evaluation**, the scope of this analysis describes that species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species, and/or Species of Local Concern (SOLC)*. As described on **page 6** of the **Biological Assessment**, the following rational were used for excluding species: 1) Species does not occur, nor is expected to occur in the action area during the time activities will occur; 2) Species' habitat is not present; and 3)The action area is outside the geographical or elevational range of the species.

As stated in **Table 3.13-1** on **pages 285-286** of the **Final EIS**, there are six threatened, endangered, proposed, and candidate wildlife species identified by IPaC for the proposed project and consideration for the analysis, and four species were carried forward, including the Canada Lynx, Grizzly Bear, North American Wolverine, and the Monarch Butterfly. Additionally, as stated in **Table 3.13-2** on **pages 290-292** of the **Final EIS**, the CTNF sensitive species list includes five mammal species, 12 bird species, and two fish species. Of these species, the following were determined to have potential habitat in the project area and were carried forward for detailed analysis: Bighorn Sheep, Townsend's Big-Eared Bat, Great Grey Owl, Boreal Owl, Flammulated Owl, American Goshawk, Peregrine Falcon, Three-toed Woodpecker, Columbia Spotted Frog, Western Toad, Yellowstone Cutthroat Trout, and the Western Bumble Bee.

Furthermore, on **page 1** of the **Wildlife Biological Evaluation** it is described that the analysis; 1) ensures that Forest Service actions do not contribute to loss of viability of any native or desired non-native plant or animal species; 2) ensures the activities do not cause any species to move toward federal listing; and 3) incorporates concerns for sensitive species throughout the planning process, reducing negative impacts to species and enhancing opportunities for mitigation.

Section 4. Evaluated Species Information, on **pages 19-39** of the **Biological Assessment**, summarizes the evaluated species information for each wildlife species carried forward for detailed analysis (Canada

Lynx, Grizzly Bear, North American Wolverine, and Monarch Butterfly). For instance, life history, regional status, and the status of the population within the project area are analyzed for each species.

The **Final EIS** provides a comprehensive analysis of wildlife resources, supported by systematic surveys, scientific literature, habitat modeling, and consultation with state wildlife agencies, in which determinations of effects are analyzed. The summary of determinations made for all sensitive species analyzed on **pages 315-328** of the **Final EIS** and on **page 107** of the **Wildlife Biological Evaluation** describes that for all 11 of the sensitive species carried forward for detailed analysis, Alternatives 2-5 "*May Impact Individuals or Their Habitat, but Will Not Likely Contribute to a Trend Toward Federal Listing or Loss of Population Viability*". For all other sensitive species, there will be no impact. As described on **page 310-315** of the **Final EIS** and in **Section 5. Consequences** on **pages 39-59** of the **Biological Assessment,** of the four federally listed species: all alternatives were determined to "*Not Likely to Jeopardize the Continued Existence of the Species OR Result in Destruction OR Adverse Modification of Proposed Critical Habitat"* the monarch butterfly, and "*May affect, and is likely to adversely affect"* grizzly bears; and all action alternatives were determined to "*May affect, but is not likely to adversely affect"* the Canada lynx. The Proposed Action and Alternative 4 were determined to "*May affect, and is likely to adversely affect"* the wolverine, while Alternative 3 and 5 were determined to *May affect, but is not likely to adversely affect"* the wolverine.

Pages 328-331 of the **Final EIS** and **Section 5. Species of Local Concern,** on **pages 107-122** of the **Wildlife Biological Evaluation,** describe direct and indirect impacts from proposed alternatives on various species of local concern. Species that are not federally listed as endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species, are analyzed in this section. In this discussion, habitat overlapping with the action alternatives are analyzed along with spring, summer, and fall ranges, and local population estimates supported by Wyoming Department of Game and Fish research.

No edits were made to the **Final EIS** in response to this comment.

16.2 How will species like grizzly bears and bighorn sheep adapt to increased human activity over decades? (457.25)

The commenter expresses general concern regarding the project's potential to increase human activity and potentially impact grizzly bears and bighorn sheep in the future. As described in **RTC 16.1**, the **Final EIS** provides a comprehensive analysis of wildlife resources, supported by systematic surveys, scientific literature, habitat modeling, and consultation with state wildlife agencies, in which determinations of effects are analyzed. The summary of determinations made for all sensitive species is analyzed on **pages 315-328** of the **Final EIS** and on **page 107** of the **Wildlife Biological Evaluation.** Additionally, **page 310-315** of the **Final EIS** and in **Section 5. Consequences** on **pages 39-59** of the **Biological Assessment,** describes determinations made for the four federally listed species.

When considering the project's impact on Bighorn Sheep, **pages 307-308** and **pages 316-317** of the **Final EIS** and **pages 21-39** of the **Wildlife Biological Evaluation** provide a detailed, science-based analysis of Bighorn Sheep habitat overlapping with the proposed expansion area. The South Bowl area is well-documented in the analysis as containing critical habitat for the Teton Range bighorn sheep herd, including 54 acres of high-quality winter habitat and 195 acres of high-quality summer habitat overlapping with the Proposed Action. Additionally, on **page 307-308** of the **Final EIS**, and **page 27** of the **Wildlife Biological Evaluation**, the analysis documents that bighorn sheep use South Bowl as a

movement corridor to access the Apostle Cliffs mineral lick, which is located less than 900 feet south of the proposed South Bowl expansion area. Specifically, on **page 316** of the **Final EIS**, the proposed projects impact on bighorn sheep is discussed in which it is states that 11 acres of high-quality bighorn sheep winter habitat would be directly impacted by the proposed action, and based on the Teton Range bighorn sheep's aversion to recreation activity it is suspected that all 54 acres of high-quality winter habitat in South Bowl could be rendered unusable.

Additionally, **page 316** of the **Final EIS** also states that, "Disturbance from avalanche control activities (e.g. use of explosives) particularly within the proposed South Bowl area is also likely to impact bighorn sheep… Loss of habitat within and in the vicinity of the project area, particularly in South Bowl and in Teton Canyon, which is likely accessed through South Bowl, has the potential to harm the Teton Range herd viability. Although use of South Bowl by bighorn sheep during mid-winter months has not been officially documented, benefits of management actions aimed at improving habitat in the area (including suggested winter closures and the Teton Canyon Fuels Reduction Project-approved in 2018 and initiated in 2019) would not materialize if South Bowl were developed. Bighorn sheep may adjust movement patterns and habitat ranges to spend more time in the JSW adjacent to the project area; however, degradation of habitat in South Bowl and Teton Canyon due to the proposed development, combined with projected increases in recreation activity throughout the range of the Teton bighorn sheep herd, has the potential to substantially reduce access to adequate nutrition and protective habitat. In **pages 307-308** of the **Final EIS**, it is discussed that the extent of the impacts of increased activity on bighorn sheep is not yet known. Furthermore, it is mentioned that the Teton Range bighorn sheep herd is generally avoidant of human activity in the winter, and increased skier use of the South Bowl expansion area with the new Colter lift could alter bighorn sheep use of the area and habitat in the vicinity. Land managers have identified shrinking access to viable winter habitat as a primary threat to the small and isolated Teton Range bighorn sheep herd and current conditions with the Colter lift and backcountry gates may contribute to constraints on bighorn sheep winter habitat. Furthermore, **page 35** of the **Wildlife Biological Evaluation** states that the analysis explicitly acknowledges that "expansion of the ski area boundary into South Bowl would likely impact movement patterns and limit access to this down-canyon habitat, particularly in the winter months during lift operation when Teton Range sheep are especially avoidant of human activity."

Additionally, **page 22** of the **Wildlife Biological Evaluation** mentions that the Teton Range bighorn sheep herd is recognized as a core native herd by Wyoming and is at risk of localized extinction due to its small size (estimated 125-175 individuals) and isolated nature. The analysis documents this concern and explicitly concludes that development impacts could "harm viability of the Teton Range Herd." However, on **page 316** of the **Final EIS**, it is stated that projects aimed at improving habitat in South Bowl and Teton Canyon for bighorn sheep, including potential winter closure areas suggested by the Teton Range Bighorn Sheep Working Group and the Teton Canyon Hazardous Fuels Reduction Project, would proceed under Alternative 3 and may provide benefits for the Teton herd. Additionally, Alternative 5 does not include any direct impacts to South Bowl, where the more valuable bighorn sheep are located and which provides an important movement corridor, thus impacts to bighorn sheep under Alternative 5 would be lower compared to Alternatives 2 and 4. Similar to Alternative 3, projects aimed at improving habitat in South Bowl and Teton Canyon for bighorn sheep use, including potential winter closure areas suggested by the Teton Range Bighorn Sheep Working Group and the Teton Canyon Hazardous Fuels Reduction Project, would proceed under Alternative 5 and may provide benefits for bighorn sheep.

Page 312 of the **Final EIS**, it is described that the proposed projects under all action alternatives are not expected to impact the viability of the grizzly bear population in the Teton BAU or Targhee Planning Area due to the regional population status of grizzly bears and widespread availability of secure grizzly bear habitat and valuable vegetative cover types for grizzly bears throughout the Teton BAU. However, because incidental take of individuals would become more likely under all action alternatives (over the life of the projects), the proposed project *may affect, and is likely to adversely affect*, grizzly bears.

Pages 311-312 of the **Final EIS** and **pages 45-49** of the **Biological Assessment** describe the specific effects that would occur to grizzly bears under all action alternatives. Specifically, this section describes how the proposed projects have the potential to adversely affect individual grizzly bears and potentially cause the mortality of individual bears, through human-bear conflicts into the future. However, over 101,000 acres of secure habitat would remain in the Teton BAU and continue to provide habitat for grizzly bears. Though population growth has slowed in recent years, the population of grizzly bears in the Greater Yellowstone Ecosystem has increased from approximately 200-300 bears in 1975 to an estimated 1,000 in 2021.

No edits were made to the **Final EIS** in response to this comment.

16.3 The southern edge of the proposed Mono Trees expansion area does not appear to follow any topographical features. It includes a small portion of south-facing slopes in Teton Canyon above and to the west of the Apostles Cliffs. It is unclear why this area is included and we request that the proposed boundary be adjusted to follow the topographic ridgeline, generally matching the northern edge of the Teton Canyon Hazardous Fuels Treatment areas and also avoiding WGFD mule deer crucial winter range (BE; Figure 17). As proposed, this small portion of the Mono Trees expansion area would also impact bighorn sheep by allowing development and activity directly above bighorn sheep occupied habitat in the Apostles Cliffs and into known foraging areas west of the cliffs (WGFD observation of 6 bighorn rams in this area on May 1, 2025). (25b.11)

Please refer to the wildlife **RTC 16.1** and **16.2** for more information.

Thank you for your comment regarding the Mono Trees expansion and the boundary's proximity to the ridgeline and Apostles Cliffs. As described in wildlife **RTC 16.2,** the **Final EIS** provides a comprehensive analysis of wildlife resources, including bighorn sheep. This analysis was supported by systematic surveys, scientific literature, habitat modeling, and consultation with state wildlife agencies, in which effects are determined. Furthermore, determinations made considering the proposed project's effects on bighorn sheep are disclosed on **page 317** of the **Final EIS**, where it is stated that the proposed action "*May Impact Individuals or Their Habitat but would Not Likely Contribute to a Trend Toward Federal Listing or Cause a Loss of Population Viability".*

In regard to the boundary of the proposed Mono Trees expansion, the boundary has since been adjusted and moved in to exclude the portion of the south-facing slope referenced by the commenter. Please refer to the **Draft ROD** for more information on the specific alignment of the proposed boundary, which was reduced in acreage to encompass the proposed operational area. In total, the proposed Mono Trees expansion was reduced from 600 to 459 acres, and the proposed South Bowl expansion was reduced from 266 to 235 acres.

No edits were made to the **Final EIS** in response to this comment.

16.4 The Forest Service has long been concerned with wildlife that use the southfacing slopes of Teton Canyon. These proposals seem to disregard those concerns which were raised when snowmobilers used some of these areas in days gone by. Of particular concern is development in the Miles Creek basin and additional bike trails further west. (9b.4)

Thank you for your comment regarding the project's impact on wildlife species that use the south-facing slopes of Teton Canyon, specifically mentioning the development of Miles Creek Basin and bike trails. Please refer to the wildlife **RTC 16.1** and **16.2,** and noise **RTC 6.1** for more information. As described in wildlife **RTC 16.1,** and on **page 282** of the **Final EIS** and **page 14** of the **Wildlife Biological Evaluation**, the scope of this analysis describes that species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species, and/or Species of Local Concern (SOLC)*.

On **pages 293-294** of the **Final EIS** and **pages 32-33** of the **Wildlife Biological Evaluation** it is acknowledged that south-facing slopes above Teton Canyon, including South Bowl and the slopes between the resort and the canyon, are key seasonal and movement habitats for bighorn sheep, mule deer, moose, elk, and other species. However, the **Final EIS** provides a comprehensive analysis of wildlife resources, supported by systematic surveys, scientific literature, habitat modeling, and consultation with state wildlife agencies, in which determinations of effects are analyzed. Additionally, **pages 23 and 32** of the **Wildlife Biological Evaluation** discusses the Teton Range Bighorn Sheep Working Group (TRBSWG) program to develop management strategies and close certain areas to backcountry skiing. The South Bowl expansion area and south-facing slopes of Teton Canyon were included in the suggested closure areas due to the presence of valuable habitat and the Apostle Cliffs mineral lick. Under Alternatives 2 and 4, expansion into South Bowl would eliminate or limit bighorn sheep access to the habitat in this area and may reduce the benefits of the voluntary closure program. If the program is successful elsewhere, however, the result could still be an overall reduction in recreationists' encroachment into bighorn sheep range and a net increase in the preservation of bighorn sheep habitat.

Furthermore, **page 116** of the **Wildlife Biological Evaluation** states, "Impacts would be most significant under Alternative 2 due to the extent of development and vegetation clearing proposed in the Mono Trees and South Bowl expansion areas (which contain higher quality, undeveloped habitat on south facing slopes that may be used by mule deer in difficult winter month or during migration)."

No edits were made to the **Final EIS** in response to this comment.

16.5 The DEIS determined that this expansion may affect, and is likely to adversely affect grizzly bears. The South Bowl development would eliminate 383 acres of grizzly bear secure habitat and would increase the chances of human-bear conflict, threatening both bears and humans. In all likelihood, a greater amount of secure habitat would actually be lost to this development, as secure habitat is calculated through consideration of road density, but a ski resort is a unique use of public lands wherein large swaths of forest are cleared and subject to intense human use, similar to a road. A great deal more habitat is at risk if the DEIS were to consider secure habitat lost to ski run development, chairlift lines, and other ski hill-specific development beyond just the new roads that will be constructed. (471.16) (462.2) (476.6) (688.2) (689.2) (697.5) (914.3) (916.10) (1075.4)

Please refer to the wildlife **RTC 16.1, 16.2,** and **16.4** for more information.

Thank you for your comment regarding the project's potential to adversely affect secure grizzly bear habitat as well as associated human-bear conflicts. As described in wildlife **RTC 16.1 and 16.2,** and in the **Final EIS,** a comprehensive analysis of wildlife resources, supported by systematic surveys, scientific literature, habitat modeling, and consultation with state wildlife agencies, in which determinations of effects are analyzed. Furthermore, on **pages 305-306** and **pages 311-312** of the **Final EIS** and in **Section 5.** Direct and indirect environmental consequences resulting from proposed action alternatives are discussed, in which it is stated that the proposed project "*may affect, and is likely to adversely affect*", the grizzly bear, because incidental take of individuals would become more likely under all action alternatives (over the life of the projects). Additionally, an analysis of the proposed project effects on grizzly bears is included on **pages 45-48** of the **Biological Assessment**.

Secure habitat is defined **on page 28 of the Biological Assessment** as "any contiguous area ≥ 10 acres in size and more than 500 m (1640 ft) from an open or gated motorized access route (road or trail) or recurring low level helicopter line during the non-denning period (March 1 – November 30)".

As described on **pages 311-312** of the **Final EIS**, activities proposed under all action alternatives would affect grizzly bears by converting current secure grizzly bear habitat to nonsecure habitat within the Teton BAU. Secure habitat is most abundant in the proposed Mono Trees and South Bowl expansion areas due to their distance from existing roads, while most of the existing SUP currently consists of nonsecure habitat due to existing roads associated with current resort operations. Expanding the GTR SUP boundary into Mono Trees under Alternatives 2 and 5 would entail constructing an access administrative route through the center of the area to the proposed lift base, which would eliminate most of the secure habitat in the area. Expanding the GTR SUP boundary into South Bowl under Alternatives 2 and 4 would entail constructing an access administrative route along the southern boundary of the South Bowl expansion area which would eliminate almost all of the secure habitat in the area and secure habitat outside of the expansion area in Teton Canyon. Administrative routes proposed in the existing SUP under all alternatives would reduce secure habitat in the existing SUP and impact secure habitat outside the SUP Boundary to the east. Existing secure habitat is likely most valuable in the proposed expansion areas where little development and activity currently occurs; therefore, impacts under Alternatives 2, 4, and 5 would be most severe.

On **page 311** of the **Final EIS**, it was stated that the project would likely modify grizzly bear behavior and habitat use, due to increased development density and human activity, both during construction and once improvements are implemented (particularly improvements that would increase summer activity). On-mountain facilities and food and beverage vendors could also modify grizzly bear behavior. Increased summer recreation activity, facilities, and associated bear attractants would increase the likelihood of bear-human conflicts which have the potential to lead to individual mortality if a problem bear is removed.

No edits were made to the **Final EIS** in response to this comment.

16.6 The 600 acres in the proposed Mono Trees expansion experiences little backcountry recreation in the winter and has just one mountain bike trail for summer use. It is high-quality habitat for grizzly bears, and this DEIS fails to incorporate sufficient data on bear movement in Mono Trees, thus it falls short of conducting a rigorous environmental review of the impacts on this threatened species. The determination that expansion would

not have species-level impacts fails to account for site specific consequences for bears that may currently use this important habitat for denning or foraging. (1b.6)

Please refer to the wildlife **RTC 16.1, 16.2, 16.4,** and **16.5** for more information.

Thank you for your comment regarding the sufficiency of the effects analysis focusing on grizzly bears and the project's potential to adversely affect grizzly bears and their habitat, with specific concerns regarding the Mono Trees area. As described in wildlife **RTC 16.1** and **16.2,** and in the **Final EIS,** a comprehensive analysis of wildlife resources, supported by systematic surveys, scientific literature, habitat modeling, and consultation with state wildlife agencies, in which determinations of effects are analyzed. Furthermore, on **pages 305-306** and **pages 311-312** of the **Final EIS** and in **Section 5. Consequences** on **pages 39-59** of the **Biological Assessment** of the four federally listed species: all alternatives were determined to "*May affect, and is likely to adversely affect"* grizzly bears.

As it is discussed on **page 287** of the **Final EIS** and **page 29** of the **Biological Assessment**, it is discussed that tracking data was used to inform the project analysis on grizzly bears: "Documented occurrences of grizzly bears, detections, and human bear conflicts have occurred proximate to the project area. In addition to documented grizzly bear occurrences, grizzly bear tracks were documented by a wildlife ecologist at Alder Environmental while conducting pre-project fieldwork within and near the project area in 2019 and 2020. The grizzly bear in 2019 was likely transient based on movement patterns and the lack of additional grizzly bear sign in the area during several weeks of field surveys following the initial observation. The status of the grizzly bear associated with tracks observed in 2020 was not ascertained because the location was not revisited. There are no known denning or reproduction sites in or near the existing GTR SUP Area or the proposed expansion areas."

Additionally, **page 29** of the **Biological Assessment** describes the data that was collected as part of this analysis, which includes the following: "an observation of a female with dependent young and two observations of radio-marked solitary males within 1 mile of the project area between 2005 and 2019 (Karabensh et al. 2020). One grizzly bear/human conflict also occurred within one mile of the project area between 2005 and 2019 (Karabensh et al. 2020). Additional detections of grizzly bears elsewhere in the Teton BAU from the IGBST include 81-point detections for four GPS collared male grizzlies in 2008, 2009, 2014, and 2015; eight location detections for three male grizzlies with VHF collars in 2002-2003, 2011, 2015, and 2016; and a VHF collared female grizzly detected in 2010. Additionally, an uncollared female with a cub-of-the year was observed in Teton Creek in 2007, and a solitary uncollared bear was observed in the Teton BAU in 2011." Figures demonstrating this tracking data are available in **Appendix A** of the **Biological Assessment**.

Page 311 of the **Final EIS** explains that all action alternatives would convert current secure grizzly bear habitat to nonsecure habitat within the Teton BAU. Secure habitat is most abundant in the proposed Mono Trees and South Bowl expansion areas due to their distance from existing roads, while most of the existing SUP currently consists of nonsecure habitat due to existing roads associated with current resort operations. Expanding the GTR SUP boundary into Mono Trees under Alternatives 2 and 5 would entail constructing an access administrative route through the center of the area to the proposed lift base, which would eliminate most of the secure habitat in the area. Additionally, as discussed on **page 45** of the **Biological Assessment**, "About 242.18 acres of disturbance in potential grizzly bear habitat are proposed in the Mono Trees and South Bowl expansion areas, where habitat value is high due to lack of existing development. The remaining 687 acres are proposed in the existing SUP, where existing activity and

development may deter use by grizzly bears. However, some areas of the existing SUP see little activity during summer months when recreation and resort operations are less intensive, so bears may occur in more remote habitat within the SUP."

The following text was added to **page 284** of the **Final EIS,** clarifying regional efforts for documenting grizzly bear presence and occurrence: "In addition to the secure habitat assessment included in this analysis, systematic survey efforts for grizzly bear presence and activity within and adjacent to the project area have occurred in the Teton BAU. Field surveys involved systematic ground-based observations to detect physical evidence of grizzly bear presence, and regional research efforts incorporated long-term monitoring radio telemetry data from the Interagency Grizzly Bear Study Team. Regionally, human-bear conflict records began in 1999."

16.7 Like in South Bowl, construction of ski resort infrastructure would increase the risk of human-bear conflicts. Trash cans and increased numbers of recreators will result in more attractants, but the DEIS does not include adequate information on these or changes in bear activity based on the development of this previously secure habitat. This could lead to increased bear conflict and mortality; however, this analysis does not adequately quantify the site-specific risks to individual bears. The risk of mortality to individual bears will increase dramatically if the Mono Trees expansion is approved. (1b.7)

Please refer to the wildlife **RTC 16.1, 16.2, 16.4, 16.5,** and **16.6** for more information.

The commenter expresses general concern about the project's potential to adversely affect grizzly bear habitat and associated human-bear conflicts within the proposed Mono Trees expansion area. As described in wildlife **RTC 16.1, 16.2,** and **16.6,** and in the **Final EIS,** a comprehensive analysis of wildlife resources, supported by systematic surveys, scientific literature, habitat modeling, and consultation with state wildlife agencies, in which determinations of effects are analyzed. Furthermore, on **pages 305-306** and **pages 311-312** of the **Final EIS** and in **Section 5. Consequences** on **pages 39-59** of the **Biological Assessment** of the four federally listed species: all alternatives were determined to "*May affect, and is likely to adversely affect"* grizzly bears.

As discussed in wildlife **RTC 16.6**, **page 287** of the **Final EIS,** and **pages 28-29** of the **Biological Assessment**, it is discussed that tracking data was used to inform the project analysis on grizzly bears. Grizzly bear presence near the project area was documented through field surveys (including track identification), radio telemetry (GPS and VHF-collared bears), agency datasets, and incidental observations. Findings indicate only infrequent and likely transient use, including a probable transient individual in 2019, unconfirmed presence in 2020, and limited detections of collared and uncollared bears within about one mile between 2005 and 2019, along with a single human–bear conflict. There is no evidence of denning or reproductive activity, suggesting the area serves as peripheral habitat rather than core grizzly bear habitat. Additionally, it is important to note that on **page 29**of the **Biological Assessment**, it is mentioned that six of these bear-human conflicts were documented within the Teton BAU from 1999-2013 and were related to sheep depredation and human food obtainment, and two grizzly bear conflicts were documented in the Teton BAU from 2005-2019.

Pages 45-46 of the **Biological Assessment** also states that human-bear conflicts have the potential to increase, particularly if waste or food areas are accessible for bears during construction or due to on-mountain facilities and food and beverage services. However, as identified in **Table 2.4-1 Project Design Criteria** on **pages 49-51** of the **Final EIS**, wildlife and fish-specific PDC and mitigation measures would

limit possible human/bear conflict: “To reduce the potential of human/bear conflicts, food products; containers; and bear attractants shall be disposed of in self-locking, certified bear resistant containers or dumpsters approved by the Interagency Grizzly Bear Committee (general timeline is from March 1 to December 1). Trash receptacles at construction sites that include food related waste or bear attractants will be bear-resistant. Food and drink shall be stored in construction vehicles or bearproof containers. All vehicular windows shall be kept closed and doors locked to prevent bear entry. Resort BMPs employed upon implementation shall ensure proper storage/disposal of bear attractants including attractants associated with food and drink services which shall be stored inside bear-resistant buildings. (In accordance with Order Number 04-15-23-117).”

As identified in **Table 2.4-1 Project Design Criteria** on **page 50** of the **Final EIS:** “Contractors, construction workers, and resort employees will be annually trained in bear safety including use of bear spray. Training in grizzly bear identification will also be provided and a system for documenting grizzly bear observations and conflicts should be implemented.”

No edits were made to the **Final EIS** in response to this comment.

16.8 Grizzly bear recovery in the Greater Yellowstone Ecosystem has resulted in a marked increase in bears, from 200-300 bears in 1975 to an estimated 1,000 in 2021. However, continued recovery and connection of geographically isolated populations is necessary for the viability of this species, as evidenced by the United States Fish and Wildlife Service’s proposed changes to management of this species, which remains listed as threatened under the Endangered Species Act. This DEIS fails to consider how resort expansion adds cumulatively to the net effects of habitat conversion within the Teton Bear Analysis Unit (BAU) and would increase the likelihood of bear mortality through conflict with resort infrastructure and users. (1075.2)

Thank you for your comment regarding an increase in the grizzly bear population in the Greater Yellowstone Ecosystem, and the increased likelihood of bear mortality resulting from the proposed projects and expansion. Please refer to the wildlife **RTC 16.1, 16.2, 16.6,** and **16.7** for more information.

On **pages 46-47** of the **Biological Assessment**, the cumulative effects of the proposed action alternatives are discussed. Additionally, it is stated that all past and present federal actions have been accounted for in the analyses environmental baseline. On **page 46** of the **Biological Assessment**, it is stated that, “past and ongoing population growth of the cities in the vicinity and increased development on private lands in or near the Teton BAU have contributed to fragmentation of grizzly bear habitat. This includes development on the lower slopes above Teton Valley eroding riparian, grassland, shrubland, and forested habitats. The cumulative effect of private land development and expansion of recreational facilities in and adjacent to grizzly bear habitat, may reduce the ability of grizzly bears to move throughout their home range, or interact with other individuals in the larger subpopulation. Further, grizzly bears generally avoid human contact and require large road free areas, and increasing traffic and road development has further fragmented their habitat.”

Furthermore, **pages 311-312** of the **Final EIS** describes that the proposed projects could adversely affect individual grizzly bears and increase the risk of mortality through future human-bear conflicts. Despite this, more than 101,000 acres of secure habitat would remain in the Teton BAU, and the Greater Yellowstone Ecosystem grizzly population has grown from roughly 200-300 bears in 1975 to about 1,000

in 2021. Given this strong regional population and habitat availability, the projects are not expected to affect overall population viability in the Teton BAU or Targhee Planning Area, though incidental take of individual bears would likely increase.

Additionally, please refer to wildlife **RTC 16.7**, and **pages 45-46** of the **Biological Assessment** which states that human-bear conflicts have the potential to increase, particularly if waste or food areas are accessible for bears during construction or due to on-mountain facilities and food and beverage services.

No edits to the **Final EIS** were made in response to this comment.

16.9 The South Bowl expansion would negatively affect grizzly bears, which are federally listed as "threatened" under the ESA. The DEIS determined that this expansion may affect and is likely to adversely affect grizzly bears. The South Bowl development would eliminate 383 acres of grizzly bear secure habitat and would increase the chances of human-bear conflict, threatening both bears and humans. Considering the high density of whitebark pine in South Bowl and the critical role of whitebark pine in grizzly bear diets, loss of habitat, and removal of cone-bearing whitebark pine, in South Bowl poses a greater threat to grizzly bears than loss of secure habitat alone. Grizzly bears are facing a number of threats in the Teton region given the rapid expansion of anthropogenic development on private lands. Without knowing the number or location of grizzly bear dens in South Bowl (or Mono Trees), the DEIS can only guess at the level of impact ski area expansion will have on grizzly bears currently living in the project area. (693.4)

Thank you for your comment regarding the proposed project's effects on grizzly bears with specific attention to human-bear conflicts, available forage, secure habitat, and dens. Please refer to the wildlife **RTC 16.1, 16.2, 16.4, 16.5, 16.6, 16.7,** and **16.8** for more information regarding secure habitat and human-bear conflict. Additionally, please refer to the vegetation **RTC 15.12**, **15.15, 15.16**, and **15.22,** addressing whitebark pine's significance as a keystone species, in which residual impacts to other resources may be experienced if individual trees and small stands are impacted. These responses to comments also describe possible effects on watershed hydrology, slower forest succession, and a decrease in food sources for grizzly bears and Clark's Nutcracker in relation to whitebark.

Pages 255-257 of the **Final EIS** address whitebark pine's significance as a keystone species, in which residual impacts to other resources may be experienced if individual trees and small stands are impacted. This section also describes possible effects to watershed hydrology, slower forest succession, and a decrease in food sources for grizzly bears and Clark's Nutcracker in relation to whitebark.

Furthermore, on **page 29** of the **Biological Assessment** states that there are no known dens within the project area. This stems from the fact that the IGBST data from 2005-2019 did not identify any denning locations within the GTR project boundary, combined with the fact that Alder Environmental did not observe any grizzly bear denning activities during baseline surveys for other species (this included the survey effort involving the installation of game cameras in South Bowl during the winter of 2020-2021 and again in 2023). However, the grizzly bear effects analysis was not supported by surveys specifically designed to identify grizzly bear dens within the proposed project boundary.

No edits were made to the **Final EIS** in response to this comment.

16.10 The Draft Environmental Impact Statement (DEIS) for the Grand Targhee Resort expansion inadequately addresses the significant risks the project poses to grizzly bears (Ursus arctos horribilis), a species federally listed as threatened under the Endangered Species Act. Although the DEIS acknowledges that grizzly bears are present in the area and that the proposed expansion lies within the Primary Conservation Area (PCA) boundary and adjacent Demographic Monitoring Area (DMA), it minimizes the significance of expanding human activity and infrastructure deeper into secure habitat. This proposed action also violates various goals and guidelines from the 1997 Targhee Forest Plan (section 5.3.5 Grizzly Bear Habitat). (484.15)

Thank you for your comment regarding the analysis detailing the effects of the proposed projects on grizzly bears. However, the commenter is incorrect in their assumptions that the proposed projects are located within the Primary Conservation Area boundary and adjacent to the Demographic Monitoring Area. As discussed on **page 287** of the **Final EIS,** the proposed project occurs beyond the Grizzly Bear Recovery Zone: "The CTNF is not mandated to manage for secure habitat as the project area is outside of the grizzly bear Recovery Zone; secure habitat is used solely for analysis purposes." Additionally, it is important to note that the Grizzly Bear Primary Conservation Area and Recovery Zone are synonymous; recovery zones are applied when the species is federally listed, and conservation areas are used when the species is not listed. Furthermore, we should also clarify that the proposed projects, along with most of the Teton BAU, occur within the Demographic Monitoring Area and do not occur within the 1997 Targhee Forest Plan Grizzly Bear Habitat.

Please refer to the wildlife **RTC 16.6, 16.7, 16.8**, and **16.9** for more information on the impacts to secure grizzly bear habitat resulting from the proposed South Bowl and Mono Trees expansion.

No edits were made to the **Final EIS** in response to this comment.

16.11 The Draft Environmental Impact Statement (DEIS) for the Grand Targhee Resort expansion inadequately addresses the significant risks the project poses to grizzly bears (Ursus arctos horribilis), a species federally listed as threatened under the Endangered Species Act. Although the DEIS acknowledges that grizzly bears are present in the area and that the proposed expansion lies within the Primary Conservation Area (PCA) boundary and adjacent Demographic Monitoring Area (DMA), it minimizes the significance of expanding human activity and infrastructure deeper into secure habitat. This proposed action also violates various goals and guidelines from the 1997 Targhee Forest Plan (section 5.3.5 Grizzly Bear Habitat). All action alternatives would introduce increased human presence, new trails, and summer recreation into areas that currently provide relatively undisturbed foraging and travel corridors for grizzlies. The proposed action would reduce secure grizzly bear habitat by 735 acres, eliminating over 80% of the secure habitat currently in the project area (Figure 1). The DEIS notes that "no known conflicts" have occurred in the immediate area, yet it fails to recognize that conflict potential increases dramatically with the type of dispersed summer use and food-related trash that accompanies bike parks, lift-assisted hiking, and other proposed activities (Gunther et. al, 2004). The DEIS goes on to admit that these conflicts are likely to result in bear removal, which should require an incidental take permit. Relying on education and signage alone for conflict avoidance—without more stringent mitigation or area avoidance—does not constitute an adequate strategy under NEPA or ESA consultation

standards (Center for Biological Diversity v. U.S. Bureau of Land Management, 2012). (484.16) (711.14)

Thank you for your comment regarding the proposed projects impacts to grizzly bears, with specific attention to the proximity of the Primary Conservation Area, Demographic Monitoring Area in relation to expanding increased human activity and proposed infrastructure. As discussed in wildlife **RTC 16.10**, and on **page 287** of the **Final EIS,** the proposed project occurs beyond the Grizzly Bear Recovery Zone: "The CTNF is not mandated to manage for secure habitat as the project area is outside of the grizzly bear Recovery Zone; secure habitat is used solely for analysis purposes." Additionally, it is important to note that the Grizzly Bear Primary Conservation Area and Recovery Zone are synonymous; recovery zones are applied when the species is federally listed, and conservation areas are used when the species is not listed. Furthermore, we should also clarify that the proposed projects, along with most of the Teton BAU, occur within the Demographic Monitoring Area and do not occur within the 1997 Targhee Forest Plan Grizzly Bear Habitat.

Furthermore, please refer to wildlife **RTC 16.7** and **pages 45-46** of the **Biological Assessment** also states that human-bear conflicts have the potential to increase, particularly if waste or food areas are accessible for bears during construction or due to on-mountain facilities and food and beverage services. Additional project PDCs relating to human-bear conflict are also identified in wildlife **RTC** 16.7 and in **Table 2.4-1 Project Design Criteria** on **pages 49-51** of the **Final EIS.**

Furthermore, **Page 47** in the **Biological Assessment** states: "Increased summer recreation activity, facilities, and associated bear attractants would increase the likelihood of bear-human conflicts which have the potential to lead to individual mortality if a problem bear is removed."

No edits were made to the **Final EIS** in response to this comment.

16.12 Moreover, the DEIS fails to take a hard look at the cumulative and irreversible nature of habitat fragmentation in the context of regional bear recovery goals. The DEIS admits that resort expansion would permanently reduce core secure habitat, yet concludes the impact is acceptable because it represents a small percentage of the larger Demographic Monitoring Area (DMA). This justification, however, overlooks the fact that secure habitat within and around resort permit areas is disproportionately important due to their relative scarcity and proximity to human settlements. Courts have consistently held that relying on broad population-level metrics to dismiss site-specific degradation—particularly for ESA-listed species—is inadequate under NEPA (National Parks and Conservation Association v. Bureau of Land Management, 2010). The DEIS lacks any detailed modeling of bear movement patterns, fails to identify currently used den sites in the expansion areas, fails to identify potential new attractants (e.g., human food, trash, carcasses), and does not consider seasonal timing restrictions or expansion scaling as alternatives to reduce impact. (484.17) (711.15) (1075.3)

Thank you for your comment concerning the cumulative effects associated with habitat fragmentation in the context of regional bear recovery goals. However, it is important to note that the **Final EIS** and **Biological Assessment** do not solely rely on the DMA to justify impacts to grizzly bear habitat. The analysis employs a site-specific approach using the Teton BAU, a 134,201-acre analysis area entirely classified as an occupied grizzly bear range, to evaluate direct and indirect effects on grizzly bears and their habitat.

Please refer to the wildlife **RTC 16.5** and **page 28 of the Biological Assessment** which defines secure habitat as "any contiguous area ≥ 10 acres in size and more than 500 m (1640 ft) from an open or gated motorized access route (road or trail) or recurring low level helicopter line during the non-denning period (March 1 – November 30)". Additionally, as described on **page 311** of the **Final EIS**, activities proposed under all action alternatives would affect grizzly bears by converting current secure grizzly bear habitat to nonsecure habitat within the Teton BAU. Secure habitat is most abundant in the proposed Mono Trees and South Bowl expansion areas due to their distance from existing roads, while most of the existing SUP currently consists of nonsecure habitat due to existing roads associated with current resort operations. Expanding the GTR SUP boundary into Mono Trees under Alternatives 2 and 5 would entail constructing an access administrative route through the center of the area to the proposed lift base, which would eliminate most of the secure habitat in the area. Expanding the GTR SUP boundary into South Bowl under Alternatives 2 and 4 would entail constructing an access administrative route along the southern boundary of the South Bowl expansion area which would eliminate almost all of the secure habitat in the area and secure habitat outside of the expansion area in Teton Canyon. Administrative routes proposed in the existing SUP under all alternatives would reduce secure habitat in the existing SUP and impact secure habitat outside the SUP Boundary to the east. Existing secure habitat is likely most valuable in the proposed expansion areas where little development and activity currently occurs; therefore, impacts under Alternatives 2, 4, and 5 would be most severe.

Additionally, on **page 47** of the **Biological Assessment,** effects on secure habitat for grizzly bear are disclosed: "Existing secure habitat is likely most valuable in the proposed expansion areas (as compared to the existing SUP boundary), where little development and activity currently occur; therefore, impacts under Alternatives 2, 4, and 5 would be most severe."

Please refer to wildlife **RTC 16.7** and **pages 27-29** of the **Biological Assessment,** which describes data from IGBST from 2005-2019. The IGBST data discusses grizzly bear observations (including collaring data), den sites, and conflicts known within the Teton BAU. It then relates the closest known observations to the project area. Although more recent data would be better for identifying current grizzly bear movement, the **Biological Assessment** and **Final EIS** highlight past bear movement patterns and denning sites.

Additionally, as identified in **Table 2.4-1 Project Design Criteria** on **page 50** of the **Final EIS**, the seasonal timing restrictions limiting bear attractants from March to December 1st align with the non-denning period when bears are active, as mentioned on **page 47** of the **Biological Assessment**. Additionally, **Table 2.4-1 Project Design Criteria** on **page 50** of the **Final EIS**, requires bear spray accessibility from April 1 to November 15, reflecting the seasonal period of heightened bear activity.

No edits to the **Final EIS** were made in response to this comment.

16.13 Furthermore, the proposed actions violate the spirit and various guidelines and goals from the 1997 Targhee Forest Plan, 5.3.5 Grizzly Bear Habitat section quoted below (pg 11-146) "Grizzly habitat maintenance and improvement, and grizzly-human conflict minimization will receive the highest management priority. Management decisions will favor the needs of the grizzly bear when grizzly habitat and other land use values compete. Land uses which can affect grizzlies and/or their habitat will be made compatible with grizzly needs or such uses will be disallowed or eliminated. Grizzly-human conflicts will be resolved in favor of grizzlies unless the bear involved is

determined to be a nuisance bear. (IGBC, 1986) The abundance and distribution of natural food sources (such as huckleberry habitats, whitebark pine, etc.) are maintained or improved by natural events such as fire and insect disturbances, or by designed vegetation management activities" (pg III-146). (484.18)

Thank you for your comment regarding the proposed actions conformance with the guidelines and goals outlined in the 1997 Forest Plan. However, it is important to note that the proposed projects do not occur within the Forest Plan Management Prescription area 5.3.5, the standards, guidelines, and goals referenced in the 1997 Forest Plan do not apply to this project. Additionally, please refer to the wildlife **RTC 16.1, 16.2, 16.4, 16.5, 16.6, 16.7, 16.8, 16.9,** and **16.12** for more information.

No edits to the **Final EIS** were made in response to this comment.

16.14 Likewise, the proposed expansion violates the top three goals of the Grizzly Bear Habitat section: 1. Make nonfederal lands within this area a high priority for acquisition (this proposal runs counter to this idea) 2. Maintain grizzly bear security through a low density of open, motorized roads and trails. 3. Manage recreation to minimize grizzly conflicts with humans" (pg III-147). Furthermore, this proposed action would also violate the first guideline concerning roads in grizzly habitat: "Roads New or relocated roads should meet the following guidelines: (G) 1. Avoid high quality (such as whitebark pine habitat) grizzly bear habitat" (pg III-149). As a result of these conflicts with the Forest Plan and impacts to grizzly bears, the document does not meet the "best available science" standard required for ESA Section 7 consultation, nor does it satisfy NEPA's mandate for rigorous environmental review of federally permitted actions with foreseeable effects on listed species. (484.19)

Thank you for your comment regarding the proposed actions conformance with the standards, guidelines, and goals outlined in the 1997 Forest Plan. However, it is important to note that the proposed projects do not occur within the Forest Plan Management Prescription area 5.3.5, the standards, guidelines, and goals referenced in the 1997 Forest Plan do not apply to this project.

In regard to relevant standards and guidelines in the 1997 Forest Plan, in **Appendix B. Forest Plan Consistency Analysis**, on **page 459** of the **Final EIS**, the project is deemed consistent with Wildlife/Grizzly Bear Section Standards and Guidelines #1 and #2, mentioning the grizzly bear education program will focus on residents in residential and summer home areas, developed recreation site users, wilderness users, hunters, outfitters and guides, and permittees. Additionally, on **pages 515-516** of the **Final EIS**, the project is deemed consistent with Range Section Standards and Guidelines #1, #2, and #3, limiting competition between domestic grazing and forage for wildlife.

No edits to the **Final EIS** were made in response to this comment.

16.15 The BA speaks to this cumulative, deleterious impact as well. Expanding the Targhee SUP into South Bowl, although it represents "only" a small fraction of the Teton BAU, would be yet another cut in the "death by a thousand cuts" facing grizzly bears at the southern extent of their range. (471.18)

Thank you for your comment regarding the proposed project's effects on grizzly bears and associated habitat. As discussed, on **pages 305-306** and **pages 311-312** of the **Final EIS** and in **Section 5.**

Consequences on **pages 39-59** of the **Biological Assessment** of the four federally listed species: all alternatives were determined to "*May affect, and is likely to adversely affect"* grizzly bears.

Additionally, as described on **page 311** of the **Final EIS**, activities proposed under all action alternatives would affect grizzly bears by converting current secure grizzly bear habitat to nonsecure habitat within the Teton BAU. Secure habitat is most abundant in the proposed Mono Trees and South Bowl expansion areas due to their distance from existing roads, while most of the existing SUP currently consists of nonsecure habitat due to existing roads associated with current resort operations. Expanding the GTR SUP boundary into Mono Trees under Alternatives 2 and 5 would entail constructing an access administrative route through the center of the area to the proposed lift base, which would eliminate most of the secure habitat in the area. Expanding the GTR SUP boundary into South Bowl under Alternatives 2 and 4 would entail constructing an access administrative route along the southern boundary of the South Bowl expansion area which would eliminate almost all of the secure habitat in the area and secure habitat outside of the expansion area in Teton Canyon. Administrative routes proposed in the existing SUP under all alternatives would reduce secure habitat in the existing SUP and impact secure habitat outside the SUP Boundary to the east. Existing secure habitat is likely most valuable in the proposed expansion areas where little development and activity currently occurs; therefore, impacts under Alternatives 2, 4, and 5 would be most severe.

Furthermore, please refer to **pages 311-312** and **331-332** of the **Final EIS** and **pages 46-48** of the **Biological Assessment** for information regarding cumulative effects to grizzly bears and their habitat, along with corresponding determinations for the alternatives.

No edits were made to the **Final EIS** in response to this comment.

16.16 While we agree with the DEIS finding that this expansion would adversely affect grizzly bears, there are shortcomings in the DEIS in regards to the grizzly bear analysis. For example, Wildlife and Fish Project Design Component (PDC) #7 addresses steps to be taken if a grizzly bear den is found during project implementation. However, Alder Environmental/SE Group/CTNF should have surveyed for grizzly bear dens during the past 5 years that this DEIS has been underway. Without knowing the number or location of grizzly bear dens in South Bowl (or Mono Trees), the DEIS can only guess at the level of impact ski area expansion will have on grizzly bears currently living in the project area. For example, if a denning female is displaced from South Bowl due to ski area expansion, that would be a much more significant impact to bears in the Teton BAU than if there are no denning bears in the area. (471.19) (1066.33)

Thank you for your comment regarding the proposed project's effects on grizzly bears and associated dens and habitat.

In wildlife **RTC 16.7, 16.12,** and **page 27-29** of the **Biological Assessment**, it states that there are no known dens within the project area. This stems from the fact that the IGBST data from 2005-2019 did not identify any denning locations within the GTR project boundary, combined with the fact that Alder Environmental did not observe any grizzly bear denning activities during baseline surveys for other species (this includes the survey effort involving the installation of game cameras in South Bowl during the winter of 2020-2021 and 2023). With all, it should be noted in the response that specific grizzly bear den surveys have not occurred within the proposed project boundary. As a side note, Forest Service

management should decide whether it would be of value for wildlife personnel to conduct den searches up South Bowl prior to implementation.

Additionally, the following text was added to **Page 312** of the Final EIS stating: "Mitigation measures in **Table 2.4-1 Project Design Criteria** require coordination with Forest Service wildlife biologist if a grizzly bear den is found during the project construction/implementation period."

16.17 The proposed project lies within the Greater Yellowstone Ecosystem, which supports one of the last remaining strongholds for grizzly bears (Ursus arctos horribilis) in the lower 48 states. The Grand Targhee expansion area overlaps with designated critical grizzly bear habitat-zones where human presence remains low and secure for foraging, denning, and seasonal movement. Development of ski infrastructure, a mountaintop restaurant, increased trail access, and year-round human presence will: * Introduce more human-bear conflict risk through unsecured attractants, surprise encounters, and increased human use of bear habitat (Gunther et al., 2004; Schwartz et al., 2010). * Compromise secure habitat by converting important foraging and travel corridors into disturbed or inaccessible terrain (Servheen et al., 2001). * Increase the likelihood of lethal management removals, the leading cause of mortality for grizzly bears in the ecosystem (USFWS, 2017). While grizzly bears have recolonized most parts of the Teton Range, their persistence depends on connected, undisturbed habitat-especially at the periphery of the recovery zone. The proposed expansion undermines those conditions and reverses decades of collaborative conservation gains. (720.2)

Thank you for your comment regarding the proposed project's effects on grizzly bears and human-bear interactions/conflict. On **pages 45-46** of the **Biological Assessment,** it states that human-bear conflicts have the potential to increase, particularly if waste or food areas are accessible for bears during construction or due to on-mountain facilities and food and beverage services. Additional project PDCs relating to human-bear conflict are also identified in wildlife **RTC** 16.7 and in **Table 2.4-1 Project Design Criteria** on **pages 49-51** of the **Final EIS.**

The following text was added to **page 312** of the **Final EIS,** elaborating on the fact that changes in bear activity based on development could lead to an increase in human-bear conflict and mortality: "However as described the proposed projects have the potential to modify grizzly bear behavior via habitat fragmentation and attracting bears to developed areas in the Teton BAU which could cause adverse effects including mortality of individual bears through human-bear conflicts increasing into the future when coupled with loss of habitat beyond the project area."

16.18 Today, 24 May 2024, I observed a small Grizzly bear sow and three small cubs crossing Teton Canyon road FS 006, at 7.50 am at the cow guard boulder heading uphill toward the proposed GTR expansion. You must select an alternative with no expansion south and east of existing lease. (310.1)

Thank you for your comment, your reported sighting will be noted in the project record.

No edits were made to the **Final EIS** in response to this comment.

16.19 The DEIS acknowledges the presence of wolverines in the region and notes that the South Bowl and Mono Trees expansions would remove potential denning and foraging

habitat (Figure 2). However, it dismisses this impact by suggesting the affected area comprises only a small portion of modeled wolverine home ranges and downplays the risk of denning in the area—despite admitting that a known den site from 2020 lies in close proximity to the proposed South Bowl expansion. Critically, no focused field studies, telemetry tracking, or occupancy modeling were conducted to establish habitat use or corridor presence within the project footprint. Instead, the DEIS relies on broad habitat modeling and general assumptions, ignoring scientific guidance that emphasizes the importance of site-specific data for understanding wolverine presence and habitat use in fragmented landscapes (Inman et al., 2013). (484.20) (462.3) (471.20) (688.4) (689.4) (711.17) (720.3) (916.12) (1066.8)

Thank you for your comment regarding the project's effects on wolverines and their denning and foraging habitat. As described in wildlife **RTC 16.1,** the **Final EIS** provides a comprehensive analysis of wildlife resources, supported by systematic surveys, scientific literature, habitat modeling, and consultation with state wildlife agencies, in which determinations of effects are analyzed. On **page 288** of the **Final EIS** it is described that the CTNF has documented wolverine presence since 1998 using GIS records, radio telemetry, and field surveys, with multiple sightings and track observations occurring within and near the existing SUP area, Mono Trees, and South Bowl between 2009 and 2023. Although suitable habitat and approximately 593 acres of modeled denning habitat exist across these areas, wolverines are unlikely to den within the existing SUP due to recreation-related disturbance and are more likely to pass through to access higher-quality habitat nearby. Overall, the project area represents only about 0.7% of available denning habitat across the CTNF, and observations, including a suspected den site near South Bowl, suggest intermittent use rather than consistent occupancy.

Additionally, on **page 288** of the **Final EIS**, and **page 31** of the **Biological Assessment**, it is explicitly acknowledged that wolverines have been present in the project vicinity. The **Final EIS** also states documented observations, including tracks observed in January 2009 and November 2022, and sightings in July 2019, February 2020, and January 2023. On **page 288** of the **Final EIS** and **page 31** of the **Biological Assessment**, it is stated that a suspected wolverine den site was identified in 2020 about 0.5 miles east of the South Bowl Expansion area. This site was factored into the analysis, and on **pages 312-313** of the **Final EIS**, the direct impact to modeled denning habitat is quantified, noting that the Proposed Action would impact 23 acres of denning habitat beyond the SUP boundary. Furthermore, **page 31** of the **Biological Assessment**, the analysis also incorporates site specific data gathered during pre-project surveys; including historical telemetry data collected between 1998 and 2005, and habitat was assessed while conducting surveys for other species in 2019 and 2020. The assessment of wolverine habitat in the **Biological Assessment** describes that the habitat within the existing SUP is of lower quality than the habitat beyond the boundary, which is due to the higher concentration of infrastructure and recreation activity within the existing SUP.

As described on **page 313** of the **Final EIS** and on **pages 48-52** of the **Biological Assessment**, the determination for wolverine is described, in which it was stated that “Implementation of the projects proposed under Alternative 3 *may affect but are not likely to adversely affect* individual wolverines.”, and “implementation of Alternatives 2 or 4 *may affect and is likely to adversely affect* individual wolverines.

Text has been clarified and added on **page 30** of the **Biological Assessment** and **page 312** of the **Final EIS** to correct the home range for wolverine to the female home range of 303 km^2. The agency determined that while this loss occurs, it does not structurally compromise the ability of the larger

landscape to support wolverines, given that adequate forest terrain exists surrounding the existing and proposed SUP area for wolverines to travel around the resort.

Furthermore, the analysis does not downplay the risks associated with expansion. On **page 313** of the **Final EIS** and **page 52** of the **Biological Assessment**, it is explicitly stated that active avalanche control in South Bowl could introduce a new mortality risk: "were a wolverine to be caught and killed by a management induced avalanche, this would no longer be considered a chance occurrence but would be directly induced by the addition of the South Bowl to the SUP area."

In **Table 2.4-1 Project Design Criteria**, on **page 51** of the **Final EIS,** wolverine-specific mitigation measures state, "If an active wolverine den is found within the project area (either during construction or operations), coordination with the Forest Service biologist will occur to ensure that appropriate protections (e.g., buffers) are put in place."

The following text was added to **Page 288** of the Final EIS stating: "Additionally, wolverines were incidentally observed during baseline wildlife surveys in 2019 and 2020, and although game cameras deployed in South Bowl during winters 2020, 2021, and 2023 (targeting bighorn sheep) could have detected them, none were recorded. In addition to pre-project surveys and historical telemetry data, the CTNF used elevation, aspect, and vegetation to model potential wolverine denning habitat across the forest."

16.20 The Department's second major concern with the proposed expansion is the potential for impacts to wolverines. In Wyoming, wolverines are a federally protected species and Tier II Species of Greatest Conservation Need due primarily to low population size, unknown population trajectory, and habitat loss due to climate change and human development. Wolverines have been documented in the area around Grand Targhee and, as mentioned in the Biological Assessment (BA), there have been a number of research and monitoring efforts in the Tetons. The research efforts have included collection of telemetry data and observations in our Wildlife Observation System database, which we present in Appendix A. The Department is concerned the loss of habitat provided in the BA does not accurately represent the subsequent impacts to wolverine given the low densities in which they persist and the importance of all currently suitable habitat near the project area. The results of a DNA analysis in 2023 confirmed a minimum population size of 11 individuals in Wyoming (Pilgrim and Schwartz 2023). A loss of any one individual is, thus, significant. The potential for impact on future population stability is larger if the individual impacted is a breeding female. (25b.13) (323.1)

Thank you for your comment regarding the effects of the proposed projects on wolverines and habitat. Text has been clarified and added on **page 30** of the **Biological Assessment** and **page 312** of the **Final EIS** to correct the home range for wolverine to the female home range of 303 km^2. Further, on **page 51** of the **Biological Assessment**, it is stated that, "The noise and commotion associated with winter recreation in these expanded SUP Areas would be expected to preclude use of habitat in these new parts of the SUP Area for wolverine life requisites other than travel to and from more suitable habitat." This statement highlights that there will still be a risk of wolverine mortality from actions such as avalanche control, however, telemetry data and other observations highlight that wolverines are very reluctant to use developed SUP. Therefore, they are also less likely to use the expansion areas if they were to be developed.

Additionally, as discussed in wildlife **RTC 16.20** and in **Table 2.4-1 Project Design Criteria**, on **page 51** of the **Final EIS,** wolverine-specific mitigation measures state, "If an active wolverine den is found within the project area (either during construction or operations), coordination with the Forest Service biologist will occur to ensure that appropriate protections (e.g., buffers) are put in place."

No edits were made to the **Final EIS** in response to this comment.

16.21 The three primary research efforts that have occurred near Grand Targhee Resort were from papers cited in the BA, specifically Copeland et al. (2007) and Heinemeyer et al. (2019), and from an additional report and paper (Inman et al. 2013). The report is provided in Appendix B. The Inman et al. (2013) effort resulted in predicted maternal habitat, which includes the South Bowl and Mono Trees expansion areas (Appendix A). In addition, six collared wolverines' home ranges tracked for the Inman et al. (2013) study overlap Grand Targhee and the proposed expansion areas, of which four were females. Similarly, Heinemeyer et al. (2019) predicted female wolverine habitat, which includes much of Teton Canyon and overlaps a significant portion of the proposed South Bowl and Mono Trees expansion areas. It should also be noted that female wolverines have smaller home ranges than males, approximately 303 km2 (Inman et al. 2013), which alters the percentage of the home range removed in the BA and should be considered in future drafts of the EIS. The tracking data, regularity of wolverine observations and wolverine sign make clear that the greater Grand Targhee area has been used by multiple generations of wolverines in the past and would likely continue to support wolverine into the future. The tracking data also suggest avoidance of the current resort boundary, a behavior that would likely extend to the expansion areas if developed. (25b.14)

Thank you for your comment. Text has been clarified and added on **page 30** of the **Biological Assessment** and **page 312** of the **Final EIS** to correct the home range for wolverine to the female home range of 303 km^2. At this scale direct effects on wolverine denning habitat would still be insignificant. Furthermore, adequate forested terrain exists surrounding the existing and proposed SUP Areas for wolverines to travel around the SUP Area if they choose.

16.22 Beyond the immediate footprint of development, the expansion would fragment the broader landscape connectivity that wolverines require to maintain viable populations. Maintaining genetic diversity is essential to regional wolverine populations, which is only accomplished through maintaining functional habitat including forest cover and lack of human disturbance (Day et al. 2024). These wide-ranging carnivores need extensive territory to find adequate prey and mates, often traveling hundreds of miles across mountainous terrain. The increased human presence, noise, and infrastructure associated with expanded ski area operations would create barriers to wolverine movement and potentially isolate populations on either side of the development. Given wolverines' already precarious status and their extreme sensitivity to habitat fragmentation, we are concerned that the loss of South Bowl and Mono Trees would negatively impact the long-term persistence of wolverines in the region. (25b.16)

Thank you for your comment. Direct and indirect effects to wolverines resulting from the proposed action alternatives are discussed on **pages 48-52** of the **Biological Assessment** and **pages 306 and 312-314** of the **Final EIS**.

Additionally, text has been clarified and added on **page 30** of the **Biological Assessment** and **page 312** of the **Final EIS** to correct the home range for wolverine to the female home range of 303 km^2. At this scale direct effects on wolverine denning habitat would still be insignificant. No edits were made to the **Final EIS** in response to this comment.

16.23 The DEIS fails to evaluate direct, indirect, and cumulative impacts, which non-profit conservation groups and Grand Teton National Park are likely trying hard to specify and explain during this comment period. Below I present some of my main concerns, although there are many issues I wish I had more time to consider. Wolverines The DEIS draft Biological Assessment (BA, Western Bionomics Inc. and Alder), obtained from the USFS web site, does a poor job of describing impacts to wolverines in the SUP, proposed expansions, and surrounding area. Apparently, only opportunistic observations are available for the past 20 years, after which serious research efforts in the area were mostly abandoned, despite the listing of Wolverines as Threatened in 2023. The reported observation of a suspected wolverine den site by the Teton Basin Ranger District Biologist in 2020 just 0.5 miles east of the South Bowl expansion area (BA, p. 32) apparently received no follow-up or interest from CTNF? Ironically, disclosure of this information immediately follows the statement that dismisses habitat in the project area as a tiny portion of modeled denning habitat "across the CTNF" (DEIS, p. 281). It is crucial to understand how the existing SUP has affected wolverines in the Tetons in the past 20 years, and how the expansion into new areas will affect this species. It is not acceptable to state that ski areas are not effective habitat, and then to proceed with rationalizing extensions of the GTR ski area in the context of ignorance about how this species is faring in the Tetons. The lack of conservation measures, other than tasking a CTNF biologist to determine buffers if a den is accidentally found, is not adequate under USFS Sensitive Species Policy (US Forest Service, 2005). (697.4)

Thank you for your comment concerning the proposed projects effects on wolverines and associated habitat. Specifically, please refer to **pages 30-32** of the **Biological Assessment** and **page 288** in the Final EIS for information on life history information and species observations. Furthermore, effects to wolverines are discussed on **pages 48-52** of the **Biological Assessment** and **pages 306 and 312-314** of the **Final EIS**.

Text has been clarified and added on **page 30** of the **Biological Assessment** and **page 312** of the **Final EIS** to correct the home range for wolverine to the female home range of 303 km^2. The agency determined that while this loss occurs, it does not structurally compromise the ability of the larger landscape to support wolverines, given that adequate forest terrain exists surrounding the existing and proposed SUP area for wolverines to travel around the resort.

Furthermore, the analysis does not downplay the risks associated with expansion. On **page 313** of the **Final EIS** and **page 52** of the **Biological Assessment**, it is explicitly stated that active avalanche control in South Bowl could introduce a new mortality risk: “were a wolverine to be caught and killed by a management induced avalanche, this would no longer be considered a chance occurrence but would be directly induced by the addition of the South Bowl to the SUP area.”

In **Table 2.4-1 Project Design Criteria**, on **page 51** of the **Final EIS,** wolverine-specific mitigation measures state, “If an active wolverine den is found within the project area (either during construction or

operations), coordination with the Forest Service biologist will occur to ensure that appropriate protections (e.g., buffers) are put in place."

Additionally, it is important to note that CTNF personnel could not follow-up on the potential wolverine den site (referenced in the comment) due to access issues; however, the commenter raises a valid concern regarding the PDC.

No edits were made to the **Final EIS** in response to this comment.

16.24 Furthermore, the DEIS appears to violate the National Environmental Policy Act (NEPA)'s "hard look" requirement by failing to use the best available scientific information and declining to perform meaningful baseline studies, thereby undermining its own conclusions. The reliance on a reactive mitigation strategy—implementing a 300-meter buffer only if an active den is found during construction—ignores the species' cryptic nature and denning sensitivity, which makes such detection during project implementation highly unlikely (Heinemeyer et al., 2019). The Forest Service's Sensitive Species Policy (US Forest Service, 2005) mandates proactive conservation measures for at-risk species, including the use of comprehensive surveys and early detection methods. Courts have found post hoc mitigation strategies to be inadequate under NEPA, particularly where agency analysis relies on speculative assumptions about species presence and defers protection to future discovery (Sierra Club v. U.S. Forest Service 1988). As such, the DEIS fails both substantively—by not identifying and protecting known or likely wolverine denning habitat—and procedurally—by offering vague, unenforceable, and scientifically unsupported mitigation in lieu of thorough pre-project assessment. (711.18) (484.21)

Thank you for your comment concerning the proposed projects effects on wolverines and associated habitat. Specifically, please refer to **pages 30-32** of the **Biological Assessment** and **page 288** in the Final EIS for information on life history information and species observations. Furthermore, effects to wolverines are discussed on **pages 48-52** of the **Biological Assessment** and **pages 306 and 312-314** of the **Final EIS**.

The following text was added to **Page 288** of the **Final EIS** stating: "Additionally, wolverines were incidentally observed during baseline wildlife surveys in 2019 and 2020, and although game cameras deployed in South Bowl during winters 2020, 2021, and 2023 (targeting bighorn sheep) could have detected them, none were recorded. In addition to pre-project surveys and historical telemetry data, the CTNF used elevation, aspect, and vegetation to model potential wolverine denning habitat across the forest."

16.25 The Teton Range is a stronghold for wolverines, a species listed as threatened under the ESA. While the DEIS mentions avoidance Project Design Criteria (PDCs) for wolverine (e.g., Section 2.4 Project Design Criteria beginning on page 40), the sheer increase in human activity, noise, and infrastructure in their preferred high-elevation habitat, whether in the South Bowl or Mono Trees, raises serious concerns. In Sections 3.13.3 (Affected Environment) and 3.13.4 (Direct and Indirect Environmental Consequences) potential wolverine impacts are discussed. The DEIS indicates that the proposal and all of the action alternatives may affect wolverines, but states "Implementation of any of the four

action alternatives within the current operational boundary is not expected to have substantial direct or indirect effects to wolverine" (page 303) and then states that alternatives that expand the SUP boundary may affect individual wolverine. I believe these statements to be an underestimation given the species' sensitivity to disturbance. In addition, as this is a threatened species, any potential impacts should weigh heavily in all decisions that could impact their habitat, singly or cumulatively. The impacts wolverines already face with the existing SUP and the ever-increasing resort operations are enough. The Community Assessment and other sources warn that development in high-elevation areas could compromise the future of wolverines in the Greater Yellowstone Ecosystem, reinforcing the extreme sensitivity of these specific areas. I urge the Forest Service to consider the complete avoidance of expansion into both the South Bowl and Mono Trees areas, as neither is necessary and both significantly threaten the long-term viability of this, and other, vulnerable species. The DEIS does not adequately justify the "need" for any additional ski terrain that encroaches further into these sensitive areas. (358.2)

Thank you for your comment concerning the proposed projects effects on wolverines and associated habitat. Specifically, please refer to **pages 30-32** of the **Biological Assessment** and **page 288** in the Final EIS for information on life history information and species observations. Furthermore, effects to wolverines are discussed on **pages 48-52** of the **Biological Assessment** and **pages 306 and 312-314** of the **Final EIS**.

Additionally, the commenter also brings up the "need" for additional ski terrain. As discussing in purpose and need **RTC 2.1**, and **page 4** of the **Final EIS**, the need for the proposed projects is described in GTR's MDP as: "the need to improve the recreational experience and address shortcomings in their terrain offerings and operations in order to remain viable in the competitive destination skier/rider market." Furthermore, **Chapter 1 Purpose and Need** on **pages 1-22** of the **Final EIS**, details the purpose and need for action related to each proposed project component. The Responsible Official will consider project-related effects, the purpose and need of the project, when making an official decision.

No edits were made to the **Final EIS** in response to this comment.

16.26 In addition to concerns over habitat loss, fragmentation, and increased human disturbance, the Department requests clarification on the wolverine-specific Conservation Measure in the BA. Measure 20 under Wildlife and Fish Project Design Criteria references buffers being placed around active den sites if discovered during construction and operation. The Department requests additional detail on how dens would be located—whether opportunistically or through systematic methods—and on the proposed buffer sizes. Effective protective buffers would likely need to be substantial, and we question the practicality of implementing them successfully. (25b.17)

Thank you for your comment concerning the proposed projects effects on wolverines and associated habitat and dens. Specifically, please refer to **pages 30-32** of the **Biological Assessment** and **page 288** in the Final EIS for information on life history information and species observations. Furthermore, text has been clarified and added on **page 30** of the **Biological Assessment** and **page 312** of the **Final EIS** to correct the home range for wolverine to the female home range of 303 km^2. At this scale direct effects on wolverine denning habitat would still be insignificant.

On **page 288** of the **Final EIS** and **page 31** of the **Biological Assessment**, it is stated that a suspected wolverine den site was identified in 2020 about 0.5 miles east of the South Bowl Expansion area. This site was factored into the analysis, and on **page 313** of the **Final EIS**, the direct impact to modeled denning habitat is quantified, noting that the Proposed Action would impact 23 acres of denning habitat beyond the SUP boundary.

No edits were made to the **Final EIS** in response to this comment.

16.27 There are a number of deficiencies with the wolverine analysis in the DEIS. Similar to the grizzly bear analysis, Wildlife and Fish Project Design Component (PDC) #20 addresses steps to be taken if a wolverine den is found during project implementation. However, Alder Environmental/SE Group/CTNF should have surveyed for wolverine dens during the 5 years that this DEIS has been underway. Without knowing the number or location of wolverine dens in South Bowl (or Mono Trees), the DEIS can only guess at the level of impact ski area expansion will have on wolverine. The DEIS attempts to understate the impacts of the South Bowl expansion on wolverine by discussing the loss of habitat in the context of a male wolverine. We know from the research, however, that denning female wolverines are far more sensitive to recreation disturbance. Loss of occupied denning habitat would bring a significantly larger impact to the population than a male wolverine losing a small amount of his home range because it would affect future generations of wolverines, not simply a single individual. (471.21)

Thank you for your comment concerning the proposed projects effects on wolverines and associated habitat. Specifically, please refer to **pages 30-32** of the **Biological Assessment** and **page 288** in the Final EIS for information on life history information and species observations. Furthermore, effects to wolverines are discussed on **pages 48-52** of the **Biological Assessment** and **pages 306 and 312-314** of the **Final EIS**.

On **page 288** of the **Final EIS** and **page 31** of the **Biological Assessment**, it is stated that a suspected wolverine den site was identified in 2020 about 0.5 miles east of the South Bowl Expansion area. This site was factored into the analysis, and on **page 313** of the **Final EIS**, the direct impact to modeled denning habitat is quantified, noting that the Proposed Action would impact 23 acres of denning habitat beyond the SUP boundary.

Additionally, please refer to **Table 2.4-1 Project Design Criteria** on **page 51** of the **Final EIS** where it states that proper protocols would be put in place if a wolverine den is found: “If an active wolverine den is found within the project area (either during construction or operations), coordination with the Forest Service biologist will occur to ensure that appropriate protections (e.g., buffers) are put in place.”

No edits were made to the **Final EIS** in response to this comment.

16.28 Grand Targhee’s proposed expansion into South Bowl has the potential to impact wolverines, an ESA-listed species, but the analysis in this DEIS does not meet the standards of the hard look as required by the National Environmental Policy Act (NEPA). Though the DEIS concludes that Alternatives 2 and 4 may affect and are likely to adversely impact wolverines through the potential fatalities due to increased avalanches, it fails to fully account for the impact of the loss of 104.7 acres of denning habitat in South

Bowl. The DEIS concludes that the loss of this area is insignificant when compared with the range of a male wolverine, but it does not address the fact that denning habitat loss is more likely to impact females, which have smaller ranges than males. Female wolverines typically need deep snow for natal dens and use an average of nine dens per denning season, so the high-quality alpine denning habitat found in South Bowl may be quite valuable to a female with kits. Given that a wolverine den was found 0.5 miles east of South Bowl in 2020, South Bowl, Teton Canyon, and the adjacent alpine environment are likely to be used in the future for denning and kit rearing. With lower-elevation snowpack in the Greater Yellowstone Ecosystem diminishing due to climate change, such denning habitat should be seen as a significant vulnerability for this threatened species. Wolverine are averse to areas used by both motorized and backcountry recreators, and they give wider berths to motorized recreation like snowmobiles. Use of snowcats, snowmobiles, and chairlifts in South Bowl would likely preclude wolverine use of this terrain except for traveling and foraging. The DEIS claims that none of the Action Alternatives would impact "dispersal, seasonal, or daily movements" of wolverines, but the potential for pushing female wolverines off prime, high elevation denning habitat could disrupt both dispersal and seasonal movements, negating one of its main claims regarding this species. (1075.5) (537.7) (1b.8)

Thank you for your comment concerning the proposed projects effects on wolverines and associated habitat. Specifically, please refer to **pages 30-32** of the **Biological Assessment** and **page 288** in the Final EIS for information on life history information and species observations. Furthermore, effects to wolverines are discussed on **pages 48-52** of the **Biological Assessment** and **pages 306 and 312-314** of the **Final EIS**.

Text has been clarified and added on **page 30** of the **Biological Assessment** and **page 312** of the **Final EIS** to correct the home range for wolverine to the female home range of 303 km^2. At this scale direct effects on wolverine denning habitat would still be insignificant. Furthermore, adequate forested terrain exists surrounding the existing and proposed SUP Areas for wolverines to travel around the SUP Area if they choose.

16.29 Denning habitat is referenced in the BE and DEIS and the CTNF has a wolverine denning habitat predictive model, which was used in the assessment to quantify potential impact of the proposed activities. The BA also references a suspected den site discovered approximately 0.5 mile east of the proposed South Bowl expansion area. Wolverines require deep, persistent snowpack and undisturbed terrain for successful reproduction, as females create both natal dens and maternal dens, often several per reproductive year, in snow caves or rocky crevices where young can safely develop. The construction of ski runs, lifts, and associated infrastructure would eliminate these essential microhabitat features, while the ongoing human activity and avalanche control measures would create persistent disturbance that could prevent successful breeding or direct mortality. We agree with the determination in the BA (page 58) that expansion to South Bowl in particular may affect, likely to adversely affect individual wolverines. As mentioned earlier in our comments, the loss of one individual would negatively impact the wolverine population in the Teton Range specifically and Wyoming. (25b.15)

Thank you for your comment concerning the proposed projects effects on wolverines and associated habitat. Specifically, please refer to **pages 30-32** of the **Biological Assessment** and **page 288** in the Final EIS for information on life history information and species observations. Furthermore, effects to wolverines are discussed on **pages 48-52** of the **Biological Assessment** and **pages 306 and 312-314** of the **Final EIS**.

Table 2.4-1 Project Design Criteria on **page 51** of the **Final EIS**, states that proper protocols would be put in place if a wolverine den is found: "If an active wolverine den is found within the project area (either during construction or operations), coordination with the Forest Service biologist will occur to ensure that appropriate protections (e.g., buffers) are put in place."

No edits were made to the **Final EIS** in response to this comment.

16.30 The Greater Yellowstone Wolverine Program predicted the Teton Range is only likely to have 4 - 10 wolverines present at any given time, which would include juveniles and transient individuals. In fact, for many of the Program's nearly ten years collaring and monitoring wolverines in Greater Yellowstone, only four resident, adult wolverines occupied home ranges in the entirety of the Teton Range. This underscores that tiny wolverine populations confined to isolated mountain ranges in the Intermountain West are extremely vulnerable to local extirpation. Because successful dispersal across increasingly developed valley bottoms is perilous and uncertain, it is imperative that land managers, including the CTNF, take pains to uphold habitat integrity for wolverines within their jurisdictional boundaries. The fact of the matter is, the Teton population of wolverines is already vulnerable to blinking out and recolonization from other occupied mountain ranges grows more difficult with each passing year. Given the hurdles wolverines face to persist this far south in their range, expanding Grand Targhee deeper into known wolverine habitat is irresponsible at best. (537.8)

Thank you for your comment concerning the proposed projects effects on wolverines and associated habitat. Text has been clarified and added on **page 30** of the **Biological Assessment** and **page 312** of the **Final EIS** to correct the home range for wolverine to the female home range of 303 km^2. At this scale direct effects on wolverine denning habitat would still be insignificant.

No edits were made to the **Final EIS** in response to this comment.

16.31 Ewe-lamb groups observed in the Apostle Cliffs during the summer over the last decade highlight the area's critical role in sustaining the broader bighorn sheep population. Infrastructure construction and maintenance, even in the absence of authorized summer recreation, could disrupt sheep movements between high elevations and the mineral lick during spring, summer, and autumn. Unmanaged use of roads and infrastructure could exacerbate these disturbances. Additionally, much of the habitat within Lower Teton Canyon could benefit from currently planned prescribed burning aimed at improving forage quality and sightlines. Expansion into the South Bowl may hinder these efforts, leaving potential habitat improvements unrealized. The above information underscores the unique role and importance of this habitat to the Teton bighorn sheep herd persistence. (685.6)

Thank you for your comment concerning the proposed project's effects on bighorn sheep, with specific attention to the proposed expansion into South Bowl.

Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. Additionally, on **pages 26-39** of the **Wildlife Biological Evaluation**, the effects to bighorn sheep (e.g. sheep movement through South Bowl to the mineral lick, potential conflict with Teton Canyon Hazardous Fuels Reduction Project) are discussed in detail.

Additionally, on **page 307-308** of the **Final EIS**, and **page 27** of the **Wildlife Biological Evaluation**, the analysis documents that bighorn sheep use South Bowl as a movement corridor to access the Apostle Cliffs mineral lick, which is located less than 900 feet south of the proposed South Bowl expansion area. Specifically, on **page 316** of the **Final EIS**, the proposed projects impact on bighorn sheep is discussed in which it is states that 11 acres of high-quality bighorn sheep winter habitat would be directly impacted by the proposed action, and based on the Teton Range bighorn sheep's aversion to recreation activity it is suspected that all 54 acres of high-quality winter habitat in South Bowl could be rendered unusable.

No edits were made to the **Final EIS** in response to this comment.

16.32 We encourage the Caribou-Targhee National Forest (CTNF) to incorporate and fully develop the following measures in collaboration with GRTE and the Teton Range Bighorn Sheep Working Group in the Final EIS, regardless of the alternative is selected: 1. Comprehensive Mitigation Plan: Develop and implement a mitigation plan to address potential impacts to bighorn sheep including specific strategies to mitigate risks associated with avalanche control, including avalaunchers, (e.g. Brushey and Coosemans 2022 with mountain goats), and human disturbance. Components of this mitigation could also include the following. 2. Educational Information: Require GTR to install prominent, clear signage to educate visitors about the importance of bighorn sheep habitat and encourage responsible recreation. Ensure that GTR's relevant public communications, including website content, provide accurate and comprehensive information about bighorn sheep use in the area, rectifying any misinformation. 3. Visitor Counters at Access Gates: Require GTR to install, maintain, and share data from visitor counters at access points to monitor recreational use. Use data to ensure alignment with conservation goals. 4. Discourage Summertime Use: Formally discourage summer recreational use and future trail/recreational development in sensitive areas to minimize disturbance to bighorn sheep and protect critical habitat. If expansion occurs, actively manage access to any roads and infrastructure and summer maintenance activities to minimize impacts to bighorn sheep. 5. Camera monitoring of bighorn sheep: Maintain and expand trail camera monitoring efforts to track bighorn sheep activity and habitat use across the South Bowl and adjacent areas. 6. Early Closure of South Bowl: Close the South Bowl on March 15 each year to allow bighorn sheep access to crucial spring habitats. (685.8)

Thank you for your comment concerning the proposed project's effects on bighorn sheep, with specific attention to the proposed expansion into South Bowl.

Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. Additionally, on **pages 26-39** of the **Wildlife**

Biological Evaluation, the effects to bighorn sheep (e.g. sheep movement through South Bowl to the mineral lick, potential conflict with Teton Canyon Hazardous Fuels Reduction Project) are discussed in detail.

Additionally, on **page 307-308** of the **Final EIS**, and **page 27** of the **Wildlife Biological Evaluation**, the analysis documents that bighorn sheep use South Bowl as a movement corridor to access the Apostle Cliffs mineral lick, which is located less than 900 feet south of the proposed South Bowl expansion area. Specifically, on **page 316** of the **Final EIS**, the proposed projects impact on bighorn sheep is discussed in which it is states that 11 acres of high-quality bighorn sheep winter habitat would be directly impacted by the proposed action, and based on the Teton Range bighorn sheep's aversion to recreation activity it is suspected that all 54 acres of high-quality winter habitat in South Bowl could be rendered unusable.

Additionally, **page 316** of the **Final EIS** also states that, "Disturbance from avalanche control activities (e.g. use of explosives) particularly within the proposed South Bowl area is also likely to impact bighorn sheep… Loss of habitat within and in the vicinity of the project area, particularly in South Bowl and in Teton Canyon, which is likely accessed through South Bowl, has the potential to harm the Teton Range herd viability. Although use of South Bowl by bighorn sheep during mid-winter months has not been officially documented, benefits of management actions aimed at improving habitat in the area (including suggested winter closures and the Teton Canyon Fuels Reduction Project-approved in 2018 and initiated in 2019) would not materialize if South Bowl were developed. Bighorn sheep may adjust movement patterns and habitat ranges to spend more time in the JSW adjacent to the project area; however, degradation of habitat in South Bowl and Teton Canyon due to the proposed development, combined with projected increases in recreation activity throughout the range of the Teton bighorn sheep herd, has the potential to substantially reduce access to adequate nutrition and protective habitat. "

Additionally, the following mitigation measure was added to **Table 2.4-1 Project Design Criteria** on **page 50** of the **Final EIS** and further described on **pages 316-317** and **329** of the **Final EIS**, "To minimize impacts to mule deer winter range and modeled bighorn sheep habitat, GTR shall establish and maintain a double-rope boundary around the Mono Trees and South Bowl SUP boundary expansions prior to construction in such areas and place backcountry access points in locations that minimize human encroachment on identified habitat. Placement of backcountry access points shall be done in coordination with the Forest Service Wildlife Biologist."

16.33 In addition, it is important to note that there is no connectivity between the herds in the Targhee Planning Area. The Targhee Herd is one of the few native bighorn sheep herds in the western United States that has never been extirpated, reintroduced, or augmented via translocation. The herd is genetically unique due to this history and is genetically distinct from surrounding herds in Wyoming and Idaho, making it additionally valuable to the species as a whole (Kardos et al. 2010, TRBSWG 2020). The Department disagrees with the determination that expanding into South Bowl would not impact the population viability of bighorn sheep in the Targhee Planning Area. The cumulative impacts portion of the BE rightfully identified the potential for cumulative impacts, which includes South Bowl expansion, to threaten the population viability of the Targhee herd. Given the significant contribution of the Targhee herd to the overall population of bighorn sheep within the Targhee Planning Area and the isolated nature of sheep in the Targhee Planning Area, loss of Targhee sheep population viability equates to loss of population viability of sheep in the Targhee Planning Area. (25b.10)

Thank you for your comment concerning the proposed project's effects on bighorn sheep, with specific attention to the loss of sheep population viability among the Targhee herd and the Targhee Planning Area.

Pages 316-317 in the **Final EIS**, states, "As a result, this alternative has the potential to result in an overall decline in the population of the Teton or Targhee Herd. Although the Proposed Action would impact the Teton Range bighorn sheep, across the overall Targhee Planning Area (which contains multiple herds), the alternative *May Impact Individuals or Their Habitat but would Not Likely Contribute to a Trend Toward Federal Listing or Cause a Loss of Population Viability*. All but 2 acres of the modeled high quality bighorn sheep habitat within the total project area are within the South Bowl area and existing SUP boundary; therefore, impacts of Alternative 4 would be comparable to those of the Proposed Action." Therefore, we can confirm that the proposed projects would not result in a loss of population viability among the Targhee sheep population.

No edits were made to the **Final EIS** in response to this comment.

16.34 For bighorn sheep, the DEIS and BE use outdated information from 2016 and 2017 to describe other bighorn sheep herds on CTNF. The BE states that there are 5 bighorn sheep herds on CTNF (South Lemhi, South Beaverhead, and Lionhead (2 herds) in Idaho and Targhee Herd in Wyoming) and that there are a total of approximately 300 sheep (BE; page 19). However, according to the most recent Idaho Department of Fish and Game Bighorn Sheep Management Plan (May 2022) the population estimates have changed in the last 8-9 years. The Lionhead Herd is made up of two game management units, however, this area is not consistently occupied by sheep and a few individuals only occur on a transient/foraying basis from a neighboring herd in Montana (IDF&G 2022; H. Miyasaki pers. comm.). The BE appears to include this herd and a population estimate of 105 sheep as part of its population viability analysis for the Targhee Planning Area, however this herd entirely resides in Montana outside of CTNF and it should not be included. The BE describes population numbers for the South Lemhi Herd as 41 and the South Beaverhead Herd as 36, however, the more recent counts from IDF&G (2022) are 110 and 17, respectively. Furthermore, the BE considers the entire Targhee Herd as residing on CTNF when referencing impacts at the Targhee Planning Area scale. Many sheep from the Targhee herd primarily reside in Grand Teton National Park, which is not within the Targhee Planning Area. Therefore, the Targhee Planning Area has 3 bighorn sheep herds and realistically fewer than 200 sheep (South Lemhi Herd, 110; South Beaverhead Herd, 17; and Targhee Herd, approximately 50 on CTNF) versus the 300 stated in the BE. (25b.9)

Thank you for your comment concerning the proposed project's effects on bighorn sheep, with specific attention to the herds within and adjacent to the project area.

Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. **Pages 316-317** in the **Final EIS**, states, "As a result, this alternative has the potential to result in an overall decline in the population of the Teton or Targhee Herd. Although the Proposed Action would impact the Teton Range bighorn sheep, across the overall Targhee Planning Area (which contains multiple herds), the alternative *May Impact Individuals or Their Habitat but would Not Likely Contribute to a Trend Toward Federal Listing or Cause a Loss of Population Viability*. All but 2 acres of the modeled high quality bighorn sheep habitat within the total

project area are within the South Bowl area and existing SUP boundary; therefore, impacts of Alternative 4 would be comparable to those of the Proposed Action." Therefore, we can confirm that the proposed projects would not result in a loss of population viability among the Targhee sheep population.

The following text was added to **pages 294-295** of the **Final EIS** and **page 25** of the **Wildlife Biological Evaluation,** correcting the baseline data used in the existing analysis: "More recently it has been reported in the Idaho Department of Fish and Game 2022 Bighorn Sheep Management Plan, that the South Lemhi herd has increased to 110 individuals while the South Beaverhead herd has declined to 17 individuals. It should also be noted that the Lionhead herd primarily resides in Montana and consists of transient individuals, which may not contribute to population dynamics within the CTNF. The severe conditions of the 2022 and 2023 winter season impacted the Targhee herd. The Department conducted aerial surveys in February 2023 and February 2025, which counted 71 sheep and 80 sheep, respectively. The herd declined from an observed 104 sheep in 2022 to 71 sheep in 2023 over the severe winter (32 percent decline). The neighboring Jackson Bighorn Sheep Herd also underwent a similar population decline of approximately 30 percent during the 2022 and 2023 winter season (WGFD 2023)."

16.35 The DEIS describes how each alternative would impact population viability of Region 4 sensitive species within the "Targhee Planning Area". For example, on pages 306-307 in the DEIS, "…degradation of habitat in South Bowl and Teton Canyon due to the proposed development, combined with projected increases in recreation activity throughout the range of the Teton bighorn sheep herd, has the potential to substantially reduce access to adequate nutrition and protective habitat. As a result, this alternative has the potential to result in an overall decline in the population of the Teton or Targhee Herd. Although the Proposed Action would impact the Teton Range bighorn sheep, across the overall Targhee Planning Area (which contains multiple herds), the alternative May Impact Individuals or Their Habitat but would Not Likely Contribute to a Trend Toward Federal Listing or Cause a Loss of Population Viability". It is our understanding through discussions with CTNF staff the "Targhee Planning Area" is the CTNF although it is not explicitly defined in the BE or the DEIS. (25b.8)

Thank you for your comment concerning the proposed project's effects on bighorn sheep, with specific attention to the herds within and adjacent to the project area.

Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. Additionally, on **pages 26-39** of the **Wildlife Biological Evaluation**, the effects to bighorn sheep (e.g. sheep movement through South Bowl to the mineral lick, potential conflict with Teton Canyon Hazardous Fuels Reduction Project) are discussed in detail.

The following text was added as a footnote to **page 312** of the **Final EIS**: "The Targhee Planning Area can be defined as, "The Targhee Planning Area is the Targhee National Forest, where the wildlife viability requirement strictly refers to the Forest Plan area."

The following text was added to **pages 294-295** of the **Final EIS** and **pages 25** of the **Wildlife Biological Evaluation,** correcting the baseline data used in the existing analysis: "More recently it has been reported in the Idaho Department of Fish and Game 2022 Bighorn Sheep Management Plan, that the South Lemhi herd has increased to 110 individuals while the South Beaverhead herd has declined to 17 individuals. It

should also be noted that the Lionhead herd primarily resides in Montana and consists of transient individuals, which may not contribute to population dynamics within the CTNF. The severe conditions of the 2022 and 2023 winter season impacted the Targhee herd. The Department conducted aerial surveys in February 2023 and February 2025, which counted 71 sheep and 80 sheep. The herd declined from an observed 104 sheep in 2022 to 71 sheep in 2023 over the severe winter (32 percent decline). The neighboring Jackson Bighorn Sheep Herd also underwent a similar population decline of approximately 30 percent during the 2022 and 2023 winter season (WGFD, 2023)."

16.36 The Department, in collaboration with CTNF, has planned, funded, and begun implementing habitat improvement efforts as part of the Teton Canyon Hazardous Fuels Reduction Project. This project includes prescribed fire and mechanical treatments to reduce fuels and improve big game habitat, much of which is within or adjacent to the proposed South Bowl expansion. This habitat restoration effort is a rare opportunity given the prevalence of Wilderness Area and other special management areas where such treatments are not possible, however it would be jeopardized by the South Bowl expansion. We agree with the BE where it states "the proposed expansion under Alternatives 2 and 4…would significantly reduce or even completely nullify these habitat improvements for bighorn sheep" (pg. 30). (25b.7)

Thank you for your comment. Your concern has been noted. On **page 316** of the **Final EIS**, it is stated that "Management actions aimed at improving habitat in the area (including suggested winter closures and the Teton Canyon Fuels Reduction Project-approved in 2018 and initiated in 2019) would not materialize if South Bowl were developed. Bighorn sheep may adjust movement patterns and habitat ranges to spend more time in the JSW adjacent to the project area; however, degradation of habitat in South Bowl and Teton Canyon due to the proposed development, combined with projected increases in recreation activity throughout the range of the Teton bighorn sheep herd, has the potential to substantially reduce access to adequate nutrition and protective habitat."

On **pages 35-36** of the **Wildlife Biological Evaluation** the Teton Canyon Hazardous Fuels Project is discussed in which it is stated that, "Although use of South Bowl by bighorn sheep during mid-winter months has not been officially documented, benefits of "Treatments would reduce forest canopy and increase the amount of open habitat available for use by bighorn sheep with the aim of improving lower elevation historic bighorn sheep range (USDA Forest Service 2018). However, the proposed expansion under Alternatives 2 and 4, which would eliminate habitat in South Bowl for use by bighorn sheep and limit access to down-canyon habitat, would significantly reduce or even completely nullify these habitat improvements for bighorn sheep. Under Alternatives 3 and 5 with no expansion into South Bowl, the Teton Canyon Hazardous."

No edits were made to the **Final EIS** in response to this comment.

16.37 Lower Teton Canyon was historically winter range for Teton Range bighorn sheep (Whitfield 1983) and continues to serve as important winter and spring range, with increased sheep activity starting in late March and early April before GTRs's closing date. Courtemanch et al. (2017) described an abbreviated migration in which Teton bighorn sheep descend from high-elevation winter ranges to lower-elevation, south facing spring ranges, such as lower Teton Canyon, as bare ground and new plant growth emerge. Snow-free areas like this provide crucial forage at a time when fat reserves are at their

lowest, making this range vital for survival. The proposed expansion threatens sheep access to this essential spring range. (685.5)

Thank you for your comment regarding the project's impact on bighorn sheep migration and use of the south-facing slopes. On **page 307** of the **Final EIS,** it is stated that "The Teton Range Bighorn Sheep Working Group's January 2022 news release requested that backcountry skiers voluntarily avoid the South Bowl area and the south facing slopes of Teton Canyon surrounding South Bowl in order to encourage bighorn sheep use of this valuable winter habitat. Construction of the Colter lift improved access to backcountry terrain in the South Bowl area beginning in the 2022/2023 winter operational season. New backcountry access points and ease of access have resulted in a recent increase in skier use of the area and may be impacting bighorn sheep movement and winter habitat selection."

Page 116 of the **Wildlife Biological Evaluation** states, "Impacts would be most significant under Alternative 2 due to the extent of development and vegetation clearing proposed in the Mono Trees and South Bowl expansion areas." Additionally, please refer to **page 28** of the **Wildlife Biological Evaluation** which states, "Intensive activity associated with initial construction activities will likely deter bighorn sheep from traveling through South Bowl and may limit access to the mineral lick. There are few other mineral licks on the CTNF, and the other licks used by the northern sub-herd are over 15 miles away on the northern end of Grand Teton National Park (NPS 2018). Long-term avoidance of South Bowl, particularly during winter, due to ongoing disturbance from ski lifts, recreationists, and avalanche control, may alter movement patterns of bighorn sheep and permanently limit access to down canyon habitat including the mineral lick."

No edits were made to the **Final EIS** in response to this comment.

16.38 Trail cameras in the Apostle Cliffs have detected bighorn rams in six of the eight ski seasons since cameras were installed in 2017/2018 and in every ski season since 2020/2021. Most years, bighorn sheep are first detected by the cameras in January or February with activity increasing in late March or early April as snow melts on south-facing slopes. This pattern suggests mid-winter and early spring crossings through the South Bowl to access the mineral lick. Although trail camera monitoring conducted for this DEIS did not detect bighorn sheep in the South Bowl, the scope and consistency of the monitoring was limited, making the absence of detections inconclusive. (685.3) (1b.1)

Thank you for your comment concerning the camera monitoring conducted for this project with specific attention to the Apostle Cliffs area. On **pages 307-308** and **pages 316-317** in the Final EIS and **pages 21-39** of the **Wildlife Biological Evaluation**, analysis for bighorn sheep was conducted with the assumption of bighorn sheep presence in South Bowl (despite inconclusive evidence from the trail camera surveys in the area in 2020-2021 and 2023).

Additionally, limitations from the trail camera surveys in South Bowl are stated on **page 24** of the **Wildlife Biological Evaluation**. Furthermore, **page 26** of the **Wildlife Biological Evaluation** and **page 307** of the **Final EIS** also states, "bighorn sheep might travel through South Bowl even when backcountry skiing is intermittently occurring in the area."

No edits were made to the **Final EIS** in response to this comment.

16.39 Due to the vulnerability of the herd, it is important that population data used in the analysis are accurate and reflect current estimates. The Draft Wildlife Biological Evaluation (BE) for the project cites a preliminary estimate of 178 individuals for the Teton Range bighorn sheep population. However, revised and final estimates for 2019-2022 indicate that the population is smaller, ranging between approximately 120 and 130 individuals (NPS unpublished data). Updating this information to reflect these more accurate estimates will ensure the information in the BE aligns with the best available science and provides accurate representation of this sensitive population. (685.1)

Thank you for your comment concerning the proposed project's effects on bighorn sheep, with specific attention to the loss of sheep population viability among the Targhee herd and the Targhee Planning Area.

Pages 316-317 in the **Final EIS**, states, "As a result, this alternative has the potential to result in an overall decline in the population of the Teton or Targhee Herd. Although the Proposed Action would impact the Teton Range bighorn sheep, across the overall Targhee Planning Area (which contains multiple herds), the alternative *May Impact Individuals or Their Habitat but would Not Likely Contribute to a Trend Toward Federal Listing or Cause a Loss of Population Viability*. All but 2 acres of the modeled high quality bighorn sheep habitat within the total project area are within the South Bowl area and existing SUP boundary; therefore, impacts of Alternative 4 would be comparable to those of the Proposed Action." Therefore, we can confirm that the proposed projects would not result in a loss of population viability among the Targhee sheep population.

The following text was added to **pages 294-295** of the **Final EIS** and **page 25** of the **Wildlife Biological Evaluation,** correcting the baseline data used in the existing analysis: "More recently it has been reported in the Idaho Department of Fish and Game 2022 Bighorn Sheep Management Plan, that the South Lemhi herd has increased to 110 individuals while the South Beaverhead herd has declined to 17 individuals. It should also be noted that the Lionhead herd primarily resides in Montana and consists of transient individuals, which may not contribute to population dynamics within the CTNF. The severe conditions of the 2022 and 2023 winter season impacted the Targhee herd. The Department conducted aerial surveys in February 2023 and February 2025, which counted 71 sheep and 80 sheep. The herd declined from an observed 104 sheep in 2022 to 71 sheep in 2023 over the severe winter (32 percent decline). The neighboring Jackson Bighorn Sheep Herd also underwent a similar population decline of approximately 30 percent during the 2022 and 2023 winter season (WGFD, 2023)."

16.40 The DEIS and BE provide population data from Department aerial surveys and a fecal DNA study conducted by the National Park Service (NPS), however there are important data updates from the past few years that should be included. The DEIS and BE state that the herd size is approximately 125 sheep. However a severe winter in 2022/2023 impacted the herd and numbers are now approximately 100 sheep. The Department conducted aerial surveys in February 2023 and February 2025 which counted 71 sheep and 80 sheep, respectively (WGFD 2023, WGFD in prep). The herd declined from an observed 104 sheep in 2022 to 71 sheep in 2023 over the severe winter (32% decline). The neighboring Jackson Bighorn Sheep Herd also underwent a similar population decline of approximately 30% during the 2022/2023 severe winter (WGFD 2023). (25b.4)

Thank you for your comment concerning the proposed project's effects on bighorn sheep, with specific attention to the herds within and adjacent to the project area.

Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. **Pages 316-317** in the **Final EIS**, states, "As a result, this alternative has the potential to result in an overall decline in the population of the Teton or Targhee Herd. Although the Proposed Action would impact the Teton Range bighorn sheep, across the overall Targhee Planning Area (which contains multiple herds), the alternative *May Impact Individuals or Their Habitat but would Not Likely Contribute to a Trend Toward Federal Listing or Cause a Loss of Population Viability*. All but 2 acres of the modeled high quality bighorn sheep habitat within the total project area are within the South Bowl area and existing SUP boundary; therefore, impacts of Alternative 4 would be comparable to those of the Proposed Action." Therefore, we can confirm that the proposed projects would not result in a loss of population viability among the Targhee sheep population.

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16.41 The BE also includes preliminary results from an NPS fecal DNA study to estimate the herd size. The BE accurately states that the preliminary results in 2022 estimated the herd size to be approximately 178 sheep. However, errors in the genotyping methodology were subsequently discovered and after they were corrected, the annual herd sizes were estimated to be the following: summer 2019 (122 +/- 26 (SE)), summer 2020 (121 +/- 7 (SE)) summer 2021 (118 +/- 12 (SE)), and summer 2022 (132 (+/- 6 (SE)) (NPS, unpublished data). The average estimated population size during the study was 123 sheep, therefore very close to our approximation of 125 sheep before the severe winter. Unfortunately, the study ended before the severe winter of 2022/2023. However, these data have helped determine the relative accuracy of the Department's annual aerial surveys. Winter aerial surveys during the same time periods detected 82% (February 2020), 74% (February 2021), and 88% (February 2022) of sheep compared to the fecal DNA population estimates before the severe winter. Therefore, on average the Department's aerial surveys are detecting approximately 81% of the sheep in the herd, which is within the range of previous research on bighorn sheep detection probability with aerial surveys (Bodie et al. 1995, Blum et al. 2024, Ruhl et al. 2025). The most recent survey in February 2025 counted 80 sheep, therefore using the 81% correction, our current population estimate is 99 sheep. (25b.5)

Thank you for your comment concerning the proposed project's effects on bighorn sheep, with specific attention to the herds within and adjacent to the project area.

Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. **Pages 316-317** in the **Final EIS**, states, "As

a result, this alternative has the potential to result in an overall decline in the population of the Teton or Targhee Herd. Although the Proposed Action would impact the Teton Range bighorn sheep, across the overall Targhee Planning Area (which contains multiple herds), the alternative *May Impact Individuals or Their Habitat but would Not Likely Contribute to a Trend Toward Federal Listing or Cause a Loss of Population Viability*. All but 2 acres of the modeled high quality bighorn sheep habitat within the total project area are within the South Bowl area and existing SUP boundary; therefore, impacts of Alternative 4 would be comparable to those of the Proposed Action." Therefore, we can confirm that the proposed projects would not result in a loss of population viability among the Targhee sheep population.

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16.42 The mapped mineral lick is at the base of the dolostone (dolomite) part of the Bighorn dolomite formation. The chemical composition for it is nearly all calcium-magnesium carbonate with trace amounts of silica, aluminum, and iron oxides (Blackwelder 1912). I have passed this area several times, including spring, and have never seen mineral stains or seeps. There are several publications describing mineral licks, and I have seen many out in the wilds, but this one does not look like a mineral lick. Of course, the sheep are traveling to this key area, but it would be good to document actual licking of the rock to be sure it is minerals in the rock they are after or perhaps mountain mahogany or some other preferred browse species. The mahogany is unusual in the Teton range, and can be among escape terrain. Bighorn dolomite and adjacent rock types are very common in NW Wyoming and elsewhere. The steep cliffy area below Mary's is part of the modeled Very High Probability use area for winter, but the snow is deep here too. The escape terrain here probably influenced the probability calculation. There are summer GPS pings here, and it could be an important lambing area, either now or in the future. Although outside of the proposed expansion, seasonal closures for lambing would be prudent. More discussion about the nuances of the South Bowl area and sheep use is warranted before making a decision. The Teton Bighorn Sheep working group placed a designated route in the South Bowl area, and there was some confusion about whether the route was the thin line on the map or a broader area. The working group has done a lot of good things to protect sheep. But there was considerable controversy around potential closures. The issues are well known among the participants. (644.14)

Thank you for your comment regarding the proposed project's effects on bighorn sheep with specific attention to the impacts in the proposed South Bowl expansion. Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295**

in the **Final EIS**. Additionally, on **pages 26-39** of the **Wildlife Biological Evaluation**, the effects to bighorn sheep are discussed in detail.

No edits were made to the **Final EIS** in response to this comment.

16.43 In section 2.3.3 of the EIS it states that , if approved, "Due to the nature of terrain in the South bowl area, proposed trails in South Bowl would require heavy machinery to create well-defined and smooth skiable surfaces. Rock blasting would also be employed as necessary within certain proposed project areas to remove rock outcroppings". Rock outcroppings are where the Bighorn sheep live, these would be destroyed?! Heavy equipment and blasting would totally destroy the existing peace and beauty of this irreplaceable treasure. Wildlife would leave. It would change this wonderful place forever. (595.1)

Thank you for your comment regarding the proposed project's effects on bighorn sheep with specific attention to the impacts in the proposed South Bowl expansion. Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. Additionally, on **pages 26-39** of the **Wildlife Biological Evaluation**, the effects to bighorn sheep (e.g. sheep movement through South Bowl to the mineral lick, potential conflict with Teton Canyon Hazardous Fuels Reduction Project) are discussed in detail.

Additionally, on **page 307-308** of the **Final EIS**, and **page 27** of the **Wildlife Biological Evaluation**, the analysis documents that bighorn sheep use South Bowl as a movement corridor to access the Apostle Cliffs mineral lick, which is located less than 900 feet south of the proposed South Bowl expansion area. Specifically, on **page 316** of the **Final EIS**, the proposed projects impact on bighorn sheep is discussed in which it is states that 11 acres of high-quality bighorn sheep winter habitat would be directly impacted by the proposed action, and based on the Teton Range bighorn sheep's aversion to recreation activity it is suspected that all 54 acres of high-quality winter habitat in South Bowl could be rendered unusable.

16.44 The only action the CTNF should take in regards to South Bowl—besides requiring Grand Targhee to post information about sheep conservation and designated South Bowl ski routes at its backcountry gates—would be to amend the 1997 Targhee Forest Plan to extend the 2.7a management prescription into South Bowl, to correspond with the Teton Bighorn Sheep Working Group winter zone map and update this prescription to apply to bighorn sheep habitat as well as elk and deer. If this were to occur, Teton Bighorn Sheep Working Group "designated travel routes" should be considered "trails" for the purposes of allowing a limited amount of non-motorized winter access per forest plan direction. A map of bighorn sheep winter zones is available at www.tetonsheep.org/winter-recreation. (471.15)

Thank you for your comment concerning the proposed project's effects on bighorn sheep, with specific attention to the proposed expansion into South Bowl. However, amending the 1997 Forest Plan to extend the 2.7a management prescription into South Bowl is beyond the scope of this analysis.

Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. Additionally, on **pages 26-39** of the **Wildlife Biological Evaluation**, the effects to bighorn sheep (e.g. sheep movement through South Bowl to the

mineral lick, potential conflict with Teton Canyon Hazardous Fuels Reduction Project) are discussed in detail.

Additionally, on **page 307-308** of the **Final EIS**, and **page 27** of the **Wildlife Biological Evaluation**, the analysis documents that bighorn sheep use South Bowl as a movement corridor to access the Apostle Cliffs mineral lick, which is located less than 900 feet south of the proposed South Bowl expansion area. Specifically, on **page 316** of the **Final EIS**, the proposed projects impact on bighorn sheep is discussed in which it is states that 11 acres of high-quality bighorn sheep winter habitat would be directly impacted by the proposed action, and based on the Teton Range bighorn sheep's aversion to recreation activity it is suspected that all 54 acres of high-quality winter habitat in South Bowl could be rendered unusable.

Additionally, **page 316** of the **Final EIS** also states that, "Disturbance from avalanche control activities (e.g. use of explosives) particularly within the proposed South Bowl area is also likely to impact bighorn sheep… Loss of habitat within and in the vicinity of the project area, particularly in South Bowl and in Teton Canyon, which is likely accessed through South Bowl, has the potential to harm the Teton Range herd viability. Although use of South Bowl by bighorn sheep during mid-winter months has not been officially documented, benefits of management actions aimed at improving habitat in the area (including suggested winter closures and the Teton Canyon Fuels Reduction Project-approved in 2018 and initiated in 2019) would not materialize if South Bowl were developed. Bighorn sheep may adjust movement patterns and habitat ranges to spend more time in the JSW adjacent to the project area; however, degradation of habitat in South Bowl and Teton Canyon due to the proposed development, combined with projected increases in recreation activity throughout the range of the Teton bighorn sheep herd, has the potential to substantially reduce access to adequate nutrition and protective habitat. ".

Additionally, the following mitigation measure was added to **Table 2.4-1 Project Design Criteria** on **page 51** of the **Final EIS** and further described on **pages 316-317** and **329** of the **Final EIS**, "To minimize impacts to mule deer winter range and modeled bighorn sheep habitat, GTR shall establish and maintain a double-rope boundary around the Mono Trees and South Bowl SUP boundary expansions prior to construction in such areas and place backcountry access gates in locations that minimize human encroachment on identified habitat. Placement of backcountry access gates shall be done in coordination with the Forest Service Wildlife Biologist."

16.45 In addition to eliminating Teton bighorn sheep habitat, a South Bowl expansion would likely lead to bighorn sheep losing access to the Apostle Cliffs mineral lick. Mineral licks are a critical resource for all ungulate species, providing important nutrients and chemical elements that are otherwise unavailable in their diets. As noted in the DEIS, South Bowl is an important corridor for sheep to travel through to access this critical resource, in part because it offers refuge from human activity. If this refuge were lost, the travel corridor and thus access to the mineral lick would be lost as well. (471.14) (614.2)

Thank you for your comment concerning the proposed project's effects on bighorn sheep habitat and migration corridor, with specific attention to the proposed expansion into South Bowl.

Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. Additionally, on **pages 26-39** of the **Wildlife Biological Evaluation**, the effects to bighorn sheep (e.g. sheep movement through South Bowl to the mineral lick, potential conflict with Teton Canyon Hazardous Fuels Reduction Project) are discussed in detail.

Additionally, please refer to **pages 28** in the **Biological Assessment**, which states, "Intensive activity associated with initial construction activities will likely deter bighorn sheep from traveling through South Bowl and may limit access to the mineral lick. There are few other mineral licks on the CTNF, and the other licks used by the northern sub-herd are over 15 miles away on the northern end of Grand Teton National Park (NPS 2018). Long-term avoidance of South Bowl, particularly during winter, due to ongoing disturbance from ski lifts, recreationists, and avalanche control, may alter movement patterns of bighorn sheep and permanently limit access to down canyon habitat including the mineral lick."

No edits were made to the **Final EIS** in response to this comment.

16.46 The interagency Teton Bighorn Sheep Working Group is advocating voluntary winter recreation closures for the north side of Teton Canyon including the South Bowl area, https:// www.tetonsheep.org/. Although sheep habitat is identified in the SB area in the DEIS, the DEIS does not acknowledge or discuss the recommended volunteer winter recreation closures in the area from the Working Group. This is a significant conflict between the DEIS and the recommendations of the Working Group that needs to be resolved. It is discussed in the supplemental biologic analysis section but not mentioned in the main body of the DEIS. This is a significant oversight. To recommend on disbursed recreation group voluntarily not use an area and propose expanding a ski area into the same area is at best nonsensical. (197.6) (729.12) (792.2) (824.2) (922.6) (1b.2) (19b.2) (25b.3)

Thank you for your comment concerning the proposed project's effects on bighorn sheep habitat. On **pages 307-308** of the **Final EIS,** it is stated that "The Teton Range Bighorn Sheep Working Group's January 2022 news release requested that backcountry skiers voluntarily avoid the South Bowl area and the south facing slopes of Teton Canyon surrounding South Bowl in order to encourage bighorn sheep use of this valuable winter habitat. Construction of the Colter lift improved access to backcountry terrain in the South Bowl area beginning in the 2022/2023 winter operational season. New backcountry access points and ease of access have resulted in a recent increase in skier use of the area and may be impacting bighorn sheep movement and winter habitat selection."

No edits were made to the **Final EIS** in response to this comment.

16.47 The proposed South Bowl expansion at Grand Targhee Resort poses serious risks to bighorn sheep (Ovis canadensis), a species highly sensitive to disturbance and displacement (Papouchis et al., 2010). This particular herd, the Teton Bighorn herd, is a small, isolated herd that is no longer migratory due to human impacts in the low lying valleys. Wyoming Game and Fish Department has concerns about recent population declines, as the herd count in 2023-24 was down 20% overall from 2021-22, with a 50% decline in rams (Aly Courtemanch, WGFD, personal communication, April 11, 2025). The DEIS acknowledges that the area is used by sheep and offers suitable escape terrain, foraging habitat, and a critically important mineral lick. However, it also admits that no recent population surveys have been conducted in the project area and that winter or lambing season use of South Bowl by bighorn sheep remains "not officially documented"—a critical data gap. Despite this gap, the DEIS concludes that "Loss of habitat within and in the vicinity of the project area, particularly in South Bowl and in Teton Canyon, which is likely accessed through South Bowl, has the potential to harm the

Teton Range herd viability" (pg 306). This is too steep a price to pay for a few more ski runs. The expansion would introduce new lift infrastructure, glading, and increased skier traffic into sensitive alpine and subalpine terrain—activities known to displace bighorn sheep, particularly during key life stages like lambing. The DEIS proposes no targeted seasonal closures, habitat buffers, or avoidance measures to protect potentially active habitat. This reliance on reactive assumptions, rather than proactive habitat management, fails NEPA's "hard look" requirement and contradicts best available science on bighorn behavior. Without baseline data or protective strategies, the project risks contributing to the loss of viability of the Teton Bighorn herd. (484.22) (471.13) (146.5) (398.2) (188.2) (344.3) (459.2) (695.3) (399.4) (424.2) (14.1) (462.4) (471.12) (476.7) (481.1) (489.20) (494.1) (494.2) (537.4) (571.3) (574.1) (584.4) (599.2) (600.1) (665.2) (658.2) (685.4) (688.3) (689.3) (690.1) (693.3) (697.6) (711.19) (711.20) (720.6) (769.3) (784.1) (916.11) (1029.1) (614.4) (457.116) (685.2) (23b.5)

Thank you for your comment concerning the proposed project's effects on bighorn sheep habitat and migration corridor, with specific attention to the proposed expansion into South Bowl.

Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. Additionally, on **pages 26-39** of the **Wildlife Biological Evaluation**, the effects to bighorn sheep (e.g. sheep movement through South Bowl to the mineral lick, potential conflict with Teton Canyon Hazardous Fuels Reduction Project) are discussed in detail.

Additionally, the following mitigation measure was added to **Table 2.4-1 Project Design Criteria** on **page 51** of the **Final EIS** and further described on **pages 316-317** and **329** of the **Final EIS**, "To minimize impacts to mule deer winter range and modeled bighorn sheep habitat, GTR shall establish and maintain a double-rope boundary around the Mono Trees and South Bowl SUP boundary expansions prior to construction in such areas and place backcountry access gates in locations that minimize human encroachment on identified habitat. Placement of backcountry access gates shall be done in coordination with the Forest Service Wildlife Biologist."

16.48 As noted in the DEIS, development of South Bowl would limit bighorn sheep access to the Apostle Cliffs mineral licks. Wild sheep denied access to proper mineral nutrition will almost certainly suffer sub-clinical maladies resulting from malnutrition, experience poor lamb recruitment and a decreasing population trajectory. The population could dwindle to zero, for reasons that would then be labeled as mysterious. Loss of South Bowl winter range will have an adverse effect far out of proportion to the amount of acreage involved. It is crucial that the Teton Range herd not be denied access to Apostle Cliffs by development in South Bowl. (494.3) (537.6) (567.1) (614.2)

Thank you for your comment concerning the proposed project's effects on bighorn sheep habitat and migration corridor, with specific attention to the proposed expansion into South Bowl.

Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. Additionally, on **pages 26-39** of the **Wildlife Biological Evaluation**, the effects to bighorn sheep (e.g. sheep movement through South Bowl to the mineral lick, potential conflict with Teton Canyon Hazardous Fuels Reduction Project) are discussed in detail.

Additionally, please refer to **page 28** in the **Biological Assessment**, which states, "Intensive activity associated with initial construction activities will likely deter bighorn sheep from traveling through South Bowl and may limit access to the mineral lick. There are few other mineral licks on the CTNF, and the other licks used by the northern sub-herd are over 15 miles away on the northern end of Grand Teton National Park (NPS 2018). Long-term avoidance of South Bowl, particularly during winter, due to ongoing disturbance from ski lifts, recreationists, and avalanche control, may alter movement patterns of bighorn sheep and permanently limit access to down canyon habitat including the mineral lick."

No edits were made to the **Final EIS** in response to this comment.

16.49 Given that bighorn sheep are a Forest Service Region 4 Sensitive Species of special interest to the members of the Idaho Wild Sheep Foundation, we believe that the Caribou-Targhee National Forest has a responsibility to maintain a viable Teton Range bighorn sheep herd. The Forest Plan states that sensitive species will be managed to ensure their viability and that Forest Service actions will not result in sensitive species becoming threatened or endangered. The Idaho Wild Sheep Foundation reiterates that we are opposed to expansion of Grand Targhee resort into South Bowl. Thus we recommend that the Forest Service select either Alternative 1 (no action) or Alternative 3 (Expansion only within existing Special Use Permit area), as defined in the DEIS. (494.4) (589.4)

Thank you for your comment, your concern has been noted.

No edits were made to the **Final EIS** in response to this comment.

16.50 Most recently, we engaged with the public, winter recreation advocates, conservation organizations, and agency partners in a multi-year effort to build community-level support for closures and travel routes that are helping avoid impacts to bighorn sheep. These include specific routes in the proposed expansion area, along with nearby voluntary closures. Expansion of the ski resort boundary into these areas would nullify these broadly supported efforts. This would also send a message to our backcountry outdoor recreation partners that commercial development of a public resource takes priority over not only the above-stated Forest Plan and NEPA requirements, but also the needs of local communities that this decision will impact. We urge you to respect these conservation investments, which were made in coordination with the CTNF. (614.6)

Thank you for your comment, your concern has been noted.

No edits were made to the **Final EIS** in response to this comment.

16.51 In addition to direct habitat loss that would result from a South Bowl expansion, impacts from increased recreation in the area must be considered. Research conducted on the Targhee Herd showed winter backcountry recreation displaced sheep from important winter habitat. Not only would expansion into South Bowl bring heavy recreation into winter habitat, it would expand the sphere of out of bounds winter recreation deeper into Teton Canyon where additional winter habitat exists. In both cases, this added recreational pressure in winter habitat will most certainly displace bighorn sheep from habitat they rely on to survive the winter when they are nutritionally stressed and can least afford it. (537.5) (25b.2)

Thank you for your comment concerning the proposed project's effects on bighorn sheep habitat and migration corridor, with specific attention to the proposed expansion into South Bowl.

Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. Additionally, on **pages 26-39** of the **Wildlife Biological Evaluation**, the effects to bighorn sheep (e.g. sheep movement through South Bowl to the mineral lick, potential conflict with Teton Canyon Hazardous Fuels Reduction Project) are discussed in detail.

Additionally, please refer to **page 27** in the **Wildlife Biological Evaluation** which states, "Teton Range bighorn sheep consistently avoid areas with human development and activity (Courtemanch 2014); therefore, construction activities in South Bowl and implementation of the operational boundary expansion would likely cause bighorn sheep to avoid the area entirely during the winter, potentially eliminating 54 acres of valuable winter habitat. Courtemanch (2014) found that Teton Range bighorn sheep generally keep out of view from winter recreation routes, maintaining up to a 400 m distance from backcountry ski routes and other recreationists. Proposed development within the project area has the potential to disturb bighorn sheep in habitat that is nearby and within view. Page 306 in the DEIS states: Given Teton Range bighorn sheep's aversion to recreation activity, particularly in the winter, all 54 acres of high-quality winter habitat modeled in South Bowl could be rendered unusable by bighorn sheep upon commencement of construction followed by ongoing ski resort operation with the expansion. Loss of habitat within and in the vicinity of the project area, particularly in South Bowl and in Teton Canyon, which is likely accessed through South Bowl, has the potential to harm the Teton Range herd viability. "

No edits were made to the **Final EIS** in response to this comment.

16.52 The monitoring for bighorn sheep done in support of the analysis was inadequate. The trail camera study was hampered by equipment issues. Nevertheless, the study documented use of the South Bowl by bighorn sheep, including use to access a mineral lick. This population of bighorn sheep is being monitored and protected through other ongoing efforts. To encroach on bighorn sheep habitat would be at cross purposes with these conservation efforts. Any impacts to this resource must be avoided and actions involving development in the South Bowl should not be part of the agency's decision because of these impacts. Impacts to bighorn sheep outweigh benefits to the public and cannot be mitigated. (557.4)

Thank you for your comment, your concern has been noted.

No edits were made to the **Final EIS** in response to this comment.

16.53 WY-WSF and our partners—including state and federal agencies, the Teton Range Bighorn Sheep Working Group, and the local community—have invested hundreds of thousands of dollars and countless volunteer hours in habitat restoration, domestic sheep allotment retirements, and collaborative conservation planning. These efforts, spanning over 30 years, would be undermined by a short-sighted expansion that sacrifices irreplaceable bighorn habitat for marginal recreational gains. Collaborative efforts among the Caribou-Targhee National Forest, non-governmental organizations, and agricultural producers have successfully retired several domestic sheep grazing allotments to safeguard this sensitive bighorn sheep population. It is contradictory and

counterproductive for the Forest Service to encourage and implement the removal of domestic sheep grazing to protect this herd, only to undermine those protections by approving ski resort expansion directly into critical bighorn sheep habitat. (614.5)

Thank you for your comment, your concern has been noted.

No edits were made to the **Final EIS** in response to this comment.

16.54 In several places in the DEIS and BE, it is mentioned that there are 54 acres of modeled high quality bighorn sheep habitat in South Bowl, which would be impacted by expansion. This is true, however, there are also larger areas of occupied habitat and a mineral lick located down drainage in Teton Canyon that have well-documented, year-round sheep use and would be indirectly impacted by threatening the bighorn sheep movement path through South Bowl. This is taken into account when the BE estimates that 1,270 acres that are currently occupied by the Targhee Bighorn Sheep Herd (WGFD 2019) would be directly or indirectly impacted by the South Bowl expansion (pg. 31). Although this is only 0.8% of the herd's occupied range, it includes important winter and spring habitat with well-documented sheep use as well as contains a mineral lick. If access to the mineral lick is severed, alternative access routes are unlikely given the unsuitable habitat to the south. We agree with the BE where it states, "the small size and isolated nature of the Teton Range bighorn sheep population means that access to suitable habitat during difficult winter months, as well as during the summer fat gain, is vital to ensure that the population can persist" (pg. 23) and "the proposed South Bowl expansion combined with the general trend of increasing recreation activity throughout the range of the Teton bighorn sheep herd has the potential to result in a cumulative loss of habitat significant enough to potentially threaten population viability of the herd" (pg. 31). (25b.6)

Thank you for your comment concerning the proposed project's effects on bighorn sheep habitat and migration corridor, with specific attention to the proposed expansion into South Bowl. Your concern has been noted.

Specifically, life history information and species observations are found on **pages 21-26** of the **Wildlife Biological Evaluation** and **pages 292-295** in the **Final EIS**. Additionally, on **pages 26-39** of the **Wildlife Biological Evaluation**, the effects to bighorn sheep (e.g. sheep movement through South Bowl to the mineral lick, potential conflict with Teton Canyon Hazardous Fuels Reduction Project) are discussed in detail.

Additionally, the commenter agrees with the dialogue on **page 28** of the **Wildlife Biological Evaluation**, describing that the development of South Bowl could alter bighorn sheep access to the mineral lick. Furthermore, on **pages 33-39** of the **Wildlife Biological Evaluation**, it is described that the expansion into South Bowl coupled with increased recreation throughout the range would potentially threaten the viability of the Teton or Targhee herd.

No edits were made to the **Final EIS** in response to this comment.

16.55 Please include an analysis of trail density and its effects on wildlife in the FEIS for both the current and proposed permit areas. (724.7)

Thank you for your comment concerning the analysis of trail density and associated effects on wildlife within and beyond the existing SUP. Your concern has been noted.

On **page 34-36** of the **Final EIS** the proposed 29 miles of new hiking and biking trails are discussed. As mentioned, these proposed multi-season improvements would occur within the existing SUP boundary, direct and indirect effects to wildlife populations would align with those outlined for Alternatives 3, 4, and 5. Therefore, wildlife species with an aversion to developed areas and recreation activity (bighorn sheep, grizzly bears, and wolverines) would already avoid these areas. More specifically, on **page 332** of the **Final EIS,** it is stated that, "projects within the SUP are not expected to substantially add to the cumulative impacts for many wildlife species."

Furthermore on **pages 118-119** of the **Wildlife Biological Evaluation,** impacts of open road and open motorized trail densities on elk are discussed, in which it is stated that, "there would be a reduction in hiding cover in the project area in locations where vegetation is removed for ski and mountain bike trail development and glading. Elk may relocate to areas outside of the project area where hiding cover is more readily available."

No edits were made to the **Final EIS** in response to this comment.

16.56 Currently, the USFS in conjunction with funding from the RMEF, have burned acres upon acres of prime mule deer habitat in Teton Canyon, thus reducing the presence of the mule deer in one of the most prominent south facing winter ranges for the mule deer in the Tetons. The placement of a lift in the "South Bowl" would greatly reduce the migration and wintering corridor for mule deer, big horn sheep, and moose even further, potentially being the nail in the coffin for migration in that area. Please do not approve the expansion in "South Bowl," and please make community-minded decisions in what you do approve. (374.2)

Thank you for your comment regarding the project's impact on wildlife species that use the south-facing slopes of Teton Canyon and South Bowl. Your concern has been noted.

As described in wildlife **RTC 16.1,** and on **page 282** of the **Final EIS** and **page 14** of the **Wildlife Biological Evaluation**, the scope of this analysis describes that species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species, and/or Species of Local Concern (SOLC)*.

Additionally, on **pages 285-303** of the **Final EIS** it is acknowledged that south-facing slopes above Teton Canyon, including South Bowl and the slopes between the resort and the canyon, are key seasonal and movement habitats for bighorn sheep, mule deer, moose, elk, and other species. However, the **Final EIS** provides a comprehensive analysis of wildlife resources, supported by systematic surveys, scientific literature, habitat modeling, and consultation with state wildlife agencies, in which determinations of effects are analyzed. Furthermore, **pages 26-39** of the **Wildlife Biological Evaluation** discuss the effects of the proposed South Bowl expansion on bighorn sheep, **pages 112-117** discuss effects on mule deer, **pages 117-121** discuss effects on elk, and **pages 108-111** discuss the effects on moose.

No edits were made to the **Final EIS** in response to this comment.

16.57 Greenhouse gas emissions from development projects will indirectly affect amphibians. We recommend installing solar panels, battery storage units, and electric vehicle charging stations to reduce greenhouse gas emissions from development projects. (20.2)

Thank you for your comment regarding indirect impacts from the proposed projects on amphibians. Please refer to **page 325-327** of the **Final EIS** and **pages 87-91** and **92-95** of the **Wildlife Biological Evaluation**, where direct and indirect effects from the proposed project on amphibians are discussed. Based on this analysis, as well as the emissions analysis discussed on **page 14** of the **Air Quality Technical Report**, "GTR ski area operations are powered by Fall River Rural Electric Cooperative (FRREC) in Teton County, Idaho. FRREC power is driven by 95 percent renewable sources." Therefore, additional need for emission reduction was not deemed necessary.

The **Final EIS** and **Wildlife Biological Evaluation** demonstrate that amphibian habitat has been systematically identified, mapped, evaluated, and addressed through project design criteria and best management practices. On **pages 15-17** of the **Wildlife Biological Evaluation**, and **pages 298-299** of the **Final EIS** state that Columbia spotted frogs and western toads are identified as Forest Service Region 4 sensitive species with potential habitat in the project area. On **page 91** of the **Wildlife Biological Evaluation,** the analysis recognizes that both species utilize small wetland patches: Columbia spotted frogs select sites with "shallow and stagnant or slow-moving water e.g., ponds, marshes, small springs, lake edges, and slow-moving streams for breeding, "and western toads are associated with "wetlands near other waterbodies and within less densely forested areas."

The potential impacts on amphibian species, specifically the Columbia spotted frog and the western toad, are analyzed in detail in the **Wildlife Biological Evaluation**. On **page 326-327** of the **Final EIS** and **pages 91-95** of the **Wildlife Biological Evaluation**, the analysis for the Columbia spotted frog is described, in which, under the Proposed Action, approximately 70 acres within the AIZ would be impacted by grading or vegetation removal. The **Wildlife Biological Evaluation** also states, "project specific hydrological surveys indicate that narrow steep streams with sparse willows make up the majority of the riparian and aquatic areas, providing less ideal breeding habitat for frogs, indicating that this species has a low probability of occurring in the project area." The final determination for all action alternatives is "*May Impact Individuals or Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability*".

On **page 325-326** of the **Final EIS** and **page 87** of the **Wildlife Biological Evaluation**, the analysis for the western toad is detailed, acknowledging potential impacts to habitat. Approximately 70 acres within the AIZ would be directly impacted under the Proposed Action. However, the report concludes that suitable upland foraging habitat would remain and that selective thinning for ski glades could potentially improve habitat in some areas by opening the canopy and providing necessary solar radiation. The determination for the western toad is also "*May Impact Individuals or Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability*".

On **pages 368-370** of the **Final EIS** impacts to amphibian habitat/ AIZs are quantified under each alternative. Under the Proposed Action, a total of 70 acres within the AIZ would be subject to grading or vegetation removal, with only 0.01 acre in South Bowl and approximately 3 acres in Mono Trees. This represents a negligible direct impact to the small wetlands documented in South Bowl.

Pages 88-91 of the **Wildlife Biological Evaluation** emphasize that amphibians require the use of both riparian breeding habitat and upland foraging and hibernation areas, a multi-habitat life history recognized in the analysis. Additionally, **page 87** of the **Wildlife Biological Evaluation** states, "If western toads were to occur in the project area, construction activities/tree removal in the upland habitats adjacent to the riparian areas could result in injury or mortality to individual toads or temporary habitat displacement." Similarly, **page 87** of the **Wildlife Biological Evaluation** state that "The removal of vegetation/construction activities near aquatic habitats has the potential to result in increased erosion and sedimentation rates into the aquatic habitats and an overall increase in water temperature (Pilliod et. al 2003). This could have direct negative impacts (such as mortality) on spotted frogs, particularly in their fully aquatic stages."

Table 2.4-1 Project Design Criteria on **page 47** of the **Final EIS** requires the installation of site improvements and the rehabilitation of the site to reduce the potential for dust emissions. Minimize the creation of dust when using mechanical equipment (heavy equipment and vehicles). Additionally, **Table 2.4-1 Project Design Criteria** on **pages 44-56** of the **Final EIS**, describe numerous mitigation measures that require the avoidance of adverse effects to soil, water quality, and riparian resources, which would also preserve amphibian habitat.

In **Appendix B. Forest Plan Consistency Analysis**, on **pages 509-510** of the **Final EIS**, the project is deemed consistent with Soil and Water Section Standards and Guidelines #1- #3, mentioning new construction would occur on soils with slight to moderate erosion hazard (K Factor). Additionally, erosion PDC such as avoiding areas that show signs of instability and authorization of a site erosion control plan would address slope stability standards and guidelines

Although the **Final EIS** and 1997 Forest Plan does not contain a guideline or standard that is specific to amphibians, **pages 348-349** of the **Final EIS** describe BMP #1-#3 which emphasize the avoidance of wetlands and riparian areas during construction and implementation.

16.58 The Grand Targhee Master Plan Development Projects offers opportunities for amphibian conservation. Amphibian Refuge recommends conducting population monitoring surveys for Columbia Spotted Frogs in suitable waterbody habitat and for Western Toads in suitable wetland habitat. Disturbance activities should be kept out of occupied Columbia Spotted Frog and Western Toad habitats. (20.1)

Thank you for your comment regarding the effects of the proposed projects on the Columbia Spotted Frog and western toad habitats. Direct and indirect effects to these species are discussed on **page 92** and **87** of the **Wildlife Biological Evaluation**. Although the **Final EIS** and 1997 Forest Plan do not contain a specific guideline or standard for amphibians, **pages 348-349** of the **Final EIS** describe BMPs #1-#3, which emphasize avoiding wetlands and riparian areas during construction and implementation.

No edits were made to the **Final EIS** in response to this comment.

16.59 Wildlife will be displaced once their habitat is invaded to develop into the South Bowl and Mono trees not only during development but for all time. Imagine the tree removal, the blasting to clear the south bowl, the new roads entering and traversing through the canyon, the clearing of our Whitebark Pine which grows slowly. It typically takes 25-30 years to start producing cones and can take 60 -80 years to reach peak production. That is a major food source for so many creatures, grizzlies and Clark's nutcracker come to

mind. The time it will take just to complete the project would span migration, breeding, birthing and food sources for the canyon creatures. I doubt that anything can be completed when wildlife wouldn't be adversely affected. And then there is the afterwards, which we really don't understand. As I wrote, displacement impacts haven't been addressed to my knowledge. For wildlife it would be tantamount to a raging fire. And all of that before the project would be completed. I believe the data related to wildlife habitat is inadequate and not well addressed in the DEIS. (805.1)

Thank you for your comment regarding the effects of the proposed project on wildlife, whitebark pine, and the Clark's nutcracker. Please refer to **pages 303-331** of the **Final EIS**, **pages 39-59** of the **Biological Assessment**, and **pages 14-134** of the **Wildlife Biological Evaluation** for more information on direct and indirect effects on wildlife.

Additionally, please refer to the vegetation **RTC 15.12**, **15.15, 15.16**, **15.22**, and **Pages 255-257** of the **Final EIS** address whitebark pine's significance as a keystone species, in which residual impacts to other resources may be experienced if individual trees and small stands are impacted. **Page 265** of the **Final EIS** also describes possible effects to watershed hydrology, slower forest succession, and a decrease in food sources for grizzly bears and Clark's Nutcracker in relation to whitebark.

On **pages 262-266** of the **Final EIS**, occurrence of whitebark pine within the project area is described in relation to the proposed action, and potential impacts to WBP Surveyed Trees are outlined in **Table 3.12-8**. Additionally, the estimated impacts to areas of WBP under the proposed action are summarized in **Table 3.12-5, 3.12-6, 3.12-7, and 3.12-8** of the **Final EIS**.

No edits were made to the **Final EIS** in response to this comment.

16.60 Alternative 3, which keeps GTR to their existing SUP boundary, also proposes a multitude of actions harmful to wildlife. The largest direct threat is removal of hundreds of acres of tree and shrub habitat for trails, roads and infrastructure. Expected increases in visitation due to a multitude of infrastructure installations and upgrades under this alternative further harms wildlife by squeezing animals into smaller and disconnected patches of secure habitat. Given that the existing footprint has already impacted big game habitat, it is also worth noting that indirect big game impacts would likely include increased vehicle traffic and animal collisions along Ski Hill Road, which is terminal winter habitat for some deer and elk herds. (769.2)

Thank you for your comment regarding the effects of the proposed Alternative 3 on big game habitat, with specific attention to vehicle-animal collisions on Ski Hill Road. Please refer to **pages 331-332** in the **Final EIS** and **pages 109**, **114**, and **119** in the **Wildlife Biological Evaluation** for more information on the effects of Alternative 3 on big game.

On **pages 331-332** of the **Final EIS**, it is mentioned that "increased traffic on highways and high-speed roadways, including Highway 33 and Ski Hill Road, further fragment wildlife habitat and result in more frequent wildlife-vehicle collisions. Teton Valley is expected to continue to grow with private land development increasing into the foreseeable future and more vehicles and recreationists are expected to occur in areas abutting the GTR SUP."

No edits were made to the **Final EIS** in response to this comment.

16.61 The Targhee expansion area includes known and potential nesting habitat for the Black Rosy-Finch, which relies on high-elevation alpine cliffs and talus slopes-features present in both the South Bowl and Mono Trees areas. Observations and habitat models indicate this species uses the west slope of the Tetons for breeding and foraging during the short alpine summer (Hayward et al., 2020). As one of the highest-elevation breeding songbirds in North America, the Black Rosy-Finch nests in isolated alpine cliffs and talus (Johnson, 2002). It is highly vulnerable to both climate shifts and disturbance. Mountaintop construction would directly eliminate potential nesting habitat and accelerate localized decline. Given the species' restricted range and declining population trends, loss of even marginal habitat may have disproportionate consequences for its long-term viability. (720.4)

Thank you for your comment concerning the effects of the proposed projects and Mono Trees and South Bowl expansions on the black-rosy finch. Please refer to **pages 303** and **330-331** of the **Final EIS**, and **pages 129-133** of the **Wildlife Biological Evaluation**, for more information on project-specific effects on the black-rosy finch.

On **pages 133-134** of the **Wildlife Biological Evaluation**, it is stated that, "the clearing and thinning of forest habitat for trails, lifts, and glades may also result in the removal of nest sites. Project Design Criteria would minimize the likelihood of impacts to nesting birds" (such as the black-rosy finch). Furthermore, on **page 330** of the **Final EIS**, it is mentioned that "All the Action Alternatives would result in a decrease in habitat available for nesting migratory birds. Construction activities associated with the Action Alternatives during the spring and summer nesting season could disturb nesting adults, if nests occur within the zone of influence of the projects. If disturbance occurs prior to fledging of the nestlings, it may result in abandonment of the nest by adults, and subsequent mortality of nestlings. The clearing and thinning of forest habitat for trails, lifts, and glades may also result in the removal of nest sites. Specifically, under Alternative 4, rock outcrops within South Bowl may provide potential nesting habitat for golden eagles, while alpine meadows near rock talus and cliff could support other migratory birds such as the black rosy-finch…However, some bird species may cease nesting within areas of the proposed projects (after implementation) due to disturbance and habitat loss/degradation. Therefore, all the action alternatives have the potential to impact individuals at the local level; however, all action alternatives are unlikely to substantially impact populations."

Table 2.4-1 Project Design Criteria on **page 51** of the **Final EIS** includes the following wildlife and fish-specific mitigation measures, which would mitigate impacts to migratory birds such as the black rosy-finch: "Vegetation clearing activities are generally planned to occur outside of the migratory bird nesting period, which is typically from May 15 to July 15. If vegetation clearing activities must occur during the nesting period, U.S. Forest Service personnel (or individuals deemed qualified by the Forest Service) would conduct nest searches in appropriate habitats prior to the commencement of the vegetation clearing activities. The exact area to be surveyed would be based on the scope of the surface disturbance activities, the habitat to be disturbed, and the potential species to be impacted. If nesting migratory birds occur, the Forest Service would delineate appropriate buffers and halt construction within the buffers until the nesting is complete."

No edits were made to the **Final EIS** in response to this comment.

16.62 The proposed expansion of Grand Targhee Resort into the South Bowl area poses significant risks to the local peregrine falcon (Falco peregrinus) population, particularly due to the proximity of known nesting sites in Teton Canyon. This area contains cliff outcroppings and open habitat types that are ideal for both nesting and foraging falcons. Research has shown that peregrine falcons are especially sensitive to disturbance during the breeding season, with human activity near nesting sites often resulting in nest abandonment or reduced fledging success (White et al., 2002; Holthuijzen et al., 1990). The South Bowl's terrain offers prime nesting habitat, and increased noise, construction, and recreational use associated with the expansion may lead to significant behavioral disruptions, potentially displacing falcons from this critical habitat (Ruddock & Whitfield, 2007). (711.21) (484.23)

Please refer to the wildlife **RTC 16.1, 16.2, 16.3,** and **16.4** for more information. Additionally, please refer to Forest Plan Amendment **RTC 3.1** and noise **RTC 6.1** for more information.

Pages 322-323 of the **Final EIS** and **pages 77-80** of the **Wildlife Biological Evaluation,** it is described that peregrine falcons were given the "*May Impact Individuals or Their Habitat, but Will Not Likely Contribute to a Trend Toward Federal Listing or Loss of Population Viability*". This determination was selected based on the proposed projects potential to disturb peregrine falcon nesting and foraging behavior in and near the project area. However, the abundance of cliff habitat in nearby Teton Canyon suggests that nesting habitat is not limited. Numerous eyries have been documented throughout the *1997 Forest Plan* area. Therefore, nesting habitat outside the impact area and widespread occurrence of falcons Forest-wide would continue contributing to peregrine falcons on a population level.

On **page 322** of the **Final EIS** and **page 78** of the **Wildlife Biological Evaluation,** it is stated that, "Grading and vegetation clearing in foraging habitat may remove some habitat or impact prey availability; however, clearing of forested areas for the proposed projects would increase open areas and could result in a net gain of potential foraging habitat for peregrine falcons in portions of the project area. Noise and activity during construction activities or ongoing disturbance from new recreation-related activities (e.g., skier use, grooming, avalanche control, hiking, mountain biking, and maintenance activity) could adversely modify peregrine falcon nesting and/or foraging behavior. However, recreation activity is currently high year-round in Teton Canyon, and peregrine falcon use of habitat in the area indicates that the falcons in the canyon might be somewhat tolerant of human activity."

In **Appendix B. Forest Plan Consistency Analysis**, on **pages 466-467** of the **Final EIS**, the project is deemed consistent with Wildlife/Peregrine Falcon Habitat Section Standards and Guidelines #2, mentioning that there are no known peregrine falcon nest sites within the project area; however, the project area contains suitable nesting habitat for the species. However, the project is deemed inconsistent with Wildlife/Peregrine Falcon Habitat Section Standards and Guidelines #1 and #3, stating, "There are no known peregrine falcon nest sites within the project area; however, the project area contains suitable nesting habitat for the species. In the past the species has nested and fledged its young in the Apostles eyrie, which is located in Teton Canyon only 0.12 miles south of the project area. The Apostles eyrie was last occupied by nesting peregrine falcon in 2008. However, the proposed projects would bring increased noise and activity closer to potential and historical nesting habitat in Teton Canyon which could deter or disrupt nesting behavior of Peregrine Falcons during March 15 to July 31. However, the abundance of cliff habitat in nearby Teton Canyon suggests that nesting habitat is not limited, and numerous eyries have been documented throughout the *1997 Forest Plan* area. Idaho Fish and Game, Wyoming Game and Fish,

and the Forest Service observation data also shows that peregrine falcons are widespread throughout the Targhee Planning Area. Additionally, through the incorporation of PDC as identified in **Table 2.4-1** prevention of vegetation removal during the migratory bird nesting period would minimize impacts, and nesting surveys would be completed prior to construction to minimize impacts. Inclusion of these PDC would minimize impacts to peregrine falcon. ”

In **Appendix C. Forest Plan Amendments** on **pages 542-543** of the **Final EIS**, it is mentioned that a project-specific Forest Plan Amendment is proposed to exempt the action alternatives from Peregrine Falcon Habitat Standard #3. The effects associated with this amendment and implementing the proposed projects would be most severe under alternatives that include expansion of the SUP boundary, because the expansion areas encroach further into Teton Canyon. Peregrine Falcon Habitat Standard #3 reads as follows: “*Restrict climbing and other human disturbances from March 15 through July 31 to avoid adverse impacts at known falcon nest sites.*”

Table 2.4-1 Project Design Criteria on **page 51** of the **Final EIS** includes the following wildlife and fish-specific mitigation measures, which would mitigate impacts to migratory birds such as the peregrine falcon: “Vegetation clearing activities are generally planned to occur outside of the migratory bird nesting period, which is typically from May 15 to July 15. If vegetation clearing activities must occur during the nesting period, U.S. Forest Service personnel (or individuals deemed qualified by the Forest Service) would conduct nest searches in appropriate habitats prior to the commencement of the vegetation clearing activities. The exact area to be surveyed would be based on the scope of the surface disturbance activities, the habitat to be disturbed, and the potential species to be impacted. If nesting migratory birds occur, the Forest Service would delineate appropriate buffers and halt construction within the buffers until the nesting is complete.”

No edits were made to the **Final EIS** in response to this comment.

16.63 As discussed earlier in these comments, a South Bowl expansion would also harm peregrine falcons in Teton Canyon by impacting, and likely eliminating, eyries. Simply put, we do not support exempting this project from long-established forest plan protections for peregrine falcons. The relevant forest plan standard provides for a limited, seasonal restriction of human disturbance from March 15 through July 31 to avoid adverse impacts to falcon nest sites during a crucial phase of the species’ nesting cycle. The Forest Service has failed to adequately explain why this project should be exempted from this narrowly tailored forest plan standard. The Forest Service should reconsider whether the proposed forest plan amendment exempting the project from this necessary protection for peregrine falcons is actually necessary for the project, or whether it is just a mere matter of convenience for the benefit of Grand Targhee outweighing the potentially serious harm that may result to peregrine falcons in Teton Canyon. (471.22) (1b.3)

Thank you for your comment concerning the proposed project's effects on peregrine falcons. Please refer to **pages 322-324** of the **Final EIS** and **pages 75-77** of the **Wildlife Biological Evaluation**, where consistency with the 1997 Forest Plan is discussed.

No edits were made to the **Final EIS** in response to this comment.

16.64 Furthermore, the presence of two known eyries near the South Bowl underscores the sensitivity of this area to human disturbance. Studies have consistently documented that peregrine falcons exhibit heightened sensitivity to activity within approximately 400 meters of their nesting sites, particularly during courtship and incubation periods (Steenhof et al., 2014). The increased activity associated with the proposed action could lead to altered nesting or foraging behavior, reducing reproductive success and site fidelity. Additionally, the requirement for a project-specific amendment to the 1997 Forest Plan to exempt the project from Peregrine Falcon Standard 2 reflects a troubling shift away from scientifically grounded wildlife protection and a prioritization of recreation over wildlife that is not supported in the Forest Plan. Permitting such an exemption not only contradicts conservation best practices but also sets a precedent that may erode protections for other sensitive species and habitats in the region. (484.24)

Thank you for your comment concerning the proposed project's effects on peregrine falcons. Please refer to **pages 322-324** of the **Final EIS** and **pages 75-77** of the **Wildlife Biological Evaluation**, where consistency with the 1997 Forest Plan is discussed. Additionally, an overall analysis of peregrine falcons is discussed on **pages 73-80** of the **Wildlife Biological Evaluation**.

No edits were made to the **Final EIS** in response to this comment.

16.65 The Teton Canyon portion of the proposal causes numerous concerns. The south facing aspect is not favored due to sun exposure. There are also several cliffs in the area that will cause potential problems for unexpecting/inexperienced users. The additional avalanche exposure adds a challenge and with the exposure, sun induced slide activity could be an issue. At present this area has become an escape from the in-boundary area for backcountry users to access the bottom of Teton Canyon. If in fact there is some sort of unwritten policy that the area is not supposed to be accessed at times during the winter months, that policy is grossly disregarded. The area is accessed throughout the winter when adequate snow exists and has become a private area for those that are aware that it exists. It is no surprise that there are some users that are against any expansion into the South Bowl as it has become their own private ski area. If there is really a concern about wildlife use of this area, the Forest Service needs to educate and enforce the exclusion. It is a little hypocritical to be so concerned about the ski area expansion into this area because of wildlife concerns and then knowingly allow people to ski the area. A series of closure gates with wildlife concerns would educate and will decrease the number of violators that are attracted to the area. Gate could be opened when there is no longer an issue. (702.5)

Thank you for your comment regarding the project's impact on wildlife species that use the south-facing slopes of Teton Canyon. On **pages 285-303** of the **Final EIS** it is acknowledged that south-facing slopes above Teton Canyon, including South Bowl and the slopes between the resort and the canyon, are key seasonal and movement habitats for bighorn sheep, mule deer, moose, elk, and other species. However, the **Final EIS** provides a comprehensive analysis of wildlife resources, supported by systematic surveys, scientific literature, habitat modeling, and consultation with state wildlife agencies, in which determinations of effects are analyzed. Furthermore, **page 116** of the **Wildlife Biological Evaluation** states, "Impacts would be most significant under Alternative 2 due to the extent of development and vegetation clearing proposed in the Mono Trees and South Bowl expansion areas (which contain higher

quality, undeveloped habitat on south facing slopes that may be used by mule deer in difficult winter month or during migration)."

The commenter expresses concerns related to the existing backcountry use of South Bowl/ Teton Canyon, and suggests closure gates in this area to deter use. On **page 210** of the **Final EIS**, it is stated that, "PDC are intended to create enforceable closures by GTR that prohibit guests from accessing the JSW through non-designated access points as is done under existing conditions. Signage, rope lines, and measures such as those preventing guests from bringing overnight bags on lifts would be designed around new project components and continue to be enforced."

Table 2.4-1 Project Design Criteria on **page 55** of the **Final EIS** includes the following general mitigation measures, which would mitigate impacts to wildlife imposed by backcountry use: "GTR will develop an Operations and Boundary Plan to guide users exiting from the permit boundary to the adjacent backcountry terrain through logical and safe exit points. This plan should describe both physical closures and operational measures to be taken. Prior to implementation of any activities authorized by this decision, this plan shall be reviewed by the Forest Service. This plan will be finalized and incorporated into the operating plan prior to the operation of lift served terrain in South Bowl and Mono Trees. Boundary post and rope line installation shall utilize the same technique which has been developed for use elsewhere within GTR's existing SUP boundary. "

No edits were made to the **Final EIS** in response to this comment.

16.66 The DEIS documents outline the many impacts to wildlife habitat of USFS Sensitive Species that will occur as the mature forest (and its regrowth potential) is degraded or lost, and human activities overtake and overwhelm natural systems. Of particular concern are boreal owls, flammulated owls, goshawk, and three-toed woodpecker, and possibly Columbia spotted frogs. Human manipulation of this area is a serious blow to habitat and habitat connectivity needed by lynx and other species including highly valued ungulates (moose, elk). (697.14)

Thank you for your comment concerning the proposed project's effects on wildlife habitat and Forest Service Region 4 sensitive species. Please refer to **pages 14-107** in the **Wildlife Biological Evaluation** which discuss impacts to Region 4 Sensitive Species, **pages 107-122** in the **Wildlife Biological Evaluation** which analyze impacts to species of local concern, and **pages 39-59** in the **Biological Assessment** which discuss effects to federally listed species.

Furthermore, regarding species with a preference to mature forest habitat types, **Table 3.12-3. Estimated Percentage of Late Seral and Old Growth Within TPW19 and TPW 20** on **page 259** of the **Final EIS,** and **pages 2-3** of the **Late Seral and Old Growth Assessment,** provide a quantification of existing old growth and late seral stage stands in the Teton Creek and Leigh Creek Watersheds including discussion of proposed impacts as a result of the Action Alternatives. Additionally, a Vegetation Analysis for the Targhee National Forest Lynx Analysis Unit is provided to summarize the impacts to late and seral old growth with considerations to habitat.

Additionally, **Appendix C. Forest Plan Amendments** on **page 449** of the **Final EIS**, the project is deemed consistent with Vegetation Standard and Guidelines #6A1-#6A3, stating: "The proposed project area includes Teton Creek (TPW 19) and Leigh Creek (TPW 20) watersheds. Resource analysis utilizing the best available data has determined that all action alternatives would impact less than a percent of the

late seral and old growth stands in these watersheds. The 20 percent or more threshold of old growth and late seral stands within the study area TPWs would be maintained or negligibly impacted by the action alternatives under a variety of modeling scenarios utilizing the best available existing and reliable data; therefore, indicating compliance with this guideline for TPW 19 and TPW 20 as described in Vegetation Section Standards and Guidelines #6, Old Growth and Late Seral Forest Stages, Guideline A (page III-12)."

In **Appendix C. Forest Plan Amendments** on **pages 516-517** of the **Final EIS**, the project is deemed consistent with Northern Rockies Lynx Management Direction Standards All Standard #1, stating: "Under Alternatives 2 & 5, impacts to lynx habitat would each affect 0.5% of suitable habitat within the Teton Creek LAU, and less than 0.01% in the Badger Creek LAU. This impact would be minimal at the scale of either LAU, because snowshoe hare abundance is currently low in the impacted areas, thus lynx most likely do not use these areas for forage under current conditions. Rather they are most likely to use these portions of the analysis area for travel to more suitable forage and/or denning areas. Lynx would be expected to continue to travel through these areas at night, outside of winter operational hours, during the winter. There is still abundant suitable lynx habitat present to the west of the new SUP boundary to provide connectivity within or between both LAUs. Under Alternatives 3 & 4, 0.05% of lynx habitat would be impacted in Teton Creek LAU, and less than 0.01% in Badger Creek."

Appendix C. Forest Plan Amendments on **page 518** of the **Final EIS**, the project is deemed consistent with Northern Rockies Lynx Management Direction Guideline Human Use Guideline #1, stating: "As described under the response to Standard ALL S1, projects under the Proposed Action would maintain habitat connectivity within the Teton Creek LAU and between this and other LAUs. The Proposed Action is consistent with Guideline #6 of the *1997 Forest Plan*, as the 20 percent or more threshold of old growth and late seral stands within the study area TPWs would be maintained or negligibly impacted under all modeling scenarios, utilizing the best available existing and reliable data.

Pages 258-280 of the **Final EIS** describe the seral, late seral and old growth, and late seral/potential old growth forests that would be impacted under the proposed action in relation to their role as habitat for Region 4 Forest Service Sensitive Species.

Page 319 of the **Final EIS** describes that within the delineated 3,600-acre boreal owl home range, approximately 2,189 acres, or 61 percent, consists of late seral or late seral/potential old growth forest stands. Impacts of the Proposed Action would reduce the percentage of late-seral forest in the home range to 59 percent, maintaining the 40 percent threshold required by the *1997 Forest Plan*.

Page 320 of the **Final EIS** describes that the Teton Creek LAU contains 10,530 acres of late seral, late seral and old growth, and late seral/potential old growth forests, and only 2 percent would be impacted by the Proposed Action. Further, the Targhee Species Viability Study estimates that about 290,533 acres of habitat (habitat classified as very good, good, or moderate) with potential to support flammulated owls occur in the Targhee Planning Area.

Page 321 of the **Final EIS** describes that within the delineated American goshawk foraging area, approximately 84 percent currently consists of mature or late seral forest, which provides potential nesting habitat for goshawks. Under the Proposed Action, 269 acres of this forest would be impacted. Mature or late seral forest cover would be reduced to 79 percent of the total foraging area, which is well over the 40 percent threshold required under *1997 Forest Plan*.

The following text was added to **page 258** of the **Final EIS** to highlight the significance of late seral and old growth forests as habitat for numerous species: "Old growth forests are ecosystems distinguished by old trees and related structural attributes; old growth encompasses the later stages of stand development that typically differs from earlier stages in a variety of characteristics including tree size, accumulations of large dead woody material, number of canopy layers, species composition, and ecosystem function."

16.67 Do amphibians persist in the existing water treatment area? I recall that western tiger salamanders were found in the sewage lagoon long ago in the past (1990s), which would likely indicate there are or were connections to other amphibian-inhabited areas in or near the SUP. (697.11)

Thank you for your comment regarding the effects of the proposed projects on amphibians. Direct and indirect effects on these species are discussed on **pages 87-91** and **92-95** of the **Wildlife Biological Evaluation**. Although the **Final EIS** and 1997 Forest Plan do not contain a specific guideline or standard for amphibians, **pages 348-349** of the **Final EIS** describe BMPs #1-#3, which emphasize avoiding wetlands and riparian areas during construction and implementation.

Regarding amphibians such as the western tiger salamander, this species was not included in this analysis because it is not identified as a Region 4 Sensitive Species, a species of local concern, or a federally listed species. **Table 3.16-2 AIZ Boundary Widths (from high water mark) by Water Type** on **page 369** of the **Final EIS** summarizes a 5-acre unnamed wastewater lagoon, which would include a 150-foot AIZ width for the Teton Range Subsection. This indicates that this hydrological feature was included in the analysis and impacts were summarized in **pages 325-326** of the **Final EIS.**

The following text was added to **pages 325-326** of the **Final EIS**, to summarize the analysis conducted in the **Wildlife Biological Evaluation** and the **Wetland Technical Report**: "Additionally, the **Wildlife Biological Evaluation** and **Wetland Technical Report** demonstrate that small wetlands and potential amphibian breeding habitat in South Bowl and Mono Trees have been systematically identified, mapped, functionally evaluated, and addressed through specific PDC, BMPs, and regulatory permitting requirements. The analysis emphasizes the ecological importance of small wetland features as habitat patches, but concludes that there is a limited extent of these features within the project area, therefore determining they have marginal hydrological suitability as amphibian breeding habitat." The following citation was added to references in the **Wildlife Biological Evaluation**, validating the importance of wetland features within the project area: "Patla, D.A., Peterson, C.R., The slow decline of a Columbia Spotted Frog population in Yellowstone National Park: a cautionary tale from a developed zone within a large protected area. Ecological Indicators 136: 108606. https://doi.org/10.1016/j.ecolind.2022.108606"

16.68 The DEIS did not evaluate the ripple effect of all this construction and then tourist traffic on animals crossing the roads, nor any mitigation efforts to protect animals. (971.4)

Thank you for your comment concerning traffic impacts associated with the proposed project and their effects on wildlife species. Because impacts from traffic on wildlife are described throughout the effects analysis on a species specific basis, please refer to **pages 14-107** in the **Wildlife Biological Evaluation** which discuss impacts to Region 4 Sensitive Species, **pages 107-122** in the **Wildlife Biological Evaluation** which analyze impacts to species of local concern, and **pages 39-59** in the **Biological Assessment** which discuss effects to federally listed species. Specific impacts of traffic on wildlife species are discussed throughout the effects analysis in the **Wildlife Biological Evaluation**, and **pages 107-129** of the **Final EIS**.

No edits were made to the **Final EIS** in response to this comment.

16.69 Rick's Basin is the largest wetland area in the project area. The proposed several miles of new roads and 7 miles of new trails in this area, plus a new Guest Facility with a vault toilet, will likely add to habitat effects of existing modifications and frequent entry of large vehicles for construction and maintenance. The DEIS provides scant information about soil compaction, erosion, changes to water flow and groundwater in this area, but it does raise warning flags about erosion and sediment transport: erosion and soil movement are expected in Rick's Basin (DEIS, p. 41). It would be highly beneficial and rational to try to foresee and avoid problems rather than wait two years for a Drainage Management Plan. Surveys for amphibians are badly needed in Ricks' Basin, along with a serious and sincere attempt to find any previous records of amphibians in or near the project area. (697.10)

Thank you for your comment regarding the effects of the proposed projects on amphibians. Direct and indirect effects on these species are discussed on **pages 87-91** and **92-95** of the **Wildlife Biological Evaluation**. Although the **Final EIS** and 1997 Forest Plan do not contain a specific guideline or standard for amphibians, **pages 348-349** of the **Final EIS** describe BMPs #1-#3, which emphasize avoiding wetlands and riparian areas during construction and implementation.

Please refer to **page 325-327** of the **Final EIS** and **pages 87-91** and **92-95** of the **Wildlife Biological Evaluation**, where direct and indirect effects from the proposed project on amphibians are discussed. No edits were made to the **Final EIS** in response to this comment.

16.70 Specific concerns about amphibian habitat (a) Wetlands shown at the SE side of the proposed South Bowl expansion may be subject to adverse impacts from ski area construction and actions. Small ponds or pools near drainages provide breeding habitat for Columbia spotted frogs, and this may have become an important refuge for frogs displaced from development and heavy use in the Teton Creek drainage. (b) Likewise, the small wetlands in Mono Trees need consideration. Small areas can be extremely important for the persistence of frog and toad populations, but are very easy for managers and resort contractors to ignore, despite knowledge that habitat loss is a prime cause of amphibian declines all over the world. (Patla, D.A., Peterson, C.R., The slow decline of a Columbia Spotted Frog population in Yellowstone National Park: a cautionary tale from a developed zone within a large protected area. Ecological Indicators 136: 108606. https://doi.org/10.1016/j.ecolind.2022.108606. (697.9)

Thank you for your comment regarding the effects of the proposed projects on amphibians. Direct and indirect effects on these species are discussed on **pages 87-91** and **92-95** of the **Wildlife Biological Evaluation**. Although the **Final EIS** and 1997 Forest Plan do not contain a specific guideline or standard for amphibians, **pages 348-349** of the **Final EIS** describe BMPs #1-#3, which emphasize avoiding wetlands and riparian areas during construction and implementation.

Please refer to **page 325-327** of the **Final EIS** and **pages 87-91** and **92-95** of the **Wildlife Biological Evaluation**, where direct and indirect effects from the proposed project on amphibians are discussed. No edits were made to the **Final EIS** in response to this comment.

The following text was added to **pages 325-326** of the **Final EIS**, to summarize the analysis conducted in the **Wildlife Biological Evaluation** and the **Wetland Technical Report**: "Additionally, the **Wildlife Biological Evaluation** and **Wetland Technical Report** demonstrate that small wetlands and potential amphibian breeding habitat in South Bowl and Mono Trees have been systematically identified, mapped, functionally evaluated, and addressed through specific PDC, BMPs, and regulatory permitting requirements. The analysis emphasizes the ecological importance of small wetland features as habitat patches, but concludes that there is a limited extent of these features within the project area, therefore determining they have marginal hydrological suitability as amphibian breeding habitat. " The following citation was added to references in the **Wildlife Biological Evaluation**, validating the importance of wetland features within the project area: "Patla, D.A., Peterson, C.R., The slow decline of a Columbia Spotted Frog population in Yellowstone National Park: a cautionary tale from a developed zone within a large protected area. Ecological Indicators 136: 108606. https://doi.org/10.1016/j.ecolind.2022.108606"

16.71 Information on amphibians in the DEIS and supporting documents is deficient. Wetland surveys by Alder in 2019 did not include searches for amphibians in likely habitat. There is a quick mention of Columbia Spotted Frogs and Western Toads not being detected in "vegetation and aquatic resource surveys" (draft EIS, p. 290), but finding amphibians and their breeding sites (where they are most likely to be detected) takes special training and effort and appropriate conditions/timing; casual observation as evidence of absence is ludicrous. CTNF apparently has no information about the current status of amphibians in the project area nor in the surrounding area of the west slope Tetons. No references are provided for the statements "Western Toads occur throughout many areas of the Teton Range", and "Columbia spotted frogs have been detected throughout the Teton Range" (DEIS, p 290). If records from Grand Teton NP or private lands are being used to make this statement, that should be disclosed. Amphibian dispersal is limited by terrain features, and local breeding populations can be easily lost due to habitat loss and modification; the existence of a population on the other side of the mountains says little or nothing about their status and persistence on the CTNF. (697.8)

Please refer to the wildlife **RTC 16.1**, **16.2, 16.57, 16.67**, and **16.70** for more information.

On **page 299** of the **Final EIS**, it is stated that western toads, "Columbia spotted frogs have been detected throughout the Teton Range. In 1992, Columbia spotted frogs were observed in Teton Canyon in a pond located 0.6 miles south of the project area. Columbia spotted frogs were not detected within the project area during vegetation and aquatic resource surveys in 2019; however, 47.32 acres of wetlands and riparian areas within the project area may provide suitable habitat for the species. Most of these acres (42.26) are in the existing SUP area, with 1.35 acres located in the South Bowl expansion area and 3.71 acres in the Mono Trees expansion area.

On **page 298** of the **Final EIS**, it is stated that western toads "have been detected within 10 miles north, south, and east of the project area in the past, as recently as 2014. Western toads were not observed within the project area in 2019; however, 47.32 acres of wetlands and riparian areas within the project area may provide suitable habitat for the species. Most of these acres (42.26) are in the existing SUP area, with 1.35 acres located in the South Bowl expansion area and 3.71 acres in the Mono Trees expansion area. The current species distribution in Wyoming includes Teton County, with the closest known occurrence to the proposed project being about 6.6 miles to the southeast."

The following text was added to **pages 325-326** of the **Final EIS**, to summarize the analysis conducted in the **Wildlife Biological Evaluation** and the **Wetland Technical Report**: "Additionally, the **Wildlife Biological Evaluation** and **Wetland Technical Report** demonstrate that small wetlands and potential amphibian breeding habitat in South Bowl and Mono Trees have been systematically identified, mapped, functionally evaluated, and addressed through specific PDC, BMPs, and regulatory permitting requirements. The analysis emphasizes the ecological importance of small wetland features as habitat patches, but concludes that there is a limited extent of these features within the project area, therefore determining they have marginal hydrological suitability as amphibian breeding habitat." The following citation was added to references in the **Wildlife Biological Evaluation**, validating the importance of wetland features within the project area: "Patla, D.A., Peterson, C.R., The slow decline of a Columbia Spotted Frog population in Yellowstone National Park: a cautionary tale from a developed zone within a large protected area. Ecological Indicators 136: 108606. https://doi.org/10.1016/j.ecolind.2022.108606"

16.72 There is also a large black bear presence there that would be displaced by destroying 6000 to 20,000 trees. Clearing 89.5 acres would decimate this area for solitude use and for the bear population. I am asking the USFS to please protect our natural resources for the free use of our citizens. Please, I implore you to use your position to save this natural area. (682.2)

The commenter expresses general concern about the project's impact on black bear habitat and the black bears that would be affected. Your concern has been noted. On **page 282** of the **Final EIS** and **page 14** of the **Wildlife Biological Evaluation**, the scope of this analysis describes that species included in the analysis were identified as *federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species, and/or Species of Local Concern (SOLC)*. However, black bears are neither federally listed endangered, threatened, proposed, nor candidate/nor Forest Service Region 4 sensitive fish and wildlife species, nor Species of Local Concern (SOLC).

No edits were made to the **Final EIS** in response to this comment.

16.73 On a natural resources note-- Grizzlies are one of America's greatest animals, and this expansion would reduce their already-shrinking habitat. If bears are forced to move due to the expansion, they will head towards other trails, increasing the likelihood of hikers/runners/bikers experiencing bear encounters on trail. Crucial habitats would also shrink for the Canadian Lynx, owls, bighorn sheep, and dozens-- or HUNDREDS!-- of other species of flora and fauna that rely on this area for their well-being. Based on my above comments, I only support Alternative 1. (679.2)

Thank you for your comment concerning effects from proposed projects on various wildlife species. In regard to species-specific effects analyses, please refer to **pages 316-317** in the **Final EIS** for more information on bighorn sheep, please refer to **pages 310-311** in the **Final EIS** for more information on Canada lynx, please refer to **pages 317-321** in the **Final EIS** for more information on owls, and please refer to **pages 311-312** in the **Final EIS** for more information on grizzly bears,

No edits were made to the **Final EIS** in response to this comment.

16.74 The Draft EIS identifies that there are native fisheries and fisheries habitat existing within the Project area and downstream. The Draft EIS concludes that the fisheries in the Project

area are unlikely to be impacted due to PDC and implementation of BMPs, while those identified as downstream appear to not have been considered as part of the scope of analysis. In light of the stream impairments discussed above, we recommend considering the existing and indirect impacts of the Project to all aquatic resources, and especially for streams that are currently impaired for native fish species. (668.12)

Thank you for your comment concerning the proposed project's effects on fisheries and fisheries habitat. **Table 3.13-2. Region 4 Sensitive Species with Potential Habitat in Project Area** on **pages 290-291** of the **Final EIS** and **Table 1: Region 4 Sensitive Wildlife Species expected to occur within the Caribou-Targhee National Forest** on **pages 15-17** of the **Wildlife Biological Evaluation** identify Yellowstone cutthroat trout as a Region 4 Sensitive Species with "potential habitat" in the Project Area to ensure a complete analysis, however site-specific surveys indicate that fish are not currently present. Additionally, the northern leatherside chub was identified as a Region 4 Sensitive Species but the Project area is outside the species' distribution in Wyoming and does not contain suitable habitat. For more information on the proposed project's effects on the Yellowstone cutthroat trout, please refer to **page 327** of the **Final EIS** and **pages 95-98** of the **Wildlife Biological Evaluation**.

As detailed on **page 4** of the **Wetland Technical Report**: "There are no perennial fish bearing stream reaches within the Project Area. Forest Service conducted electro-fishing surveys in 1998 and Friends of the Teton River conducted electro-fishing surveys in 2005. Both surveys did not find any fish in Mill Creek."

On **page 327** of the **Final EIS** and **page 97-98** of the **Wildlife Biological Evaluation**, it is described that, "the proposed indirect impacts would not alter peak flows or water yields to a large enough degree that they would impact channel morphology function or cause additional erosion downstream in Teton Creek where Yellowstone cutthroat trout habitat exists…Downstream Yellowstone cutthroat trout habitat outside of the project area in Teton Creek would continue to support the species and provide spawning areas. As a result, the Proposed Action *May Impact Individuals or Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability*."

The **Final EIS** and **Wetland Technical Report** explicitly analyzes indirect impacts to downstream resources through the assessment of AIZs and wetland functions. The protection of downstream fisheries (including impaired streams), is predicated on maintaining water quality and hydrologic stability in the headwaters. **Pages 369-370** of the **Final EIS** and **page 5-8** of the **Wetland Technical Report** delineate AIZ buffers applied to protect hydrologic and ecological processes. The potential disturbance to these zones is quantified by alternatives to ensure that downstream flows are not degraded.

On **page 95** of the **Wildlife Biological Evaluation,** it is described that impacts within riparian habitats that could affect the quality of waters within Mill Creek, as well as those further downstream, also have the potential to impact Yellowstone cutthroat trout in downstream waters.

Table 2.4-1 Project Design Criteria on **page 53** of the **Final EIS**, Soils, Geohydrology, Hydrology, and Wetlands-specific mitigations measures are described, which would avoid downstream impacts associated with the proposed alternatives: "Employ a BMP program to protect public water systems (PWSs) that have source water areas located within the permit area. The first BMP approach is to avoid sensitive areas or highly erosive soils to the extent practicable; Next, proven hillslope/land BMPs will be applied to minimize runoff, erosion, and sediment delivery to streams. Lastly, Sediment detention and water settling ponds shall be constructed to minimize runoff and sediment delivery off-site towards downstream

resources. Sensitive areas include the Aquatic Influence Zone (AIZ) near streams or other water features. Involve the PWS managers in the planning and project design."

Table 2.4-1 Project Design Criteria on **page 54** of the **Final EIS**, Soils, Geohydrology, Hydrology, and Wetlands-specific mitigations measures are described, which would avoid downstream impacts associated with the proposed alternatives: "To decommission unnecessary administrative route and trail segments, implement suitable measures to re-establish stable slope contours and surface and subsurface hydrologic pathways where necessary to the extent practicable to avoid or minimize adverse effects to soil, water quality, and riparian resources. These measures include: Removing drainage structures; Recontouring and stabilizing cut slopes and fill material' and Reshaping the channel and streambanks at crossing sites to pass expected flows without scouring or ponding, minimize potential for undercutting or slumping of streambanks, and maintain continuation of channel dimensions and longitudinal profile through the crossing site: Restoring or replacing streambed materials to a particle size distribution suitable for the site; Restoring floodplain function; As necessary, reference AIZ direction contained within the 1996 Forest Plan (Page 11-110)"

On **page 356** of the **Final EIS**, impacts to water quality are described in which "the Proposed Action within the GTR SUP area and South Bowl and Mono Trees areas has the potential to introduce two primary water pollutants, sediment and nutrient contamination, to the Dry Creek and Mill Creek watersheds. These pollutants could have impacts on downstream water and PWS systems…However, it has been determined that due to the large distance between the possible nutrient contamination area and the downstream PWS, the nutrients would likely be taken up by the plants, air, natural bacteria, and soils along the water runoff pathway. These nutrients would then be converted to different forms of nitrates and phosphates that are not threats to water quality and are considered part of the natural nitrogen and phosphorus cycles. Therefore, the likelihood of nutrient contamination being a threat to water quality downstream of the existing and proposed GTR SUP area is low."

The following text was added to **pages 325-326** of the **Final EIS** and **page 89** of the **Wildlife Biological Evaluation**, stating, "Potential indirect effects on downstream aquatic habitat is analyzed within the **Hydrology Technical Report** under impacts to water quality and quantity. These effects would be mitigated by strict adherence to PDCs and BMPs as identified in **Table 2.4-1**, which are effectively designed to minimize sedimentation and maintain hydrological stability in receiving waters."

16.75 Mono Trees lift - I adamantly oppose cutting trees that we DESPERATELY need to sequester carbon and to provide habitat for wildlife. I'm sure you are well aware of the bighorn sheep, moose, elk, wolverines, mountain lions and birds that depend on this area. Our wildlife are already facing enormous challenges with climate change and land development. (120.3)

Thank you for your comment regarding tree cutting associated with the proposed projects and impacts on various wildlife species. For more information on species-specific impacts, please refer to **pages 26-39** of the **Wildlife Biological Evaluation**, which discusses bighorn sheep; refer to **pages 108-111** for a discussion of moose, refer to **pages 117-121** for a discussion on elk, refer to **pages 112-117** for a discussion on mule deer, and refer to **pages 129-134** for a discussion on migratory birds. Additionally, effects to federally listed species from tree cutting and other activities occur throughout the **Biological Assessment**. Overall effects to wolverines are discussed on **pages 48-52** of the **Biological Assessment**.

Page 14 of the **Wildlife Biological Evaluation** describes that the Mono Trees area is currently 98% forested. Under Alternative 2 and Alternative 5, development in the Mono Trees area would impact approximately 202 acres of forest habitat, including 60.96 of complete tree clearing (for the lift line, terminals, and administrative routes) and 158 acres of partial tree removal (40% thinning) for gladed skiing terrain

Page 252 of the **Final EIS**, classifies this loss as an "irretrievable" but not "irreversible" commitment of resources, noting that the capacity could be reversed in the long term if vegetation were allowed to regrow. **Page 252** of the **Final EIS** specifically analyze the loss of carbon sequestration capacity resulting from vegetation removal, and conclude that while vegetation removal contributes to a reduction in sequestration, the overall contribution of the project (including construction and operational emissions) to greenhouse gas levels would represent a less than 0.5 percent increase compared to current statewide emissions and is considered negligible in the context of regional air quality.

No edits were made to the **Final EIS** in response to this comment.

16.76 Despite acknowledging potential impacts to sensitive species such as grizzly bears, wolverines, boreal owls, flammulated owls, and lynx, the DEIS does not include recent, systematic species-specific field surveys to confirm presence, habitat use, or territory boundaries. For example, although known wolverine sightings have occurred in and around GTR, the DEIS relies on generalized assumptions and fails to conduct winter tracking or den surveys to assess use of the project area for wolverines – and the same data is lacking for grizzly bears. Likewise, when field surveys were done, they were often only done for one season, during a limited time window and were taken in 2019 or before, which casts doubt into the validity of the data used for the DEIS analysis. (484.29) (333.3) (462.10) (711.27)

Thank you for your comment concerning impacts from the proposed projects on grizzly bears, wolverines, boreal owls, flammulated owls, and Canada lynx, with specific attention to the recency of the field surveys. For more information on species-specific impacts, please refer to **pages 305-306** of the **Final EIS**, which discusses grizzly bears; refer to **page 306** for a discussion of wolverine, refer to **pages 318-319** for a discussion on boreal owls, refer to **pages 320-321** for a discussion on flammulated owls, and refer to **pages 310-311** for a discussion on Canada lynx. Additionally, as stated on **page 287** of the **Final EIS** surveys for grizzly bears were conducted in 2019 and 2020. As stated on **page 27-29** of the **Biological Assessment** surveys for grizzly bears were conducted in 2004 and 2005. As stated on **page 295-296** of the **Final EIS** surveys for owls were conducted in 2019, and **pages 286-287** of the **Final EIS** indicates that habitat suitability for the Canada lynx was determined by habitat such as presence of snowshoe hares as a food source and boreal forests with high horizontal vegetation.

Additionally, given the survey data that informed this analysis, there is no legal requirement for updating data sources with more recent surveys; however, the following PDCs have been included to complete additional surveys prior to construction.

The following text was added to **page 287** of the **Final EIS,** clarifying regional efforts for documenting grizzly bear presence and occurrence: “In addition to the secure habitat assessment included in this analysis, systematic survey efforts for grizzly bear presence and activity within and adjacent to the project area have occurred in the Teton BAU. Field surveys involved systematic ground-based observations to detect physical evidence of grizzly bear presence, and regional research efforts incorporated long-term

monitoring radio telemetry data from the Interagency Grizzly Bear Study Team. Regionally, human-bear conflict records began in 1999."

The following text was added to **Page 288** of the Final EIS stating: "Additionally, wolverines were incidentally observed during baseline wildlife surveys in 2019 and 2020, and although game cameras deployed in South Bowl during winters 2020, 2021, and 2023 (targeting bighorn sheep) could have detected them, none were recorded. In addition to pre-project surveys and historical telemetry data, the CTNF used elevation, aspect, and vegetation to model potential wolverine denning habitat across the forest.

16.77 The Department agrees with the assessment that the Mono Trees expansion will affect forest-nesting hawks and owls given the detections of various SGCN raptors. We continue to recommend that the survey effort conducted to date be fully justified, as the data are now five years old and are being used to inform decisions on alternative selection and impact analysis. We recommend the following: Update survey effort in the South Bowl and Mono Trees expansion areas; Assess differences between two survey periods for changes and update EIS and supporting documents to accurately reflect current impact potential; If expansion into South Bowl or Mono Trees occurs, conduct additional clearance surveys and apply protections as described to all documented raptor nests. (25b.18)

Thank you for your comment concerning impacts from the proposed projects on nesting raptors, with specific attention to the recency of the field surveys. For more information on species-specific impacts, please refer to **pages 303-331** of the **Final EIS**, which discusses direct and indirect effects on migratory birds. Additionally, as stated on **pages 302-303** of the **Final EIS** surveys for migratory birds were conducted in 2019. Additionally, given the survey data that informed this analysis, there is no legal requirement for updating data sources with more recent surveys; however, the following PDCs as identified in **Table 2.4-1** have been included to complete additional surveys prior to construction.

Furthermore, we value the Department's expertise and agree with the assessment that the proposed Mono Trees expansion has the potential to affect forest-nesting hawks and owls, particularly Species of Greatest Conservation Need (SGCN) such as the Great Gray Owl, Boreal Owl, Flammulated Owl, and American Goshawk. Specifically, the presence of these species in the Mono Trees area and the potential for habitat loss and disturbance are analyzed on **pages 317-325** of the **Final EIS** and **pages 39-72** of the **Wildlife Biological Evaluation**. Furthermore, detailed species-specific analyses, including the delineation of nesting territories, are provided in **Table 9: U.S. Forest Service Sensitive Wildlife Species surveys conducted within and near the Project Area (existing SUP, Mono Trees, and South Bowl) in 2019 and 2020 with methods, timing, location, and survey results**, on **pages 106-107** of the **Wildlife Biological Evaluation**.

Table 2.4-1 Project Design Criteria on **page 51** of the **Final EIS**, wildlife and fish-specific mitigations measures are described, which would impacts to American goshawks and their habitats: "To reduce the likelihood of disturbance to/fatalities of individual American goshawks, no vegetation clearing/construction activities associated with the action alternatives shall occur within the American goshawk designated 200-acre nest area from April 1 to August 15."

Table 2.4-1 Project Design Criteria on **page 51** of the **Final EIS**, wildlife and fish-specific mitigations measures are described, which would impacts to flammulated owls and their habitats: “To prevent disturbance to/fatalities of individual flammulated owls, no vegetation clearing/construction activities associated with the action alternatives shall occur within the flammulated owl designated 30-acre territories from May 1 to August 15.”

Table 2.4-1 Project Design Criteria on **page 51** of the **Final EIS**, wildlife and fish-specific mitigations measures are described, which would impacts to boreal owls and their habitats: “To prevent disturbance to/fatalities of individual boreal owls, no vegetation clearing/construction activities associated with the action alternatives shall occur within the boreal owl designated 30-acre territories from March 1 to August 15.”

Table 2.4-1 Project Design Criteria on **page 50** of the **Final EIS**, wildlife and fish-specific mitigations measures are described, which would impacts to threatened, endangered, and Region 4 sensitive species and/or their habitats owls and their habitats: “If any threatened, endangered, and Region 4 sensitive species and/or their habitats, including nests, not analyzed in this EIS, are identified during project implementation or project operations, actions in the immediate vicinity will be suspended until the Forest Service Wildlife or Fish Biologist or Botanist are contacted. Project implementation may be adjusted, and timing restrictions may be applied, as determined by the Forest Service, to reduce those impacts.”

No edits were made to the **Final EIS** in response to this comment.

16.78 The increased hours of operation and potential for night skiing or other evening activities (such as tubing), as outlined in the Proposed Action, will undoubtedly extend human disturbance into periods when many nocturnal and crepuscular animals are most active. This impact is relevant regardless of the specific expansion area and should be more robustly analyzed, with stricter limitations on operational hours to minimize disruption to wildlife, beyond the general noise mitigation strategies mentioned in Section 3.3 Noise. (358.4)

Thank you for your comment regarding increased hours of operation resulting from the proposed projects and their related effects on nocturnal and crepuscular animals. In regard to project-specific effects on owls and migratory birds, please refer to **pages 309-310** and **pages 317-325** of the **Final EIS** and **pages 39-72** and **pages 122-134** of the **Wildlife Biological Evaluation**.

On **pages 40 and 46** of the **Wildlife Biological Evaluation,** the analysis acknowledges that "Increased night activities, especially those that require lighting (e.g., grooming, night skiing, summer activities, etc.) could be particularly disruptive for nesting or foraging" species. Specifically documented for the great grey owl, the boreal owl, and the flammulated owl.

Additionally, **page 27** of the **Biological Assessment** states that although lynx generally avoid operational boundaries, they may travel through ski areas at night. However, the assessment states that “during night their movements were concerted and focused on travel only” and that “night trail grooming has not been demonstrated to pose an impediment to lynx travel”.

Pages 112-116 of the **Final EIS** describes the effects that each project alternative would have on noise with regard to existing noise levels summarized in **Table 3.3-1. Noise Levels for Common Sources** on **pages 110-111** of the **Final EIS.** Additionally, effects of noise on each federally listed endangered,

threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species, and/or Species of Local Concern (SOLC). are included in section **3.13.4 Direct and Indirect Environmental Consequences** of the **Final EIS**.

Table 2.4-1 Project Design Criteria on **page 50** of the **Final EIS**, wildlife and fish-specific mitigations measures are described, which effects from night lighting would be minimized: "Artificial lighting shall be minimized. All artificial lighting shall be shielded and angled downward to minimize impacts to nocturnal species."

No edits were made to the **Final EIS** in response to this comment.

16.79 The proposed project lies within the Greater Yellowstone Ecosystem, which supports one of the last remaining strongholds for grizzly bears (Ursus arctos horribilis) in the lower 48 states. The Grand Targhee expansion area overlaps with designated critical grizzly bear habitat-zones where human presence remains low and secure for foraging, denning, and seasonal movement. Development of ski infrastructure, a mountaintop restaurant, increased trail access, and year-round human presence will: * Introduce more human-bear conflict risk through unsecured attractants, surprise encounters, and increased human use of bear habitat (Gunther et al., 2004; Schwartz et al., 2010). * Compromise secure habitat by converting important foraging and travel corridors into disturbed or inaccessible terrain (Servheen et al., 2001). * Increase the likelihood of lethal management removals, the leading cause of mortality for grizzly bears in the ecosystem (USFWS, 2017). While grizzly bears have recolonized most parts of the Teton Range, their persistence depends on connected, undisturbed habitat-especially at the periphery of the recovery zone. The proposed expansion undermines those conditions and reverses decades of collaborative conservation gains. (720.2)

Thank you for your comment regarding the proposed project's effects on grizzly bears with specific attention to habitat loss, human-bear conflict, and mortality. For more information on these topics, please refer to **pages 287** and **311-312** of the **Final EIS**, and **pages 45-48** of the **Biological Assessment**.

No edits were made to the **Final EIS** in response to this comment.

16.80 The expansion into areas like the South Bowl, as well as the Mono Trees area, and the increase in lift and trail infrastructure, will inevitably lead to further fragmentation of vital winter range and migration corridors for species such as moose, elk, and mule deer. While a direct figure showing migration corridors isn't explicitly listed in the table of contents, such figures would typically be located within Section 3.13 Wildlife, but are not present. As noted in "A Community Assessment" [hereafter 'Community Assessment'] by local wildland groups (Jackson Hole Conservation Alliance, Teton Backcountry Alliance, Winter Wildlands Alliance, Valley Advocates for Responsible Development, July 2022) and subject experts , the proposed expansion area contains critical winter range and important movement corridors utilized by species such as moose, elk, and mule deer. The DEIS needs to more thoroughly analyze the cumulative impact of all proposed elements on wildlife movement patterns, not just individual components. What is the actual predicted success rate for wildlife to adapt to these new barriers and increased human presence, especially given the analysis of impacts on sensitive species within Section

3.13 Wildlife which frequently notes behavioral changes, habitat displacement, and population level effects from increased disturbance? (358.1) (141.1) (492.1)

Thank you for your comment concerning the proposed project expansions into Mono Trees and South Bowl and associated effects on winter range and migration corridors for ungulates such as moose, elk, and mule deer. Please refer to **pages 107-121** of the **Wildlife Biological Evaluation**, where impacts to big game winter range and movement corridors are discussed.

Pages 303-331 of the **Final EIS** describes the effects that each project alternative would have on each federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species, and/or Species of Local Concern (SOLC). Each section also includes a species-specific discussion of each species movement pattern in comparison with data derived from systematic surveys, scientific literature, and habitat modeling. Additionally, section **3.13.4 Direct and Indirect Environmental Consequences** of the **Final EIS**, describes the cumulative impacts of the all action alternatives on wildlife habitat across the project area.

No edits were made to the **Final EIS** in response to this comment.

16.81 Cumulative Impacts on Biodiversity: Beyond large mammals, the DEIS needs to more comprehensively address the cumulative impacts on the broader biodiversity of the area, including migratory birds, small mammals, and amphibians. Increased snow grooming, tree removal, and altered hydrological patterns associated with development in any new terrain will have cascading effects that are not fully captured or mitigated. For example, while Section 3.13.4 (Wildlife) discusses direct and indirect effects, it often concludes with "minor" or "negligible" impacts for all action alternatives, which I believe is an oversimplification of complex ecological interactions for such significant developments. The Community Assessment (page 16) explicitly highlights the importance of analyzing "Cumulative Impacts" from this project in conjunction with other regional developments, a crucial consideration often underestimated. (358.6) (462.9) (769.4)

Thank you for your comment concerning cumulative impacts on biodiversity with specific attention to the proposed project's effects such as grooming, tree removal, and altered hydrological patterns on migratory birds, small mammals, and amphibians. For species specific analyses of direct, indirect, and cumulative effects associated with the project please refer to the **Wildlife Biological Evaluation**: please refer to **pages 87-91** and **92-95** for impacts on amphibians, please refer to **pages 122-134** for impacts on migratory birds, and please refer to **pages 107-122** for impacts on species of local concern.

No edits were made to the **Final EIS** in response to this comment.

16.82 Vegetation clearing during nesting season will harm migratory birds, violating Migratory Bird Treaty Act protections. (457.90)

Thank you for your comment regarding the vegetation associated with the proposed projects, their impacts on migratory birds, and compliance with the Migratory Bird Treaty Act. Please refer to **page 283** of the **Final EIS**, and **page 122** of the **Wildlife Biological Evaluation** the project's compliance with the Migratory Bird Treaty Act is described stating the following: "A Memorandum of Understanding (MOU) was signed by the Forest Service with the USFWS to promote the conservation of migratory birds. The Migratory Bird Treaty Act prohibits the killing, capture, "take", or otherwise harming of birds listed as

migratory. Migratory birds, as well as their nests and eggs, are protected by the Migratory Bird Treaty Act, including songbirds, waterfowl, raptors, and shorebirds. Birds of Conservation Concern are identified for Bird Conservation Regions in a list published and maintained by the USFWS, Division of Migratory Bird Management.229 The CTNF is located within the Northern Rockies Bird Conservation Region (BCR 10). Partners in Flight (PIF) also published a watch list of Species of Continental Concern for the Continental United States and Canada."

Additionally, please refer to **Table 2.4-1 Project Design Criteria** on **pages 51** of the **Final EIS** for specific mitigation measures pertaining to nesting birds and vegetation clearing activities: "Vegetation clearing activities are generally planned to occur outside of the migratory bird nesting period, which is typically from May 15 to July 15. If vegetation clearing activities must occur during the nesting period, U.S. Forest Service personnel (or individuals deemed qualified by the Forest Service) will conduct nest searches in appropriate habitats prior to the commencement of the vegetation clearing activities. The exact area to be surveyed will be based on the scope of the surface disturbance activities, the habitat to be disturbed, and the potential species to be impacted. If nesting migratory birds occur, the Forest Service will delineate appropriate buffers and halt construction within the buffers until the nesting is complete. "

No edits were made to the **Final EIS** in response to this comment.

16.83 In regard to wildlife, I fully acknowledge that I am no expert. That being said, I cannot reasonably believe that 866 acres for winter recreation adjacent to 434,000 acres of protected wilderness and National Parkland could somehow extinct any animal species in that ecosystem. In reading the results of the study, it seems that a "may affect" certain species was cited. One of the animals in that category was the grizzly bear. Our own officials in Wyoming, Idaho and Montana have argued the grizzly bear should be delisted as populations have sufficiently recovered. I trust the resort will cut down the minimum amount of trees to achieve their plans and their stewardship of the forest within Mono Trees might actually achieve a positive outcome in decreased wildfire risk. I appreciate that we're trying to protect wildlife as well as plant life in the ecosystem, but advocate for the approval of the South Bowl and Mono Trees SUP expansion as necessary to the future of Grand Targhee as a viable stand-alone resort and believe that the DEIS shows effective mitigation on this topic. (416.4)

Thank you for your comment. We have noted your concern.

No edits were made to the **Final EIS** in response to this comment.

16.84 I believe the analysis in the DEIS on the impacts to plants and animals in the proposed expansion areas is inadequate. The amount of noise generated during construction and operation will be significant and adversely impact animals in the proposed expansion areas and outside. (453.1) (457.97) (729.15)

Thank you for your comment regarding noise impacts on wildlife. These effects are discussed on a species-specific level in the **Biological Assessment** and **Wildlife Biological Evaluation**. Please refer to **pages 14-107** in the **Wildlife Biological Evaluation** which discuss impacts to Region 4 Sensitive Species, **pages 107-122** in the **Wildlife Biological Evaluation** which analyze impacts to species of local concern, and **pages 39-59** in the **Biological Assessment** which discuss effects to federally listed species.

No edits were made to the **Final EIS** in response to this comment.

16.85 The potential impacts of avalanche mitigation on wildlife and vegetation are not fully explored. (457.27) (487.1)

Thank you for your comment concerning the impacts of avalanche mitigation on wildlife and vegetation. **Page 189** of the **Final EIS** explicitly describes the avalanche mitigation techniques proposed for the South Bowl area, which includes the use of explosives, installation of two avalaunchers at the base of the South Bowl Lift to disrupt unstable snowpack, along with other ski patrol operations including bootpacking, winch cat operations for snowcat compaction, and other commonly used techniques. Additionally, impacts of avalanches mitigation under all action alternatives are described on a species-specific basis in section **3.13.4 Direct and Indirect Environmental Consequences** on **pages 303-331** of the **Final EIS**. Additionally, please refer to the vegetation **RTC 15.1** for more information on avalanche impacts on vegetation, and please refer to the wildlife **RTC 16.78** for more information regarding the effects of noise on wildlife species.

On **page 313** of the **Final EIS**, it is described that, "Both of these action alternatives would include direct avalanche control into South Bowl. Avalanches pose a threat to wolverines under both natural and controlled conditions. Avalanches currently occur in South Bowl and pose an existing threat of mortality to wolverines. If South Bowl is added to the SUP Area and control efforts begin, avalanches could be of less severity but could occur more frequently. Were a wolverine to be caught and killed by a management induced avalanche, this would no longer be considered a chance occurrence but would be directly induced by the addition of South Bowl to the SUP Area. Therefore, since an individual wolverine could be killed by a management-induced avalanche, implementation of Alternatives 2 or 4 *may affect and is likely to adversely affect* individual wolverines."

On **page 316** of the **Final EIS**, it is described that, "Disturbance from avalanche control activities (e.g. use of explosives) particularly within the proposed South Bowl area is also likely to impact bighorn sheep. The effect of avalanche explosives on bighorn sheep or other ungulates has not been well studied but given that Teton Range bighorn sheep avoid human activity in the winter, noise-intensive avalanche mitigation activities are likely to further deter bighorn sheep from using habitat in South Bowl. Mortality could potentially result from avalanches caused by control activities as well. Avalanche mitigation in South Bowl may also further restrict movement of bighorn sheep to the Apostle Cliffs mineral lick in Teton Canyon and potentially deter use of nearby habitat if the noise is a strong deterrent."

No edits were made to the **Final EIS** in response to this comment.

16.86 In addition, if the Mono Trees expansion area is approved, we request that CTNF prohibit Grand Targhee from conducting avalanche control activities within their permit boundary that purposely initiate avalanches which run outside of the permit boundary (which has become current practice in South Bowl). Initiating avalanches along the south side of the proposed Mono Trees expansion area could cause direct mortality to bighorn sheep, mule deer, elk, moose, and other wildlife in Teton Canyon outside of the permit boundary. (25b.12)

Thank you for your comment concerning the impacts of avalanche mitigation on wildlife. Impacts of avalanches mitigation under all action alternatives are described on a species-specific basis in section **3.13.4 Direct and Indirect Environmental Consequences** on **pages 303-331** of the **Final EIS**. **Page**

189 of the **Final EIS** explicitly describes the avalanche mitigation techniques proposed for the South Bowl area, which includes the use of explosives, installation of two avalaunchers at the base of the South Bowl Lift to disrupt unstable snowpack, along with other ski patrol operations including bootpacking, winch cat operations for snowcat compaction, and other commonly used techniques.

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No edits were made to the **Final EIS** in response to this comment.

16.87 Moose and mule deer would be displaced from key foraging, winter range, and migratory corridors in both South Bowl and Mono Trees, undermining their viability. (462.5)

Thank you for your comment concerning the proposed project expansions into Mono Trees and South Bowl and associated effects on winter range and migration corridors for ungulates such as moose, elk, and mule deer. Please refer to **pages 107-121** of the **Wildlife Biological Evaluation**, where impacts to big game winter range and movement corridors are discussed.

Pages 303-331 of the **Final EIS** describes the effects that each project alternative would have on each federally listed endangered, threatened, proposed, or candidate and/or Forest Service Region 4 sensitive fish and wildlife species, and/or Species of Local Concern (SOLC). Each section also includes a species-specific discussion of each species movement pattern in comparison with data derived from systematic surveys, scientific literature, and habitat modeling. Additionally, section **3.13.4 Direct and Indirect Environmental Consequences** of the **Final EIS**, describes the cumulative impacts of the all action alternatives on wildlife habitat across the project area.

No edits were made to the **Final EIS** in response to this comment.

16.88 Expansion into the Mono Trees area poses potential negative impacts to Canada lynx (Lynx canadensis) by degrading and fragmenting over 230 acres of suitable foraging and dispersal habitat. Lynx depend on large, connected tracts of structurally complex forest with dense understory for effective hunting and cover (Ruggiero et al., 2000; Squires et

al., 2010). Even small-scale forest removal and human disturbance can reduce habitat effectiveness and create barriers to movement, particularly near the southern edge of the species' range where populations are more fragmented (Interagency Lynx Biology Team, 2013). The proposed expansion, which includes vegetation clearing, trail construction, and increased recreational use, would reduce habitat suitability and increase edge effects, potentially impairing lynx connectivity across the broader Caribou-Targhee landscape. This is inconsistent with the conservation direction outlined in the Canada Lynx Conservation Assessment and Strategy, which emphasizes protecting potential linkage zones and minimizing disturbance in suitable habitat. (484.33) (462.6) (711.32) (916.13) (688.5) (689.5)

Please refer to the wildlife **RTC 16.1, 16.2, 16.3, 16.4, 16.66, 16.73, 16.78, and 16.80** for more information. Additionally, please refer to noise **RTC 6.1** for more information.

When considering the project's impact on Canada Lynx, **pages 286-287** of the **Final EIS** and **pages 39-45** of the **Biological Assessment** provide a detailed summary of the habitat overlapping with the proposed projects. For instance, this section identifies the proposed projects to occur within the Teton Creek and Badger Creek Lynx Analysis Units. Additionally, this section mentions that site-specific horizontal cover assessments were conducted in Mono Trees and South Bowl to quantify the effectiveness of mapped lynx habitat in these areas. The majority of the current GTR SUP Area (about 2,148 acres) is located within the Teton Creek LAU, with the approximate 2,148 acres totaling about 6.5 percent of the LAU. About 405 acres of the Badger Creek LAU overlaps the northern portion of the SUP Area. The 405 acres total less than one percent of the area encompassing the Badger Creek LAU.

Pages 310-311 of the **Final EIS** and **pages 19-27** of the **Biological Assessment** describe the conversion of suitable lynx habitat mapped to linkage areas or non-habitat within the identified Teton Creek and Badger Creek LAUs. It was determined that both Mono Trees and South Bowl currently do not function as quality foraging habitat for lynx, since the horizontal cover is low and there were minimal snowshoe hare detections. This section also describes the impact that would result from the proposed projects, in which the consequences to lynx habitat would be greatest under Alternatives 2 and 5, cumulatively adding to the net effects of habitat conversion that have occurred within both LAUs. However, increased traffic volumes on Ski Hill Road and Teton Pass would not be expected to lead to a measurable increase in the probability of lynx mortality on either road, and both Mono Trees and South Bowl would continue to provide for lynx movements within and between LAUs.

On **page 305** of the **Final EIS** and **pages 44-45** of the **Biological Assessment,** describes the effects determination made for Canada Lynx in which it is mentioned that, "Recreation associated with GTR may cause decreased prey availability or alter lynx movement within and between LAUs. The cumulative effect of increased traffic on Teton Pass and Ski Hill Road would play a small role in increasing habitat impairment for Canada lynx…Removal of trees and brush and mowing to maintain ski terrain, facilities, and summer trail may modify lynx habitat from year to year but continual regrowth likely keeps value and availability of lynx habitat in the project area steady under current practices. Ongoing maintenance activities at GTR may also deter use of the area during certain times of year due to noise or heavy machinery when trails are being groomed, mowed, etc. to ensure safety and quality recreation. Therefore, a determination of *may affect, but is not likely to adversely affect*, was reached for the Canada lynx under the No Action Alternative. Any potential effects under this alternative would be far less than any of the action alternatives."

In **Appendix B. Forest Plan Consistency Analysis**, on **pages 516-521** of the **Final EIS**, the project is deemed consistent with Northern Rockies Lynx Management Direction section Standard All #1, Guideline All #1, Standard LAU #1, as well as Human Use Guideline #1-#12, and Linkage Areas Standard #1, and Guidelines #1 and #2.

Additionally, on **pages 283-284** of the **Final EIS**, it is mentioned that the Northern Rockies Lynx Management Direction Amendment determines that standards are applied only to vegetation management activities that have the potential to directly affect snowshoe hare prey and thus may impact lynx at the population level. Other activities that may have possible adverse effects on individual lynx are subject to guidelines. Any deviations from guidelines would be considered only after analysis of site-specific conditions, and in compliance with ESA Section 7 consultation requirements.

No edits were made to the **Final EIS** in response to this comment.

16.89 The expansion area includes habitat used by Northern Goshawk, Great Gray Owl, Boreal Owl, and Flammulated Owl. These species rely on intact forest structure, prey availability, and low disturbance thresholds to nest and hunt. The removal of mature forest and the introduction of infrastructure-related noise and lighting will degrade this habitat and impact species viability. (462.8) (720.5) (462.7)

Thank you for your comment regarding the proposed projects and their related effects on raptors. In regard to project-specific effects on owls and migratory birds, please refer to **pages 309-310** and **pages 317-325** of the **Final EIS** and **pages 39-80** and **pages 122-134** of the **Wildlife Biological Evaluation**. More specifically, the **Wildlife Biological Evaluation** discloses potential impacts to goshawks on **pages 62-72**, flammulated owls on **pages 53-60**, boreal owls on **pages 45-53**, and great gray owls on **pages 40-44**.

No edits were made to the **Final EIS** in response to this comment.

16.90 The proposed expansion into the Mono Trees area would significantly impact boreal owls (Aegolius funereus), a Forest Service Sensitive Species that relies on mature, undisturbed conifer forests for nesting and roosting. Boreal owls were detected at 6 of 18 surveyed locations in 2019 within the Mono Trees and existing SUP area, and two active nesting areas were identified. The Proposed Action would directly impact 25.2 acres within these critical nesting zones, primarily through vegetation removal and the introduction of recreation infrastructure. Additionally, recreational development would bring sustained human presence into close proximity to at least two known boreal owl territories, potentially disrupting nesting success. Boreal owls are particularly sensitive to habitat fragmentation and human disturbance, which can lead to nest abandonment and decreased reproductive rates (Hayward & Hayward, 1993; Hayward & Garton, 1988). The severity of the impact is further underscored by the fact that a project-specific amendment to the 1997 Targhee Forest Plan would be required to exempt the project from Boreal Owl Habitat Standard 1—demonstrating that the expansion is fundamentally incompatible with existing protections for this species and is moving land away from a desired condition. Given the limited distribution and habitat specificity of boreal owls, the Mono Trees expansion poses a substantial threat to their long-term viability in the forest. (711.34) (484.37)

Thank you for your comment regarding the proposed projects and their related effects on boreal owls. In regard to project-specific effects on owls, please refer to **pages 309-310** of the **Final EIS** and **pages 39-60** of the **Wildlife Biological Evaluation**. More specifically, the **Wildlife Biological Evaluation** discloses potential impacts to boreal owls on **pages 45-53**.

No edits were made to the **Final EIS** in response to this comment.

16.91 The Forest Plan holds similar protections for boreal owls as it does flammulated owls—a prohibition on tree removal within 30-acre nest areas. There are two known boreal owl nest areas in the project area, including one that overlaps significantly (24.1 out of 25 acres) within the Mono Trees area. If timing restrictions and other mitigation measures such as what are listed in the Project Design Components were enough to ensure boreal owls would tolerate tree clearing and other disturbance then the Forest Plan would not have included a standard prohibiting tree clearing within 30 acres of a boreal (or flammulated) owl nest. The fact that the forest plan does include such a standard speaks to the sensitivity of these species to habitat loss or disturbance. (471.45)

Thank you for your comment regarding the proposed projects and their related effects on raptors. In regard to project-specific effects on owls and migratory birds, please refer to **pages 309-310** and **pages 317-325** of the **Final EIS** and **pages 39-80** and **pages 122-134** of the **Wildlife Biological Evaluation**. More specifically, the **Wildlife Biological Evaluation** discloses potential impacts to goshawks on **pages 62-72**, flammulated owls on **pages 53-60**, boreal owls on **pages 45-53**, and great gray owls on **pages 40-44**.

No edits were made to the **Final EIS** in response to this comment.

16.92 Flammulated owls (Psiloscops flammeolus), a Forest Service Sensitive Species that nests in mature forests with large snags and minimal disturbance, will be significantly impacted with an expansion into Mono Trees. Surveys in 2019 identified five active flammulated owl nesting areas within the Mono Trees, Colter, and Sacajawea terrain zones. The proposed vegetation removal and increased recreation would likely lead to nest abandonment in 2 or more of these active nests. These impacts would directly conflict with Flammulated Owl Habitat Standard 1 of the 1997 Targhee Forest Plan, which prohibits timber removal in designated 30-acre nesting zones, necessitating a project-specific amendment to exempt the expansion. Flammulated owls are highly sensitive to habitat disturbance, particularly during the breeding season, and logging or infrastructure development in nesting areas could lead to reduced reproductive success and long-term territory abandonment (Linkhart & McCallum, 2020). The loss of suitable habitat and disruption of active nesting territories in Mono Trees could have lasting negative consequences for local flammulated owl populations, undermining their viability in this part of the Caribou-Targhee National Forest. (711.35) (484.38)

Thank you for your comment regarding the proposed projects and their related effects on flammulated owls. In regard to project-specific effects on owls, please refer to **pages 309-310** of the **Final EIS** and **pages 39-80** of the **Wildlife Biological Evaluation**. More specifically, the **Wildlife Biological Evaluation** discloses potential impacts to flammulated owls on **pages 53-60**.

No edits were made to the **Final EIS** in response to this comment.

16.93 The proposed expansion into the Mono Trees area would significantly impact American goshawks (Accipiter gentilis), a Forest Service Sensitive Species that depends on large tracts of mature forest with high canopy closure for nesting and fledging success. Over 1,400 acres of suitable goshawk nesting habitat exist within the broader project area, and the Proposed Action would impact more than one third of those acres (522 acres)—nearly 60% of which (309 acres) lie within the Mono Trees expansion zone. This is particularly concerning given the high level of documented goshawk activity in the Targhee Planning Area, where 36 nesting territories have been occupied over the past decade. Three active nest sites were found within 300 feet of the proposed expansion boundary, placing them at serious risk from noise, vegetation removal, and human intrusion. Goshawks are highly sensitive to habitat alteration, particularly in the breeding season, and removal of core nesting and post-fledging areas can lead to failed reproduction, reduced foraging efficiency, and eventual territory abandonment (Reynolds et al., 1992; Squires & Kennedy, 2006). Expansion into Mono Trees would violate protections established under the 1997 Targhee Forest Plan, which prohibits disturbance within 200-acre goshawk nest territories. Proceeding with development under the Proposed Action would fragment high-quality habitat, disrupt known nest territories, and jeopardize the long-term viability of local goshawk populations. (711.36) (484.39) (1b.9)

Thank you for your comment regarding the proposed projects and their related effects on American goshawks. Specifically, the **Wildlife Biological Evaluation** discloses potential impacts to goshawks on **pages 62-72.**

No edits were made to the **Final EIS** in response to this comment.

16.94 If the Mono Trees area were developed into commercial ski terrain as proposed in Alternatives 2 and 5, a significant number of snags would be removed from the area and this requirement would no longer be met. Technically the Mono Trees expansion would not require an amendment to this specific plan component because it is not applicable in areas zoned for Special Use Authorization Recreation Sites (management prescription 4.2). The forest plan amendment proposed is to rezone Mono Trees as 4.2. This ultimately would undercut the snag retention requirements and degrade three-toed woodpecker habitat. Although Project Design Component #18 appears to protect snags for wildlife habitat, the words "when practicable and deemed safe" provide a very large exception and offer no assurance that Targhee would choose to maintain a sufficient number of snags in Mono Trees to meet the forest plan's "Snag/Cavity Nesting Habitat" guideline of 59 snags per 100 acres. While the DEIS concludes that the amount of habitat lost (61.9 acres) is insignificant in the context of all three-toed woodpecker habitat across the forest, and that on the whole the species will be unaffected, this does not relieve the Forest Service of the responsibility to protect three-toed woodpecker habitat, and it can easily do so here by not permitting a SUP expansion into Mono Trees. (471.42) (462.8) (484.40) (711.37)

Thank you for your comment regarding the proposed projects and their related effects on three-toed woodpeckers. Specifically, the **Wildlife Biological Evaluation** discloses potential impacts to three-toed woodpeckers (which includes the loss of snags) on **pages 80-86**.

No edits were made to the **Final EIS** in response to this comment.

16.95 The proposed expansion into the South Bowl poses significant threats to mule deer (Odocoileus hemionus) by fragmenting and degrading important seasonal habitats and increasing human disturbance across known migratory and foraging areas. The entire project area falls within designated spring, summer, and fall range for mule deer, and individuals are frequently observed moving northwest through the project site, suggesting its role in regional migratory corridors. The expansion would directly impact mountain shrub and aspen communities, which serve as important winter habitat—124 acres in South Bowl, on top of 535 acres already affected within the existing Special Use Permit (SUP) area. These habitat types are especially important in areas like South Bowl with south-facing slopes, where snow melts earlier, providing critical forage and cover during harsh winter months (Nicholson et al., 1997; Pierce et al., 2004). Development in these areas would likely displace deer and disrupt migratory behavior, leading to increased energy expenditures and reduced survival, particularly for overwintering individuals. (484.26) (471.46) (711.24) (711.25)

Thank you for your comment regarding the proposed projects and their related effects on mule deer. Specifically, the **Wildlife Biological Evaluation** discloses potential impacts to mule deer on **pages 112-117**.

No edits were made to the **Final EIS** in response to this comment.

16.96 Studies have repeatedly shown that habitat fragmentation and disturbance—especially from recreation and development—can reduce mule deer habitat effectiveness and alter movement patterns. Sawyer et al. (2006) found that winter range development and associated human activity significantly reduced mule deer use of nearby habitats, while Lendrum et al. (2013) demonstrated that migration routes are highly sensitive to disturbance and landscape change. These findings highlight the importance of minimizing impacts in highquality, undeveloped terrain like South Bowl. The proposed expansion, with extensive vegetation clearing and infrastructure development, would cause the most severe habitat degradation among the considered alternatives, directly conflicting with the Targhee Forest Plan (1997) mandate to maintain viable populations of native wildlife and conserve important seasonal habitats. The Forest Service's failure to avoid or rigorously mitigate these impacts may also fall short of the National Environmental Policy Act (NEPA)'s requirements to evaluate and disclose significant effects on wildlife populations and movement corridors. (484.27)

Thank you for your comment regarding the proposed projects and their related effects on mule deer. Specifically, the **Wildlife Biological Evaluation** discloses potential impacts to mule deer on **pages 112-117**.

No edits were made to the **Final EIS** in response to this comment.

16.97 The proposed expansion into the Mono Trees area would result in the loss and degradation of important elk (Cervus canadensis) habitat used by individuals from the Targhee herd, which relies on a mosaic of forested cover and open foraging areas across seasonal ranges. The DEIS documents occasional elk sign in the southern and western

portions of the Mono Trees area, and the Focal Species Habitat Map identifies several small patches of winter habitat within the expansion zone. Although these areas may seem limited in extent, they provide critical refuge and forage, particularly as regional elk management policies move away from supplemental winter feeding programs, increasing reliance on natural winter range. Elk are highly sensitive to disturbance, especially in winter when energy conservation is crucial for survival, and studies have shown that habitat loss and fragmentation from recreation and development can lead to displacement and altered movement patterns, reducing herd fitness and reproductive success (Lyon & Christensen, 2002; Ciuti et al., 2012). The permanent conversion of habitat in Mono Trees to ski infrastructure, combined with increased human activity, would diminish the availability of secure, low-disturbance winter habitat, undermining long-term management goals for the Targhee elk herd and exacerbating pressures on adjacent public and private lands. (471.47) (484.35) (484.36) (711.33)

Thank you for your comment regarding the proposed projects and their related effects on elk. Specifically, the **Wildlife Biological Evaluation** discloses potential impacts to elk on **pages 117-121**.

As described on **page 301** of the **Final EIS** and **page 117** of the **Wildlife Biological Evaluation** field surveys indicated; occasional sign of elk (scat, tracks) was observed throughout the Mono Trees expansion area, particularly in the southern and western portions." Additionally, **page 117** of the **Wildlife Biological Evaluation** describes that this project uses the 2017 Teton County Focal Species Habitat Mapping Project, which identifies the presence of elk and potential winter habitat patches in Mono Trees.

Page 329 of the **Final EIS** and **page 121** of the **Wildlife Biological Evaluation** conclude that, "Impacts under the proposed alternatives could impact individual survivability. However, given the small reduction in available habitat that would occur due to the proposed project, compared to widespread availability of habitat in the surrounding areas, the proposed action alternatives *would likely not have significant impacts to overall populations*."

No edits were made to the **Final EIS** in response to this comment.

16.98 Moose in South Bowl: The proposed expansion into the South Bowl would significantly impact moose (Alces alces) by fragmenting and degrading high-value seasonal habitat, all of which lies within documented spring, summer, and fall range, with crucial winter range located less than a mile away in the South Leigh Creek and Bustle Creek drainages. Moose sign observed in the southwest corner of South Bowl in July confirms current use of the area. Increased human activity and habitat removal associated with expansion into South Bowl would likely reduce habitat suitability and displace moose from foraging and movement corridors, consistent with research showing moose avoid areas of high recreational disturbance and development (Neumann et al., 2011). These impacts violate the Targhee Forest Plan's (1997) requirements to maintain viable moose populations and to protect key habitats from degradation, and conflict with Forest Service Manual (2005) which mandates proactive protection of wildlife habitat. Furthermore, the Wyoming Game and Fish Department emphasizes the importance of conserving crucial moose winter range and limiting development in sensitive habitats. Courts have repeatedly held that failure to rigorously evaluate environmental impacts—particularly through reliance on general assumptions or incomplete data—violates NEPA's requirement that agencies take

a "hard look" at environmental consequences (Baltimore Gas & Electric Co. v. NRDC, 1983). (484.25) (471.48) (484.34) (711.23) (711.45)

Thank you for your comment regarding the proposed projects and their related effects on moose. Specifically, the **Wildlife Biological Evaluation** discloses potential impacts to moose on **pages 108-111**.

As described on **page 300** of the **Final EIS** and **page 107** of the **Wildlife Biological Evaluation**, "The entire proposed project area is located within spring, summer, and fall range for moose. Wyoming Game and Fish Department (WGFD) designated crucial winter-yearlong range for moose, which is located approximately 0.4 miles north of the project area in the South Leigh Creek drainage. WGFD designated crucial winter range for moose is about 0.8 miles west of the project area in the Bustle Creek drainage. The moose present within the project area are a part of the Targhee Herd, which is estimated to have a population of 150 - 200 based on 2009 survey data, with a population decline likely occurring in the early 2000s. Current population estimates for the population are not available due to a lack of mid-winter surveys for the Targhee Herd."

Page 328 of the **Final EIS** and **page 111** of the **Wildlife Biological Evaluation** conclude that, "The proposed project would reduce suitable moose habitat in the project area and potentially degrade remaining habitat due to increased activity…Given the small reduction in available habitat that would occur due to the proposed project compared to widespread availability of habitat in the vicinity and mobility of the species, all the action alternatives *would likely impact individuals, but not have significant impacts to the overall population.*"

No edits were made to the **Final EIS** in response to this comment.

16.99 South Bowl is a high-elevation, south-facing basin on the western slope of the Tetons that supports an exceptional diversity of habitats and species due to its complex topography and varied vegetation. The area features a rich mosaic of subalpine meadows, aspen stands, conifer forests, talus slopes, and sheer cliff bands—habitat elements that are rare in proximity and critical to a variety of sensitive wildlife. Its southfacing slopes facilitate early snowmelt and extended forage availability, making it an important winter and seasonal range for mule deer, moose, and bighorn sheep. The complex terrain is ideal for denning wolverines, which have been frequently detected in this area. The cliffs and talus slopes provide key nesting and denning habitat for species like grizzly and black bears, peregrine falcons, golden eagles, black rosy finches, as well as American pikas. Importantly, the rugged terrain of South Bowl overlaps with suitable and increasingly rare habitat for bighorn sheep, offering potential escape terrain, foraging areas, and access to a rare mineral lick. Together, these features make South Bowl not only ecologically unique but also vital to the survival and connectivity of several at-risk species in the Greater Yellowstone Ecosystem. Specifically, development in this area would introduce noise, vegetation clearing, and human activity that could displace or deter these species, fragment their already limited habitat, and erode the ecological integrity of this alpine ecosystem. (484.14) (484.28) (673.2) (711.26) (140.5)

Thank you for your comment regarding the proposed projects and impacts on wildlife habitat. Please refer to the **Biological Assessment** for more information on species-specific impacts, refer to **pages 45-48** which discusses grizzly bears, and refer to **pages 48-52** for a discussion of wolverines. Additionally,

please refer to **Wildlife Biological Evaluation** for more information on species of local concern on **pages 107-122**, migratory birds on **pages 122-134**, and bighorn sheep on **pages 21-39**.

No edits were made to the **Final EIS** in response to this comment.

16.100 Teton County appreciates the modifications that were made to the proposed action since the August 2020 Scoping Notice, including reducing the South Bowl SUP boundary expansion from 600 to approximately 266 acres. However, the County finds that the environmental and scenic costs to any expansion into South Bowl outweigh the specific benefits to the guest experience. (489.21)

Thank you for your comment, your concern has been noted.

No edits were made to the **Final EIS** in response to this comment.

16.101 If there is a compelling reason to prevent the resort from expanding beyond its present boundaries to preserve wildlife critical populations I would object to the resort's expansion, but after reviewing the DEIS and placing it in the context of existing human caused negative impacts on wildlife and their habitat surrounding Grand Targhee, I don't see the proposed expansion as significantly harmful to the native wildlife if mitigation procedures such as seasonal closures to human access are implemented when wildlife needs undisturbed use of certain areas. The existing use of the Grand Targhee side country by backcountry skiers has already conditioned the wildlife to avoid using the proposed expansion areas in winter. Bighorn sheep access to the salt lick should be adequate for their needs if development of the South Bowl occurs, but with human presence controlled in the non winter months. (99.1)

Thank you for your comment, your concern has been noted.

No edits were made to the **Final EIS** in response to this comment.

16.102 Their plans to add more ski runs will affect endangered species, such as the Grizzly Bear that hibernates in the caves of the cliff band that runs through the planned project. Additional protected plant and animal species like the Big Horn Sheep and the Bald Eagle would be affected. Their plans directly violate the Endangered Species Act of 1973. (328.1)

Thank you for your comment concerning the impact of the proposed ski runs on wildlife species such as grizzly bears, bighorn sheep, and eagles. Please refer to **pages 45-48** of the **Biological Assessment** which analyzes effects to grizzly bears. Additionally, please refer to **pages 21-39** of the **Wildlife Biological Evaluation**, which analyze impacts to bighorn sheep, and to **page 15**, which explains why bald eagles were excluded from the detailed analysis.

No edits were made to the **Final EIS** in response to this comment.

16.103 The DEIS fails to adequately analyze impacts on sensitive species, critical habitats, and migratory corridors, as required under NEPA and the Endangered Species Act. Issues such as habitat fragmentation and species viability were insufficiently addressed. (457.81)

Thank you for your comment concerning the details of the effects analysis of sensitive species, critical habitats, and migratory corridors. However, the **Final EIS** analyzed potential impacts and effects on a variety of wildlife species on **pages 303-331**. These pages presented a summary of the more detailed analysis found throughout the **Biological Assessment** and **Wildlife Biological Evaluation**. Specifically, the **Wildlife Biological Evaluation** analyzed potential impacts on a variety of sensitive species, migratory birds, and species of local concern (this included impacts to migratory corridors, viability, etc.). The **Biological Assessment** analyzed the potential effects on federally listed species. The **Biological Assessment** makes it clear that no designated critical habitat for any species occurs in the project area.

No edits were made to the **Final EIS** in response to this comment.

16.104 But my main concern is with the idea of expanding the SUP area into Teton Canyon, or creating lifts where Teton Canyon could be easily accessible from Grand Targhee Resort. This area contains important habitat for wildlife, including bighorn sheep, moose, bears, and potentially Canada lynx and wolverine. Canada lynx and wolverine are federally protected species under the Endangered Species Act and thus USFS would have initiate and complete formal consultation with the U.S. Fish and Wildlife Service to comply with Section 7 of the ESA before proceeding with expanding the SUP area. (491.1)

Thank you for your comment concerning the proposed project's effects on wildlife habitat. For more information, please refer to the **Biological Assessment**, which analyzes effects on Canada lynx on **pages 39-45**, grizzly bears on **pages 45-48**, and wolverines on **pages 48-52**. Additionally, the **Wildlife Biological Evaluation** analyzes impacts to bighorn sheep on **pages 21-39** and species of local concern on **pages 107-122**.

No edits were made to the **Final EIS** in response to this comment.

16.105 Loss of mature Douglas fir in the Mono trees area would remove nesting and brood rearing habitat for forest mammals, owls and raptors including sensitive species such as boreal owl, northern goshawk and pine marten. It will also accelerate the flow of carbon into the atmosphere, adding to the already accelerating global warming. GTR has removed many acres of mature forest trees on its existing permit area already. (724.4)

Thank you for your comment concerning the proposed project in Mono Trees area and associated impacts on the boreal owl, American goshawk, and Pacific marten, in addition to carbon emissions concerns. In regard to project-specific effects on the boreal owl and the American goshawk, please refer to **pages 318-319** and **pages 321-322** of the **Final EIS**. For more information on the Pacific marten, please refer to **pages 329-330** of the **Final EIS**. More specifically, the **Wildlife Biological Evaluation** discloses potential impacts to goshawks on **pages 62-72**, boreal owls on **pages 45-53**, and the Pacific marten on **pages 121-122**.

No edits were made to the **Final EIS** in response to this comment.

16.106 If the project were to be accepted, the year round activity will adversely change the ecosystem for all of our wildlife. We are lucky to have a Big Horn Sheep population reside in Teton Canyon. There is an historical mule deer migration route, some of whom make their journeys from the Teton River canyon down river from my land, traveling great distances to Grand Teton National Park. The last mapping of this migration route did not

show what today's GIS shows and that is the distance the deer travel, which is miles past Reunion Flats. There are Lynx whose numbers are declining in the west. Wolverines that require deep snow for denning and really don't like interacting with us as they too travel great distances for carrion and are already protected under the ESA. There are only about 300 left. Is their loss worth a ski run? This expansion project will fragment and destroy native habitat. (805.2)

Thank you for your comment concerning the proposed project's effects on wildlife habitat. For more information, please refer to the **Biological Assessment**, which analyzes effects on Canada lynx on **pages 39-45**, grizzly bears on **pages 45-48**, and wolverines on **pages 48-52**. Additionally, the **Wildlife Biological Evaluation** analyzes impacts to bighorn sheep on **pages 21-39** and species of local concern on **pages 107-122**.

No edits were made to the **Final EIS** in response to this comment.

16.107 The Forest Plan explicitly mandates that sensitive species be managed to maintain viable populations. The National Forest Management Act further requires habitat management that sustains well-distributed, reproducing individuals. Proceeding with the South Bowl expansion would directly conflict with these standards and threatens to push this already fragile herd toward extirpation—a violation of federal policy and a loss to the American public. (614.3)

Thank you for your comment regarding the proposed projects and impacts on wildlife habitat. Please refer to **Wildlife Biological Evaluation** for more information on bighorn sheep on **pages 21-39**. These pages include a viability analysis across the Targhee Planning Area.

No edits were made to the **Final EIS** in response to this comment.

16.108 New development adjacent to the Jedediah Smith Wilderness conflicts with forest plan directives (Maintaining the natural diversity of wildlife species is the highest priority) and threatens opportunities for solitude and unconfined recreation within the JSW as mandated by the Wilderness Act of 1964. (719.2)

Thank you for your comment. We have noted this concern.

No edits were made to the **Final EIS** in response to this comment.

16.109 The proposed tree clearing and lift installation will impact many protected species — GTR is seeking Forest Plan amendments to impact known nesting territories for peregrine falcons, boreal owls, flammulated owls, and American goshawks (and habitat for three-toed woodpeckers). (689.6) (688.6)

Thank you for your comment. In regard to project-specific effects on owls, peregrine falcons, American goshawks, and three-toed woodpeckers, please refer to **pages 317-325** of the **Final EIS.** Additionally, please reference the **Wildlife Biological Evaluation,** which discusses impacts to goshawks on **pages 62-72**, peregrine falcons on **pages 73-80**, three-toed woodpeckers on **pages 80-86**, boreal owls on **pages 45-53**, and flammulated owls on **pages 53-60**.

No edits were made to the **Final EIS** in response to this comment.

16.110 Mono Trees portion of upper Mill Creek provides security habitat for deer, elk and moose and nesting habitat for several sensitive bird species. Conservation of old growth forests is a priority for the USFS making this expansion in conflict with the Caribou-Targhee Forest Plan. (727.3)

Thank you for your comment regarding the proposed Mono Trees expansion and its associated impacts on old-growth wildlife habitat. Specifically, please refer to **Appendix B. Forest Plan Consistency Analysis**, on **pages 448-452** of the **Final EIS**, which describes the project's consistency with the various standards and guidelines pertaining to these species. Additionally, please refer to **pages 14-107** in the **Wildlife Biological Evaluation** which discuss impacts to Region 4 Sensitive Species, **pages 107-122** in the **Wildlife Biological Evaluation** which analyze impacts to species of local concern, and **pages 39-59** in the **Biological Assessment** which discuss effects to federally listed species.

No edits were made to the **Final EIS** in response to this comment.

16.111 As the DEIS describes, the proposed Mono Trees expansion will significantly impact several wildlife species, necessitating several forest plan amendments. While many of the forest plan amendments proposed to facilitate the Mono Trees expansion are also necessary for proposed actions within the current SUP, after examining the scope of each forest plan inconsistency for projects within Mono Trees versus projects within the current SUP, it is clear that the Mono Trees expansion presents the more significant inconsistencies with the Targhee Forest Plan. We believe that the projects proposed within the SUP could be modified to avoid forest plan inconsistencies, and, by denying the Mono Trees expansion, the forest plan amendments could be avoided altogether. (471.41)

Thank you for your comment. We have noted your concern.

No edits were made to the **Final EIS** in response to this comment.

16.112 1. Habitat for grizzly bears, lynx, wolverines, marten, Bighorn sheep and mule deer, will be fragmented or destroyed potentially violating Endangered Species act. 2. Tree clearing and construction within the expansion contradicts Forest Expansion Plan Standards, for protecting goshawk habitat, flammulated owl nesting areas, arboreal owl nesting site, three toed woodpecker habitat and peregrine falcon eyries. (444.12) (729.7)

Thank you for your comment concerning the proposed project effects on wildlife habitat. However, it is important to note that bighorn sheep, mule deer, and the Pacific marten are not federally listed species.

The grizzly bear, Canada lynx, and wolverine are listed as threatened under the Endangered Species Act and are analyzed within the **Biological Assessment**. Please refer to the **Biological Assessment**, which analyzes effects on Canada lynx on **pages 39-45**, grizzly bears on **pages 45-48**, and wolverines on **pages 48-52**. Furthermore, the Forest Service will consult with the USFWS for all species listed in the **Biological Assessment**. The **Wildlife Biological Evaluation** discusses direct and indirect effects as well as 1997 Forest Plan consistency for goshawks on **pages 62-72**, peregrine falcons on **pages 73-80**, three-toed woodpeckers on **pages 80-86**, boreal owls on **pages 45-53**, and flammulated owls on **pages 53-60**.

No edits were made to the **Final EIS** in response to this comment.

17. Geology and Soils

17.1 Some of the largest impacts of the proposed expansion under Alternatives 2 and 5 would be to the soil in the Mono Trees area. The EIS describes there would be a "permanent loss of soil resources due to ground disturbing activities, an increase in soil erosion and sedimentation, and changes to soil physical and chemical characteristics reducing soil productivity." A large portion of the grazing allotment (over 600 acres) would be disturbed by grading and vegetation clearing. None of this area would be suitable for grazing until topsoil and organic matter were restored and the area re-planted with native forage. "Steep and south- and west-facing cut slopes may require more than 5 years for vegetation ground cover to reach pre-disturbance levels without soil amendments" (EIS, 2025). (294.17) (342.17)

Thank you for your comment. The commenter is accurate in quoting the **Final EIS** in stating that there would be a "permanent loss of soil resources" under each of the action alternatives, including Alternative 3 – No SUP Expansion. However, the comment misrepresents the acreage that would be disturbed by grading and vegetation clearing. While the Mono Trees area totals approximately 600 acres, only a portion of this area would receive tree clearing and grading. As disclosed on **page 9** of the **Geology and Soils Technical Report**, "approximately 241 acres of vegetation removal would occur" without grading in Mono Trees, and an even smaller area would be graded.

Impacts to the Mill Creek Teton Allotment are analyzed in the **Final EIS**. Importantly, the **Final EIS** notes that "the existing Mono Trees area is overlapped by dense timber and much of this area that cannot be grazed in its existing conditions will become available forage as lift lines, runs and trails are constructed" (**Final EIS**, **page 199**). This indicates that the conversion of densely timbered areas to open terrain may actually increase available forage for livestock in some locations, though changes to grazing patterns would likely occur.

No edits were made to the **Final EIS** in response to this comment.

17.2 No Action avoids construction impacts and eliminates construction related disruptions like soil erosion, hydrological disturbances, and heavy truck traffic increases – leaving the natural environment less disturbed. (457.4)

Thank you for your comment. The No Action Alternative is required by NEPA to serve as a baseline to compare the effects of action alternatives. Inherently, it will not have the same impacts as the Action Alternatives. However, as disclosed in numerous places throughout the **Final EIS**, the No Action Alternative would not meet the Purpose and Need of the project. Impacts to geology and soil resources under the Action Alternatives have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

17.3 Soil Disturbance and Erosion; Grading and tree clearing will disturb up to 935.6 acres, leading to permanent soil loss, compaction, and increased erosion risks, especially on

steep slopes; Soil disturbance will funnel sediment into downhill channels, affecting nearby streams and aquatic zones. (457.30)

Thank you for your comment. The Forest Service acknowledges the commentor's concerns regarding soil loss, compaction and erosion. For this purpose, these impacts were analyzed in the **Final EIS** and accompanying **Geology and Soils Technical Report**. Specifically, on **page 337** of the **Final EIS** and it states that up to 301.5 acres of topsoil and/or organic material would be directly impacted by grading or vegetation removal and grading under the Proposed Action. And up to 634.1 acres of topsoil and/or organic material could be directly impacted by vegetation clearing only, which includes the implementation of glades, groomable glades, and terrain development projects without grading Upon review of potential impacts, a number of PDC have been included to avoid, mitigate, or minimize these impacts. These include during construction. Maintenance and operations, stockpile topsoil to the extent possible to maintain organic matter; and prior to construction, soil surveys wand measurements of thicknesses of A or organic horizons would be completed within the disturbance areas to ensure no net loss of soil organic matter. Soil reports would be submitted as specified in the Construction Plan. These PDC are found in **Section 2.4** of the **Final EIS**.

Further, as specified on **page 338** of the **Final EIS,** implementation of the Proposed Action would require approximately 172.1 acres of grading in areas with moderate erosion hazard and approximately 126.9 acres of grading in areas with slight erosion hazard. Areas with soils rated with moderate erosion hazards are primarily located in Rick's Basin and the proposed South Bowl expansion. Soil losses and sedimentation due to erosion would occur for as long as the are is disturbed but would return to natural rates once vegetation is re-established and stabilized reclaimed areas in about two to five years. Finally, due to mixing of soil horizons, soil profile characteristics and soil productivity would be drastically changed over pre-construction conditions. The loss of soil resources would be long-term and permanent.

Impacts to water quality as a result of sedimentation is described on **page 346** of the **Final EIS**. As far as sediment transport, due to increased erosion, Forest Service BMPs and PDC would be put in place during both construction and operation to mitigate impacts of erosion and thus decrease the possibility of impacts to water quality. The likelihood of sediment becoming a threat to water quality is low.

Impacts to geology and soil resources under the Action Alternatives have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

17.4 The DEIS needs to provide site-specific summary information on slope stability for the reader, either as text or as a map. The reader shouldn't have to go chasing all over for other reports and information. I will be looking to see if the Consequences section gives something helpful. (477.10) There is no analysis of the impacts of the alternatives on slope mass stability in the DEIS. This includes rockfall and landslides. This omission would have implications for user safety as well as for the viability of alternatives and infrastructure. (477.13) Additionally, the DEIS is missing detailed assessments of soil erosion rates, slope stability, and effectiveness of erosion control measures. (457.110)

Thank you for your comment. The Forest Service acknowledges the commentor's concerns regarding slope stability. For this purpose, these impacts were analyzed in the **Final EIS** and accompanying **Geology and Soils Technical Report**, where it is stated on **page 333** of the **Final EIS** that the **Geology and Soils Technical Report** was prepared utilizing the **Rockfall and Landslide Hazards Report**. Upon review of potential impacts, a number of PDC have been included to avoid, mitigate, or minimize these impacts. These PDC are found in **Section 2.4** of the **Final EIS**. **Appendix B** of the **Final EIS** discloses that "Under all Alternatives, no new ground disturbance would occur on NFS lands of high mass instability" (**Final EIS**, **page 442**).

The **Draft EIS** mentioned in multiple places that the **Rockfall and Landslide Hazards Report** was available in the project file, however, it, along with the **Groundwater Report**, were mistakenly not provided to the public during the Draft EIS comment period. With the release of the **Final EIS**, these reports have been made available to the public and are now available in the project file. No edits were made to the **Final EIS** in response to this comment.

17.5 On page 49 in the DEIS it states "Rutting caused by equipment operation should not exceed six to eight inches in depth (wet condition) over more than ten percent of the operating area. No equipment operations should take place when ground conditions are wet enough that there is a risk of such rutting (for logging operations - reference the 1997 Forest Plan as necessary (page III-33)." ... Change to (in all caps): Rutting caused by equipment operation WOULD not exceed six to eight inches in depth (wet condition) over more than ten percent of the operating area. No equipment operations WILL take place when ground conditions are wet enough that there is a risk of such rutting (for logging operations – reference the 1997 Forest Plan as necessary (page III-33). ON-SITE MONITORING WILL ENSURE THAT OPERATIONS WOULD CEASE IF SUCH CONDITIONS EXIST TO AVOID ADVERSE IMPACTS TO SOILS. NEED TO MEET REGIONAL SOIL QUALITY STANDARDS. (477.5)

Thank you for your comment. The Forest Service appreciates the suggested edits to the PDC, and acknowledges the underlying concerns of impacts to soils resources. However, the suggested edits were not applied as the analysis in the **Final EIS** determined that the PDC, as presented in the Draft EIS, is sufficient to avoid, minimize, or mitigate impacts to soils resources. Additionally, as stated on **page 21** of the **Final EIS**, "The Forest Supervisor may also require monitoring of PDC."

No edits were made to the **Final EIS** in response to this comment.

17.6 On page 49 in the DEIS it states "If logging over the snow, snow depth should be a minimum of 1 foot, continuously packed (i.e., not patchy) and sufficient enough to prevent vehicles from breaking through. If logging over frozen ground, a minimum of 6 inches of continuous frozen ground should be present to prevent/minimize soil disturbance." ... (Should this read?) "Ground cover, as a combination of revegetation, organic amendments and mulch applications, will restore depths of soil A HORIZONS? and/or organic ground cover." (477.6) Additionally, this is redundant with a previous design criterion. Please combine the two. (477.7)

Thank you for your comment. The comment correctly identifies a typo that was present in a PDC released in the **Draft EIS**. However, in reviewing the included PDC in **Table 2.4-1** on **page 44-56** of the **Final**

EIS this PDC has been updated to be more comprehensive and to delete repetitive PDC. The PDC in question has been updated in the **Final EIS** to state:

That GTR shall be required to develop a Construction Implementation Plan that includes various requirements including a Post-Construction Revegetation and Resortation plan: Methodology, locations, vegetative mixes, and soil amendments including:

- A list of materials to be used for site stabilization and revegetation (i.e., soil amendments, seed mixes, erosion control products). Seed mixtures and mulches will be certified to be free of noxious weeds and must be approved by the Forest Service botanist or other Forest Service qualified personnel prior to purchase. Seed test results for each seed lot will be made available to the Forest Service prior to purchase. To prevent soil erosion, non-persistent, non-native perennials or sterile perennials may be used while native perennials become established.
- Revegetation techniques including the proposed timing and method of application for seed, mulches, and erosion control products.

The comment also identifies two PDC that are seemingly similar:

- "Soil-disturbing activities will be avoided during periods of rain or wet soils. Heavy equipment may be operated within unit boundaries only when soil moisture is below the plastic limit, or protected by at least 1 foot of packed snow or 6 inches of frozen soil. Rutting caused by equipment operation should not exceed six to eight inches in depth (wet condition) over more than ten percent of the operating area. No equipment operations should take place when ground conditions are wet enough that there is a risk of such rutting (for logging operations – reference the 1997 Forest Plan as necessary (page III-33)."
- "If logging over the snow, snow depth should be a minimum of 1 foot, continuously packed (i.e., not patchy) and sufficient enough to prevent vehicles from breaking through. If logging over frozen ground, a minimum of 6 inches of continuous frozen ground should be present to prevent/minimize soil disturbance."

While these two PDC are similar, they are not redundant. The second PDC applies only to logging operations, while the first PDC applies to other uses of heavy equipment as well as logging equipment.

17.7 On page 327 in the DEIS it states "trail building and road construction activities in the 1216, 1170, and 1315 soil types, which overlap the Darby and Hominy Peak formations, could result in the release of fine sediment into streams…site specific PDC have been developed to address this potential issue." ... I don't see any site-specific Design Criteria in the Design Criteria section for these soils. (477.11)

Thank you for your comment. The commenter has correctly identified that on **page 338** of the **Final EIS** it states that "trail building and administrative route construction activities in the 1216, 1170, and 1315 soil types, which overlap the Darby and Hominy Peak formations, could result in the release of fine sediment into streams. The section goes on to state that as described under the Affected Environment discussion, the composition of these formations and their proximity to waterways within the project area have the potential to exacerbate erosion impacts. These areas would need to be stabilized quickly before

the next rain or snowmelt season and would require additional PDC. Potential impacts associated with disturbances over these formations are further described in the **Groundwater Report** and site specific PDC have been developed to address this potential issue."

These associated PDC although not identified in **Section 3.14**, were identified in **Section 3.15** on **page 355** of the **Final EIS**. This text on **page 355** reads as follows: "PDC and BMPs would be required for actions that occur over the Hominy Peak and Darby Formations that are not normally required for the operations that occur over Madison Limestone. These include, but are not limited to, developing an aggressive BMP plan to protect public water systems by avoiding sensitive areas or highly erosive soils, minimizing runoff, erosion, and sediment delivery to streams; implementing more aggressive sediment slope-stabilization like contour-felled logs, contour trenches, and straw bales placed in staggered tiers on the slope; mulch treatments like dry mulches and hydromulches to prevent the movement of fine sediment through the Bighorn Dolomite; vegetative buffers would be maintained adjacent to intermittent or perennial drainages and wetlands, to the extent possible; soil disturbing activities would be avoided during periods of rain or wet soils; and including cross drains and drain dips for mountain biking trails and administrative routes to disperse runoff and erosion."

This PDC is included in the PDC table on **page 53** of the **Final EIS** and reads: "Employ a BMP program to protect public water systems (PWSs) that have source water areas located within the permit area. The first BMP approach is to avoid sensitive areas or highly erosive soils to the extent practicable; Next, proven hillslope/land BMPs will be applied to minimize runoff, erosion, and sediment delivery to streams. Lastly, Sediment detention and water settling ponds shall be constructed to minimize runoff and sediment delivery off site towards downstream resources.

- Sensitive areas include the Aquatic Influence Zone (AIZ) near streams or other water features.
- Involve the PWS managers in the planning and project design."

The comment is correct in that the reader was not pointed to the correct section for these PDC. Text has been updated on **page 338** of the **Final EIS** that reads "Please refer to **Section 3.15 Hydrology** for more information on these specific PDC and refer to **Table 2.4-1 Project Design Criteria** for all of the soils, geohydrology, hydrology, and wetlands PDC."

17.8 There is a thorough analysis of Soils in the DEIS. It would be useful for the reader, however, to have a summary comparison of the alternatives' impacts (magnitude, significance) at the end of the consequences section. It is hard to know what the RELATIVE impacts of the alternatives are; I don't know how the deciding official can evaluate the impacts on soils for the alternatives from the input that's provided. (477.12)

Thank you for your comment. Please refer to **Appendix D** of the **Final EIS**, specifically **pages 610-612**, which includes a comparison of effects to soils under each alternative. No edits were made to the **Final EIS** in response to this comment.

17.9 The Hydrology section and the Geology and Soils section are woefully inadequate. The characterization of the existing environment for both seems rather perfunctory at best. Most anyone with basic skills can generate an Area of Interest soil resource map and data set from the Natural Resources Conservation Service WebSoilSurvey site on Skynet. It appears that was done here. There is no indication of field validation of the information

generated from the NRCS site. This is a notable flaw and defect in the DEIS. Under any action alternative ground disturbance is proposed. Without confirmation of soil mapping, a soil volume calculation is challenging and likely to be in error. Remember, salvaged and properly stockpiled soil and soil materials are critical for reclamation/rehabilitation of construction disturbances as well as during closure/reclamation/rehabilitation when facilities are decommissioned and removed. (545.12)

The Forest Service acknowledges the commenter's concerns regarding the use of NRCS Web Soil Survey data and the absence of site-specific field validation in the **Draft EIS** soil analysis. The Forest Service maintains that the level of analysis presented in the **Draft EIS** is appropriate for the nature of this decision and consistent with NEPA's requirements for informed decision-making. The NRCS Web Soil Survey is routinely used by federal agencies, including the Forest Service, for land management planning and NEPA analysis, and represents a standard practice for landscape-level environmental analysis.

In reviewing the PDC included on **pages 44-56** of the **Final EIS** these PDC have been updated to be more specific and delete repetitive PDC. The PDC has been updated in the **Final EIS** on **page 45** to state:

- GTR shall be required to develop a Construction Implementation Plan that includes various things including:
    - Erosion Control and Drainage Management: Erosion control and drainage management protocols and plans that include the following components:
        - Identification of BMPs such as silt fences, straw bales/wattles, ground cover or mulching measures, or sediment control protocols to contain sediment on-site.
        - Appropriate erosion-control matting on steep fill slopes (areas with a slope angle of 35 percent or greater) to protect soils and enhance vegetation re-establishment.
        - Strategies to minimize hillslope runoff to extent practicable.
        - Identification of areas where topsoil and organic matter would be used and reclaimed after disturbances.
        - Defined grading limits and physical barriers along the perimeter of graded areas.

This approach ensures that detailed, site-specific soil data will be collected at the appropriate stage, when precise project footprints are known and when such data can meaningfully inform construction planning, soil salvage volumes, and reclamation prescriptions.

Additionally, as described in geology and soils **RTC 17.4** the **Rockfall and Landslides Hazard Report** and **Groundwater Report** were mistakenly not included in the **Draft EIS** publication. These reports have now been provided for public review with the **Final EIS**.

Please also refer to geology and soils **RTC 17.8** where it points the reader to **Appendix D** of the **Final EIS**, specifically **pages 610-612**, which includes a comparison of effects to soils under each alternative.

No edits to the **Final EIS** have been made in response to this comment.

17.10 The Hydrology and Geology and Soils section fails to provide a detailed hydrogeologic characterization of the site and area of potential effects. Broad narratives are inadequate

to analyze impacts to surface and groundwater systems. No indication of aquifer yield tests, aquifer pump tests, piezometric surface mapping, or other typical groundwater system characterization testing is presented. It is unclear as to whether adequate groundwater is available for appropriation. No groundwater monitoring wells – for either quality or piezometric surface (groundwater elevation)- could be found on site or in the facility drawings in the DEIS. This is a glaring deficiency and must be addressed in a Supplemental DEIS. (545.14)

Thank you for your comment. As described in geology and soils **RTC 17.4** the **Rockfall and Landslides Hazard Report** and **Groundwater Report** were mistakenly not included in the **Draft EIS** publication. These reports have now been provided for public review with the **Final EIS**. Further, as provided in **Section 3.15 Hydrology** there is an extensive groundwater discussion in both the Affected Environment and Direct and Indirect Environmental Consequences subsections. Please refer to **pages 355-356** of the **Final EIS** for more information on impacts to groundwater as a result of the Proposed Action.

The Forest Service maintains that the **Final EIS** and supporting technical reports provide adequate hydrogeologic analysis to inform the Responsible Official's decision, and that the level of detailed groundwater testing as specified in the **Groundwater Report** is sufficient for this NEPA analysis.

No edits were made to the **Final EIS** in response to this comment.

17.11 The impacts of unstable slopes is inadequately analyzed. The BMPs state that no construction will occur on unstable slopes. Importantly, unstable slopes through sinkhole collapse is not analyzed in the DEIS. Sinkhole collapse is a known issues since the formation of the vertical cave in the Good, Bad, Ugly area. The top of Peaked Mountain, where a restaurant is proposed, shows signs of previous sinkhole collapse, as shown in elevations models accessible on websites like CalTopo.com (Doctor and Young 2013). (633.6)

The Forest Service acknowledges the commenter's concerns regarding the karst and sinkhole formations in the area. The Forest Service maintains that the level of analysis presented in the **Draft EIS** is appropriate for the nature of this decision and consistent with NEPA's requirements for informed decision-making. As described in geology and soils **RTC 17.4** the **Rockfall and Landslides Hazard Report** and **Groundwater Report** were mistakenly not included in the **Draft EIS** publication. These reports have now been provided for public review with the **Final EIS**.

Slope stability was considered in the analysis of effects to soils and geology resources in the Project Area. As stated on **page 334** of the **Final EIS,** the **Geology and Soils Technical Report** was prepared utilizing the **Rockfall and Landslide Hazards Report**. Additionally, **Appendix B** of the **Final EIS** discloses that "Under all Alternatives, no new ground disturbance would occur on NFS lands of high mass instability" (**Final EIS**, **page 442**).

In response to the commenter's concerns regarding slope stability, an additional PDC has been added to the **Final EIS** on **page 52** that states "To mitigate impacts to proposed facilities from unknown sinkholes or karst formations, final civil geo-technical engineering review of proposed facility sites and ground around the sites shall occur. GTR shall coordinate with Forest Service Engineering specialists to confirm final engineering design."

17.12 There hasn't been any diligence in determining the impact the project will have on karst formations in the area. With the operation of the resort already being impacted by the appearance of a karst formation it is not a unreasonable objection to say that they're isn't significant evidence for impact on both the resort and more importantly the environment. Until a full assessment is made by cave and karst experts as well as extensive hydrologic study the project to expand should be delayed. (17.1)

Thank you for your comment. Please refer to **RTC 17.4** where it states that the **Rockfall and Landslides Hazard Report** and **Groundwater Report** were mistakenly not included in the **Draft EIS** publication. These reports have now been provided for public review with the **Final EIS**. The **Groundwater Report** provides a thorough analysis on karst formations found within the Project area, and this analysis is summarized on **pages 346–366** of the **Final EIS**.

No edits were made to the **Final EIS** in response to this comment.

18. Hydrology

18.1 The increasing demands for groundwater attributed to snowmaking and other mountain operations will likely negatively alter the quantity and quality of groundwater and Teton Creek water, and consequently, the water quantity and quality of the water supplies of Alta, WY, and Driggs, ID. (159.3) (8b.2) (571.5) I am also concerned about how the increased snowmaking and other proposed new water uses across all Alternatives will impact water resources. The DEIS fails to provide adequate information about where the water to support these activities will come from, if it is even truly available, or how wastewater will be treated and disposed of. This issue must be addressed in the FEIS. (146.3) (792.3) (971.5) (848.1) New restaurants and a massive increase in snowmaking within the ski area will greatly impact water supply for Teton Valley ID. (300.9) (301.9) (302.9) Effect on water supply is a primary issue: Water is a resource that is already under stress for our growing community. Ski area expansion will mean water for construction, water for snow making, water for operations, and sediment from water that flows into Driggs. Where will all this water come from? ANY expansion will further affect our waterways and water sources in Teton Valley. (636.1) (7b.1) Sediment runoff and nutrient contamination from disturbed areas will degrade water quality in Teton Creek and Mill Creek. Snowmaking infrastructure will alter water yield, peak flows, and groundwater resources. (457.31) (1066.9)

Thank you for your comment. The commenter is referred to the **Impacts to Groundwater Report** for the location of aquifers across GTR and potential for impacts from the proposed projects. This report was mistakenly not provided to the public during the **Draft EIS** comment period. With the release of the **Final EIS**, this report has been made available to the public and is located in the project file. This information is summarized **Section 3.15 – Hydrology**, of the Final EIS.

A detailed analysis of water sustainability within the broader community is beyond the scope of analysis of the **EIS**, as the Forest Service does not hold the jurisdiction to issue water rights or groundwater permits. Groundwater permits in the State of Wyoming are handled by the Wyoming State Engineer's Office. The **Final EIS** discloses that water for the proposed additional 57 acres of snowmaking would come from additional groundwater wells developed on private land in GTR's base area (**Final EIS**, **page**

31). All proposed water withdrawal infrastructure would be developed on private land, and while disclosed in the EIS, as the water for some project actions may be supplied from these additional sources, they are not considered connected actions as they may be developed independently of any project actions to supply water on private land. On this page, it is stated that "As required by GTR's SUP, water sufficiency for existing and proposed operations is documented in a water sufficiency letter that is on file with the CTNF." A footnote has been added after this sentence to specify where this water sufficiency letter came from. This water sufficiency letter was produced by Jorgensen Engineering and is confidential. For proposed on-mountain guest facilities, the **Final EIS** discloses that water would be supplied from onsite wells, subject to permitting from the Wyoming State Engineer's Office. Combined diversions for these facilities are anticipated to be limited to less than 5 acre-feet per year for consumptive and sanitary uses and are not anticipated to adversely impact existing groundwater supply (**Final EIS**, **page 359**).

The Final EIS analyzes impacts to water quality in both groundwater and surface water resources, which analysis can be found on **pages 346–366** of the **Final EIS**. Specifically, it was found that actions could cause fine-grained highly mobile sediment to "mobilize and increase the turbidity of both Papoose Creek, Teton Creek, and Alta Spring" (**page 355**). PDC and BMPs would be applied to minimize or avoid these impacts, and additional PDC and BMPs would be applied for actions overlying the Hominy Peak and Darby Formations beyond what is normally required. "These [PDC and BMPs] include, but are not limited to, developing an aggressive BMP plan to protect public water systems by avoiding sensitive areas or highly erosive soils, minimizing runoff, erosion, and sediment delivery to streams; implementing more aggressive sediment slope-stabilization like contour-felled logs, contour trenches, and straw bales placed in staggered tiers on the slope; mulch treatments like dry mulches and hydromulches to prevent the movement of fine sediment through the Bighorn Dolomite; vegetative buffers would be maintained adjacent to intermittent or perennial drainages and wetlands, to the extent possible; soil disturbing activities would be avoided during periods of rain or wet soils; and including cross drains and drain dips for mountain biking trails and administrative routes to disperse runoff and erosion" (**pages 355-356**).

Impacts to surface water quality are also analyzed. Specifically, the **Final EIS** states that "The Proposed Action within the GTR SUP area and South Bowl and Mono Trees areas has the potential to introduce two primary water pollutants, sediment and nutrient contamination, to the Dry Creek and Mill Creek watersheds." The **Final EIS** found that, with the implementation of the project's robust PDC and BMPs, "the likelihood of sediment becoming a threat to water quality is low." Additionally, due to factors of distance between potential nutrient contamination areas and downstream public water systems, "the likelihood of nutrient contamination being a threat to water quality downstream of the existing and proposed GTR SUP area is low" (**page 356**).

Regarding snowmaking impacts to water yield, peak flows, and groundwater sources, the Final EIS finds that the anticipated "changes in volume would contribute to melt and runoff during the spring but are not anticipated to alter peak flows or water yields to a degree that would impact channel morphology function or cause additional erosion" (**Final EIS**, **page 359**). Anticipated increases in water volume due to snowmaking in both the Teton Creek and Dry Creek watersheds are each anticipated to be less than a one percent increase compared to naturally recorded precipitation volumes.

18.2 Increased snowmaking and resort operations would strain local water supplies, impacting both water quality and quantity. Construction-related erosion and sedimentation would degrade aquatic ecosystems and potentially affect municipal water sources. (646.2) The

DEIS is missing detailed assessments of hydrologic disturbance, including impacts on groundwater flow, stream health, sedimentation, and erosion. (457.101) (457.23) Construction and increased resort operations risk contaminating local water supplies through runoff and overuse, potentially affecting both human consumption and aquatic ecosystems. (1029.2) (373.2) (375.2) The expansion plans involve significant infrastructure development, likely including new septic systems and increased water usage. Given the area's steep terrain and proximity to municipal water sources, there is a heightened risk of sedimentation and contamination, which could affect the drinking water quality for communities in Driggs, Idaho, and Alta, Wyoming . (355.3) (2b.1) The expansion, and frankly any new construction, will negatively affect several families drinking water. Every time that the resort starts construction, inevitably our drinking water quality decreases. What is usually clear, clean mountain water turns brown and contains sediment. In my eyes, it is not right that an expansion project that would increase revenue for a business should be able to casually destroy a source of water that has been providing for people for generations. (615.3) (10b.3) Water quality has already become an issue. We on the Alta Culinary system have experienced increased silt and poor water samples since the areas disturbed for bike trails on and near the north ridge area of Teton Canyon. Additional trails and development in this area are a major concern for those of us on this system. Additionally development potential in the Miles Creek basin add to this concern along with the potential for degradation in the waters of the Teton Creek drainage which includes waters for the town of Driggs. We also have concerns in general with GTR expansion for potential contamination of water in the Dry Creek drainage. (9b.3)

Thank you for your comment. Regarding the impacts that the proposed snowmaking would have on local water supplies, please refer to hydrology **RTC 18.1**.

The **Final EIS** explicitly recognizes the vulnerability of downstream water supplies to local communities. On **page 351**, it is acknowledged that “Alta Spring has [previously] experienced high turbidity levels as water moves through the Papoose Creek watershed and over the Bighorn Dolomite. Given the large cavities, the Bighorn Dolomite does not filter water as effectively, and thus turbid water at Alta Spring can occur." This demonstrates the Forest Service’s awareness of the existing vulnerability that the commenter describes. However, we stand by our assertion on **page 55** that states “During the scoping period, issues were raised by members of the public about the potential deterioration of water quality in the communities downstream of GTR (e.g., Alta, Driggs, Victor and surrounding farms) resulting from ski area projects there, although no specific element of GTR’s operation was identified as the cause behind water quality deterioration… If any particular project component associated with the action alternatives is found to generate downstream/slope water quality issues, in a way that could not be managed or mitigated, that project component would not be approved.”

Additionally, PDC have been incorporated to minimize impacts on water quality. PDC have been updated on **page 52** of the **Final EIS** to state: “Prior to construction of projects in Rick’s Basin, South Bowl, and in the Papoose Creek Watershed a dye tracer test shall be completed to determine connection to Public Water Systems, in order to determine BMPs that should be implemented to minimize erosion, sedimentation, and potential impacts from septic systems.”

18.3 The expansion plan raises significant concerns about the strain on local water resources. The increased development and infrastructure required for a larger ski resort will increase water consumption, particularly for new snowmaking. We are also members of the Grand Teton Pipeline Association which gathers its water from the stream and canals where the proposed expansion will occur. We use this water to irrigate our grazing land for cattle. (373.1) (375.1) Adoption of Alternatives 2 or 5 would impact Mill Creek in the Mono Trees expansion area. Mill Creek descends from east to west in a draw through the entire Mono Trees area. Several of the proposed ski runs terminate in the vicinity of the creek. The EIS Mono Trees area map appears to site the new base area, road and confluence of the ski runs at an intersection with Mill Creek. This contradicts the PDC criteria to avoid or minimize effects of water and wetlands. Mill Creek is a vital resource that enables livestock grazing on the Mill Creek/Teton allotment. The EIS fails to provide an adequate analysis of the impact on Mill Creek. The PDCs do not address how to minimize the adverse effects. Parts of Mill Creek are fed by a spring. The EIS Mono Trees map shows the potential for one of the ski runs to overlap this spring. A FS hydrologist should have been consulted to assess the methods needed to preserve the spring. (294.16) (342.16)

Thank you for your comment. Regarding the impacts that the proposed snowmaking would have on local water supplies, please refer to hydrology **RTC 18.1**.

The commenter is correct in identifying that proposed project components in Mono Trees are located near Mill Creek. However, the lift terminal, ski runs, and proposed access administrative route do not intersect Mill Creek or the adjacent wetlands. The mapping shows these project components overlapping the AIZ, which is a buffer area around stream and wetland features, but not the components themselves. Regarding this overlap, the **Final EIS** states that "within the Mono Trees area, a administrative route is proposed to overlap with a perennial stream (Mill Creek)" and that "the proposed bottom terminal of the Mono Trees lift and associated ski runs are also located within the AIZ" (**page 359**). The BMPs identified in the **Final EIS** in **Section 3.15.2** and PDCs within **Table 2.4-1. Project Design Criteria** would need to be implemented to protect AIZs from impacts.

PDC have been created as a direct response to an otherwise adverse impact. PDC as contained in **Table 2.4-1. Project Design Criteria** of the **Final EIS** set guardrails to direct potential implementation activities to occur in such a way that avoids, mitigates, or minimizes impacts to the extent feasible. Specifically, wetlands, seeps, and springs will be delineated prior to construction, and GTR will be required to obtain a Clean Water Act 404 Permit prior to construction.

No edits were made to the **Final EIS** in response to this comment.

18.4 Environmental impacts are another major concern. Water quality and groundwater supply are not adequately studied in the DEIS. This is particularly troubling given that the City of Driggs relies on water provided by a spring gallery in Teton Canyon. No analysis of the water source for this spring has been completed, but it lies directly downhill from Grand Targhee. Any degradation of the Driggs Spring Gallery would have direct consequences for the residents of the City of Driggs. (542.3) (922.5) (464.7) (541.3) One of my biggest concerns is the potential contamination of the Alta spring, which supplies clean drinking water to our community. Increased development and runoff from the expansion area

could jeopardize this vital water source and pose a serious health risk to residents. (15b.1) (16b.1)

Thank you for your comment. Please refer to hydrology **RTC 18.1** and **18.2** for more information. No edits were made to the **Final EIS** in response to this comment.

18.5 The proposed development in the Mono Trees area poses notable risks to the hydrologic integrity of Mill Creek, a tributary of the Teton River and part of the watershed that supports drinking water for Driggs, Idaho. While the DEIS does not include an analysis of these impacts, well-established science shows that vegetation removal, soil compaction, and increased impervious surfaces from construction activities can significantly elevate runoff, sedimentation, and nutrient loading into downstream water bodies (Paul & Meyer, 2001). These risks are especially acute in high-elevation headwaters like Mono Trees, where intact forests play a critical role in regulating water quality and quantity. Recent studies further demonstrate that development in mountainous catchments exacerbates peak flows, reduces baseflows, and disrupts hydrologic connectivity, leading to longterm impacts on aquatic ecosystems and downstream drinking water sources (Pribulick et al., 2016; Sun et al., 2023). Without comprehensive mitigation strategies and site-specific watershed assessments, expansion in the Mono Trees area may significantly degrade the ecological and hydrologic function of Mill Creek and contribute to cumulative water quality threats in the Teton River basin, including the community of Driggs. (711.40) The DEIS describes potential impacts to groundwater and surface water. It also alludes to possible solutions for wastewater management and expanded snowmaking. However, the document fails to connect the dots regarding risks to drinking water contamination and omits critical details about groundwater resources, wastewater management, development monitoring and best management practices (BMP) enforcement. (683.3) (334.2) The DEIS does not include details pertaining to enforcement mechanisms for BMP implementation or monitoring. Given the risks of surface water and groundwater contamination from nutrients, sediment, and other pollutants mobilized by ground-disturbance activities associated with the DEIS proposed actions, we recommend that the Forest Service and GTR prepare a robust water quality monitoring plan containing specific thresholds for assessing project impacts and clear guidelines for any resultant response actions and public reporting. If downstream waters are being impacted how will those impacts be identified? How will the public know about it? What will be done to remedy the situation? (683.6) (569.5) It would also be helpful to provide numbers for the effectiveness of the BMPs. This provides proof for the statement that the likelihood of threat to water quality is low. (477.21) The FEIS should include site-specific watershed assessments (for the Mill Creek watershed and others impacted by proposed actions) and comprehensive mitigation strategies to address impacts. (569.6) (484.44)

Thank you for your comment. Please refer to hydrology **RTCs 18.1** and **18.3**. Please also note that **page 21** of the **Final EIS** states "In addition to determining which alternative to select, the Forest Supervisor would also determine any required Project Design Criteria (PDC) and Best Management Practices (BMPs). The Forest Supervisor may also require additional PDC and/or BMPs not discussed within this document. The Forest Supervisor may also require monitoring of PDC." No edits were made to the **Final EIS** in response to this comment.

18.6 The potential for impact to surface water, and domestic and public water supply downstream of the Targhee Expansion is not adequately described. While the Hydrologic Impact Report summarizes potential impacts and mitigation requirements, without the detailed plans for this mitigation, and a more in-depth analysis of potential impacts, it is unclear whether downstream users (wildlife and human) will be adversely impacted. (584.6) (582.4) (584.7)

Thank you for your comment. Please refer to hydrology **RTC 18.1** and **18.2** for more information. No edits were made to the **Final EIS** in response to this comment.

18.7 The DEIS has not done a water sustainability analysis that considers current and future climate conditions. a) The DEIS does not take into account Idaho State Water Rights Legislation impacting Teton County Idaho. b) GTR will use wells which access the Teton Valley ID. Aquifer, thus creating a possible conflict with Idaho State Legislation. (444.8)

Thank you for your comment. On **page 31** of the **Final EIS**, it is stated that "As required by GTR's SUP, water sufficiency for existing and proposed operations is documented in a water sufficiency letter that is on file with the CTNF." A footnote citation has been added on **page 29** of the **Final EIS** to specify where the water sufficiency letter came from. Jorgensen Engineering produced this letter. For proposed on-mountain guest facilities, the **Final EIS** discloses that water would be supplied from onsite wells, subject to permitting from the Wyoming State Engineer's Office. Combined diversions for these facilities are anticipated to be limited to less than 5 acre-feet per year for consumptive and sanitary uses and are not anticipated to adversely impact existing groundwater supply (**Final EIS**, **page 359**). No additional analysis is needed to determine impacts to water quantity, as the proposed withdrawals would be within GTR's existing water rights.

No edits were made to the **Final EIS** in response to this comment.

18.8 The EIS Hydrology study indicates negligible impact from new wells, restaurants, snow making, etc. on the primary and secondary watersheds, with the exception of possible "sedimentation." *Residents of Alta have already experienced sedimentation issues. *Dry Creek runs through our property year-round. We covet this waterway, as it an important habitat for wildlife, connects with Teton Creek and provides critical water to the community. *As an Environmental Educator, I don't believe there will be no adverse effect on our waterways and aquifer in Teton Valley. *This MUST be addressed further by Grand Targhee and the Forest Service by detailed hydrology and geohydrology analyses. (332.5) The DEIS noted that snow making will affect the runoff patterns, streams and water availability for aquafers. I could not find that the impact of pollution to the aquifer and streams was evaluated. It is hard to imagine there would be little to no impact. (344.5) Insufficient analysis of snowmaking water use and its effects on aquifers, stream flows, and downstream water quality. (457.102) (487.4) (23b.2) (910.1) Not only that, but it will irreparably harm the aquifers in this area. As a collective, we as humans do not have access to much clean drinkable water. If only three percent of water is fresh, and only one percent is accessible, doing damage to the good aquifers we have would be like a shot in the foot of humanity itself. These are limited, precious resources, and to destroy them and the important work it does to sustain us and our incredibly delicate ecosystem, all for a couple extra lifts and runs, feels extremely selfish and unreasonable. And once they are

ruined, they cannot be restored in a cost effective way. I believe it is unacceptable to do something so major, so permanent, and so unnecessary to our forests and public land at large. The trade-off is tipped so far out of the favor of those who live in the Valley that there is virtually no benefit to be reaped from this deal. (781.1) More ski terrain would increase the need for water withdrawals for snowmaking. Our local aquifers are already stressed by current agricultural and residential use, affecting the environment, but also the community. (637.1) (688.10) (689.10) (399.3) There is an abundance of snow in Caribou-Targhee NF. Accessing that water however seems like a monumental task that risks interrupting the flow into our aquifers, canals, and streams. Grand Targhee has always boasted about Snow from heaven not hoses. That motto needs to remain. Having to expend critical water reserves to add snow to a mountain is not compatible with the mountain, those who ski here now and in the past. All signs point to an expansion that is not sustainable. (498.4)

Thank you for your comment. Please refer to hydrology **RTC 18.1** and **18.2** for more information. No edits were made to the **Final EIS** in response to this comment.

18.9 GTR should explore converting/recycling wastewater into snowmaking like the Yellowstone Club in Big Sky, MT has implemented. (411.2)

Thank you for your comment. We appreciate the commenter's suggestion of utilizing wastewater as a potential source for snowmaking. While this approach may offer some benefits as compared to utilizing proposed and existing water sources, such an approach is not being proposed by the project proponent at this time. This alternative is not being carried forward for analysis as it does not meet the proponent's objectives for the project.

No edits were made to the **Final EIS** in response to this comment.

18.10 Roads proposed in Ricks Basin and in Teton Canyon are parallel or intersecting to intermittent creeks. The proposed road in So. Bowl crosses an ephemeral stream. From P348- "These do not align with Clean Water Act". P. 341 of DEIS states, "the other threat to water quality is nutrient loading and contamination to the nearby public water system from the proposed wastewater treatment for on-mountain facilities." Driggs has relied on a spring at the mouth of Teton Canyon as a major culinary water source. This spring is fed by ground water sources. In September 2022, the City of Driggs discovered that this spring had a leak which made it susceptible to ground water contamination. It had to be taken offline temporarily. Local and downstream agricultural uses require vast quantities of water, and there are no local reservoirs or major water storage facilities. Given the population growth of Teton Valley Id., this all adds to future water insecurity. How could the USFS allow a for-profit business the possibility of contaminating and reducing essential water sources for downstream communities? (729.25)

Thank you for your comment. The **Draft EIS** explicitly recognizes conflicts between proposed administrative route alignments and aquatic resources. The commenter correctly quotes the **Final EIS** acknowledgment: "This does not align with the CWA as administrative routes and facilities are proposed to be located in sensitive areas including riparian areas, wetlands, meadows, bogs, and fens" (**page 359**). However, this statement does not mean the project would violate the Clean Water Act. Rather, it identifies areas where enhanced protection measures must be implemented. The **Final EIS** continues: "The various

BMPs, identified in the **Section 3.15.2** discussion previously, would need to be implemented to protect these sensitive areas" (**page 359**). Further, text was added to the end of this sentence that states "Additionally, PDC identified in **Table 2.4-1** would require GTR to receive a Clean Water Act 404 permit prior to construction, and wetlands, seeps, and springs would be delineated by a certified professional prior to construction to mitigate impacts." Regarding potential project impacts to water quality and nutrient loading, please refer to hydrology **RTC 18.1** and **18.2**.

No edits were made to the **Final EIS** in response to this comment.

18.11 Construction of ski runs, roads, housing etc. will destroy pristine alpine ecosystems. Old growth and threatened Whitepine forests destroyed. Watersheds irreparably damaged. Ground water displacement having geological impact is NOT reviewed in the DEIS. (300.5) (301.5) (302.5) (444.6)

Thank you for your comment. The commenter references "housing" as part of the proposed action. It is important to clarify that the **Final EIS** does not analyze or propose housing development on National Forest System lands. Housing and residential development would occur only on private lands and is not part of the Forest Service's decision-making authority for this Environmental Impact Statement. The **Final EIS** analyzes only those facilities and activities proposed within the existing and proposed Special Use Permit area on National Forest System lands, which include ski area infrastructure, guest service facilities, and associated recreational improvements (**pages 23-41**).

The commenter references "Whitepine forests." It is assumed that the commenter is referring to whitebark pine (*Pinus albicaulis*), a threatened species under the Endangered Species Act (ESA). The **Final EIS** includes a comprehensive analysis of impacts to old growth stands and the whitebark pine, which can be found in **Section 3.12 Vegetation**. Additionally, consultation with the USFWS was conducted ensure compliance with the ESA.

While the commenter is not specific in describing the impacts which they are concerned may occur due to project implementation, we refer them to EIS sections **3.12 Vegetation**, **3.14 Geology and Soils**, and **3.15 Hydrology** for comprehensive analyses of impacts to vegetation, watersheds, and geologic impacts as a result of the proposed project.

No edits were made to the **Final EIS** in response to this comment.

18.12 The DEIS has not done a water sustainability and sufficiency analysis that considers current and future climate conditions. (300.6) (301.6) (302.6) (727.17) (805.4) New withdrawals for expanded snowmaking would tap aquifers already stressed by agriculture and climate change; the DEIS provides no long-term water-availability analysis. (735.4) (916.3) New restaurants and increased snow-making at Targhee would increase water use in a climate stressed region. The DEIS has inadequate information regarding water sustainability in current and future climate conditions. I believe further study should be given to waste water treatment at Targhee. (517.3) (490.2)(518.3) (655.4) Analysis of short- and long-term water availability in the face of a warming planet and the very real issue of where all the waste is going and who's water is going to be affected. (534.4) While the current management prescriptions allow for some development and opportunities for motorized recreation nearby, we encourage the Forest Service to maintain existing

protections for both wildlife and for the surrounding aquatic environments. As noted in the "Water and Climate" section of these comments, decreased annual snowfall resulting from climate change and increased usage of available water due to the PA are likely to have long-lasting, detrimental impacts on the landscape. (538.5)

Thank you for your comment. Please refer to hydrology **RTC 18.1** for more information. Regarding further study to wastewater treatment, please see hydrology **RTC 18.9**. No edits were made to the **Final EIS** in response to this comment.

18.13 Driving through Park City the one thing that caught my eye (other than the miles and miles of new condos and endless construction) were the reservoirs. Teton Valley does not have this infrastructure, so I wonder how much more water for snow making, hotels and housing can be taken from our already stressed system? (767.10) Additionally, the document notes that they currently have enough permitted water for the snowmaking but that they would have to expand their groundwater infrastructure to build out the planned unit development. This is a connected action and the total impact from the snowmaking and the until development at the base is not adequately analyzed. (1066.18) What is the likelihood that private landowners would allow GTR to drill wells on their lands for snowmaking? Who would hold the water rights? And how economically feasible would it be to pump the water uphill to GTR for snowmaking? It seems unreasonable. (477.24)

Thank you for your comment. Please refer to hydrology **RTC 18.1** and **18.2**. Please note that the private lands where the additional groundwater wells would be developed are owned by GTR. No edits were made to the **Final EIS** in response to this comment.

18.14 Additionally, there is no reference to any communications or consultation with the Wyoming State Engineer Office as to if additional wells would be allowed and/or what stipulations would be placed on those wells. (1066.62)

Thank you for your comment. Please refer to hydrology **RTC 18.1**. Any decisions by the Wyoming State Engineer's Office are beyond the scope of the **EIS** and the Forest Service's jurisdiction. No edits were made to the **Final EIS** in response to this comment.

18.15 Many forms of recreation are compatible with wildlife and water quality. Unfortunately, ski resorts have significant impacts on the environment as they are spreading PFAS into the water and soil of our headwaters: https://www.sciencedirect.com/science/article/pii/S2772416624000858 https://www.earth.com/news/skiers-are-spreading-pfas-forever-chemicals-around-the-worlds-mountains/. Before allowing additional privileges, expanding special use permits, etc., the managing agency must look into the contamination of PFAS stemming from resort skiing. The contamination sources will likely be from ski waxes, apparel, and snow-making. Ski areas around the world are being shown to have high levels of PFAS, and without adequate testing at Grand Targhee, how will you know the extent of contamination and the future impacts of allowing more snow-making and skiing? (345.1) Furthermore, The DEIS has not studied the probable contamination of groundwater, creeks and rivers from pollutants from petroleum products runoff, i.e. ski wax, cars, oils. etc. (444.9) (471.65) (300.10) (301.10) (302.10)

Thank you for your comment. The Forest Service acknowledges the commenter's concerns regarding per- and polyfluoroalkyl substances (PFAS) contamination and petroleum product pollutants associated with ski resort operations. However, the Forest Service has determined that additional analysis of PFAS contamination is not necessary to support the environmental decision for this project. The Forest Service's authority under the National Environmental Policy Act (NEPA) and the Forest Service authorization for ski area operations is limited to activities and impacts that the agency can control or directly authorize through permit conditions. PFAS contamination from ski waxes, technical apparel, and user-generated pollution represents sources that are largely beyond the Forest Service's direct control. PFAS contamination from individual user equipment and apparel represents consumer product pollution that would occur regardless of whether the Forest Service expands GTR's permit. This is fundamentally different from impacts that result from the agency's authorization of specific project activities.

No edits were made to the **Final EIS** in response to this comment.

18.16 And does Targhee actually think they can drill wells for water on a ridge of uptilted limestone? How deep would they have to drill? Hundreds, even thousands of feet! (429.3) Would require another well - is there a plan for wastewater treatment or disposal? What would the hours be? Can people dine there without skiing - "destination restaurant"? The DEIS is deficient in answering any of these questions which would impact the viewshed, the watershed, and the employee numbers. (476.20)

Thank you for your comment. It is assumed that the commenter is referring to the proposed Fred's Mountain Top Guest Facility. Regarding the feasibility of the well, the EIS states on **page 30** "The proposed onsite well is anticipated to be limited to a diversion of less than 3 acre-feet per year for consumptive and sanitary uses at the proposed facility and would be subject to permitting from the Wyoming State Engineer's Office." Should the development of the well be unfeasible, it is likely that this project component would not be constructed or additional NEPA analysis may need to be conducted to otherwise ensure that an operational quantity of water may be supplied to the location.

Further, text has been clarified in the Fred's Mountain Top Guest Facility project description on **page 32** of the **Final EIS** to state: "Electricity would be installed from the base area via power lines trenched into existing disturbed areas or areas proposed for ground disturbance which pass the site of the restaurant. Preliminary engineering review determined that sewer would be a sanitary sewer line either placed in an existing disturbed corridor or corridor proposed for ground disturbance based on final engineering review and recommendations.[4] Water would be supplied from pumping water from the base area through a water line either placed in an existing disturbed corridor or corridor proposed for ground disturbance based on final engineering review and recommendations. Water supply would be provided by an additional well located on GTR's private land.[5] This well would need to be permitted by the Wyoming State Engineer's Office.[6] Additionally, the proposed Dreamcatcher Lift corridor, proposed snowmaking line, or proposed administrative route (refer to **Figure 2**, **Figure 3**, and **Figure 6**) could accommodate additional utilities,

[4] Jorgensen Engineering 2026
[5] Jorgensen Engineering 2024
[6] The proposed onsite well is anticipated to be limited to a diversion of less than 3 acre-feet per year for consumptive and sanitary uses at the proposed facility and would be subject to permitting from the Wyoming State Engineer's Office.

potable water, and sewer[7] as these areas would be disturbed during the project construction process and trenching would already need to occur for other proposed infrastructure or utilities. Siting of the guest facility as well as potable water and sewer systems shall be reviewed by certified engineering, architectural, geotechnical, and hydrological specialists prior to construction."

Please also refer to scenery **RTC 5.10** for more information on the additional renderings that were completed for Fred's Mountain Top Guest Facility.

While the Forest Service appreciates and acknowledges the commenters' concerns regarding this facility, details such as non-skier visitation are not necessary to reasonably understand the impacts the implementation of the facility would have on the environment.

18.17 Guest facilities atop mountains are eyesores and create serious water quality and sewage transportation & treatment problems, that are not adequately addressed in this analysis. (159.7) (295.3) (655.2) (538.8) (916.2) Additionally, I have concerns that I have learned that the effluent from the proposed new restaurant and bathrooms would be brought miles in pipes to the currently compromised sewer system in Driggs. (194.2) This is not the right area for septic tanks and leach fields. In spring 2025, the Bridger Teton National Forest approved JHMR's request to add sewer lines to on-mountain facilities and pipe wastewater to the Teton Village Wastewater Treatment Plant. GTR should follow this example and pipe any wastewater off the mountain and to their centralized treatment plant (WYPDES permit No. WY0024708). (683.8) (606.4) (612.2) (710.2) GTR has not done a complete wastewater treatment analysis for hotel, condos and restaurant and the impact of waste on the groundwater. (444.10) (300.11) (301.11) (302.11) (1066.22) (1066.25) (1b.13) It also appears the handling of human waste generated at this facility is not adequately addressed. (453.5) Have tests been conducted for contaminants in water and soil? Figure 3 is hard to read, but it shows a new multi-use trail around the sewage lagoon? Is this a suitable and safe area for a new trail and recreation activities? Will kids and dogs play in the lagoon? Please consult how wastewater areas are managed in communities and national parks. My guess is that putting trails next to such facilities and attracting people there is not acceptable to most land managers. (697.16)

Thank you for your comment. The **Final EIS** discloses multiple wastewater treatment options for the proposed on-mountain guest facilities. For the Fred's Mountain Top Guest Facility text has been updated to clarify that "Preliminary engineering review determined that sewer would be a sanitary sewer line either placed in an existing disturbed corridor or corridor proposed for ground disturbance based on final engineering review and recommendations." (**page 32**). Similarly, the Sacajawea Restaurant and Guest Facility would have "restrooms [that] would be vault toilets, an onsite septic system or a sanitary sewer line, depending on corresponding engineering recommendations" (**page 33**). The Shoshone Guest Facility and Ricks Basin Guest Facility would utilize vault toilets (**pages 33**). No text in the **Final EIS** states that any wastewater would be piped off mountain to Driggs or any other location. While these may present viable solutions, forthcoming engineering recommendations would steer the most viable solution to handling wastewater while minimizing impacts to the environment.

[7] Proper offsetting distances between the potable water line and sewer line would be able to be accommodated in the identified disturbance corridors.

A new PDC has been added to **Table 2.4-1** on **page 51** of the **Final EIS** to clarify that any forthcoming wastewater solutions from engineering recommendations would be designed to minimize impacts to water resources: "Wastewater systems for on-mountain guest service facilities shall be designed by a qualified engineer to meet or exceed all Wyoming Department of Environmental Quality (WDEQ) and EPA standards and regulations. Where necessary, systems shall incorporate treatment technologies to minimize nutrient loading in Karst topography or waterways. Final design selection (e.g., septic vs. sanitary sewer line to base) shall be based on a site-specific geotechnical and engineering analysis to ensure the feasibility, protection of groundwater resources, and protection of downstream Public Water Systems."

18.18 How will human waste be handled at the proposed Mountain Top restaurant? This issue has been a major problem at the Jackson Hole Mountain Resort for Corbett's Cabin. Septic isn't feasible at high altitude (especially with the site's geology). Will it be trucked down to the base? Will there be a pipeline? (477.25) GTR should not consider a septic system until the effects are properly analyzed. The DEIS recognizes the upper mountain where septic systems are proposed contains karst terrain where groundwater moves quickly and is susceptible to contamination. As such, the possibility of nutrient contamination from a septic system is an issue that needs to be addressed. The DEIS says that the Forest Service will solely rely on an engineering report to see if the septic system will be approved. This does not analyze the potential effects of the septic system through the NEPA process by an interdisciplinary team or disclose the effects in the engineering report to the public. (633.3) (197.1) (197.8) While the DEIS addresses hydrologic disturbance and offers general erosion control best management practices (BMPs), the analysis of specific risks to water quality from new development activities is insufficiently detailed. Given the steep terrain, erodible geology, and karst hydrogeology of the project area—as well as the project's proximity to drinking water sources—these issues warrant more careful analysis and disclosure. (569.2)

Thank you for your comment. Please refer to hydrology **RTC 18.17** for more information. No edits were made to the **Final EIS** in response to this comment.

18.19 On page 344 in the DEIS it states "However, there are Proposed Actions that would occur on finer grained, more erodible rock units like the Hominy Peak and Darby Formations." … Need to provide more specific locations. Would it be in the Mono Trees? South Bowl? Specific aspects? On ski runs, or new roads? What about new construction vs continued maintenance? At stream crossings? (477.20) I sent a detailed comment about the hydrological problems at the site. This included geological maps and scientific publications. The problems are that there is not enough water at the site for the proposed improvements and that it would be very difficult to dispose of sewage. This issue is NOT addressed in the DEIS. (14.2)

Thank you for your comment. We acknowledge and appreciate the commenters' concerns regarding actions that may occur on the Hominy Peak and Darby Formations. The Final EIS is a summary document and the commenter is referred to the **Impacts on Groundwater** technical report (available on the project website) for a discussion of specific proposed actions that would occur on these formations. Specifically, **Section 3** of the **Impacts to Groundwater** technical report provides a more detailed discussion of mapped geologic units within the GTR project area and includes supporting figures.

Different soil conditions such as finer grained particles may or may not be present in any given area across the project area. The analysis accounts for this uncertainty by analyzing conditions representative of the project area and applying this analysis across project actions, allowing a thorough and descriptive analysis and recommending robust project design criteria to mitigate any potential impacts that may occur due to site-specific conditions. The analysis of effects as a result of project actions occurring on the Hominy Peak and Darby Formations is valid regardless of the specific siting of each of these project components.

Regarding water availability please refer to hydrology **RTC 18.1** and for sewage disposal see hydrology **RTC 18.17**.

Additionally, various PDCs have been included as identified in **Table 2.4-1** on **page 45** of the **Final EIS** that would be implemented and required to minimize impacts to water quality and soils. These PDCs include developing a drainage management plan and BMP program for projects that are proposed to occur on the Hominy Peak and Darby Formations.

No edits were made to the **Final EIS** in response to this comment.

18.20 The DEIS does not adequately analyze Grand Targhee's expansion proposal's impact on water resources. It fails to adequately assess whether existing wastewater impacts are occurring and affecting downstream water rights holders. It does not address demands associated with snowmaking. The DEIS does acknowledge the importance of the Aquatic Influence Zone (AIZ) identified in the 2003 Forest Plan for their emphasis as hydrologic connection to springs on the valley floor, a connection that is well known and recognized by local water rights holders. There is not a complete comprehensive analysis demonstrating how the development is compatible with the AIZ management prescriptions. Our Driggs Valley's need for agriculture water and human consumption water do not need to be diminished or put in peril just because Grand Targhee wants to expand. (486.3) (645.2) There will be 178 acres in a designated "Aquatic Influence Zone" by the proposed GTR expansion. (444.11) Specifically, the development in Mono Trees, including lift base placement in the Mill Creek Aquatic Influence Zone, threatens headwater quality and downstream drinking water supplies. The DEIS fails to address increased sedimentation, nutrient loading, and hydrological disruption—especially concerning, given the Teton River's significance to Driggs and the broader valley. (462.14) State and Federal protections for resources and values within AIZ's (e.g., water quality, riparian areas, wetlands, etc.) would still be mandatory. And monitoring would still need to occur to protect those values. (477.1) FTR does not support Alternative 2 or Alternative 5, as currently proposed, due to the associated change in designation of the Aquatic Influence Zones (AIZs) from Management Prescription 2.8.3 (Aquatic Protection) to 4.2 (recreation) in the Mill Creek watershed, which is a source water area for the Teton Creek Spring, a public water source for the City of Driggs, Idaho. (569.1) This also leads to concerns about the effectiveness of proposed mitigation measures (457.45) (569.3) (638.8) (471.49) (489.22) (484.41) (697.15)

Thank you for your comment. Please refer to hydrology **RTC 18.17** for more information on the sewer system. Water right permitting is under the jurisdiction of the Wyoming State Engineers Office and not within the jurisdiction of the CTNF.

The **Final EIS** provides a detailed summary analysis of AIZ impacts in the **Hydrology Technical Report**, including identification of specific project components, acreages, and required Clean Water Act permits. The **Hydrology Technical Report** states: "The majority of proposed impacts to AIZs occur within the existing SUP" at 66.78 acres, with 3.86 acres in Mono Trees and 0.01 acres in South Bowl. **Table 3.16-3** on **page 370** of the **Final EIS** provides a comprehensive breakdown of all AIZ impacts by project area, showing existing impacts (94.24 acres), approved impacts (17.87 acres), and proposed impacts for each alternative.

Regarding impacts to water resources, water availability, water rights, and existing drinking water supply, please see hydrology **RTC 18.1** and **18.2**. Regarding changes to the Management Prescription, please refer to wetlands and riparian areas **RTC 19.4**. No edits were made to the **Final EIS** in response to this comment.

18.21 Missing assessments of impacts on wetlands and riparian areas – including compliance with Clean Water Act Section 404. (457.103) On page 337 in the DEIS it states "outside of the SUP, in Mono Trees and South Bowl, the following proposed BMPs should be applied. Along with this, numerous PDC are also included to mitigate impacts to hydrologic resources." … I appreciate the author's diligence in insisting that BMPs and Design Criteria still need to be applied outside the SUP to comply with the Clean Water Act. And BMPs should even be taken into consideration within the SUP. (477.14)

Thank you for your comment. The **Final EIS** clearly analyzes impacts to wetlands and riparian areas in section **3.16 Wetlands and Riparian** Areas as well as in the accompanying **Wetland Technical Report**. The **Final EIS** states that "type and amount of wetland mitigation for these projects would be determined during a future CWA 404 permit process" (**page 368**).

We appreciate the commenter's concerns regarding impacts to hydrology and wetlands resources. While we appreciate the recommendation that BMPs proposed for use outside of the existing SUP be applied within the SUP as well, we note that numerous PDC and BMPs would be applied within the SUP, including AIZ BMPs, and that "the area is already subject to high human activity and impacts to the AIZ within the SUP are allowed" (**Final EIS page 348**).

No edits were made to the **Final EIS** in response to this comment.

18.22 Need a criterion for vehicle staging areas and for storage of petroleum products. (477.8) There used to be a State of Idaho BMP for this, but don't know if it still exists. (477.15)

Thank you for your comment. In response to this comment, the following PDC has been added to **Table 2.4-1** on **page 52** of the **Final EIS**: "Vehicle and equipment staging areas shall be located outside of the AIZ and away from wetlands, streams, and drainages to the extent practicable. Petroleum products, hazardous materials, and chemicals shall be stored in designated areas with secondary containment, at least 150 feet from streams, wetlands, and other water bodies. Refueling operations shall occur in designated areas with spill containment measures in place."

18.23 Expansion as well as further development within bounds and base area will have multiple negative impacts on water supply and quality. Increased water utilization for restaurants and other facilities and massive increase in snowmaking would diminish already stressed local aquifers with downstream impacts to the local community. The need to expand the

septic system for the proposed infrastructure developments will result in increased disposal of waste and wastewater which poses a potential threat to ground and surface water quality in Teton Valley. Waste management in general is likely to strain the capacity of local landfills, create new litter and pollution problems. Sediment from road building, lift construction and glading will potentially adversely affect the water quality for Alta and Driggs municipal water supply which comes from the Teton Creek drainage. This could also result in diminished aquatic habitat for endangered Yellowstone cutthroat trout. (727.6) Are there any fish-bearing streams downstream from the project area that are connected to streams within the project area where indirect impacts could affect fisheries? (477.17) I don't think the DEIS adequately addressed issues around water. Water quality and quantity would suffer from erosion and runoff by development construction and the actual running of the facilities. The resultant increase in stream sedimentation would affect the riparian ecology of Teton Creek, putting at risk the health of fish populations. (352.3) (358.5)

Thank you for your comment. Regarding potential impacts to water supply and quality for downstream communities, please refer to **RTC 18.1** and **18.2**. Regarding disposal of wastewater and sewage, please refer to hydrology **RTC 18.17**.

Waste generation is beyond the scope of analysis as it is beyond the purview of the Responsible Official to dictate how much waste may be generated and the manner by which it may be disposed of by non-Forest Service entities.

The risk of sediment pollution is examined in the **Hydrology Technical Report** on **page 5** and summarized in the **Final EIS** on **page 352**. Specifically, it states “One potential water quality contaminant is sediment from erosion of disturbed areas. Sediment would most likely be an issue in Mill Creek and Dry Creek. However, Forest Service BMPs will be implemented with any proposed activities, during both construction and operations, so the likelihood of sediment becoming a threat to water quality is low.”

Impacts to Yellowstone cutthroat trout as a result of sediment input are explicitly analyzed on **page 327** of the **Final EIS**, where it is stated “The chairlift base proposed within Mono Trees under Alternatives 2 and 5, is located within the AIZ of Mill Creek. However, Design Criteria would be followed to minimize impacts to Mill Creek. There are no anticipated impacts to waterways within South Bowl. PDC and standards and guidelines from the 1997 Forest Plan would reduce negative impacts within the AIZ and adjacent water bodies. Downstream Yellowstone cutthroat trout habitat outside of the project area in Teton Creek would continue to support the species and provide spawning areas. As a result, the Proposed Action *May Impact Individuals or Their Habitat, But Will Not Likely Contribute to a Trend Towards Federal Listing or Loss of Population Viability*.” This is the same determination reached for the species under the No Action Alternative.

No edits were made to the **Final EIS** in response to this comment.

18.24 The potential deterioration of water quality was raised during scoping, but the DEIS leaves the detailed investigations until the project phase when they will be actually approved or not (see section 2.54 on page 55). This is a practical approach, although much of the water quality impact could be from base area activities on private land, such as storm water runoff or other point and non-point pollution sources that evade the water treatment plant. (644.15) On page 342 in the DEIS it states "Outside of the project area, HD

areas can include roads, hiking and biking trails, and prescribed burn areas." This should also include parking lots, and disturbed areas on private lands (477.18)

Thank you for your comment. For a general analysis of sediment pollution in groundwater, please refer to hydrology **RTC 18.2**.

As noted by the commentor, GTR operates on parcels of private land, over which the Forest Service has no authority to direct operations. While we appreciate the commenter's suggested revision to text regarding hydrologically disturbed areas, this edit was not made as all resort parking lots are located on private land. As the Forest Service has no authority over the use of these lands, however the **Hydrology Technical Report** does contain a hydrologic disturbance analysis including existing hydrologically disturbed areas on GTR's private land. No edits were made to the **Final EIS** in response to this comment.

18.25 Is there a glossary for the acronyms? Some readers may not know what BMP, PWS, etc. are, and I don't believe I've seen a definition where they were first used. But I could be wrong. (477.22)

Thank you for your comment. Please refer to **page ix-ii** of the **Final EIS** for a disclosure of the acronyms and abbreviations that are used throughout the **Final EIS**. No edits were made to the **Final EIS** in response to this comment.

18.26 Furthermore, development will degrade water quality, increase stormwater runoff, reduce groundwater supply, contribute to wildlife-vehicle collisions, and increase energy consumption and pollution-all in a region already vulnerable to the effects of climate change. (550.2) Furthermore, past construction at Targhee has impacted the water of the Alta Community Pipeline, such as sedimentation in the water when construction began on the Sacajawea lift on Peaked Mountain in 2001. Therefore, further expansion at Targhee will likely result in all community members using this water source having to make the expensive change of drilling wells. This is only one of many negative impacts that expansion would have on our community. (695.4) (1062.1) While a percentage of the water is lost to evaporation (I have seen figures from 35 to 45 percent lost to evaporation at the ski areas elevation), a larger amount is held on the ground and melts later. This postpones the runoff curve and results in a latter discharge period. While not significant, and while there is a loss in the groundwater table, there is also a slight delay in the runoff bell curve. (702.7) (550.1) (569.8) (693.8)

Thank you for your comment. Regarding wildlife-vehicle collisions, please refer to wildlife RTC **16.60**. Regarding impacts to water quality, stormwater runoff, and sedimentation in water, please refer to hydrology **RTC 18.1** and **18.2**.

We appreciate the commenter's concerns about changes to runoff. The **Final EIS** analyzes for impacts from additional snowmaking, which can be found on **pages 358–359**. Regarding impacts to runoff from additional snowmaking, the **Final EIS** on **page 359** states "These changes in volume would melt and runoff during the spring (June) but are not anticipated to alter peak flows or water yields to a large enough degree that they would result in impacts to channel morphology function or cause additional erosion." Additionally, implementation of BMPs would also reduce increases in runoff and sediment.

No edits were made to the **Final EIS** in response to this comment.

18.27 Correct inconsistencies and unexplained rationale about the speed of groundwater transport. The DEIS states "these areas are characterized by springs and underground caves in which the hydrogeology can be vulnerable to contamination due to runoff being transported through subsurface channels" (p. 341). Later in the DEIS, this statement is contradicted. "However, it has been determined that due to the large distance between the possible nutrient contamination area and the downstream PWS, the nutrients would likely be taken up by the plants, air, natural bacteria, and soils along the water runoff pathway" (p. 345). The rationale behind "it has been determined" is not explained. The best available science per Kiver (1977) shows that dye-traced water from near Devil's Stairs in Teton Canyon traveled only 4 and 6 miles to springs in Eddington Canyon, not a long distance. Also, dye tracing in the karst terrain in Logan Canyon shows rapid groundwater transport, which has a similar geologic context to Grand Targhee Resort (Spangler 2001). (633.5) (583.4) (764.1) (477.16) (477.23) Additionally, In many cases nationwide, flow direction and distance to adjacent drinking water sources is a viable tool to assess potential impacts from a wastewater system. This is not the case in a karst landscape. It is well known that the Madison Fonnation is heavily karstified in this location, and it slopes west between 12 and 16 degrees. The Big Hom Formation and shale layers below it diminishes further infiltration, resulting in the westward groundwater flow within this karst formation towards the valley floor, at times surfacing springs. There is a heavy reliance by drinking water systems and irrigators on springs that originate at the valley floor. (497.3) Turbidity, sediment pulses, and bacterial contamination, which they documented and believe originated when karst geology become exposed during grading activities on Grand Targhee. They believe that by grading and removing top soil and exposing the bedrock, which is porous, surficial connectivity was created to their drinking water source, which then resulted in their inability to meet EPA drinking water standards. (497.2) (693.7) Specifically, the DEIS did not use any sort of quantitative methodology such as tracers or sediment and water analysis to better understand if existing issues do indeed originate from resort development. It is stated in 3.15 of the DEIS that the surrounding area sees karstification but within GTR's boundaries karstification does not occur and minimizes the real scope of the projects impact on hydrogeology. This is outright untrue, as evident by formation of the sinkhole in GTR's boundaries. By changing the hydrology of the proposed areas the likelihood of sinkhole formation could increase drastically. In accordance with the Federal Cave Resources Protection Act of 1988 these sinkholes would become a karst formation that should be treated in accordance with the protection act. (725.1)

Thank you for your comment. As disclosed on **page 356** of the **Final EIS** the distance between the source of any potential nutrient contamination and downstream PWS is sufficient to determine that threats to water quality as a result of the project is low. Additionally, and as stated in **Section 2.54 Alternatives Responding to Community Drinking Water Quality Concerns Raised During Scoping**, "no specific element of GTR's operation was identified as the cause behind [previous] water quality deterioration." Multiple PDC have been developed to ensure that project components would not impact groundwater quality. Finally, the EIS states "If any particular project component associated with the action alternatives is found to generate downstream/slope water quality issues, in a way that could not be managed or mitigated, that project component would not be approved. This would be determined following detailed hydrology and geohydrology analyses that would be prepared specifically for this project" (**page 58**).

Please also refer to hydrology **RTC 18.17** for more information on the sewer systems and additional PDC that have been added to the **Final EIS**.

The **Final EIS** specifically recognizes the presence of karstic formations in the GTR boundary: "A karst formation can be seen at GTR on the cutslope at the upper terminal of the Dreamcatcher Lift" (**page 350**).

Karst is not holistically protected under the Federal Cave Resources Protection Act; only significant caves are protected.

Additional and extensive information about geohydrology is contained in the **Impacts on Groundwater** technical report, available on the project website.

No edits were made to the **Final EIS** in response to this comment.

18.28 Section 1.11. Other Necessary Permits or Consultation. States "Army Corps of Engineer, Clean Water Act, Section-404 permit." This bullet accurately describes a necessary federal permit for the project. However, WDEQ requests that "Wyoming Department of Environmental Quality, Clean Water Act, Section 401 Water Quality Certification" be added as a new bullet or as an addition to the second bullet. A Section 401 Water Quality Certification must be obtained from the WDEQ-WQD before a 404 permit can be issued. To streamline the certification and permitting, it is advised that the 401 and 404 processes run in parallel. (638.5) Fourth Bullet. The fourth bullet states, "United States Environmental Protection Agency (EPA) Federal construction General Permit for stormwater discharges." WDEQ requests this be revised to "Wyoming Department of Environmental Quality (WDEQ) Large Construction General Permit (LCGP) for stormwater discharges." This revision will accurately describe that the WDEQ has the authority to regulate stormwater discharges in the State of Wyoming. This is based on WDEQ's primacy agreement with EPA to implement and enforce the requirements of Section 402 of the Clean Water Act. (638.6) Furthermore we urge the Forest Service to Request assurance that new wastewater infrastructure will meet Wyoming DEQ and EPA standards, and request a commitment to sanitary sewer line systems connecting to the existing permitted and monitored central wastewater treatment system (WYPDES permit No. WY0024708) for proposed guest facilities. (569.10)

Thank you for your comment. In response to this comment, "Wyoming Department of Environmental Quality, Clean Water Act, Section 401 Water Quality Certification" was added as a bullet to **Section 1.11** on **pages 21-22** of the **EIS**. Additionally, the bullet point on **page 22** of the **Final EIS**, "United States Environmental Protection Agency (EPA) Federal construction General Permit for stormwater discharges," was updated to state "Wyoming Department of Environmental Quality Large Construction General Permit for stormwater discharges."

Regarding the request for assurance that wastewater infrastructure meet WDEQ and EPA standards, please refer to hydrology **RTC 18.17**.

18.29 WDEQ requests that "Wyoming Department of Environmental Quality, Wyoming Water Quality Rules, Chapter 3 Permit to Construct" be added as a bullet to ensure public water supply permitting and construction is compliant with Wyoming Water Quality Rules. Since the Project will involve construction of public water supplies or similar facilities,

the system must be permitted and constructed consistent with Wyoming Water Quality Rules, Chapter 3 (Regulations for Permit to Construct, Install or Modify Public Water Supplies, Wastewater Facilities, Disposal Systems, Biosolids Management Facilities, Treated Wastewater Reuse Systems and Other Facilities Capable of Causing or Contributing to Pollution) and Chapter 12 (Design and Construction Standards for Public Water Supplies). A public water supply is defined at Wyoming Statute (W.S.) 35-11-103(c)(viii) as "a system for the provision to the public of water for human consumption through pipes or constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves at least twenty-five (25) individuals." Additional information is available: https://deq. wyoming.gov /waterquality/ water-wastewater /permitting. In addition to WDEQ's requirements, public water supplies must also comply with the federal Safe Drinking Water Act's Public Water System Supervision (PWSS) Program. The United States Environmental Protection Agency (USEPA) Region 8 implements the PWSS Program in Wyoming. Additional information is available at https://www.epa.gov/region8-waterops/basic-information. (638.7)

Thank you for your comment. In response to this comment, "Wyoming Department of Environmental Quality, Wyoming Water Quality Rules, Chapter 3 Permit to Construct" was added as a bullet to **Section 1.11** on **pages 21-22** of the **EIS**.

18.30 The Hydrology Technical Support Document (HTSD) prepared by Alder Environmental identifies Wyoming Surface Water Quality Standards for Dry Creek and Mill Creek within the project area; however, Figure 1 in the Draft EIS identifies additional unnamed streams that were not described in the HTSD. Although the unnamed drainages are not identified within the Wyoming Surface Water Classification List, they are still "surface waters of the state" and subject to protections under Wyoming Water Quality Rules Chapter 1 (Wyoming Surface Water Quality Standards) (WQS). Further, all surface waters not identified in the Wyoming Surface Water Classification List assume Class 3 designated uses and associated protections pursuant to Appendix A(b) (ii) (C) (IV) of the Wyoming WQS. Therefore, WDEQ-WQD requests the HTSD and Draft EIS be updated to reflect the potential impacts and mitigation measures for all "surface waters of the state" within the project area. (638.9)

Thank you for your comment. As stated on **page 347** of the **Final EIS**, "the Aquatic Influence Zone (AIZ) is associated with surface waters, wetlands, and riparian areas."

Additionally, please refer to **Figure 5** within the **Hydrology Technical Report** that shows surface waters and the proposed projects. Please also refer to **Table 2.4-1** on **page 51** of the **Final EIS** where it states that:

- All wetlands within the vicinity of any ground disturbing activities or tree felling should be clearly delineated and flagged by a qualified individual prior to construction so they can be avoided by construction activity to mitigate impacts.
- As required, GTR shall obtain all federal, state, and local permits when installing stream and wetland crossings and ensure they meet permit requirements.

No updates were made to the **Final EIS** as a result of this comment as the analysis and application already applies to all surface waters of the state.

18.31 Groundwater Classification. Pursuant to Wyoming Water Quality Rules Chapter 8, Section 5 (b), "Underground water quality shall be classified for an aquifer which is or may be affected by a subsurface discharge or other activity as identified in Water Quality Rules Chapter 8 Section 4.a." Please contact the Water Quality Division, Groundwater Section at (307) 777-7781 to discuss a groundwater classification for your project. Additional information is available at http://deq.wyoming.gov/wqd/groundwater/. (638.11) (638.4)

We appreciate the commenter's concerns regarding groundwater resources. For more information regarding anticipated impacts to groundwater resources, please refer to **RTC 18.17** and **18.28**. No edits were made to the **Final EIS** in response to this comment.

18.32 The EPA's October 8, 2020, scoping letter recommended that the EIS identify existing aquatic resource baseline conditions in the proposed Project area. We specifically recommended describing watershed conditions, streambank conditions, vegetation cover, soil conditions, and wildlife and fish population health and habitat. While the Draft EIS and Wetland Technical Report include some of this information, our review indicated there are data gaps related to the existing conditions of the aquatic resources, particularly regarding watershed and streambank conditions, vegetation cover, and soil conditions. Table 3.15-1 in the Draft EIS describes the wetland functional assessment that was performed, and streams within the Project area that were assigned functional ratings of either "Proper Functioning Condition" or "Functional – At Risk." While most of the streams within the Project area were assigned a rating of "Proper Functioning Condition," the Draft EIS does not provide discussion of which ratings have been assigned to the streams impacted by the Project, or how the proposed activities may affect the future functions of the streams. We recommend the Final EIS identify the functional conditions of the specific streams impacted by the Project and provide an analysis that discusses both short-term and long-term impacts to the functional condition of those streams, including consideration of the specific roles they each play in the ecosystem. Should any waterbodies or waterbody segments be identified as "Functional – At Risk," we recommend the Final EIS identify the methods by which the Forest Service will ensure that further degradation is avoided or minimized during Project construction and operation. (668.6)

Thank you for your comment. The requested information regarding wetland conditions was presented in **Appendix B** of the **Hydrology Technical Report**. This appendix contains individual field assessment forms for stream reaches in the project areas. As discussed on **page 2** of the **Hydrology Technical Report**, a "field technician conducted hydrologic and aquatic resources surveys and characterized drainage channels (from July 9 through July 31, 2019). Locations of drainage channels were mapped across the Project Area (existing SUP, South Bowl, and Mono Trees). Each drainage was walked, field mapped, and then digitized in ArcGIS (Appendix A – Figure 2). All drainages were identified using a central naming convention that identified the relative location of stream reaches off each channel. Channel geomorphic characterizations and Proper Functioning Condition (PFC) assessments were conducted at points along all drainages (Appendix B – Proper Functioning Condition Forms). All field collected data was digitized, mapped, and analyzed in ArcGIS ArcMap mapping software."

Methods by which further degradation would be avoided or minimized by project construction and operation are outlined in **Table 2.4-1. Project Design Criteria**. No edits were made to the **Final EIS** in response to this comment.

18.33 Per Table 3.15-1, approximately 23% of linear surface waters footage in the GTR SUP are identified as "Functional – At Risk". South Bowl and Mono Trees areas are approximately 0% and 14% "Functional – At Risk", respectively. The Draft EIS does not detail or summarize the parameters that inform these Proper Functioning Condition (PFC) assessment decisions. The hydrology report includes PFC forms from the field assessments that provide some insight, but we recommend that the Final EIS summarize and discuss the results in order to understand which waterbodies or waterbody segments are designated "Functional – At Risk" and why. We also recommend the information is included in map format so the reader can see which segments in the Project area are "Properly Functioning" or "Functioning – At Risk" and if there are nearby structures, roads, or other sources contributing to the impaired conditions. Such maps could also assist in considering whether planned activities and infrastructure could exacerbate the impacts. (668.10)

Thank you for your comment. Please refer to hydrology **RTC 18.32**. The PFC field assessment forms contain details and notes describing the rationale behind the assigned functional rating for each segment. Additional details are not needed to accurately present and analyze impacts to hydrologic resources and reasonably inform the responsible official in their decision. A citation to the Proper Functioning Condition protocol has been added to the **Final EIS** on **page 352**: "Most of the channels within GTR's existing and proposed SUP area are in proper functioning condition (refer to **Table 3.15-1**, Dickard et al. 2015)."

18.34 The Draft EIS evaluates Teton Creek, Dry Creek, and South Leigh Creek HUC 12 watersheds as they intersect with the Project area. The Draft EIS states: "Currently within the existing and proposed GTR SUP area there are no federally listed impaired or threatened streams." The Draft EIS does not identify that Teton and South Leigh Creeks in their respective watersheds downstream of the Project area are listed as impaired waterbodies for cold water aquatic life and salmonid spawning. The Draft EIS does identify that the existing SUP and proposed actions may contribute to increased sediments/turbidity and nutrients downgradient of the Project; however, it does not evaluate the existing SUP and any connections to the downstream impairments, nor does the Draft EIS analyze how and to what extent the impairments could be exacerbated by the Project activities. Sediment and nutrient pollution can contribute to impairments to cold water and salmonid fisheries. Therefore, we recommend that the Final EIS evaluate and discuss these impaired waterbodies and identify if the existing GTR SUP may currently contribute to the impairments. We further recommend the impacts analyses for the alternatives consider additive impacts and the potential extent of those impacts to these impaired waterbodies, as well as to those discussed above that are identified as "Functional – At Risk." Consideration of any ongoing contributions of the ski area to the current impairments can be informative regarding what impacts the proposed activities could cause. Such a wholistic evaluation of the existing conditions and the Project's impacts on affiliated waterbodies would be a valuable addition to the Final EIS. (668.11)

Thank you for your comment. While the commenter notes impairments in downstream reaches of Teton and South Leigh Creeks, on **pages 355-358** of the **Final EIS** the analysis demonstrates that the Project activities will not meaningfully contribute to or exacerbate these downstream conditions due to the lack of significant pollutant transport from the site. The **Final EIS** and **Hydrology Technical Report** evaluated the potential for sediment and nutrient transport and determined that with the implementation of required Project Design Criteria (PDC) and Best Management Practices (BMPs), the risk to downstream water quality is low. Because the analysis confirms that the Project's contribution of sediment and nutrients to off-site waters will be negligible, a detailed evaluation of downstream impairments in Teton and South Leigh Creeks is not necessary to inform the decision. The existing "holistic evaluation" of on-site conditions, combined with strict mitigation requirements, ensures that the Project will not exacerbate existing downstream impairments.

No edits were made to the **Final EIS** in response to this comment.

18.35 Impacts from Project activities such as snowmaking, tree clearing, construction areas, and any grading may include soil loss, altered soil chemistry from melted artificially made snow, increased surface runoff, sedimentation loading and possible pollutant delivery, changes in water temperature associated with erosion of soils and stream banks, water channelization, soil compaction, reduced stream base flows from decreased infiltration to groundwater, and vegetation loss. We recommend the Final EIS further assess in a site-specific manner impacts to aquatic resources, including water quality, stream and wetland processes, and downstream fish populations/habitat, and discuss and require activity-specific mitigation measures to address such impacts. To assist in this analysis, the EPA recommends the Forest Service consider utilizing the Water Erosion Prediction model (WEPP). We understand the Forest Service has a version of this model available for use and we suggest its use as a way to provide a data driven impact analysis to support statements throughout the Draft EIS. Another tool that would assist the analysis is EPA's Automated Geospatial Watershed Assessment (AGWA) Tool. This is useful for hydrologic modeling and runoff assessments at multiple temporal and spatial scales. It is designed to provide qualitative estimates of runoff and erosion relative to landscape change. (688.17)

Thank you for your comment. The Forest Service is of the opinion that the existing analysis in the **Final EIS** is sufficient to reasonably inform the Responsible Official of the anticipated project impacts, and that additional quantitative and qualitative modeling is not necessary to understand potential impacts and develop effective mitigation measures. Anticipated erosion impacts are described on **page 355** of the **Final EIS** in **Section 3.15.4 Direct and Indirect Environmental Consequences** and PDC included to minimize erosion impacts are found in **Table 2.4-1. Project Design Criteria**.

No edits were made to the **Final EIS** in response to this comment.

18.36 The GTR has proposed an additional 57 acres of snowmaking, in addition to the current snowmaking infrastructure which serves beginner terrain on the Big Horn trail. The stated purpose of snowmaking activities is to provide better snow surface and early season conditions. The Draft EIS states that the necessary water for this increased coverage would come from additional groundwater wells which would be developed in GTR's base area. It also states that GTR's infrastructure could accommodate the expansion in

snowmaking; however, as GTR's base operations expand, the groundwater infrastructure would also need to be expanded. The Draft EIS also states that a water sufficiency letter is on file with the CTNF, but there is no discussion of the anticipated water supply needs for the additional snowmaking or the impacts of the additional water supply needs to groundwater and the local aquifers. Given that snowmaking will occur to supplement a deficiency in snowpack (particularly at lower elevations) as well as provide expanded coverage for additional acreage, it seems that this Project could reasonably result in significant additional water use. Therefore, to better understand existing conditions of the current snowmaking operation and potential effects of future expansion, we recommend the Final EIS include additional information to further evaluate how the current usage has impacted groundwater resources and any dependent surface waters, and how much increased water use could occur. We also recommend the Forest Service analyze the potential impacts of less availability of water during drought years on viability of the proposed Project. (668.13)

Thank you for your comment. Please refer to hydrology **RTC 18.2** for more information on the snowmaking and water sufficiency letter produced for this project. No edits were made to the **Final EIS** in response to this comment.

18.37 What impacts may be currently occurring due to existing snowmaking activities may assist with understanding how any proposed changes in the snowmaking water withdrawal regime and application would impact the Project area under each Alternative. We recommend the Final EIS include the following information related to snowmaking: • A discussion of the existing snowmaking operation including current water supply usage per season (in acrefeet) and any known impacts to hydrology or water quality from current usage; • A range of estimated water demand per new well developed, and a range of estimated increased water use under each Alternative; • A water quality analysis of the water to be used for snowmaking, as well as an assessment of existing water quality in the receiving waters to which the snow melt will flow; • A soil analysis of the proposed snowmaking areas to determine possible soil minerals/nutrients that could be disturbed and leaked into increased runoff from snow melt and enter surrounding waterbodies; and • An analysis of direct and indirect groundwater impacts from the increased water withdrawals (e.g., drawdown of aquifer water levels, reductions in stream flow, impacts on aquatic life, wetlands, and other aquatic resources). The EPA also recommends that the Final EIS consider whether continuation of recent snowpack trends could result in the need for expanded snowmaking to maintain the same level of existing and proposed snow coverage. (668.14)

Thank you for your comment. For more information regarding snowmaking, additional water withdrawals associated with the project, and impacts as a result from erosion, please refer to hydrology **RTC 18.1** and **18.2**. No edits were made to the **Final EIS** in response to this comment.

18.38 The document states that "within two year following completion of projects in Ricks Basin and South bowl, a drainage management plan shall be created. The drainage management plan must be prepared prior to starting the projects and should be included as a mitigation for impacts identified in this EIS. As presented this PDC does not provide any mitigation that can be analyzed. (1066.30)

Thank you for your comment. Please note that a separate PDC as identified in **Table 2.4-1** requires the development of a Construction Implementation Plan that outlines erosion control and drainage management planning to occur prior to the implementation of project elements. The PDC highlighted by the commenter requires a separate plan that would outline actions taken to address any potential problematic areas that develop over time. This PDC is a mitigation measure in itself to ensure long-term resource protection within the proposed project areas.

The PDC that the commenter is highlighting was included to minimize impacts to erosion and sedimentation over the Darby Formation where the Rick's Basin and South Bowl are located. This separate drainage management plan would help minimize impacts from increased sedimentation and erosion into Alta Spring as a result of the proposed projects in Rick's Basin and South Bowl.

No edits were made to the **Final EIS** in response to this comment.

18.39 The document notes "Bear's Wheatfield" It is Beard's Wheatfield. (1066.60)

Thank you for your comment. In response to this comment, the typo on **page 350** of the **Final EIS** has been corrected to "Beard's Wheatfield."

18.40 Eastern Idaho is in dire straits with water. Every drop is precious and is being counted for the Water District that is forming. The full impact of less water on agriculture and tourism must be provided to the public and the Idaho WaterMasters before a decision is made. This should include the cumulative impacts of climate change and the need for sewage treatment with an expanded population both on the mountain and in the Teton Valley. Millions of gallons of water should not be taken from the Idaho side of the Teton drainage for snowmaking in Wyoming. Idaho sees no benefit from either upgrading or expanding a ski resort located in Wyoming. The feasibility and impacts of taking water from the Wyoming side should be presented as an alternative. (382.4) Water quantity is another topic that should be evaluated to a greater extent. Aquifers on the west side of the Tetons are experiencing groundwater depletion and regulation by the State of Idaho. Water development at Grand Targhee needs to be done in a way that doesn't compromise existing natural and human uses in the valley floor. (497.4) (300.8) (301.8) (302.8)

Thank you for your comment. Please refer to hydrology **RTC 18.1** for more information. No edits were made to the **Final EIS** in response to this comment.

18.41 Alternative two and three propose snowmaking on 57 acres. In the FEIS, SE Group needs to quantify the amount of water required for snowmaking. If ground water is required for snowmaking, the location of ground water wells and associated water rights must be disclosed in the EIS. Impacts to the aquifer need to be analyzed via ground water modeling in a supplemental EIS. (729.24) (1066.61) (1066.17) We are concerned about the substantial increase in snowmaking proposed under all action alternatives, including Alternative 3. Snowmaking is a highly energy-intensive activity that burns fossil fuels to turn millions of gallons of water into a relatively small amount of snow in defined areas. According to the ski industry, it takes 8 million gallons of groundwater to make enough snow to cover a 3.5-mile ski run. Given that this is a known figure, the DEIS should have included metrics on exactly how much water is required for the amount of snowmaking

proposed. (471.64) My main concern is the relative amounts of annual groundwater transport versus long-term storage in the Hominy or whatever the wells are accessing. All of the wells will probably be productive in the short term, but long-term use could gradually deplete them and affect the Alta water source, because the broad structure of the bedrock dips to the west and water could leave via gravity to the Teton Basin. (644.16)

Thank you for your comment. Please refer to hydrology **RTC 18.1** for more information. No edits were made to the **Final EIS** in response to this comment.

18.42 We fail to see how GTR will responsibly manage silt, sediment, erosion, pollution etc. of this watershed that feeds agriculture, livestock, and public drinking water downstream. Proposed additional snowmaking is of concern to water rights holders downstream and those water rights must have priority over non-natural snow production for recreational skiers. (789.1) (1062.2) (24.2) The DEIS does not take into account Idaho State Water Rights Legislation impacting Teton County Idaho. (300.7) (301.7) (302.7) (444.7) Additionally, in October 2022, the Director of the Idaho Department of Water Resources (IDWR) issued a new moratorium order on processing new water right applications for surface and ground water in the Snake River Basin. The order covers an area including tributary basins in the upper Snake region including the Henry's Fork/Teton watershed. In essence, the order determines that the Snake river, its tributaries and ground water aquifers are largely fully appropriated except in limited circumstances. Approving new consumptive uses in the headwaters of an overallocated interstate basin may be inconsistent with broader water management goals and requires further study of physical and legal water availability. We strongly urge the Forest Service to: • Provide documentation of total cumulative consumptive use including snowmaking and domestic use in the Final EIS. • Coordinate with the Idaho and Wyoming State Engineers, and include a discussion of how the proposed project impacts downstream water users and complies with the Snake River Compact (1949), Roxana Decree (1941), the Swan Falls Agreement (1984), and the Expanded IDWR Groundwater Moratorium (2022).We have concerns that the DEIS does not include analysis of consumptive water use, particularly in the context of ongoing water supply limitations and regulatory constraints in the Upper Snake River Basin. While the DEIS briefly discusses snowmaking and other development-related water uses, it does not sufficiently analyze the cumulative consumptive use of the proposed project and whether Grand Targhee Resort has secured the necessary legal and physical water rights to support long-term operation. (569.9) (683.2) (916.4) We have concerns that the DEIS does not include analysis of consumptive water use, particularly in the context of ongoing water supply limitations and regulatory constraints in the Upper Snake River Basin. While the DEIS briefly discusses snowmaking and other development-related water uses, it does not sufficiently analyze the cumulative consumptive use of the proposed project and whether Grand Targhee Resort has secured the necessary legal and physical water rights to support long-term operation. (569.7)

Thank you for your comment. Regarding the analysis of silt, sediment, erosion, water pollution, and additional snowmaking, please refer to hydrology **RTC 18.1** and **18.2** for more information. For a discussion of the legality of additional groundwater withdrawals, please refer to hydrology **RTC 18.1**. As the Forest Service does not hold the authority to issue groundwater rights, this issue is beyond the scope of analysis of the project's potential impacts on the environment.

No edits were made to the **Final EIS** in response to this comment.

18.43 Snowmaking would require taking water from our streams that in low water years would impact our fish and wildlife and environmentally could be devastating. In order to understand how little snow Targhee gets at the elevation of 7200 feet. Since the Teton Canyon rode is closed during the season to vehicles, I took a picture coming down from Targhee at the top of the section where the road cuts back which is an elevation of 7000 feet and you will see that the ground is bare. This picture was taken on April 10th but for any that drove to Targhee this season, you would know that this area had very little snow on it all year thus snowmaking would be a must in the Mono Trees which takes away from the great snow that Targhee has to offer with the need for little snowmaking on Shoshone at the beginning and end of the season. The vibe of Targhee is the greatest snow and not skiing on runs that are almost always needing snowmaking. (162.6) Additional wells will be needed to accommodate a 57 acre coverage area, as this will be fueled by groundwater. Artificial snow delays the timing of plant growth. It also affects wildlife food sources and soil composition. Will this prove tenable per climate change projections? Therefore, is the expenditure necessary? (332.8) (569.8)

Thank you for your comment. For a detailed discussion on project impacts resulting from the proposed additional snowmaking, please refer to hydrology **RTC 18.1**. No edits were made to the **Final EIS** in response to this comment.

18.44 The DEIS calls for an additional 57 acres of snowmaking at GTR. By our calculations, adding two feet of snow to 57 acres would require an additional 20 to 23 million gallons of groundwater per year (enough to supply about 200 homes with domestic water for that same span). The DEIS does not determine what the net consumptive loss of groundwater would result from this activity, but peer-reviewed studies have shown that snowmaking can result in 6-30% water loss (Grünewald & Wolfsperger, 2019). Concerning potential impacts to groundwater, the "Hydrology Technical Report" offers this tantalizing but elusive information: GEO-HAZ Consulting prepared a technical report, "Impacts on Groundwater from the Proposed 2021 Expansion, Grand Targhee Resort, Teton County, Wyoming" which effectively addresses sufficiency of water determination as required by FSH 2709.11, Chapter 50. This report summarizes water usage required for culinary use and snowmaking and compares these uses to two existing and two proposed groundwater wells. This report is not available online, in the DEIS, or the Hydrology Technical Report. A FOIA inquiry was denied (for lack of such a report). A request to GEO-HAZ for the report received no response. How can the public evaluate impacts from proposed new snowmaking activities (in addition to proposed new domestic water uses) without this report? (683.7)

Thank you for your comment. Please refer to hydrology **RTC 18.1**. The commenter is referred to the **Impacts to Groundwater Report** for the location of aquifers across GTR and potential for impacts from the proposed projects. This report was mistakenly not provided to the public during the **Draft EIS** comment period. With the release of the **Final EIS**, this report has been made available to the public and is located in the project file. Additionally, citation to the water sufficiency letter has been added on **page 31** of the **Final EIS:** "As required by GTR's SUP, water sufficiency for existing and proposed operations

is documented in a water sufficiency letter that is on file with the CTNF (Jorgensen Engineering 2024)." This water sufficiency letter is confidential and not available to the public.

19. Wetlands and Riparian Areas

19.1 The DEIS does not properly evaluate the damage to riparian areas under 'Mono Trees' in Mill Creek. (971.3) (19b.3) Specifically, the DEIS acknowledges that wetlands would be impacted in a variety of ways in the Mono Trees area under Alternatives 2 or 5 (approximately 178 acres). There would be both direct and indirect impacts on wetland functions and values lasting 3 to 5 years. Springs and their surrounding wetlands are indispensable to livestock grazing and the maintenance of native wildlife species. The FS plan concedes that these impacts are significant and real. Impacts on wetlands from recreation activities have been going on for years at GTR within the current boundaries. The project design criteria propose ways to mitigate the devastating effects on wetlands and creeks. It is our contention that these mitigating practices are incapable of preventing short-term and long-term damage to wetlands in the Mono Trees area. It is not acceptable to approve the expansion based on the inadequate project design criteria delineated in the EIS. It is not technically or financially feasible to conclude that the wetlands and creeks can be restored by replacing streambed materials or filtering runoff. The proposed construction will forever alter the wetlands and creeks in Mono Trees. If it were merely a question of esthetics, one could waive these concerns. However, the quality and quantity of the streambeds are crucial to sustaining the lives of grazing animals whether they be livestock or wildlife. (294.18) (342.18) (20b.1)

Thank you for your comment. Impacts to wetlands and riparian areas within Mono Trees are analyzed and disclosed in **Section 3.16 Wetlands and Riparian Areas** of the **Final EIS** and the accompanying **Wetland Technical Report**.

While we appreciate the commenter's concerns, the claim that 178 acres of wetlands would be impacted in Mono Trees is untrue. As stated in **Table 3.16-1** on **page 369** of the **Final EIS**, Mono Trees only has 3.71 acres of wetlands and riparian areas, not 178. It is assumed that the commenter's reference of 178 acres refers to the 178.96 acres of cumulative impacts to the aquatic influence zone (AIZ) under Alternative 2 across the entirety of the project area, (173.07 under alt 5), and which cumulative figure includes 94.24 acres of existing impacts, 17.87 acres of previously approved impacts, and 70.65 acres of proposed impacts (please refer to **Table 6** on **page 7** of **Wetland Technical Report** for more information). As stated on **pages 372-375** of the **Final EIS**, only 3.86 acres of AIZ impact would occur in Mono Trees under Alternatives 2 and 5.

On **page 376**, the **Final EIS** discloses that temporary impacts to wetlands would occur due to the Proposed Action, which would be an irretrievable commitment of wetland resources, lasting three to five years. However, the presence of impacts does not necessitate that they are significant, and as the comment notes, similar impacts have been occurring within the current GTR boundaries due to past actions. These temporary impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

The comment asserts that the PDC are inadequate to prevent short- and long-term damage to the wetlands in Mono Trees area. Specifically, it is argued that wetlands and creeks can be restored by replacing streambed materials and filtering runoff. **Page 8** of the **Wetland Technical Report** clearly states that no impacts would occur to wetlands and waterbodies in Mono Trees by stating that "wetland and waterbody impacts will be avoided." **Pages 372-375** of the **Final EIS**, note that disturbance of up to 3.86 acres may occur in the AIZ within Mono Trees due to a proposed bottom terminal of a lift and ski trails are partially located within the AIZ. However, the impacts analysis accounts for the use of the recommended PDC (**Final EIS Section 2.4 Project Design Criteria**). These PDC are recommended as a direct response to prevent or mitigate resource impacts. PDC are derived from proven measures and established guidance documents, and no further analysis is needed to determine their feasibility or efficacy in preventing resource impacts.

Impacts to wildlife and grazing are disclosed in the **Final EIS** (**Sections 3.8 Livestock and Grazing** and **3.13 Wildlife**) and the accompanying technical reports.

No edits were made to the **Final EIS** in response to this comment.

19.2 Construction will disturb wetlands and riparian areas, altering hydrology and degrading ecosystems. (457.34)

Thank you for your comment. As described in wetlands and riparian areas **RTC 19.1**, impacts to wetlands and riparian areas are analyzed and disclosed in **Section 3.16 Wetlands and Riparian Areas** of the **Final EIS** and the **Wetland Technical Report**. Wetland functions and values may be impacted by the project, and may be directly impacted by the construction of project aspects that would disturb wetland boundaries and extent. However, as stated on **page 374** of the **Final EIS**, "these impacts would be mitigated with specific PDC and BMPs."

No edits were made to the **Final EIS** in response to this comment.

19.3 None of the maps in the DEIS show wetlands (per NWI mapping, and field-verified delineations), floodplains, or named water bodies. The lack of these features makes it difficult (or impossible) to know if such features will be protected, if they exist, or if the proponent has even made an effort to identify them. Later in the DEIS there is reference to specialist reports, but maps should be included of these resources (477.2)

Thank you for your comment. Maps of wetland resources are included in the **Wetland Technical Report** and **Hydrology Technical Report**. Specifically, **Figures 2** and **3** of the **Wetland Technical Report** show the AIZ and proposed impacts. Wetlands were mapped during field surveys conducted from July 9 to August 15, 2019.

No edits were made to the **Final EIS** in response to this comment.

19.4 On page 14 of the DEIS there is an indicator that states "Quantification (acreage of AIZ and miles of stream type) of the amount of Management Prescription 2.8.3 – Aquatic Influence Zone that would be converted to Management Prescription 4.2 – Special Use Authorization Recreation Site as the result of the Action Alternatives." According to p.16, "…only the underlying Management Prescription 2.1.2 – Visual Quality Maintenance would be changed to Management Prescription 4.2 – Special Use Permit Recreation Sites

under action alternatives that would incorporate SUP expansion areas into the GTR SUP boundary. In other words, Management Prescription 2.8.3 – Aquatic Influence Zone, would persist under proposed conditions; however, it would be superseded by the direction of Management Prescription 4.2…". Therefore, this is not a valid indicator since no AIZs would convert to Management Prescription 4.2. (477.3)

Thank you for your comment. The commenter is referencing **pages 16-21** of the **Final EIS**, where it describes consistency with Forest Service policy. The proposed SUP expansion areas are located outside of GTR's existing SUP boundary on land that is currently designated as Management Prescription 2.1.2 – *Visual Quality Maintenance* with an overlay of Management Prescription 2.8.3 – *Aquatic Influence Zone*. A programmatic amendment to the 1997 Forest Plan would be required to incorporate the proposed expansion areas into the GTR SUP area and designate them as Management Prescription 4.2 – *Special Use Permit Recreation Sites*. The discussion and analysis of this programmatic amendment can be found in **Appendix C** on **pages 536-537** of the **Final EIS**. Further, text has been clarified on **page 537** of the **Final EIS** to explain that the programmatic Forest Plan amendment does apply to Management Prescription 2.8.3 – *Aquatic Influence Zone*. For more information on the analysis of impacts to the AIZ please refer to **Sections 3.15.4** and **3.16.4** in **Chapter 3** of the **Final EIS**.

19.5 The analysis of wetland impacts does not disclose effects and does not show compliance with EO 11990. The analysis of the proposed action and alternatives does not give the acres of wetlands that would be temporarily or permanently impacted, therefore the effects are not fully disclosed per NEPA. By not disclosing the impacts to wetlands, the project has not shown that it is following EO 11990 by showing how wetlands have been avoided where practicable. The DEIS suggests that it is not possible to avoid wetlands and there is no rationale to why it was impossible to avoid them. (633.4)

Thank you for your comment. **Final EIS Section 3.16 Wetlands and Riparian Areas** (**pages 367-368**) and the **Wetland Technical Report** (**pages 1-2**) specifically disclose compliance with Executive Order (EO) 11990. EO 11990 does not require a specific quantification of wetland impacts to reasonably inform a NEPA decision. Compliance with EO 11990 is shown through the incorporation of PDC and BMPs to mitigate and prevent impacts to wetlands, allowance of design modification to occur such as the siting of lift terminals, and the statement that any necessary Clean Water Act Section 404 permits would be acquired. Wetland and waterbody impacts would be avoided when possible. The nature of any impacts to wetlands that may occur due to field-fitting of project components are discussed in the **Final EIS** on **page 372-375** and **Wetland Technical Report** such that the Responsible Official can be reasonably well informed to understand the impacts the project may have on these resources.

The commenter is referred to Table 3.16-5 which describes the potential impacts to AIZs by project component and the potentially required CWA permits associated with these actions. Table 3.16-6 describes the impacts to the AIZ by alternative. PDC and BMPs state that ski runs and lifts should avoid wetlands and riparian areas whenever practicable outside of the existing SUP.

No edits were made to the **Final EIS** in response to this comment.

19.6 Section 3.16 briefly discusses cumulative impacts to the AIZ, stating that the proposed action could potentially result in 178.96 acres of cumulative impacts to the AIZ, which is approximately 46% of the total AIZ in the area. Section 3.16.6 also states that impacts to the wetlands would not be permanent. We request either clarification of the impermanent

nature of these expected impacts or revision of this statement, as the construction of roads, trails, and other ground-disturbing activities as proposed in the Draft EIS would typically be considered permanent impacts and a permanent loss of wetlands. (668.7)

Thank you for your comment. The 178.96 acres referenced in the comment represents cumulative impacts to the AIZ, not direct impacts to wetlands themselves. As defined in the 1997 Forest Plan and noted on **page 5-8** of the **Wetland Technical Report**, the AIZ is a buffer zone around surface waters and wetlands, typically 100 to 150 feet from the high water mark and dependent on water type. The AIZ encompasses upland areas surrounding wetlands and waterbodies, accounting for an area larger than wetland features.

As described on **pages 368-369** of the **Final EIS**, the total mapped wetlands within the project area amount to approximately 47.32 acres (42.26 acres in the existing SUP, 1.35 acres in South Bowl, and 3.71 acres in Mono Trees), while the cumulative AIZ totals approximately 390 acres. Therefore, the majority of impacts occurring within the AIZ would be to upland buffer areas rather than to wetlands.

The statement on **page 376** of the **Final EIS** that "there are no permanent wetland impacts associated with the Proposed Action" refers specifically to direct fill or permanent conversion of wetland features. The analysis acknowledges that construction of administrative routes and permanent infrastructure within the AIZ would result in permanent ground disturbance, but **page 8** of the **Wetland Technical Report** explicitly states that proposed activities "are designed to minimize impacts within the AIZ areas" and that "wetland and waterbody impacts will be avoided" in the expansion areas. On **page 376**, the **Final EIS** does disclose that temporary impacts to wetlands would occur due to the Proposed Action, which would be an irretrievable commitment of wetland resources, lasting three to five years. As AIZs and wetlands are separately defined, the assessment that no permanent wetland impacts are associated with the Proposed Action is valid. Proper PDCs as outlined in **Table 2.4-1** of the **Final EIS** would minimize and mitigate these impacts. These temporary impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

No edits were made to the **Final EIS** in response to this comment.

19.7 Additionally, the Draft EIS refers to Appendix A for a detailed description of past, present, and reasonably foreseeable future projects within the cumulative effects study area. However, Appendix A provides no additional information on the effects of past projects on resources; it only states that the resources were potentially affected. We recommend the Final EIS provide additional information on the extent of wetlands and streams that have been previously disturbed or permanently impacted due to historic operations and previous improvements, the nature of the impacts, as well as discussion of the influence of these impacts on downstream water quality. A better understanding of the existing conditions of streams and wetlands on site (including past impacts to streams and wetlands within the permit area) is important for understanding the potential impacts of the proposed activities. Additionally, we recommend the Forest Service update the Wetland Technical Report to include information on the types of wetlands located within the permit area, including whether or not fens are present. (668.8)

Thank you for your comment. As described on **pages 375-376** of the **Final EIS** within **Section 3.16.5 Cumulative Effects**, past ski area and county development projects have been incorporated and analyzed in this EIS as part of the Affected Environment discussion. Effects of past projects on wetland and riparian resources is described on **page 370** of the **Final EIS** within **Table 3.16-3**. The analysis of effects for each resource includes a description of the affected environment, which is an inventory of existing conditions and inherently reflects the effects of previously implemented projects. For more specific effects analysis of past project the reader is pointed to the past projects respective NEPA documents as articulated in **Appendix A** on **page 429-438** of the **Final EIS**. These NEPA documents can be found on the CTNF project webpage found here: https://www.fs.usda.gov/r04/caribou-targhee/projects or via the project archive found here: https://www.fs.usda.gov/r04/caribou-targhee/projects/archive.

Thank you for your comment. The existing conditions of streams and wetlands are disclosed in **Final EIS Sections 3.15.3** and **3.16.3**, as well as the **Hydrology Technical Report** and **Wetland Technical Report**. Specifically, **page 7** of the **Wetland Technical Report** notes that "in general, the Project Area is already impacted by the existing Grand Targhee Resort. Therefore, existing wetlands within the existing SUP area are already either directly or indirectly impacted by human activity."

Further, **Table 2** of the **Wetland Technical Report** discloses the types of mapped wetlands and riparian areas within the Project Area.

No edits were made to the **Final EIS** in response to this comment.

19.8 With consideration of the information regarding fens and other alpine wetlands and the impacts of human activities described above, we recommend better classifying the wetlands found in the Project area as well as evaluating the potential direct and indirect impacts to wetlands that could occur from each of the various elements of the Project. Additionally, we strongly recommend that Project design criteria include requirements to avoid and minimize both direct and indirect impacts, whether permanent or temporary, to these highly valued and unique resources. As mentioned above, the EPA considers any temporary or permanent impact to fens to be a "significant" impact under NEPA. We recommend that the Final EIS state the importance of closely monitoring wetlands during Project construction to measure the effectiveness of BMPs and PDCs. We also recommend pre- and post-project monitoring of fens, if present, with the pre-project monitoring serving to establish an accurate baseline for existing conditions and to determine whether effects are already occurring in fens from existing snow compaction, ground disturbance, or other factors. The post-project monitoring should be frequent enough to ensure the ability for adaptive actions to successfully reduce or eliminate any impacts to fen hydrology or vegetation. (668.9) Additionally, The Draft EIS refers repeatedly to the Soils, Geohydrology, Hydrology, and Wetlands PDCs (pages 48-52) as the basis for avoidance and minimization of Project impacts to aquatic resources, but they simply state that the resources will be avoided to the "maximum extent practicable." The Draft EIS offers no explanation as to why total avoidance of these resources is not practicable. (668.15)

Thank you for your comment. Please refer to wetlands and riparian areas **RTC 19.7**.

As stated in the wetlands and riparian areas **RTC 19.1** and in the **Final EIS** on **page 376**, there would be "no permanent wetland impacts associated with the Proposed Action." Identification of specific impacts

by wetland type is not necessary to reasonably inform the Responsible Official as to the nature of the temporary impacts that may occur to wetlands as a result of the project. These temporary impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Please refer to the **Draft ROD** for detail including discussion of rationale and how a proposed decision was made.

As stated on **page 52** within **Table 2.4-1 Project Design Criteria** of the **Final EIS**, PDC and BMPs specific to wetland and riparian resources are included in the project require avoidance of "riparian areas, wetlands, meadows, bogs, and fens, to the extent practicable," as well as avoidance of "wetlands and riparian areas when locating ski runs and lifts wherever practicable." The Forest Service acknowledges the importance of ensuring that PDC and BMPs are followed during any potential implementation activities. **Page 21** of the **Final EIS** states that "The Forest Supervisor may … require monitoring of PDC."

PDC requires that site-specific wetland delineations occur prior to any implementation activities, which would determine the identification of any fens, should they be present but not previously identified. **Page 51** of the **Final EIS** states "all wetlands within the vicinity of any ground disturbing activities or tree felling should be clearly delineated and flagged by a qualified individual prior to construction so they can be avoided by construction activity to mitigate impacts."

At this time, project components have been refined to a level that they were deemed sufficient for NEPA review, however, further refinement is needed to determine siting of components such as lift terminals and ski trails. Should avoidance of wetland resources not be possible, the appropriate Clean Water Act Section 404 permits would be acquired prior to any ground disturbance. No edits to the **Final EIS** were made in response to this comment.

19.9 The EPA is specifically concerned about water quality impacts from activities proposed in Rick's Basin and in the Papoose Creek watershed. According to the Wetland Technical Report, Rick's Basin contains a large wetland complex and is located on a finer grained rock formation that is more susceptible to erosion. The Draft EIS states that the most critical hydrologic effects could occur in the Papoose Creek watershed for similar reasons and that these areas would require especially stringent BMPs; however, there is no discussion of avoidance of impacts to these areas. To avoid and minimize impacts to these areas, the EPA recommends the Final EIS and if possible, the terms of the SUP include the following: Avoid or bridge wetlands and sensitive ecological areas; Minimize any temporary or permanent road construction and density to reduce adverse impacts to watersheds and locate roads away from steep slopes or erosive soils and from difficult to replace alpine resources, such as alpine meadows, wetlands, streams, and riparian areas; Locate cut and fill in areas that are unlikely to impact wetland hydrology, with additional attention to any fen wetlands; and Provide temporary road drainage and control surface erosion with water bars, crowns, and ditch relief culverts. (668.16) Additionally, the DEIS does not properly evaluate the damage to riparian areas under 'Mono Trees' in Mill Creek. (971.3)

Multiple Thank you for your comment. PDC in **Table 2.4-1** on **pages 51-55** of the **Final EIS** include strategies to avoid impacts to water quality. Please refer to that table for more information. Impacts to

riparian areas within Mono Trees are specifically explored on **page 8** of the **Wetland Technical Report**, where it is stated that "the proposed bottom terminal and ski trails are partially located within the AIZ," and that "wetland and waterbody impacts will be avoided." Through incorporation of PDCs as identified in **Table 2.4-1** in the **Final EIS** impacts to wetlands and waterbodies would be mitigated.

No edits were made to the **Final EIS** in response to this comment.

19.10 The 1997 Revised Forest Plan for Targhee National Forest describes the Aquatic Influence Zone (AIZ) as surface waters, wetlands, and riparian areas that provide unique functions and values to hydrologic, geomorphic, and ecological processes controlling aquatic and riparian ecosystem health and function. Table 3.16-6 in the DEIS denotes 158.12 acres of cumulative impacts to the AIZ. Any construction and ground disturbance activities are likely to increase sedimentation, nutrient loading, water temperatures and mobilization of contaminants such as PFAS, microplastics and hydrocarbons. Rather than impacting these areas first and then mitigating afterwards (which fulfills CWA requirements for "no net loss" but does not make up for the realized loss of ecosystem services offered by existing ecosystems), we recommend avoiding impacts to the AIZ wherever possible. This is the best way of upholding the Fisheries, Water, and Riparian Resources Goals laid out in the 1997 Plan. (683.5) The construction and operation of lift infrastructure in this sensitive zone would require vegetation clearing, soil compaction, and potential grading—activities known to increase sedimentation, reduce infiltration, and impair stream and wetland health (USDA Forest Service, 2001). This would not only fragment habitat for species reliant on moist, shaded riparian corridors, like moose, but could also increase runoff and nutrient loading into nearby waterways, threatening downstream aquatic systems or water users. This 'rezoning' away from an AIZ would remove requirements to maintain dead and defective tree habitat and minimize hydrologic alteration. This shift represents a fundamental weakening of ecological safeguards for the drinking water of Driggs and downstream communities. This is yet another indication that this project is moving land further away from a desired condition. (711.38) (729.8)

Thank you for your comment. As stated on **page 373** of the **Final EIS**, the Proposed Action would result in 178.96 acres of cumulative impacts to the AIZ. The No Action Alternative and Alternative 3 have the least direct impacts to the AIZ followed by Alternative 4, with Alternative 5 and the Proposed Action having the most direct impacts. Please refer to **Table 3.16-5** of the **Final EIS** for more information on the breakdown of impacts within the AIZ. Overall, we acknowledge that there would be impacts to AIZs, which are quantified and disclosed on **pages 372-375** of the **Final EIS**. Impacts could include sedimentation and erosion. In response to these impacts, we have incorporated extensive PDC and BMP to avoid, minimize, and mitigate any impacts. If PDC and specific BMPs are followed, adherence to the Clean Water Act and Executive Orders 11990 and 11988 would be achieved.

Further, text has been clarified on **page 537** of the **Final EIS** to explain that the programmatic Forest Plan amendment does apply to Management Prescription 2.8.3 – *Aquatic Influence Zone*. Additionally, relevant PDC and BMP have been put in place to protect drinking water for downstream communities.

20. Alternatives

20.1 Expansion outside of the current boundaries is unacceptable. The Mono trees area would see the cutting of huge swaths of trees, ruining a pristine area. Annexing the South Bowl, which is skied only occasionally by a few backcountry skiers and ski patrol, would ruin the winter experience in Teton Canyon for many users. Rick's Basin is a lovely multiple-use area that should not have a ski lift. If Grand Targhee wishes to increase its uphill capacity, there are other lifts that could be built within its boundaries. (92.1)

Thank you for your comment. Please refer to vegetation **RTC 15.11** for more information on the impacts to vegetation as a result of the proposed Mono Trees expansion.

Please also refer to recreation **RTC 4.20** for more information on impacts to backcountry skiing and recreation within Teton Canyon as a result of the South Bowl expansion.

Additionally, please refer to recreation **RTC 4.12** for more information on the facilities and infrastructure that is proposed within Rick's Basin.

The concerns are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.2 The new Colter ski lift gives those skiers, tourists, or summer mountain bikers a chance to see the Grand Tetons and the wilderness areas around Table Mountain in all of their natural splendor. These vistas are available without destroying the actual area with new roads, infrastructure and chair lifts. The owners of Grand Targhee have already obtained large areas that they can develop. They do not need more land! (201.2) proposed increased development in the existing SUP, particularly the North Boundary Lift, and the new roads and spaghetti-like dense set of trails. I strongly support Alternative 1: No Action. (697.23)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.3 I ask that CTNF consider further analysis of safety considerations for avalanche control on South Bowl that do not require SUP boundary expansion or lift access expansion.

There are safety issues currently occurring with backcountry users and ski patrol. Analysis of a modification of this alternative should look at the impacts of increased avalanche control on bighorn sheep and other wildlife and weigh those impacts against safety needs. (560.1)

Thank you for your comment. This alternative was considered but would not meet the purpose and need of the project as identified on **page 4** of the **Final EIS**, so it has been dismissed from further analysis.

Please refer to public safety **RTC 10.1**, **10.6**, and **10.21** for more information on avalanche control in South Bowl and public safety and wildlife.

No edits were made to the **Final EIS** in response to this comment.

20.4 Grand Targhee Resort has already undergone significant expansion in the past and currently operates on a large, well-developed footprint. The argument that it needs more terrain is unsupported by ecological science and sustainability principles. The Forest Service must weigh the long-term environmental costs of further development against the short-term commercial benefits, and recognize that "bigger" is not synonymous with "better." This proposal does not reflect responsible stewardship, especially in the face of climate change, biodiversity loss, and rapidly disappearing wildlands. (188.3) I support Alternative 1, keeping Targhee inbounds with no new development or upgrades. Resort boundary expansions in Alternatives 2, 4, and 5 all violate conservation priorities in the Greater Yellowstone Ecosystem. Further, Targhee has not shown an adequate need to privatize more public lands. (549.1) (549.1) No Action aligns with Teton County, Idaho's existing infrastructure, resources, and environmental priorities –minimizing long-term impacts on the community and environment. The Forest Service can recommend the No Action Alternative if the environmental, social, and economic impacts of a proposed development and its alternatives are deemed too significant or unmanageable, or if mitigation measures are insufficient to address community concerns. This decision would prioritize conservation, regulatory compliance, and community well-being over resort expansion. (457.7) (476.23) (545.3) (650.5) Given the significant and irreversible impacts, the No Action Alternative (Alternative 1) is the only truly responsible choice presented in the DEIS that adequately protects this special place for future generations. The proposed action alternatives involve irreversible and irretrievable commitments of natural resources (land, water, habitat, and community character) that cannot be undone. If any modifications are considered, they must be far more limited than Alternative 3, ensuring no new terrain, no increase in permitted skier days, and strict adherence to protecting the local community and environment. Any expansion risks sacrificing too much of what makes this area unique and valuable. (358.17) (545.19) (517.1)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by

the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.5 Given these existing and growing impacts locally and within the landscape, we support Alternative 1 (No Action) because it provides the only viable chance to conserve big game within this landscape. Alternatives that propose expansion into the South Bowl and Mono Trees areas are particularly alarming and would further fragment remaining security habitat and continue to displace big game animals. The South Bowl and Mono Trees areas currently serve as important security buffers between highly impacted areas within the resort and relatively pristine and functional habitats adjacent. The proposed South Bowl buffers the Jedidiah Smith Wilderness. Development in these areas would increase spillover effects outside the SUP boundary on other important public lands by increasing year-round human recreation, potentially even in wilderness. An example of this already exists: With the development of Peaked Mountain and the Colter ski lift, GTR has provided sidecountry access to Teton Canyon, an important big game winter and transition area already under excessive pressure from year-round recreation. Mountain bike trail development in the same area has degraded summer habitat and further displaced big game wildlife. (769.1)

Thank you for your comment. Please refer to wildlife **RTC 16.1** for more information on the impacts to wildlife as a result of the Proposed Action.

Please also refer to wilderness **RTC 13.1** for more information on the impacts to the JSW as a result of the Proposed Action.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

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No edits were made to the **Final EIS** in response to this comment.

20.6 As many have already noted the infrastructure and community of Teton County, Idaho is already struggling with current population growth directly and indirectly associated with Grand Targhee Resort. Until those limitations are addressed in a phased manner the only course of action for the resort is Alternative No. 1. No expansion and no improvements. (522.1)

Thank you for your comment. Please refer to socioeconomics **RTC 7.1** for more information on the analysis of impacts to Teton County, Idaho as a result of the proposed projects.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

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No edits were made to the **Final EIS** in response to this comment.

20.7 As Valley Advocates for Responsible Development (VARD) has pointed out, the "No Action Alternative" (or Alternative 1) is the best path forward for Teton County. It avoids: * Increased stress on already fragile infrastructure, housing, and services; * Higher traffic volumes and inadequate parking capacity; * Fragmentation of wildlife habitat, including corridors used by bighorn sheep, grizzly bears, and migratory birds; * Construction-related disruption such as erosion, water table impact, and invasive species spread; * Social inequality and economic strain from increased visitation and workforce housing demands. (550.4)

Thank you for your comment. Please refer to socioeconomics **RTC 7.1** for more information on the socioeconomic analysis completed for this project.

Please also refer to traffic and parking **RTC 8.9** and **8.17** for more information on the traffic analysis that was completed for this project.

Additionally, please refer to hydrology **RTC 18.2** for more information on the analysis of impacts to erosion and sedimentation from constructing the proposed projects.

Finally, please refer to vegetation **RTC 15.26** for more information on the analysis of noxious and invasive species that was completed for this project.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.8 My sincere hope is that the Forest Service selects Option One-to do nothing, not even one more lift in the inbounds area. Any expansion opens the floodgates to development from Teton Pass through Tetonia over the next 20 years. I saw it in Vail. I've seen it in Aspen, Breckenridge, and Steamboat. As one resident put it at a commissioner's forum:

"Show me a ski town that's been developed and hasn't lost its character." There isn't one. Let Grand Targhee remain small and family-oriented. Don't invite in the millionaires and billionaires. Don't try to be Vail. If anything beyond Option One is pursued, it will likely lead to financial strain-and eventually, a sell-off to Vail Associates or another conglomerate. Focus on improving what you already have. Stay loyal to those in our valley and to the culture we've built here, and find profitability in something smaller and more sustainable. (329.1) Expanding Grand Targhee will make the mountain feel even smaller and tamer than it is now. A lift-served, groomed South Bowl will be more of the same, and an unusual skiing experience will be lost. (644.2) If change must come, I support Option 3, restricting the proposed "upgrade" within the current ski area and allowing no boundary expansion. Let's avoid "improving" the treasure that is our home into another overcrowded, overused, and overpriced corner of today's world. (490.4) (539.3)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

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No edits were made to the **Final EIS** in response to this comment.

20.9 I believe the resort should focus on thoughtful infrastructure upgrades within its current boundaries rather than pursuing boundary expansions that would permanently alter backcountry access and valuable public lands. (716) (822.1) (865.1) (1067.2) (419.2) (170.3) I consider Alternative 3 to be a fair balance between Grand Targhee Resort's need to grow and prosper and Teton County Idaho's ability to accommodate the infrastructure burden associated with GTR's growth. (369.1) Neither Teton County, Idaho nor the environment can shoulder the increased demands. I strongly support Alternative 3. The Forest Service appears to place a high priority on supporting for-profit activity on public land and displacing non-paying Forest users and the expansion of activities within the existing SUP will accomplish that goal, particularly with respect to winter recreation. The area within the existing resort boundary is effectively destroyed for dispersed non-commercial activity already and adding more commercial activity would meet demand for a portion of the public and provide more opportunities for resort profits. (6.1) Our public lands need protection more than ever. It's time to choose the environment over the economy. (466.1) (172.1) This alternative offers a viable path for the resort to upgrade its facilities, enhance existing terrain, and improve the guest experience without compromising our invaluable public lands, critical wildlife, or the livability of our local communities. (706.3)

Thank you for your comment. Please refer to recreation **RTC 4.20** for more information on impacts to backcountry skiing and recreation within Teton Canyon as a result of the South Bowl expansion.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

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No edits were made to the **Final EIS** in response to this comment.

20.10 I support Alternative 3: No Special Use Expansion. It allows for in-bounds improvements, like a new lift and base upgrades-without harming wildlife, dark skies, or public access. Expanding into South Bowl and Mono Trees would damage pristine terrain, limit non-skiing recreation, and impact views from Grand Teton National Park. It's also opposed by park and wildlife officials. This project could increase traffic, housing pressure, and the risk of a corporate sale-shifting Targhee away from its local character. Public land should remain public. Please choose the responsible path and support Alternative 3. (118.1) (73.1) I support alternative 3, allowing Targhee ski area to develop within its current boundaries but to keep the boundaries as they currently exist. I believe that we need to keep the area outside of the ski area as usable winter range for wildlife. (177.1) I wish to see the resort remain as the perfectly sized gem that it already has achieved, and do not want to see this ruined by growth or the additional negative impact such expansion will cause upon the surrounding sensitive wildlife habitat, waterways, and public forest access. (185.1) But there's a better way. Alternative 3 in the Draft Environmental Impact Statement would allow improvements within the existing ski area boundary but not permit expansion-balancing access and conservation. We support Alternative 3 with modifications to reduce impacts on water resources, wildlife, whitebark pine, and scenic viewsheds. (340.1) (640.1) As a compromise I urge you to opt for Alternative 3 regarding the Targhee Expansion. I feel there is no need for Targhee to expand outside its private area and such expansion would actually endanger wildlife, the environment, and our community. It would also violate the Wilderness Act of 1963. (187.1) The DEIS analyzes a broad range of alternatives, including Alternative 3 that would authorize new development within Targhee's existing footprint, while not permitting the resort to expand. I see Alternative 3 as a win-win for all interests. It allows the ski area to update its facilities and expand its lift-served terrain and offerings, while continuing to protect adjacent public lands that are important for wildlife and dispersed recreation. (146.1) (183.1) (160.1) (146.6) (393.1) (538.2) (584.1) (323.2)

Thank you for your comment. Please refer to recreation **RTC 4.20** for more information on impacts to backcountry skiing and recreation within Teton Canyon as a result of the South Bowl expansion.

Please also refer to socioeconomics **RTC 7.1** for more information on the socioeconomic analysis completed for this project.

Please also refer to wildlife **RTC 16.1** for more information on the impacts to wildlife as a result of the Proposed Action.

Please also refer to scenery **RTC 5.10** for more information on night lighting and dark skies.

Finally, please refer to wilderness **RTC 13.10** for more information on the Wilderness Act of 1964.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

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No edits were made to the **Final EIS** in response to this comment.

20.11 All the proposed improvements within the current special use permit area seem reasonable, as in-bounds upgrades will greatly improve the user experience at Grand Targhee resort. The existing restaurants are crowded and the Peaked side of the mountain is lacking guest facilities, including clean restrooms and lodges to warm up in or grab a bite to eat. New restaurants and lodges where people can buy prepared foods or eat food that they bring are welcome. We recommend that any new buildings are designed to fit into the landscape rather than stick out. Expanded alternative activities within bounds such as snow tubing, nordic ski trails/fat biking/snowshoe/and mountain bike trails are always welcome for those whose primary focus isn't downhill skiing, snowboarding, or lift access mountain biking. (1063.1) Alternative 3 – No SUP Expansion, as originally proposed, plans to construct full-service, on-mountain, guest services facilities at the summit of Fred's Mountain. However, the DEIS fails to provide sufficient building specifications, including the exact location for the facilities, related to the proposed guest services facility. The DEIS discloses only that the facilities would be approximately 11,000 square feet in size and located on top of Fred's Mountain and south of the existing Dreamcatcher Lift top terminal with simple, linear forms and natural colors as well as low-reflective materials. (589.2)

Thank you for your comment. Please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

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No edits were made to the **Final EIS** in response to this comment.

20.12 We urge you and the project developers to consider more responsible alternatives. Improving existing infrastructure, investing in sustainability initiatives, and enhancing current resort offerings—without expanding into pristine areas—would allow for growth that respects the environment and the people who call this place home. (378.6) I agree that Targhee should be allowed to expand infrastructure (lifts, lodging, parking and restaurants) within their current footprint. There are many times when the restaurants, parking and bars are loaded to capacity. (558.1) If further development must occur, then I strongly choose Alternative 3 (No Special Use area expansion). As a resident of the Big Hole Mountains, I greatly appreciate Targhee year-round. The ski experience is fantastic and our family has had season passes for 15 years. Alternative three makes these improvements to the skier experience within the resort's existing footprint. (167.1) I support Alternative 3 to allow Grand Targhee Resort to remain economically viable but not intrude into adjacent wilderness areas. (26.1) (172.1) In conclusion, I am not opposed to all growth at Grand Targhee, but it must be scaled to match the capacity and resilience of the surrounding community and environment. Alternative 3 is the only improvement-based alternative that should be adopted because the DEIS does not currently provide sufficient analysis or mitigation for the many serious and long-term impacts identified here. (542.8) (111.3) Alternative #3 refining the already existing area around the Ski Hill would be perfect! There is a lot of room to add cabins, restaurants, ski-related shops, and rebuild the moldy existing hotel/motel. The existing areas could become "a little jewel."(194.4) (197.7) After reviewing the Draft Environmental Impact Statement dated 3/2025, I feel Alternative 3 as outlined beginning on page S-3 would still allow the resort to modernize without expanding into surrounding areas and doing irreparable damage. Options and 5 are simply variants allowing damage to either one area or the other (South Bowl vs Mono Trees areas) and would still do significant damage, and Option 2 causing the most damage. (391.1)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

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No edits were made to the **Final EIS** in response to this comment.

20.13 I believe that Grand Targhee Resort should be allowed to develop and improve its facilities, including adding restaurants, but this development should occur inside the current boundaries. The DEIS itself outlines numerous proposed projects within the existing SUP area, such as lift replacements and additions (Crazy Horse, North Boundary, Palmer Platter), terrain improvements, snowmaking expansion, and new guest service facilities like the Fred's Mountain Top Guest Facility and the Sacajawea Restaurant. These developments would allow the resort to enhance the recreational experience, improve skier circulation, and upgrade guest services within their already permitted footprint,

addressing their stated proponent objectives without encroaching on vital public and ecologically sensitive lands. The resort's desire to "improve the recreational experience and address shortcomings in their terrain offerings and operations in order to remain viable in the competitive destination skier/rider market" can and should be achieved through intensification within their existing operational area. (658.4) Additionally, I would like to see Targhee succeed but not at the expense of negatively impacting the surrounding environment. For those reasons, I support Alternative 3, where the resort can grow within their existing boundary and the can build restaurants, bars, hotels, etc on private land that they own at the base of the resort. (700.1) That said, the growth needs to stay within the current boundaries and all investment needs to go to an improved base area including in the Colter Sacajawea area. (461.1)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.14 As I am in favor of Proposal #3, I believe there are many improvements to the ski area experience that can and should be made to GTR. Let GTR make those improvements and then come back in 5 or 10 years and make the case that ski area expansion is necessary because of on hill overcrowding . Recently, GTR installed the Colter lift, a fine addition to the ski area, but with the additional terrain and uphill capacity, the ski area feels even less crowed and I have yet to see a line on the Colter lift. (111.2)

Thank you for your comment. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

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No edits were made to the **Final EIS** in response to this comment.

20.15 Given the available choices, I support alternative 1. However, alternative 1 isn't an ideal choice for me. Targhee should be able to make some of the proposed improvements within the current ski area boundaries. I approve of improvements to the base amenities and added amenities for the Sacajawea and Colter lift areas. I'm very much opposed to the mountain-top restaurant on Fred's Mountain and large-scale cutting of trees. Targhee will hopefully continue working on traffic mitigation and find a better solution to parking.

(384.3) I support Alternative 3- No Sup expansion with the following modifications: move proposed new restaurant from the summit of Fred's Mountain to another location as to not violate the Wilderness Act of 1964. It emphasizes the importance of wilderness character which includes the quality of being natural and untrammeled by man. Visual intrusions, like buildings or infrastructure, can detract this wilderness character, impacting the experience for visitors seeking solitude and connection with nature. (321.1) Keep Targhee development inbounds. I only support Alternative 3 if there are no backcountry gates on the north boundary, if the Fred's Mountain Top guest facility is removed, and if any development requiring Forest Plan amendments is excluded. (412.1) I agree that Targhee should be allowed to expand infrastructure (lifts, lodging, parking and restaurants) within their current footprint. There are many times when the restaurants, parking and bars are loaded to capacity. The economic impact to Teton County, Wyoming of any expansion at Targhee is unsurmountable without addressing traffic, housing, and public services impacts to our community. Again, I can only support Targhee expansion within its own present boundaries. With no restaurant at the top of Fred's Mountain because of extra night lighting and ruining the sightline of the ridge from the Valley. (561.2) (790.1) I support Alternative 3, keeping Targhee inbounds, without the restaurant on Fred's Mountain. The mountaintop restaurant would be an eyesore. Resort boundary expansions in Alternatives 2, 4, and 5 all violate conservation priorities in the Greater Yellowstone Ecosystem. I live on Fox Creek in Teton Valley. I have a family and regularly access the wilderness adjacent to Grand Targhee Resort. Privatizing that land at the expense of wildlife would be a loss for me and others in my community. Please keep Targhee inbounds. (191.1) I support adopting a modification of Alternative 3, allowing for expanded development within the existing ski area boundaries, but denying the proposal for a restaurant on top of Fred's Mountain, and not allowing the cutting of whitebark pine within the ski area's current boundaries. (398.1) (451.1) (475.1) (373.5) (375.5) (482.1) (486.1) (496.3) (513.3) (520.1) (526.1) (530.1) (538.9) (546.1) (567.2) (587.1) (588.1) (589.1) (612.1) (625.1) (630.1) (644.1) (648.1) (651.1) (660.2) (666.1) (673.1) (300.15) (301.15) (302.15) (376.1) (444.14) (664.1) (599.6) (563.1) (920.1) (922.11) (1075.1)

Thank you for your comment. Please refer to socioeconomics **RTC 7.1** for more information on the socioeconomic analysis completed for this project.

Please also refer to wildlife **RTC 16.1** for more information on the impacts to wildlife as a result of the Proposed Action.

Please also refer to scenery **RTC 5.10** for more information on night lighting and dark skies and Fred’s Mountain Top Guest Facility.

Finally, please refer to wilderness **RTC 13.1 and 13.10** for more information on the proposed expansions impacts on the JSW and the Wilderness Act of 1964.

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No edits were made to the **Final EIS** in response to this comment.

20.16 I am opposed to a restaurant at the top of Dreamcatcher. Half of the year it will be in the fog, and also the lifts will most likely be shut down in extreme weather (which is frequent at GT). It won't matter if you put a fancy lift to the top if it is iced over and not operational. The environmental impact of putting such a facility on top of GT makes no sense. There is the impact that would be noted from GT National Park and the Jedediah Wilderness, water would come from ??? where, and the size is crazy. I think a smaller restaurant is warranted at the top of Sacajawea Lift in order to keep folks up on the mountain. I do not think there needs to be a restaurant at the top of Shoshone lift. It is very close to the base. (646.3) An on Mountain restaurant, if needed should be at the intersection area of the top of Shoshone and the cat track to Blackfoot. That would allow guest access from all lifts from Dreamcatcher, Shoshone and Blackfoot. (461.2) I am in favor of adopting Alternative 3, with no expansion beyond current ski area boundaries, and a small restaurant at the top of the Sacajewea lift. (599.1)

Thank you for your comment. Please refer to the purpose and need, recreation, scenery, and hydrology **RTCs 2.1**, **4.16**, **5.10**, **18.16**, and **18.17**, respectfully, for more information on Fred's Mountain Top Guest Facility and Shoshone Guest Facility.

Placing an on-mountain restaurant at the intersection of the cat track to the Blackfoot Lift and the top terminal of the Shoshone Lift was dismissed from detailed analysis. This text has been added on **page 59** of the **Final EIS** under the **Section 2.5 Alternatives Considered by Eliminated from Detailed Analysis** heading.

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No edits were made to the **Final EIS** in response to this comment.

20.17 I am in support of the Alternative Action # 3, Proposed Actions within existing boundaries only to EXCLUDE restaurant that can be seen from the Summit of Grand Teton and mountain Ranges. Parking garage that accommodates more skiers not residents with housing on the private land of Grand Targhee. (498.5) I support a modified version of Alternative One with no on-mountain changes other than in-bounds lifts and small ski patrol huts (or you could call it a modified Alternative Three with no restaurants). As a skier who knows the mountain well, the ten minute runs at Targhee are not so long that it is difficult to get back to the base for food and drinks. I am baffled that there is valid concern for viewshed impacts to periodic recreators in the GTNP and the JSW and yet there is relatively little concern being expressed for the hundreds of homes in Teton Valley who will be forced 24 hours a day, 7 days a week to endure the sun reflections, nighttime light pollution, and general ugliness of on mountain restaurants. (593.1) Targhee has 120 acres at the base area that they own and are permitted to develop. That is where the development should occur--on private land that they own. No restaurants on the top of the mountains that would ruin the view corridor from the Wilderness, from GTNP and from Teton Valley. (700.4) We are not opposed to the addition of the proposed North Boundary and Crazy Horse lifts within the existing SUP. The addition of those lifts

can enhance the overall visitor experience at Targhee. In summary, we are supportive of a MODIFIED Alternative 3, but NOT including the ridge-top developments. (428.4) (431.2) (487.8) (674.1) (23b.1) (24b.5)

Thank you for your comment. Please refer to scenery **RTC 5.10** for more information on night lighting and dark skies and Fred's Mountain Top Guest Facility.

Please also refer to wilderness **RTC 13.1 and 13.10** for more information on the proposed expansions impacts on the JSW and the Wilderness Act of 1964.

Additionally, please refer to purpose and need **RTC 2.1** and **2.12** for more information on the purpose and need for the on-mountain facilities.

Placing a parking garage at the base area would not meet the purpose and need for the project and is outside the scope of this analysis.

Further, only constructing ski patrol facilities on-mountain would not meet guest expectations and the purpose and need for the project. Guests would continue to travel to the base area for restrooms, lunch, and services, creating a crowded environment during busy days.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.18 The statement of need for proposed alternative justifies the project because it is necessary to maintain competitiveness with other destination ski areas. In this justification it notes that Jackson Hole Mountain Resort currently has about 2500 acres and Targhee Resort has 2600 while JHMR has about 750,000 skier visits and Targhee has about 250000. Targhee has of plenty of ski able terrain to compete with JHMR yet is sorely lacking in modern base infrastructure. The base area has been described in news reports as run down. Alternative 3 allows Targhee Resort to improve its infrastructure to maintain competitiveness while minimizing impacts to Teton Valley and the Caribou Targhee National Forest and adjacent wilderness. (197.9)

Thank you for your comment. Please refer to purpose and need **RTC 2.1** for more information on the purpose and need for the project and comparisons to Jackson Hole Mountain Resort.

Please also refer to recreation **RTC 4.22** for more information on the approved projects at GTR's base area under their 2019 First Amended Master Plan – Planned Unit Development for Planned Resort .

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.19 TCD supports Alternative 3, with the caveat that additional work needs to be completed to analyze existing impacts on water, and the proposed actions should be modified, if impacts are found. (497.1) Although we have some concerns with the amount of new snowmaking proposed in Alternative 3, as well as with the other new water-intensive developments permitted in this Alternative, we largely support this path forward. (135.1)

Thank you for your comment. Please refer to hydrology **RTC 18.1** for more information on the hydrology analysis that was completed for this project.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.20 We could support a modified version of Alternative 3 with new and improved amenities within the existing boundary if, and only if, robust compensation mechanisms are established. These could include a resort transfer tax, impact fees, or revenue-sharing agreements to offset the real costs to Teton County, Idaho citizens, government entities, emergency services and civic organizations for identified negative impacts such as transportation infrastructure, public services, and housing availability and affordability. (456.6) (979.2) If there were a mechanism in place to provide adequate monetary compensation for the economic impacts, and If the phasing were spaced out over 15-20 years, I could be in support of Alternate #3. (467.1)

Thank you for your comment. The analysis or requirement of a resort transfer tax, impact fees, or revenue-sharing is outside the scope of this project and not under the jurisdiction of the CTNF.

Please refer to **pages 117-146** of the **Final EIS** as well as the **Socioeconomics Technical Report** for an analysis on socioeconomic resources completed for the project.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.21 COMMENT: Reject Alternative 3 As Presented COMMENT: Of PRIMARY concern is that this Alternative 3 involves too many proposed actions. Many of which are very undesirable, while some are viable necessary improvements to the GTR. It is due to the HIGHLY UNDESIRABLE ACTIONS that I REJECT THIS ALTERNATIVE. (26b.17)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.22 COMMENT: I Reject Alternative 4 as presented COMMENT: Of PRIMARY concern is that this Alternative 4 involves too many proposed actions. Many of which are very undesirable, while some are viable necessary improvements to the GTR. It is due to the HIGHLY UNDESIRABLE ACTIONS that I REJECT THIS ALTERNATIVE. (26b.18)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.23 COMMENT: Reject Alternative 5 as presented COMMENT: Of PRIMARY concern is that this Alternative 5 involves too many proposed actions. Many of which are very undesirable, while some are viable necessary improvements to the GTR. It is due to the HIGHLY UNDESIRABLE ACTIONS that I REJECT THIS ALTERNATIVE. (26b.19)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.24 The DEIS focuses heavily on the five alternatives but does not explore hybrid or phased approaches that could balance development and environmental preservation. Phased Development: Gradual implementation of projects while monitoring impacts and adjusting

plans based on ongoing environmental and community feedback. Hybrid Alternatives: Combining elements of Alternatives 1 and 3 (VARD alternative) to limit expansion while improving existing infrastructure. (547.24) A phasing timeline for Alternative 3 would need to prioritize gradual implementation of projects while addressing infrastructure, housing, environmental, and socioeconomic concerns on an ongoing basis to avoid exacerbating existing problems in Teton County, Idaho. Extending the phasing timeline (example below) well beyond 10 years would make this alternative more viable.

Phase 1: Infrastructure and Community Focus: Expand employee housing to address workforce needs and reduce strain on local housing markets; Expand parking facilities to address current deficits and develop the necessary transit infrastructure; Conduct pre–construction surveys to identify sensitive habitats and implement environmental mitigation measures, such as erosion control and invasive species management; Collaborate regularly with local governments and community members to address impacts on schools, emergency services, and infrastructure.

Phase 2: Gradual Implementation of Low-Impact Projects: Introduce summer activities like hiking trails, mountain biking, and disc golf to diversify revenue streams; while avoiding sensitive areas; Upgrade existing ski lifts and terrain within the current Special Use Permit (SUP) area to improve efficiency and capacity without expanding the footprint; Implement snowmaking upgrades to ensure sustainable water use; Expand parking capacity and begin construction of new lifts and terrain improvements to enhance skier circulation; Continue community engagement to monitor impacts and adjust project timelines based on feedback.

Phase 3: Gradual Implementation of High-Impact Projects and Monitoring: Complete remaining lift replacements, terrain expansions within the current SUP, and guest service facilities within the SUP area: Construct new facilities – guest services buildings – within the private in holding - after housing, transportation, and parking issues are adequately addressed; Expand summer and winter recreation offerings cautiously, ensuring environmental and community impacts are mitigated; Monitor traffic, parking, housing, and environmental impacts annually, and adjust operations or implement additional mitigation measures as needed; Invest in local infrastructure improvements – such as road maintenance – to support increased visitation and workforce demands. (457.8) (522.2)

Thank you for your comment. Please refer to **pages 41-42** of the **Final EIS** where it discusses construction practices that are common to all alternatives. Implementation of the proposed projects would occur over an approximately 10-year period from the time of approval. Project implementation would be subject to capital availability and may be expedited or delayed based on economic conditions that are beyond the scope of this analysis. The phased approach and when proposed projects get constructed is a business decision made by GTR, and not required for the Responsible Official to make their decision under this NEPA process.

Please also refer to **pages 44-56** of the **Final EIS** in **Table 2.4-1 Project Design Criteria** where specific monitoring or reporting is required to minimize impacts to resources. As identified in these PDC, GTR shall develop a Construction Implementation Plan that needs to include construction management practices, timber management plan, erosion control and drainage management, post-construction

revegetation and restoration plan, and a noxious weed management plan. These PDC also include requirements for specific field surveys to occur prior to construction in order to mitigate impacts to wildlife, botanical, cultural, as well as other resources.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.25 The DEIS does not provide clear criteria for evaluating the trade-offs between alternatives, making it difficult to determine which alternative best balances environmental, social, and economic considerations. (457.29) NEPA requires agencies to rigorously explore and objectively evaluate all reasonable alternatives to the proposed action. The DEIS fails to adequately consider preservation-focused or less impactful alternatives, such as limiting development or prioritizing environmental conservation. (457.77) (457.59) (534.5) This narrow framing directly undermines the DEIS's alternatives analysis, a core requirement under NEPA. The DEIS fails to seriously consider reduced-intensity or conservation-focused alternatives because the Purpose and Need emphasizes terrain expansion and new infrastructure. A "no action" alternative is present, but no alternatives were developed that would, for example, limit expansion to existing ski terrain, increase efficiency without new lifts, or mitigate visitation through transit improvements. The Forest Service's failure to consider alternatives that better balance recreational demand with wildlife and ecosystem protection reflects a flawed process lacking NEPA's required "hard look" (National Environmental Policy Act of 1969). (711.2)

Thank you for your comment. Please refer to **pages 23-41** of the **Final EIS** where it provides a description of the range of alternatives that was analyzed under this NEPA process. NEPA requires that an environmental analysis examine a range of alternatives, which would address and potentially resolve conflicts about the proposal. The Forest Service Handbook 1909.15 directs the Interdisciplinary Team to "study, develop, and describe appropriate alternatives to recommend courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." This NEPA analysis does include a range of alternatives that provides the Responsible Official the ability to make an informed decision.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.26 Under Alternative 3, only 1.1 acres of grading and tree clearing for a summer trail is proposed in boreal owl nesting territory. While we do not know specifically how the proposed tree removal for this summer trail overlaps with boreal owl nesting territory because this is not disclosed in the DEIS, 1.1 acres is a small enough area that it seems reasonable to relocate the trail to avoid impacting this territory. If this modification is not

feasible, then this trail should not be approved in the final decision. (471.52) Likewise, under Alternative 3, approximately 45.7 acres of impacts are proposed within flammulated owl nesting areas in the current SUP, including 10.7 acres of grading and tree clearing, and 35 acres where 40 percent tree removal for ski glades is proposed. While avoiding these impacts will require a larger modification to proposed actions than what we've suggested to avoid impacts to boreal owls, this too is achievable. A modified Alternative 3 should not include grading and tree clearing, or glading, in flammulated owl nesting areas. While we do not know which proposed ski runs and glades overlap with flammulated owl nesting areas because this is not disclosed in the DEIS, these proposed runs and glades should either be eliminated from the project or altered so as to not interfere with flammulated owl nesting areas. (471.53)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

Please also refer to forest plan amendments **RTC 3.8** and **3.9** for more information on the project-specific Forest Plan Amendments that are included in the Proposed Action for flammulated owl and boreal owl.

The **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Overall, the Responsible Official maintains the sole authority of determining whether or not the project proceeds and in what manner. They can select specific aspects of an alternative, combine alternatives, or choose the No Action Alternative. The proposed decision and rationale for decision are disclosed in the **Draft ROD** and speak directly to this concern.

No edits were made to the **Final EIS** in response to this comment.

20.27 It is concerning to us that proposed actions under all Alternatives would diminish or eliminate at least onethird, and possibly all, of the occupied habitat for brightgreen spleenwort. Under these scenarios, the viability of this plant within the project area would substantially decrease. While the DEIS does not specifically say which of the proposed projects would impact the brightgreen spleenwort, based on descriptions in the DEIS and a review of project maps, we suspect that construction of the Fred's Mountaintop restaurant would be responsible for impacts to this species. According to the DEIS, impacts to keeled bladderpod would be substantially less under Alternative 3 because this alternative would not impact populations of the species in South Bowl. However, the DEIS still concludes that Alternative 3 may affect, and is likely to adversely affect keeled bladderpod. Proposed actions under Alternative 3 should be modified to minimize impacts to this species of concern. Without a clear description in the DEIS of exactly what, and where the disturbances that will affect this species will be, we, unfortunately, cannot offer a more detailed recommendation other than to avoid impacting this sensitive species and consider modifying proposed project design elements accordingly, in order to do so. (471.55)

Thank you for your comment. Please refer to **pages 261-262** of the **Final EIS** where it describes where 2019 field surveys found brightgreen spleenwort to be present throughout the analysis area. During 2019 field surveys, the brightgreen spleenwort was observed in one place, in the crevices of limestone bedrock northwest of Mary's Saddle. This occurrence is located within a popular side-country ski run below Mary's Nipple, and off-trail mountain biking use of the limestone rock was observed in the area; however, none of the individual plants were disturbed. Additionally, the limestone cliffs located southwest below Peaked Mountain were inaccessible, but do have the possibility to provide habitat for the brightgreen spleenwort.

Please also refer to **page 269** of the **Final EIS** where it describes the impacts brightgreen spleenwort would experience under the Proposed Action. Brightgreen spleenwort could be directly impacted by grading and rock blasting. Proposed grading within the occupied habitat comprises 0.012 acre, which totals 33 percent of the occurrence. Additionally, most all of the occupied and suitable habitat could be lost during rock blasting that would likely be needed. The Proposed Action *may impact individuals or their habitat but would not likely contribute to a trend toward federal listing or cause a loss of population viability* for the brightgreen spleenwort.

Similar to the brightgreen spleenwort, the Proposed Action *may impact individuals or their habitat but would not likely contribute to a trend toward federal listing or cause a loss of population viability* the keeled bladderpod. During 2019 surveys, keeled bladderpod was frequently observed across the analysis area in loamy, rocky soils in alpine and subalpine ridge crests, drainages, and slopes. Please refer to **pages 266-269** of the **Final EIS** for more information on specific impacts to keeled bladderpod under the Proposed Action.

These impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Overall, the Responsible Official maintains the sole authority of determining whether or not the project proceeds and in what manner. They can select specific aspects of an alternative, combine alternatives, or choose the No Action Alternative. The proposed decision and rationale for decision are disclosed in the **Draft ROD** and speak directly to this concern.

No edits were made to the **Final EIS** in response to this comment.

20.28 For practical skiing reasons along, the 2nd biggest problem that Grand Targhee has is its West/ Southwest exposure that sets the snow up and makes large portions of the mountain type 2 fun after a sunny day. Additional southern exposure skiing is hardly needed. As a back country skiier, I don't really want the lift served area to encroach further on this terrain. (480.2)

Thank you for your comment. Please refer to recreation and climate change **RTC 4.69** and **14.1**, respectfully, for more information on the analysis that was done for south facing slopes in the proposed South Bowl expansion area.

These impacts have been considered in the decision by the Responsible Official. Specifically, the **Final EIS** is a disclosure rather than a decision document. The **Final EIS** is intended to sufficiently summarize the in-depth environmental analysis to support a **Draft ROD**. Overall, the Responsible Official maintains the sole authority of determining whether or not the project proceeds and in what manner. They can select

specific aspects of an alternative, combine alternatives, or choose the No Action Alternative. The proposed decision and rationale for decision are disclosed in the **Draft ROD** and speak directly to this concern.

No edits were made to the **Final EIS** in response to this comment.

20.29 Neither the MDP nor the RTR suggest that new terrain is necessary to boost the effective skier yield per skier (undefined in the DEIS, presumably revenue per skier). Rather, the RTR focuses on deficiencies in four industry standard areas (rental/repair, kid's ski school, restaurant/bar seating, and kitchen/scramble). These are areas the County anticipates future applications for development, to significantly improve services, as outlined in the 2019 Resort Master Plan (see comments, page 6). The RTR also identifies a dearth of beginner and low-intermediate terrain and a surplus of advanced-intermediate and expert terrain, as visitation increases. Expansion into the South Bowl worsens this imbalance rather than improving it. Alternatively, expanding beginner terrain around the Papoose Carpet, Palmer Platter, and Shoshone lifts could be achieved without expanding into South Bowl or Mono Trees, effectively addressing this imbalance. (489.2)

Please refer to recreation **RTC 4.2**, **4.10**, and **4.86** for more information on the existing terrain distribution and proposed terrain distribution. As is described on **page 71** of the **Final EIS**, under the Proposed Action, intermediate terrain would increase to 44 percent, and advanced-intermediate and expert terrain would remain well above the skier market standards. These changes better reflect the skier market particularly at GTR, which caters to primarily advanced and expert ability level skiers. It also states that under the Proposed Action there is a decrease in novice and low-intermediate terrain. This can be explained by some trail projects, like the realignment of the Teton Vista Traverse. This decrease can also be explained by an increase in beginner, intermediate, advanced-intermediate, and expert terrain acreage. While the distribution of these ability levels still represents a deficit in relation to market standards, the increases in other terrain ability levels align with GTR's purpose and need of increasing the quantity of beginner, intermediate, and advanced-intermediate terrain to meet current and anticipated public demand.

Please also refer to recreation **4.13** and **4.46** for more information on GTR's approved 2019 First Amended Master Plan. Implementation of this Plan is under the jurisdiction of Teton County, Wyoming and outside the scope of this NEPA process.

Expanding beginner terrain around the Shoshone Lift, Papoose Carpet, and Palmer Platter would not meet the purpose and need of the project, and is unfeasible given slopes of terrain located around the Shoshone Lift pod. For more information on the purpose and need of the project and GTR's objectives please refer to **page 4** of the **Final EIS**.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.30 The Board wants to emphasize that there are many areas within Alternative 3 that the County does support and that GTR provides excellent recreation and job opportunities to the local community. We recognize that we benefit from the collection of sales taxes with these year-round activities. Below is a list of proposed activities that our Board can support the CTNF analysis and request remain in the FEIS decision. The Board understands how these elements support the proponents' objectives. • Snowmobile rescue cache in Teton Canyon; Non-winter and alternative activities, including 29 miles of down hill biking, hiking and multiuse trails; Alternate winter activities including snow tubing and improvement of Nordic, snowshoeing, and fat biking; Increasing beginner terrain accessibility within the current SUP boundary. (489.23)

Thank you for your comment. The commenter is in agreement with certain projects that are included in the range of alternatives. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.31 Additionally, the Board anticipates proposed developments on the private lands at the base area that are consistent with the Grand Targhee Resort First Amended Master Plan. The private lands at the base area are more suitable than public lands at higher elevation for new visitor services requested by GTR on the CTNF. These development proposals on private lands will have proper and timely review and permitting by Teton County. Our Resort Master Plan also ensures that impacts on private lands or expanded recreational amenities permitted on Forest Service lands will be addressed through the Minor Amendment process. (489.24) I am not sure where the restaurants are being proposed on DC and Saq so in theory I agree that more facilities are needed but as an alternative, it would propose the Plaza could be expanded to have one or two more restaurants and expand the Trap Bar in lieu of on mountain restaurants. (162.11) (795.9)

Thank you for your comment. Please refer to recreation **RTC 4.13** and **4.46** for more information on GTR's approved 2019 First Amended Master Plan – Planned Unit Development for Planned Resort . Projects proposed within this plan include ones on GTR's anticipated base area which is on private land. Private land projects are outside the scope of this NEPA process. Specifically, implementation of this Plan is under the jurisdiction of Teton County, Wyoming and not the CTNF.

Please also refer to **page 398** of the **Final EIS** where **Figure 2: Proposed Winter Projects within Existing GTR SUP Area (All Action Alternatives)** is shown. On the figure icons C and D show where the proposed Fred's Mountain Top Guest Facility is proposed near the top terminal of the Dreamcatcher Lift and the proposed Sacajawea Restaurant and Guest Facility is proposed near the top terminal of the Sacajawea Lift.

The concerns of having on-mountain restaurants raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.32 It is clear that certain development activities are underway at GTR as this EIS process is ongoing The no action alternative should describe what activities will be taking place at GTR under previous studies/agreements to provide context for the additional projects proposed under the action alternatives. (557.2)

Thank you for your comment. Please refer to recreation and traffic and parking **RTC 4.13**, **4.46**, and **8.1**, respectfully, for more information on GTR's approved 2019 First Amended Master Plan – Planned Unit Development for Planned Resort . Projects proposed within this plan include ones on GTR's anticipated base area which is on private land. Private land projects are outside the scope of this NEPA process. Specifically, implementation of this Plan is under the jurisdiction of Teton County, Wyoming and not the CTNF.

No edits were made to the **Final EIS** in response to this comment.

20.33 The Proposed Action, including the boundary adjustments into South Bowl and Mono Trees, will help preserve the current Targhee experience for the future. Alternative 3 will have the opposite effect. It is backwards looking rather than forward. Freezing today's Resort boundary in a snow globe will not stop time, population growth, or increasing visitation. Regional population and skier visits at the Resort have increased without any action by GTR. This will continue. Crowds will grow. The ski experience enjoyed today will not be the ski future experience under Alternative 3. Alternative 3 arbitrarily rejects and denies GTR's ability to plan for this. (647.6) (591.1) (672.1) The South Bowl terrain will allow the Resort to provide future guests with a ski experience not currently offered by the Resort. Some people have questioned whether the southfacing terrain in South Bowl is highquality ski terrain. It is. Ski areas with outstanding southfacing bowl terrain include: Mineral Basin at Snowbird, the famous Back Bowls of Vail, the South Face of Lone Peak at Big Sky, and Rendezvous Mountain at Jackson Hole. South Bowl possesses terrific terrain in pitch and exposure. It is ideal for lift-served skiing. Adding the modest acreage proposed in South Bowl will allow GTR to meet the current and future expectations of public visitors to the Resort, and allow GTR to continue to offer the high-quality guest experience it is known for today. (647.7) The proposed boundary adjustment in South Bowl will enhance the guest experience by providing unparalleled views of the Tetons. There is currently only a small area of the Resort that provides skiers with views of the Tetons. This deprives guests of one of the area's premier outdoor experiences. Many of the ski area's guests only experience their public lands on the CTNF by visiting the Resort. The proposed terrain in South Bowl will allow the Resort's guests to experience the majesty of the Tetons during these visits and allow the Resort to fulfill its role as a partner to the Forest Service in providing high-quality public recreation on the

public lands it is entrusted to manage in partnership with the agency. (647.8) GTR has proposed each of the Project elements for specific reasons to address the specific needs identified in the Resort's accepted MDP. Each Project element is important. In aggregate they are critical. GTR requests that the Forest Service adopt the Proposed Action as proposed in the Draft EIS, without modification. (647.20) (3b.1)

Thank you for your comment. The commenter is in agreement with the Proposed Action. The proposed South Bowl and Mono Trees expansion areas are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.34 The Resort is popular because it offers an uncrowded ski experience in one of the world's most spectacular natural settings. Crowded powder skiing is an oxymoron. That's why it's necessary to maintain uncrowded powder skiing at the Resort. The proposed boundary adjustments in South Bowl and Mono Trees are GTR's plan to preserve this experience for the future. Alternative 3 will degrade the high-quality skiing that GTR is known for. Alternative 3 will lead to more crowded skiing over time, and poor-quality skiing. (647.5)

Thank you for your comment. The commenter is in agreement with the Proposed Action. The proposed South Bowl and Mono Trees expansion areas are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.35 The document notes that with the no action alternative visitation reflects an annual growth rate of 1.0%. On page 59, table 3.1-2, that the average growth rate over the past 10 seasons is 2.6%. What is the basis for the 1%? (1066.36)

Thank you for your comment. Please refer to **page 63** of the **Final EIS** where it explains the existing conditions related to visitation and resort capacity. Annual skier visitation to GTR during the winter season has been steadily increasing over the past ten years, ranging from 166,884 skier visits during the

2013/14 season to 226,745 skier visits during the 2022/23 season. During this 10-year period GTR experienced annual growth rates from -12 to 30 percent.

As is further explained on **pages 68-70** of the **Final EIS**, under the No Action Alternative, visitation to GTR would continue to reflect baseline trends, with an average annual growth rate of approximately 1.0 percent between the 2022/23 and 2032/33 seasons. This growth rate is different from existing conditions as it represents the projected annual visitation based on best available data.

No edits were made to the **Final EIS** in response to this comment.

20.36 The document assumes that "mush of the growth would occur the increased overnight visitors." According to the Cumulative Impact section development at the base is not connected to the expansion of the SUP. Development at the base is required for additional overnight visitors. The analysis of connected action is inadequate if these truly are not connected actions (not likely). (1066.51)

Thank you for your comment. The commenter is correct in that the **Final EIS** states on **page 154** "The Proposed Action would result in an increase in comfortable carrying capacity to 6,170 guests per day at GTR. These additional visitors to GTR would generate an increase in vehicle trips and parking demand. It is anticipated that much of this growth would occur through an increase in overnight visitors as a percentage of total guests, given the relatively small and stable local population…It is assumed under the Proposed Action that 70 percent of visitors would be overnight visitors to the region, up from 62 percent estimated for existing."

The commenter is also correct in that additional projects are proposed at GTR's base area under GTR's approved 2019 First Amended Master Plan – Planned Unit Development for Planned Resort. However, none of the approved projects at GTR's base area are considered connected actions as they don't automatically trigger other actions; can proceed without previous or simultaneous actions; and are not interdependent parts of a larger action. Please refer to recreation **RTC 4.12** and **4.60** for more information on the cumulative effects analysis of GTR's approved 2019 First Amended Master Plan – Planned Unit Development for Planned Resort. The projects that are approved in the 2019 First Amended Master Plan – Planned Unit Development for Planned Resort are analyzed as cumulative effect projects under this analysis.

No edits were made to the **Final EIS** in response to this comment.

20.37 Alternative 3 makes the desirable improvements to the skier experience within the resort's existing footprint. The in-boundary amenities that seem appropriate: 1. A restaurant at the top of Sacajawea would alleviate crowded restaurants at the base. 2. Crazy Horse Lift: Uphill capacity could be increased. (121.1) (122.1) (140.1) (379.1) For these reasons, I support Alternative 3, keeping Targhee inbounds, with the inclusion of a restaurant on Fred's Mountain. I would also like to see a specific plan for how expansion will benefit; support not only GTR and Wyoming, but Teton Valley Idaho communities as well. (438.4)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis

of direct and indirect impacts to human and biological resources as a result of the range of alternatives. The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.38 I am in support of alternative 4. Allowing expansion into south bowl but stopping the expansion into mono trees. The mono trees area does not have any current use and should be left for the animals and buffer to town. The south bowl area has already scene use in the past from cat skiing and bike trails. It would face a light impact to allow a chair lift to go in that area. Please listen to the public comments and do what's best for the land, animals, and wildlife that live in the area. Don't think we need another major ski area when people can just backcountry ski if they want to go there. Just allow gates and touring. Then no impact will happen to the trees and landscape. Allowing backcountry skiing in all these areas with gates is the easiest way to expand the ski area with minimal impact. (555.1)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

Please also refer to vegetation **RTC 15.11** for more information on the impacts to vegetation as a result of the proposed Mono Trees expansion.

Please also refer to wildlife **RTC 16.1** for more information on the impacts to wildlife as a result of the Proposed Action.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.39 I would like to offer a 6th alternative that falls between alternatives 1 and 3. I propose: 1. no SUP expansion 2. no new lifts, except the Palmer Platter Surface lift 3. new, on-mountain guest service facilities limited to relatively modest facilities at the top of Sacajawea and the bottom of Colter The reasoning behind this proposal is based on what I think are misleading and inaccurate projections about future visitation to the resort. In my opinion, GTR's rationale for resort expansion has been overestimated and overstated, based on data that is no longer relevant. Since it was originally conceived, and presented to the Forest Service, both the world and the ski industry have experienced significant changes. (195.1)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

Please also refer to recreation **RTC 4.79** for more information on the visitation numbers and projections that were done for the analysis.

This alternative has been considered, but the components of this alternative already have been considered and analyzed in the range of alternatives. Specifically, the Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.40 No on Crazy Horse lift: Probably not part of the EIS but a worthy mention of wasted disturbance. I have skied GT since 1985 and an additional lift in this area is not necessary. The area is easily accessed from Dreamcatcher and part of Ghee experience to navigate back to the base; many paths and not a problem. This new lift will put more skiers on the hill, cause more congestion on the summit, and take away from the Targhee experience we all have enjoyed for decades. (502.5) No North Boundary Lift (NBL): This is a total waste with unnecessary disturbance through a pristine aspen forest. The area is easily accessed by the Blackfoot Lift, and the NBL will not add that much additional vertical (~400' additional vertical on the west end). (502.6) (330.2)

Thank you for your comment. Please refer to recreation **RTC 4.15** and **4.30** for more information on the Crazy Horse Lift.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.41 Also, the proposed expansion boundary in the Mill Creek area extends well beyond the proposed lifts and runs. This makes little sense. If the Mill Creek expansion is approved, the ski area boundary needs to be reigned in to encompass just the area around the resort infrastructure. (13b.2)

Thank you for your comment. Proposed boundaries are drawn for management purposes and do not convey exclusive use of an area. The proposed boundaries as drawn to natural and topographical features and with practical management in mind. Any projects outside those proposed within existing or proposed SUP boundary areas would be subject to future NEPA.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, modification of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.42 As I understand it, Mono Trees is attractive to the Resort for its low-elevation and less-foggy weather. Some of this situation can be gained with a mid-way station along the Dreamcatcher lift. The old Bannock lift had a midway station, and the resort would require skiers to leave the lift at this station during especially bad weather. Skiers always had the choice of getting off the lift there. The accessible terrain is probably less than at Mono Trees (I estimate it to be 140 acres), but it would be a cost-effective way to gain some lower terrain when Dream Catcher is replaced. The Sacajawea lift also provides lower-elevation terrain as well. (644.3)

Thank you for your comment. Please refer to recreation **RTC 4.65** for more information on why a mid-station on the Dreamcatcher Lift was not proposed and has been dismissed from detailed analysis.

No edits were made to the **Final EIS** in response to this comment.

20.43 Specifically, I advocate for an alternative that is even more constrained than the current Alternative 3, a true "No New Terrain/No Capacity Increase" option. This would mean: Maintaining the existing Special Use Permit boundary without expansion; No new ski terrain development, including within the existing SUP boundary; Maintaining current Permitted Skier Days (4,000 PSDs) or with only minimal, justified adjustments for safety and efficiency, not growth; Any infrastructure improvements should be limited to upgrades of existing lifts for safety or efficiency on their current alignments, or maintenance of existing facilities, without increasing overall capacity or footprint. (358.16) No expansion is needed or necessary for the health of the ecosystem nor for the health of resort economy. Let the powers that be make it better, not bigger. Have the resort upgrade to modern standards and make it run off the sun. Grand Targhee is already a desirable world class location in and of itself. No need to expand. Please make it better, but not bigger. (178.1)

Thank you for your comment. Please refer to **page 4** of the **Final EIS** where it describes the purpose and need of the project. A modified alternative that includes no new terrain or no capacity increase was

dismissed from detailed analysis. This text has been added on **page 59** of the **Final EIS** under the **Section 2.5 Alternatives Considered by Eliminated from Detailed Analysis** heading.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.44 This amended alternative combines the stability of No Action with selected projects from Alternative 3 to enhance the skier experience, guest services, and summer recreation opportunities while maintaining the current operational footprint. This balanced approach combines the stability of Alternative 1 with moderate improvements of Alternative 3 to ensure sustainable growth while addressing environmental and community concerns. 1. No SUP Boundary Expansion- Continue operating within the existing SUP boundary, avoiding expansion into Mono Trees or South Bowl. 2. Lift Projects - Construct the Crazy Horse Lift to improve skier circulation and provide access to intermediate and advanced terrain within the existing SUP area. - Upgrade the Shoshone Lift to a detachable lift for better access to beginner terrain. - Papoose carpet upgrade – new teaching carpet. 3. Terrain Development - Develop new ski trails within the existing SUP boundary to enhance terrain for intermediate and advanced skiers – focusing on enhancements that require minimal grading. - Realign circulation trails – Teton Vista Traverse – to improve skier flow. 4. Guest Service Facilities - Improve existing facilities.- Upgrade the vault toilet at the bottom of the Blackfoot Lift to include a storage facility.- Guest facilities at the top of the Shoshone Lift. - Construct the Sacajawea Restaurant and Guest Facility - Storage and vault toilet facilities at the base of the North Boundary Lift. 5. Avalanche Mitigation - Continued ski patrol operations within the existing SUP boundary. 6. Summer Projects - Develop approximately 29 miles of multi-use trails for hiking and mountain biking within the existing SUP area. - Relocate the disc golf course to the Summer Activity Zone. 7. Alternative Winter Activities - Construct snow tubing facility. - Expand and improve Nordic skiing, snowshoeing, and fat biking trails. 8. Road Rehabilitation - Eliminate steep and unnecessary access roads. - Rehabilitate and decommission unnecessary road segments. (457.18)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

These alternatives are already considered in the range of alternatives analyzed in the **Final EIS**. The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.45 Therefore, we support an alternative between #1 and #3. We support base expansion which is sorely needed but not as large as purposed. Cut the commercial services in half to 75,000 sq. ft. Roll back housing units down to 100 as the base area land does not have the carrying capacity for such growth and parking. Do not build a North Boundary lift. It will call for way too much grading and glading and reduce some beautiful aspen groves and natural springs. (see attached pictures). Again, water and sewage are a problem. Instead, possibly change Blackfoot to a high speed 4 or 6 pack and then more people will ski there because the lift isn't so slow and stay there because they can see! Definitely update Dreamcatcher to a 4 or 6 pack as needed. We think the area that makes the most sense for on mountain services is somewhere between Sacajawea and Colter. That way people would not have to come back to the base for food and beverage. Possibly mountain services between Shoshone and Blackfoot would be convenient for guests and keep congestion from base area. Do not support any Fred's Mountain Top restaurant! (534.7)

Thank you for your comment. Please refer to **pages 141-146** in the **Final EIS** where it explains GTR's approved 2019 First Amended Master Plan – Planned Unit Development for Planned Resort. It describes that no portion of the implementation of projects approved under the First Amended Master Plan – Planned Unit Development for Planned Resort are dependent, reliant, or connected to approval of any of the action alternatives by the Forest Service. GTR has been advancing projects on private land from the First Amended Master Plan – Planned Unit Development for Planned Resort since their approval and would implement these projects regardless of projects being approved under this NEPA analysis. Development projects at GTR's base area that have been identified in the First Amended Master Plan – Planned Unit Development for Planned Resort are not under the jurisdiction of the CTNF, but rather under the jurisdiction of Teton County, Wyoming.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

Please also refer to vegetation **RTC 15.8** for more information on the North Boundary Lift as it relates to vegetation and aspen groves.

Please also refer to hydrology **RTC 18.16** and **18.17** for more information on water and sewage related to the proposed facilities.

This alternative was considered, but dismissed from further analysis as all of the projects recommended are already considered in the range of alternatives. The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.46 We would likely support a modified Alternative 3 which would limit the growth of Targhee within its existing footprint. We feel that all proposed on mountain restaurants and other

development be contained to the base area on private land. No new Mono Trees, South Bowl lifts or North Gate access. (2b.5)

Thank you for your comment. Please refer to alternatives **RTC 20.45** for more information on projects that have been approved at GTR's base area. These projects are identified in GTR's approved 2019 First Amended Master Plan – Planned Unit Development for Planned Resort and are under the jurisdiction of Teton County, Wyoming and not the CTNF.

This alternative was considered but dismissed from further analysis as removal of all on-mountain restaurants would not meet the purpose and need of the project as identified on **page 4** of the **Final EIS**.

Additionally, the Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.47 Other possibilities of in bounds improvements could include a six place gondola to the top of Fred's MTN and a six place gondola which replaces the current Sacajawea lift and which goes to the top of Peaked mtn would be a better use of resources. Establishing a parking lot near the head of Teton canyon and running frequent buses to the area would do wonders for the parking mess. (189.1)

Thank you for your comment. Please refer to **page 28** of the **Final EIS** where it describes that the Dreamcatcher Lift is proposed to be replaced with a detachable six-passenger chairlift and gondola configuration, referred to as a "chondola," with a gondola cabin approximately every 5 chairs.

The replacement of the existing Sacajawea Lift with a six pack gondola was dismissed from detailed analysis. This text has been added on **page 59** of the **Final EIS** under the **Section 2.5 Alternatives Considered by Eliminated from Detailed Analysis** heading.

Additionally, determining placement of a parking lot near the head of Teton Canyon is outside the scope of this project.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.48 Furthermore, if Alternative 3 is chosen, I could support: - Lighting on Palmer Raceway for kids to be able to train longer after school. The lights should be tuned off by 7 pm to adhere to our dark skies community. - Crazy Horse Lift which would mean skiers wouldn't have to return to the bottom every run and that lift has a greater chance of being more clear on foggy days. - A low profile restaurant at the top of Sacajawea lift to help alleviate congestion at the base area. (708.1) There are plenty of opportunities to expand revenue within the current boundaries. Today, lift ticket prices are exorbitant. Lower prices will

produce more skier revenue and business opportunities at the base facility. Option#1 and Option#3 Build more and upgrade lifts within the current boundary to increase up hill capacity. Option#3 Groom more runs within the current boundaries to expand skiable terrain. Expanding the lift-served area to increase powder skiing is not feasible or practical. Option#1 and #3. (433.6)

Thank you for your comment. Please refer to scenery **RTC 5.20** for more information on the analysis of dark skies as a result of the proposed projects.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. All of the projects recommended by the commenter are already considered in the range of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.49 The proposed North Boundary lift and guest facilities in Ricks Basin. While this a fun place to alpine ski, a new lift would disturb a beautiful basin that currently allows for nordic skiing and biking trails, and dog sled and sleigh rides adventures. The remoteness of this basin is what makes it special for those uses. - The ridgeline restaurant at the top of Dreamcatcher lift. It is unnecessary and more visible from wilderness and from the valley floor than a smaller restaurant at the top of Sacajawea. (708.2) (708.3) (474.2) I support Alternative 3 with strong modifications. First, I feel very strongly about NOT ALLOWING the proposed northern chairlift near "Rick's Basin". This would destroy a pristine aspen grove that currently hosts one of the most beautiful trails and wildlife habitat within the current SUP area. The summer trails that weave through this forest would be lost and the experience detrimentally impacted if a chairlift is going through this area. Again, do not allow the northern chairlift. (655.1)

Thank you for your comment. Please refer to recreation **RTC 4.27** for more information on the North Boundary Lift and how it would not impact existing Nordic operations and trails in Rick's Basin.

Please also refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility and the analysis that was completed for this project.

Additionally, please refer to vegetation **RTC 15.8** for more information on the North Boundary Lift as it relates to vegetation and aspen groves.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.50 Part of the justification for Mono Trees is filling the gap between the beginner terrain on Shoshone and the rest of the resort. I agree Targhee has a gap since right now the place instructors will take their students after they are ready to ski more difficult terrain than Shoshone is Chief Joseph Bowl which honestly is quite a jump from Shoshone. Alternately, there are some easier blue runs off Saq and Colter but the problem is the Mill Creek Traverse from the Plaza to Saq and the run from Saq to the Plaza are both very difficult and intimidating for beginner and low intermediate skiers and the snow can get very thin early season and very slow in the late season. In fact, for spring skiing it is very difficult to get back to DC from Saq as it requires a lot of pushing. An alternative that I am not sure is feasible, but I offer for consideration is a lift that goes from somewhere around the plaza over to Saq and is used to transport skiers and boarders throughout the season due to snow conditions or the individuals skiing and boarding level. You would be able to load on this lift in both directions which would open the mountain to blue runs on Colter and Saq. For those skiers and boarders that wanted to get back and forth between Saq and the Plaza, they would continue to use the current runs. This would be similar to the lift at the bottom of the Hobacks at Jackson and the one across the Christmas Bowls at Sun Valley with the exception that it would load both directions. Zermatt in Switzerland has many lifts that load both directions. (162.7) (795.6)

Thank you for your comment. Please refer to recreation **RTC 4.2** and **4.86** for more information on the existing terrain level distribution and the proposed terrain level distribution following construction of the proposed projects. Specifically, under the Proposed Action intermediate terrain is expected to increase 44 percent and advanced-intermediate and expert terrain would remain well above the skier market standards These changes better reflect the skier market at GTR, which caters to primarily advanced and expert ability level skiers.

Constructing a lift to connect the base area plaza to the existing Sacajawea Lift was considered but ultimately dismissed from further analysis, and this text has been added on **page 59** of the **Final EIS** under the **Section 2.5 Alternatives Considered by Eliminated from Detailed Analysis** heading

No edits were made to the **Final EIS** in response to this comment.

20.51 I'm opposed to expansion, so I'm against alternatives 2, 4, and 5 as described in the DEIS. I can support a few of the changes proposed in alternative 3, but overall, this alternative would encourage increased visitation and promotes the trend towards becoming a larger destination resort, which I think will end badly. (384.2) I support that Alternative 3 be adopted. Teton Counties in both Wyoming and Idaho are facing extreme pressures from growing populations and visitors. I do not support Alternative 2, as it projects 80,000 more skier days, which our Teton Valley community cannot handle. (541.1)

Thank you for your comment. Please refer to recreation **RTC 4.79** for more information on the visitation analysis that was completed for this project.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and**

Environmental Consequences on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The alternative presented is already considered in the analysis. The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.52 As we stated at the start of these comments, we believe Alternative 3, with modifications, presents a balanced path forward for Grand Targhee Resort and the CTNF. Our recommendations to the CTNF are: • Do not authorized a SUP expansion into South Bowl or Mono Trees. Do not authorize projects within the existing SUP area that conflict with the 1997 Forest Plan. • Do not authorize removal of any, and especially live or young whitebark pine within the existing SUP area. • Do not permit any sort of guest facility at the summit of Fred's Mountain unless the facility is located below the Fred's Mountain ridgeline and not visible from Grand Teton National Park or the Jedediah Smith Wilderness, and the FEIS provides a detailed explanation and analysis of both water availability and wastewater treatment. • Do not permit the North Boundary lift unless mitigation measures are included to reduce impacts to Wilderness character in the adjacent Jedediah Smith Wilderness. • Do not authorize new snowmaking without a more robust analysis of water requirements and impacts to water resources. (471.66) (691.1)

Thank you for your comment. Please refer to forest plan amendments **RTC 3.1** for more information on the proposed 1997 Forest Plan Amendments. The CTNF has the discretion to determine whether and how to amend the 1997 Forest Plan and to determine the scope and scale of any amendment.

Please refer to vegetation **RTC 15.9** for more information on the analysis of impacts to whitebark pine that was completed for this project.

Please also refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility and the additional clarification that was added to the Final EIS.

Please also refer to hydrology **RTC 18.16** and **18.17** for more information on the water and sewer analysis that was done for this project.

Additionally, please refer to wilderness **RTC 13.4** for more information on the North Boundary Lift and added analysis as it relates to the JSW.

Finally, please refer to hydrology **RTC 18.2** for more information on the snowmaking analysis that was completed for this project.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.53 I am in favor of a modified Alternative 3 that would include: -Construction of 29 miles of mountain bike trails within the existing SUP -Construction of Nordic, snowshoe, and fat biking trails within the existing SUP -Construction of a permanent, dedicated snow tubing facility at the base of the existing Shoshone Lift within the existing SUP -New on-mountain facilities that do not remove any live, young whitebark pine within the existing SUP area, interfere with water quality, or dark skies initiatives -Implementation of various summer activities within the summer activity zone, which could include a canopy tour, aerial adventure course, or zip line course IF that do not remove any live, young whitebark pine or disrupt any nesting habitat of threatened species. -Replacement of two lifts within the existing SUP -Construction of the Crazy Horse lift within the existing SUP -Construction of the new Palmer Platter surface lift within the existing SUP -Construction of a snowmobile rescue catch within the existing SUP -Construction of a 1,500 square foot (plus 2,000 sq ft. deck) yurt with restaurant and restrooms at the top of the Shoshone lift. -Construction of a warming cabin and vault toilet in Rick's Basin. (476.1) (732.1) (778.1)

Thank you for your comment. The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.54 If the resort wanted to add lift capacity on existing terrain, the only lift I would like to see is a lift to the top of Wandering Moose - in the vicinity of the original Bannock lift mid station. This lift top would be below the worst fog on stormy days, accesses 7 runs + some open terrain., and makes access to Blackfoot easier. (480.5)

Thank you for your comment. This alternative was considered but dismissed from further analysis. This text has been added on **page 59** of the **Final EIS** under the **Section 2.5 Alternatives Considered by Eliminated from Detailed Analysis** heading.

Please refer to recreation **RTC 4.65** for more information on why a mid-station on the Dreamcatcher Lift was not proposed and has been dismissed from detailed analysis.

No edits were made to the **Final EIS** in response to this comment.

20.55 Generally, our Board supports a modified version of Alternative 3 that limits the growth of Grand Targhee to within its current SUP boundary. We also ask that CTNF consider further analysis of safety considerations for avalanche control on South Bowl that do not require SUP boundary expansion or lift access expansion. During our conversations with U .S. Forest Service staff, it came to our attention that there are safety issues currently occurring with backcountry users and ski patrol. Analysis of a modification of this alternative should look at the impacts of increased avalanche control on bighorn sheep and other wildlife and weigh those impacts against safety needs. We request the modified version of Alternative 3 includes that all proposed on - mountain restaurants be limited to the base area on private land, not on public land. A restaurant at the top of Targhee will require a new well and an elaborate wastewater treatment line, and the benefits do not outweigh the costs to the scenic viewshed and threats to water quality. A modified Alternative 3 strikes an appropriate balance between our local planning regulations, while still creating the amenities needed to provide for the kind of visitor experience GTR is famous for and should continue to provide in the future . Importantly, Alternative 3 best meets the purpose and need and proponents objectives while not further burdening the local communities in Teton County, Wyoming and Idaho, with costs to transportation, housing, fire and EMS, and other critical services provided by the taxpayers of these communities. (489.25) (560.2)

Thank you for your comment. Please refer to wildlife **RTC 16.19**, **16.32**, **16.62**, and **16.85** for more information on impacts to wildlife as a result of avalanches and the analysis that was completed for this project.

Please also refer to **pages 141-146** in the **Final EIS** where it explains GTR's approved 2019 First Amended Master Plan – Planned Unit Development for Planned Resort . It describes that no portion of the implementation of projects approved under the First Amended Master Plan – Planned Unit Development for Planned Resort are dependent, reliant, or connected to approval of any of the action alternatives by the Forest Service. GTR has been advancing projects on private land from the First Amended Master Plan – Planned Unit Development for Planned Resort since their approval and would implement these projects regardless of projects being approved under this NEPA analysis. Development projects at GTR's base area that have been identified in the First Amended Master Plan – Planned Unit Development for Planned Resort are not under the jurisdiction of the CTNF, but rather under the jurisdiction of Teton County, Wyoming.

Please also refer to hydrology **RTC 18.16** and **18.17** for more information on the water and sewer analysis that was completed for Fred's Mountain Top Guest Facility.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.56 The Teton Backcountry Alliance strongly recommends that a modified version of Alternative 3 be selected at the preferred alternative by the USFS. Modifications should include: No avalanche mitigation in South Bowl, even if no lifts are constructed • Locate the summer restaurant/visitor facility BELOW the ridgetop of Freds Mountain so it does not impact the viewscape from wildlands to the east; A significant reduction in the culling of whitebark and limber pine on in-bounds ski slopes; More careful analysis of the cumulative impacts of the proposed actions, including changes the local community socio-economics. (571.12)

Thank you for your comment. Please refer to recreation **RTC 4.20** for more information on proposed avalanche mitigation in South Bowl and the analysis completed for this project.

Please also refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility and the additional clarification that was added to the Final EIS.

Please also refer to vegetation **RTC 15.9** for more information on the analysis of impacts to whitebark pine that was completed for this project.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts as well as cumulative effects to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.57 We support a MODIFIED ALTERNATE #3, which allows some upgrades within the existing resort boundaries without expanding into South Bowl or Mono Trees. Modifications: * Remain consistent with the Forest Plan * Address water use concerns and viewshed issues * All proposed on-mountain restaurants be limited to the base area with the exception of environmentally sound consideration for the top of Sacagawea, not at the top of Fred's Mountain * Glading within the current SUP be limited so as to not require the removal of such vast numbers of endangered white bark pine * Proposed North Boundary lift and on mountain guest facilities in Rick's Basin will ruin a pristine multi-use fragile area and require removal of valuable aspen forests which are beautiful and critical wildlife habitat. Not to mention a rope is all that separates people from skiing off cliffs into South Leigh canyon. There has been one death already. (727.19)

Thank you for your comment. Please refer to forest plan amendments **RTC 3.1** for more information on the proposed 1997 Forest Plan Amendments. The CTNF has the discretion to determine whether and how to amend the 1997 Forest Plan and to determine the scope and scale of any amendment.

Please also refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility and the additional clarification that was added to the Final EIS.

Please also refer to vegetation **RTC 15.9** for more information on the analysis of impacts to whitebark pine that was completed for this project.

Finally, please refer to wilderness **RTC 13.4** for more information on the North Boundary Lift and added analysis as it relates to the JSW.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.58 Cautious support of Alternative 3 with caveats - Alternative 3 stands to provide GTR with future opportunities to grow and thrive, while also being a good neighbor to the surrounding community, wilderness and wildlife. I use the word cautious support, because it does come with 4 caveats: 1. Remove the Fred's Mountain Top Guest Facility. 2. Remove the North Boundary lift altogether and preserve Rick's Basin as it is today, integral wildlife habitat and the best network of cross country mountain bike and hiking trails around. The aspen groves in this area are so special need to be left as they are. Please. 3. Remove project components that would require the removal of white bark pines. I understand there are ways to allegedly offset the removal of a white bark in order to move a project forward, but nothing will offset the loss of old growth established white bark. Not in today's world. These trees are keystone species and it is critical to leave them where they are. 4. If an additional alternative 4 component requires the Forest Plan to be amended, please remove it from this alternative. Use the Forest Plan to guide this project, don't use this project to guide the Forest Plan. (771.4) (811.4)

Thank you for your comment. Please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility and the additional clarification that was added to the Final EIS.

Please also refer to vegetation **RTC 15.8** for more information on the North Boundary Lift as it relates to vegetation and aspen groves.

Please also refer to vegetation **RTC 15.9** for more information on the analysis of impacts to whitebark pine that was completed for this project.

Finally, please refer to forest plan amendments **RTC 3.1** for more information on the proposed 1997 Forest Plan Amendments. The CTNF has the discretion to determine whether and how to amend the 1997 Forest Plan and to determine the scope and scale of any amendment.

The concerns raised by the commenter are addressed in the existing analysis and covered by the range of alternatives analyzed in the **Final EIS**. Please refer to **Chapter 3. Affected Environment and Environmental Consequences** on **page 60** of the **Final EIS** for an analysis of direct and indirect impacts to human and biological resources as a result of the range of alternatives.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

20.59 I am all in favor of in-bounds expansion: Targhee needs an on-mountain restaurant just like in the Alps, although I am not sure that the summit is the appropriate spot to build it. Lightning Saddle is much more appropriate. Wherever it may be installed, I think it is critical to have the lighting mitigated and the visual footprint minimal. (12b.1)

Thank you for your comment. Please refer to scenery **RTC 5.10** for more information on Fred's Mountain Top Guest Facility and the additional analysis that has been added to the Final EIS in regards to this proposed facility.

The Responsible Official has the ability to approve an entire alternative, portions of an alternative, or a combination of alternatives. The analysis and impacts reported in the **Final EIS** have been considered by the Responsible Official. The **Final EIS** is a disclosure rather than a decision document. For information on the decision and rationale for the decision, please refer to the **Draft ROD**.

No edits were made to the **Final EIS** in response to this comment.

Table E-1 Substantive Comment ID Numbers

Table E-1. Substantive Comments ID Numbers

Comment ID	First Name	Last Name	Organization
1	Alison	Modrovsky	
4	Andy	Wilson	
5	Robert	Rowen	
6	Paul	Diegel	
8	Anon	Anon	
10	Nicki	Stout	
12	Muffy	Mead	
14	Warren	Anderson	
15	Steve	Frank	
16	Jeff	White	
17	Patrick	Cunningham	
18	Gregory	Collins	
20	Eric	Johnson	Amphibian Refuge
22	Graham	Groth	
23	Anthony	Sloan	
24	Bob	Whipple	
26	Judy	Allen	
30	David	Lloyd	
32	Mark	Newcomb	Teton County Wyoming Board of County Commissioners
34	Dennis	Craig	
37	Jill	Layton	
39	Joan	Paranka	
42	Christian	Tipler	
44	Jerry	Barstow	
45	Doug	Blanchard	
47	Arne	Carter	
48	Gene	Collins	
49	Sara	Corckraan	
50	Christa	Corgatelli	
51	Roger	Corgatelli	
53	Matthew	Cunningham	
56	Joshua	Fischel	
61	Chadwick	Geenhalgh	
70	Donn	Larson	
72	John	Linger	
73	Paul	Mangold	
74	Richard	Maniuszko	
81	Randy	Slate	
83	Sarah	Vlach	
84	Carl	Walter	
87	Joe	Whitney	
89	Tim	Arsenault	
91	Kent	Eischen	
92	Patricia	Formichelli	
93	Randall	Fowler	
94	Kenneth	Masters	
96	Debby	Singleton	
97	Craig	Moen	
99	Fred	Johnson	
100	Stacy	Mcanulty	
101	Charles	Nussbaum	
102	Katrina	Reese	
103	Chris	Tissot	

Comment ID	First Name	Last Name	Organization
108	Steve	Goodman	
111	Robert	Mann	
112	Cynthia	Dietzmann	
117	Brian	Stevenson	
118	Tom	Murphy	
119	David	Gerling	
120	Alison	Godlewski	
121	Molly	Grove	
122	Molly	Thorne	
123	Trudy	Treasure	
126	Dusty	King	
129	Martin	Schulz	
131	Beverly	Boynton	
134	Howie	Garber	
135	Ryan	Colatosti	
138	Bruce	Evans	
139	Arne	Carter	
140	Molly	Absolon	
141	Patricia	Boyd	
142	Susan	Detweiler	
144	Emma	Brock	
146	Aaron	London	
146	Gabriele	Seffert	
146	Kevin	Banach	
146	Kim	Maun	
146	Doug	Robinson	
146	Sabrina	Triplett	
146	Hannah	Wirth	
146	James	W	
146	Keith	Hamilton	
146	Julie	Hydon	
146	Lottie	Stevenson	
146	Alisse	Cassell	
146	Peter	Breu	
146	Dena	Lancour	
146	Rhonda	Parsons	
146	Nancy	Reese	
146	Jon	Brown	
146	Nancy	Spicer	
146	Katy	Andrews	
146	JL	Angell	
146	Karen	Blackmore	
146	Kathy	Bradley	
146	Cori	Bucherl	
146	Eric	Burr	
146	C	Clark	
146	Cammy	Colton	
146	Lelia	Coveney	
146	Andrew	Cox	
146	Mike	Crosby	
146	Edward	Czech	
146	Jeremy	Fryberger	
146	Pamela	Goodman	
146	Hal	Hallstein	
146	Alex	Hatcher	
146	Sandra	Hesselbacher	
146	David	Kelleher	
146	Doug	Krause	

Comment ID	First Name	Last Name	Organization
146	Tracy	Leigh	
146	Magali	Lequient	
146	Charles	Maclaren	
146	Aneke	McGuire	
146	Jessica	Miles	
146	Dennis	Miller	
146	Kirk	Nichols	
146	Jennifer	Nitz	
146	Dana	Olson	
146	Sam	Ortiz	
146	Luan	Pinson	
146	Eric	Polczynski	
146	Dorothy	Pyrdek	
146	Maryellen	Redish	
146	Michael	Rees	
146	Karyn	Romano	
146	Robert	Romano	
146	Mike	Rubin	
146	Carol	Schaffer	
146	Colleen	Scott	
146	Oliver	Smith	
146	Del	Stiewert	
146	Jeff	Tuttle	
146	Jennifer	Valentine	
146	Alice	West	
146	Jesse	Williams	
146	Tjaard	Breeuwer	
146	Tanya	Daniels	
146	Todd	Davis	
146	Judith	Hazelton	
146	Joseph	Howell	
146	Stephanie	Lindsay	
146	Stephen	Oder	
146	Eric	Rydzewski	
146	Margaret	Schaefer	
146	Marty	Simpson	
146	Ruth	Swenson	
146	Laurel	Williams	
146	Ellie	Burnside	
146	Claire	Casey	
146	Kendall	Clifton-Short	
146	Kristine	Redman	
146	Edward	Dery	
146	Teri	Hammer	
146	Aaron	London	
146	Danielle	Piscatelli	
146	Kevin	Kross	
146	Jesse	Vernuccio	
146	JL	Angell	
146	Kevin	Banach	
146	Jennifer	Valentine	
146	Glenn	Browning	
146	Lisa	Podell	
146	Dawn	Brockett	
146	Stephen	Rock	
146	Kathy	Bradley	
146	Anna	Gibson	
146	Sandy	Webster	

Comment ID	First Name	Last Name	Organization
146	Chris	Larson	
146	Caroline	Ailanthus	
146	Heather	Woods	
146	Eli	Meyers	
146	Elaine	Green	
146	Kim	Havell	
146	Jan	Johnson	
146	Melinda	Linn	
146	Jennifer	Valentine	
146	Jacquelyn	O'Connor	
146	John	Adams	
146	Laura	Albright	
146	JL	Angell	
146	Joe	Bateman	
146	Lily	Begler	
146	Darin	Black	
146	Ryan	Bowman	
146	Kathy	Bradley	
146	Todd	Clark	
146	Jarrett	Cloud	
146	Carol	Collins	
146	Carter	Cox	
146	Jacob	Dannenberg	
146	Barrett	Deisher	
146	Lisa	Cook	
146	Marc	Dumas	
146	Douglas	Gammell	
146	Ken	Goldsmith	
146	Courtney	Grigg	
146	Michelle	Havens	
146	Carol	Heath	
146	Richard	Kite	
146	Doug	Krause	
146	Franz	Lattka	
146	Marjorie	Lattka	
146	Magali	Lequient	
146	Jill	Madden	
146	Mary	McIntyre	
146	Diane	McKernon	
146	Gordon	Merrick	
146	Frazier	Miller	
146	Nick	Mitchell	
146	Matthew	Nagy	
146	Stephen	Oder	
146	David	Pease	
146	Ian	Peisner	
146	Dorothy	Pyrdek	
146	Michael	Rees	
146	Carl	Resnik	
146	Carol	Schaffer	
146	Kimberly	Seater	
146	Bill	Smith	
146	Peter	Smith	
146	Valerie	Starkgraf	
146	Anne	Taylor	
146	Catherine	Taylor	
146	Michael	Walenta	
146	Kyle	Watson	

Comment ID	First Name	Last Name	Organization
146	Alice	West	
146	Laurel	Williams	
146	David	Worley	
146	Lizabeth	Clabaugh	
146	Ema	Johnson	
146	Ron	Lovell	
146	Laura	Strong	
146	Ruth	Swenson	
146	Michael	Walenta	
146	Lee	Wilhelm	
146	Wanda	Andre	
146	Lynne	Mitchell	
146	Maryellen	Redish	
146	Corey	Tucker	
146	George	Vargyas	
146	Angie	Winter	
146	Thomas	Bass	
146	Jim	Bowen	
146	Brendan	Foley	
146	Bridget	Romano	
146	Kevin	Banach	
146	Jon	Boltax	
146	Mary	Burton	
146	Kerry	Carter	
146	Elise	Johansson	
146	Erika	Myre	
146	Derek	Whitmore	
146	Chelsea	Brooks	
146	Nathan	Hill	
146	Barry	Ohm	
146	Matthew	Robertson	
146	Austin	Ziegler	
146	Pamela	Ackerman	
146	Kristin	Arnold	
146	Maria	Asteinza	
146	Kennedy	Barker	
146	Eve	Barnett	
146	Jacqueline	Barton	
146	Aaron	Benson	
146	Regina	Brooks	
146	Ashley	Burkardt	
146	Becky	Campbell	
146	Pauline	Catchpole	
146	Jack	Clinton	
146	Maureen	Condon	
146	Cora	Crecelius	
146	Joseph	Cupps	
146	Laurie	Daniel	
146	Todd	Davis	
146	Patricia	Dishman	
146	Joshua	Fishbein	
146	Charles	Fletcher	
146	Coreen	Frank	
146	Amy	Haslett	
146	Angela	Hawse	
146	Caitlin	Haynes	
146	Patrick	Herman	
146	Kari	Hyer	

Comment ID	First Name	Last Name	Organization
146	AJ	Jones	
146	Alexa	Kalandiak	
146	Mark	Kiekbusch	
146	John	Lee	
146	Donna	Looze	
146	John	Malloy	
146	Robb	Mottl	
146	Maire	O'Neill	
146	Cathy	Parish	
146	Seth	Picker	
146	Andrew	Pogge	
146	Frederick	Reimers	
146	Deborah	Rigg	
146	Stephen	Rosenman	
146	Diane	Ruschke	
146	Sarah	Sampas	
146	Emily	Scott	
146	Michael	Seager	
146	Kim	Seater	
146	Mark	Singleton	
146	Rebecca	Stevens	
146	Timothy	Stevens	
146	Jennifrr	Sukow	
146	Amber	Taylor	
146	Daniel	Thums	
146	Julie	Trauger	
146	Mark	Walters	
146	Christopher	Walvoord	
146	Anna	Weisbrodt	
146	Paulette	Wiebe	
146	Jon	Akers	
146	Victoria	Angyus	
146	Joshua	Blum	
146	Jon	Boltax	
146	Beverly	Boynton	
146	Eva	Brooks	
146	Greg	Bueker	
146	Jewel	Burke	
146	Nicholas	Carelli	
146	Brandeis	Coshow	
146	George	Craciun	
146	Mason	Diedrich	
146	Cindy	Dutka	
146	Nancy	Lill	
146	Jenine	Estlick	
146	Nicolas	Harbert	
146	Kim	Havell	
146	Raymond	Hogwood	
146	Thomas	Hollingsworth	
146	Mary	Hurley	
146	Pandora	Kane	
146	Chase	Krumholz	
146	Evan	Kulesa	
146	Jordan	Lewis	
146	Korinn	Mallory	
146	Bozena	Morawski	
146	Phyl	Newbeck	
146	David	Pelto	

Comment ID	First Name	Last Name	Organization
146	Dani	Poirier	
146	Daniel	Reese	
146	Jared	Rhodes	
146	John	Roche	
146	AnnMarie	Sardineer	
146	Brooke	Sarkaria	
146	Tavis	Schmidt	
146	Tom	Schmidt	
146	John	Schmittauer	
146	Krishna	Schroth	
146	Jonathan	Selkowitz	
146	Louise	Stark	
146	Jeff	Stein	
146	Jennifer	Valentine	
146	Elizabeth	Watson	
146	Evan	Weger	
146	Roger	Welbes	
146	Sandy	Welbes	
146	Matt	Bahr	
146	Cassidy	Bruno	
146	Sasha	Dingle	
146	Amy	Fulwyler	
146	Jeff	Jung	
146	Kaitlin	Kallal	
146	Joy	Keown	
146	Cheryl	Miller	
146	Jennifer	Nitz	
146	Lynn	Foxx Pease	
146	Mary Lou	Zeis	
146	Bernhard	Bach	
146	Carol	Collins	
146	Kimberly	Logan	
146	Bruce	Jackson	
146	Grace	Fragomeni	
146	Judith	Anderegg	
146	Ashley	Knight	
146	Karen	LaDuke	
146	Randy	Roberts	
146	Melissa	Early	
146	Kenneth	Ketchum	
146	Kim	Young	
146	Marla	Bailey	
146	Jennifer	Valentine	
146	Jennifer	Valentine	
146	Jennifer	Valentine	
155	Ryan	Smith	
156	Cheryl	Young-Metos	
158	Steve	Durnal	
159	Bob	Hughes	
160	Peter	Aengst	
161	Nina	Helm	
162	Patrick	Marmo	
163	Craig	VanWagner	
164	David	Wood	
165	Christian	Rodriguez	
166	Susan	Jackson	
167	Jennifer	Pierce	
170	Glenda	Marsh	

Comment ID	First Name	Last Name	Organization
171	Jennifer	Jensen	
172	Theresa	Lundquist	
173	Greg	Collins	
174	Matthew	Lloyd	
177	Ned	Corkran	
178	Timothy	Lindholm	
181	Nicholas	Byrd	
183	Lisa	Grutzmacher	
185	KC	Sanville	
186	Paul	Forester	
187	Barbara	Aronowitz	
188	Trevor	Deighton	
189	Larry	Detrick	
191	John	McIntosh	
192	Christopher	Purcell	
194	Katherine	Shepard	
195	Amy	Cutting	
197	David	Susong	
201	Thomas	Peter	
204	Carolyn	Johnson	
205	Howie	Garber	
281	Gary	Kessler	
294	Janet	Heslin	
295	Daniel	Fiedler	
300	Christine	McLane Metoyer	
301	Karla	Maez	
302	James	Metoyer	
303	Shannon	Wiseman	
304	Kenneth	Wiseman	
306	Lisa	Whitaker	
310	Greg	Collins	
321	Tim	Rhodes	
322	Jared	Sommers	
323	Jennifer	Jensen	
326	Darrell	Scott	
328	Danielle	Miller	
329	John	Unland	
330	Deeanne	Akerson	
332	Linda	Unland	
333	Barbara	Frank	
334	Steve	Frank	
335	Carolyn	Sandmann	
336	Bob	Whipple	
338	Jordan	Wilsted	
340	Jesse	Williams	
342	Janet	Heslin	
343	LeeAnn	Inberg-Schuff	
344	Bruce and Rolonda	Bjornson	
345	Steven	Gnam	
346	Jill	Rohde Gaylord	
352	Allen	Fessenden	
355	Sine	Scribbick	
358	Kathleen	O'Neil	
362	Carrie	Duncan	
364	Wray	Landon	
365	Thomas	Peter	
366	Gabe	Wilson	

Comment ID	First Name	Last Name	Organization
367	Melissa	Wilson	
368	Winifred	Landon	
369	Wray	Landon	
370	Aidan	Scribbick	
373	Vincent	Butler	
374	Gary	Mackenzie	
375	Vincent	Butler	
376	Elena	Murphy	
377	Shirley	Thomas	
378	Forrest	McCarthy	
379	Ben	Winship	
380	Kelley	Cooper	
381	Maria	Holtmann	
382	Elizabeth	Bowhan	
384	Neil	Van Dresar	
385	Jim	Sorenson	
386	Bryan	Godlewski	
390	Loren	Rupp	
391	Christopher	Davis	
393	Annette	Hanson	
394	Elaine	Spang	
398	Mary	Taber	
399	Michael	Keator	
400	Michael	Freiburger	
403	Joel	Forrest	
409	Glenn	Browning	
410	Joshua	LaForest	
411	James	Weber	
412	John	Curtis	
413	Betty	Hollowell	
415	Rose	Hendricks	
416	Ryan	Daley	
419	Corey	Tucker	
420	Ralph	Mossman	
421	William	Eckerle	
422	Michael	Larosa	
423	William	Bradley	Davidson Bacy II LLC
424	Elizabeth	Manero	
426	Susan	Berkenfield	
427	Lisa	Bruns	
428	Christopher	Mader	
429	John	Borstelmann	
430	Georgie	Stanley	
431	Kathy	Kilgallon	
433	David	Miller	
436	Richard	Ross	
438	Melissa	DelMonego	
440	Christina	Heilman	
442	Richard	Laver	
443	Patricia	Boyd	
444	Patricia	Boyd	
445	Lou	Parri	
447	Susan	Miller	
448	Shane	Elder	
451	Rayma	Cates	
452	Marlene	Griffin	
453	David	Sell	
454	David	Moll	

Comment ID	First Name	Last Name	Organization
455	Patrick	Andre	
456	Sue	Muncaster	City of Victor, City Council
457	Niki	Richards	Valley Advocates for Responsible Development
458	Paul	Mead	
459	Derek	Elbert	
461	Frank	Russo	
462	Whitney	Caskey	
464	Beverly	Palm	
466	Suzanne Boots	Knighton	
467	Lindsey	Love	
468	Kate	Ryan	
469	Carolyn	Keefe	
470	Zaidee	Fuller	
471	Hilary	Eisen	Winter Wildlands Alliance and Teton Backcountry Alliance
472	Eric	Kraska	
473	William	Hurt	
474	Garret	Akerson	
475	Lisa	Atkinson Vitucci	
476	Emily	Sadow	
477	Ronna	Simon	
478	Eric	Hobday	
479	Harry	Richardson	
480	Russell	Miller	
481	Matthew	Robertson	
482	Mark	Buckley	
484	Jenny	Fitzgerald	Jackson Hole Conservation Alliance
486	Sharon	Weber	
487	Ann Marie	Tomchak	
489	Mark	Newcomb	Teton County Wyoming Board of Commissioners
490	Shannon	Sackman	
491	Andrea	Zaccardi	
492	Hallie	Hill	
493	Elise	Kranz	
494	Triston	Warner	Idaho Wild Sheep Foundation Inc
495	Jade	Pittel	
496	August	Christensen	City of Driggs
497	Carlin	Girard	Teton Conservation District
498	Debra	Whipple	
499	Debra	Adams	
502	Anthony	Longo	
505	Rachael	Mayer	
508	Curtis	Olson	
513	Andrew	Salter	
514	Robert	Hunter	
515	Steve	Charlton	
517	John	Sackman	
518	Peter Scott	Sahlman	
519	Paul	Merrill	
520	Jared	Smith	
522	Daphne	Stoner	
523	Madison	A Gerard	
524	Alice	Finley	
526	Cynthia	Dietzmann	
527	Robin	Anderson	
528	Kim	Springer	

Comment ID	First Name	Last Name	Organization
530	Margaret	Moore	
532	Christine	Schnier	
534	Bob and Deborah	Malheiro	
535	Sandy	Zelasko	
537	Megan	Riley	Wyoming Outdoor Council
538	Kelsey	Yarzab Yates	Sierra Club Wyoming Chapter
539	Leonard	Cattabriga	
540	Sarah	Ashworth	
541	Jennifer	Werlin	
542	Kent	Werlin	
545	Jeff	White	
546	Andrew	Malia	
548	Daniel	Leaman	
549	Kyle	Gallego-Mackie	
550	Juan	Gallego-Calderon	
555	Carolyn	Kennen	
557	Peggy	Hinman	
558	William	Barker	
560	Michael	Pfeil	
561	Carol	Barker	
563	Eric L	Johnson	
565	Scott	Hochstrasser	
567	Tait	Bjornsen	
569	Amy	Verbeten	Friends of the Teton River
570	Hanna	Palmer	
571	Gary	Kofinas	Teton Backcountry Alliance
574	Sandra	Zalewski	
580	Leslie	Prendergast	
582	Eric	Blischke	
584	Heidi	Blischke	
587	Chuck	Harris	
588	Richard	Gauer	
589	Allison	Michalski	National Parks Conservation Association
590	Linda	Giedt	
591	Mark	Hanson	
592	Michael	Scheller	
593	Robin	Hart	
594	Nicole	Gulati	
595	Dana	Joslyn	
598	Kevin	Byrne	
599	David	Atlas	
600	Mark	Berry	
602	Gini	Van Siclen	
605	Wood	Palmer	
606	Patrick	Grace	
611	Rachel	Gray	
612	Ted	Wells	
614	Katie	Cheesbrough	Wyoming Wild Sheep Foundation
615	Olivia	Wilson	
620	Peggie	dePasquale	Wyoming Wilderness Association
621	Ansley	Rivers	
622	Jamye	Chrisman	
623	James	Hood	
624	Eric	Moehring	
625	Clarissa	Wells	
626	Arthur	Melville	
627	Ron	Pfeiffer	

Comment ID	First Name	Last Name	Organization
630	Robin	Folweiler	
631	john	cook	
633	Anon	Anon	
635	Kayla	Koeber	
636	Debra	Taylor	
637	Kira	Brazinski	
638	Ross	Breedlove	Wyoming Dept. of Environmental Quality
640	Steven	Wolff	
642	Molly	Nash	
644	Mike	Merigliano	
645	Jonathan	Constabel	
646	Robin	Upton	
647	Dale	Ratliff	Grand Targhee Resort
648	Paige	Collins	
649	Janna	Rankin	
650	Anne	Hamill	
651	Bradley	Smith	
653	Janet	Lewis	
655	Carrie Ellen	Yeatman	
656	Susan	Marsh	
657	Barry	Dunning	
658	Kevin	Schaum	
660	Jessica	Mann	
661	Robert	Mackie	
662	Penny	Vasquez	
663	Craig	Thran	
664	Stacie	Smith	
665	Emily	McGowan	
666	Mary	Shouf	
667	S.	Lykes	
668	Laura	Margason	U.S. Environmental Protection Agency
672	Matt	Thackray	
673	Katie	Cooney	
674	Ken	Michael	
675	Erika	Eschholz	
678	Donald	Carpenter	
679	Madeline	Peery	
680	Susan	Wolff	
682	Denise	Roussel	
683	Matthew	Bambach	Protect Our Water Jackson Hole
685	Chip	Jenkins	National Park Service Grand Teton National Park
688	Patrick	Dominick	
689	Alissa	Ehrenkranz	
690	Bryce	Beard	
691	Nick	Mestre	
693	Michael	Whitfield	
695	Isabella	Beard	
696	Sylvia	Anon	
697	Debra	Patla	
698	Elizabeth	McCane	
700	Diane	Verna	
701	Anne	Callison	
702	Thom	Heller	
705	Rob	Arnold	
706	Daithi	Martin	
708	Caroline	Herter	
710	Kirstin	Robbe	

Comment ID	First Name	Last Name	Organization
711	Jenny	Fitzgerald	Jackson Hole Conservation Alliance
713	Mac	Callison	
714	Brita	Lien	
715	Mary Lisa	Lombardi	
716	Tanya	Alexander	
718	Emma	Ray	
719	Douglas	Miller	
720	Kate	Gersh	Jackson Hole Wildlife Foundation
724	Susan	Patla	
725	Patrick	Cunningham	
727	Deborah	Malheiro	
728	Don	Weber	
729	Howie	Garber	
732	Amy	Robinson	
735	Dave	Bruns	
737	Andrew	Salter	
739	Lydia	Hanson	
740	Matt	Hail	
742	Cathy	Pollock	
747	Unity	Minton	
748	Steve	Taylor	
751	Dirk	Leasure	
760	Kirstin	Robbe	No Targhee X
761	Jeff and Stephanie	Furset	
764	Arthur	Melville	
767	Amanda	Head	
769	Jeffery	Klausmann	Backcountry Hunters & Anglers
771	Peggie	dePasquale	
772	Thomas	Sneed	
773	Cynthia	Orcutt	
777	Patty	Leasure	
778	Chris	Hackbarth	
781	Anna	Evans	
784	Lucas	Wilmot	
787	Linda	Merigliano	
789	Brian	Cynkar	
790	Tim	Ruhrup	
791	Brent	Schindler	Tetonia
792	Sasha	Dingle	
795	Patrick	Marmo	
803	Mac	Sullivan	
805	Mary	Mason	
811	Patricia	Feltz	
811	Larry	Hazlett	
811	Jessica	Hubbard	
811	Cora	Crecelius	
811	Jim	Loveland	
811	Dorothy	Savage	
811	Randi	Slaughter	
811	Elena	Tillman	
811	Ken	Driese	
811	Rick	Miller	
811	Kent	Stevens	
811	Jenner	Harsha	
811	Sandra	Materi	
811	Mark	Heineken	
811	Sandra	Materi	

Comment ID	First Name	Last Name	Organization
811	Andrea	Orabona	
811	Diane	Suchochleb-Sanders	
811	Elena	Tillman	
811	Kathleen	May	
811	Rick	Miller	
811	Kevin	Proescholdt	
811	Robert	Ahrens	
812	Randy	Corry	
813	Robert	DeNike	
819	Amy and Forest	McCarthy	
822	Tanya	Alexander	
824	Grant	Barnard	
848	Josie	Gray	
865	Corey	O"Connor	
887	Ryan	Daley	
909	Bob	Honsinger	
910	David	Agnew	
914	Hope	DiBartolomeo	
916	Judith	Jackson	
917	James	Jackson	
920	Robert	Miller	
922	Brad	Wolfe	Teton County Idaho Board of County Commissioners
925	Geno	Forsythe	
929	Larry	Redd	
971	Brigid	Mander	
979	Rebecca	Reimers	
1021	Ellen	Hollinshead	
1029	Katrin	Lepler	
1062	John	Wilson	
1063	Celeste	Young	
1064	Susan	Austin	
1066	John	Beller	
1067	Geoffrey	Bodwin	
1072	Kathleen	Falconer Finnegan	
1075	Tom	Hallberg	Greater Yellowstone Coalition
1076	Kathy and Tom	Hoffman	
1077	Ron	James	Teton County Idaho Board of County Commissioners
1089	Michael	Pernice	
1091	Molly	Robertson	
1092	Katie	Schensky	
1093	Debra	Taylor	
1094	Robin	Upton	
1095	Lorin and Liza	Wilson	
1096	Olivia	Wilson	
1097	Ken	Wiseman	
1098	Lynne	Wolfe	
1102	Cynthia	Riegel	
1104	Barb	Beller	
1105	Dawn	Christensen	
1106	Justine	Fielding	
1107	Barbara	Arondwitz	
1108	Rolonda	Bjornson	
1110	Dan	Burgette	
1118	Barbara	Frank	
1119	Jimmy	Harmelin	
1126	Jared	Power	

Comment ID	First Name	Last Name	Organization
1128	Georgie	Stanley	
1130	Tim	Mullin	
1130	Stephen	Kotick	
1130	Kelsey	Kelly	
1130	Katie	Fulton	
1130	Jacey	Lenz	
1130	Paula	Hartgraves	
1130	Mariah	Bodine	
1130	Owen	Popinchalk	
1130	Sandra	Materi	
1130	Michael	Sutera	
1130	Lori	Siemian	
1130	Candy	Petrick	
1130	Steve	Bogart	
1130	Joan	Roberts	
1130	Barbara	Miller	
1130	Tina	Brenza	
1130	Melissa	Plante	
1130	Lily	Mejia	
1130	Trent	Redfield	
1130	El	Pe	
1130	Samantha	Santy	
1130	Janet	Forman	
1130	Ruth	Swenson	
1130	Rhett	Lawerence	
1130	John	Hansen	
1130	Karla	Devine	
1130	Janet	Baer	
1130	Paula	Shafransky	
1130	Charles	Brinker II	
1130	Sally	Mathewson	
1130	John	Curotto	
1130	Alyson	Singer	
1130	Leah	Schulz	
1130	Karen	Fevold	
1130	Joann	Ramos	
1130	Brady	Wells	
1130	Julie	Draper	
1130	Jaqueline	Murtha	
1130	Gary	Rejsek	
1130	Bridget	Irons	
1130	Brant	Kotch	
1130	Roger	Schmidt	
1130	Sam	Johnson	
1130	Cara	Artman	
1130	Alisan	Sullivan	
1130	David	Buck	
1130	Patti	Packer	
1130	Marybeth	Cozzi	
1130	Mary	Brinkmann	
1130	Emily	Hanner	
1130	Amanda	Huff	
1130	Brenda	Evans	
1130	Stan	Janczuk	
1130	Therese	DeBing	
1130	Nancy	Taylor	
1130	Mikayla	Summers	
1130	Erin	Johnson	

Comment ID	First Name	Last Name	Organization
1130	Pete	Lockwood	
1130	J	Simmons	
1130	Katherine	Hinson	
1130	Paul	Szmanowski	
1130	Dennis	Morley	
1130	Kathy	Borgan	
1130	Susan	Grimwood	
1130	Gary	Goetz	
1130	Jorge	Andromidas	
1130	Bill	Christie	
1130	Jess	Sejud	
1130	C	M	
1130	Tim	Schmitt	
1130	Jennifer	Brandon	
1130	Kim	George	
1130	Sara	Van Dusen	
1130	Pamela	Hamilton	
1130	Linda	Olson	
1130	Lyn	du Mont	
1130	Robin	Devaney	
1130	Ernie	Walters	
1130	Jeannie	Pollak	
1130	Marianne	Lazarus	
1130	William	McCullough	
1130	Steve	Bogart	
1130	Margaret	Rhodes	
1130	James	Thoman	
1130	Cathy	Drook	
1130	Brittany	Schmidt	
1130	Barry	Medlin	
1130	Jacquelyn	Seguin	
1130	Robert	Handelsman	
1130	Tom	Dobberteen	
1130	Andrew	Marx	
1130	Bonnie	McGill	
1130	Todd	Smarr	
1130	Wendy	Gardner	
1130	Chemen	Ochoa	
1130	Jenne	Sindoni	
1130	Jeffrey	Hurwitz	
1130	Beverly	Mitchell	
1130	Alice	Whitelaw	
1130	Cliff	Atendido	
1130	Janine	Kondreck	
1130	Melissa	Grieves	
1130	Samuel	Burns	
1130	Elyse	Sternberg	
1130	Brian	Buhman	
1130	Bronwen	Evans	
1130	Pia	Heyn	
1130	Alison	Best	
1130	Nova	Holt	
1130	Jeffrey	Bains	
1130	Chester	Pauls	
1130	Paula	Loftis	
1130	Joe	Marsala	
1130	James	Tucker	
1130	Karen	Kawszan	

Comment ID	First Name	Last Name	Organization
1130	Trigg	Wright	
1130	Cierra	Buer	
1130	Barclay	Hauber	
1130	Georgia	Shankel	
1130	Sarah	Uharriet	
1130	Dorris	R	
1130	Jeff	C	
1130	Shannon	Jacobs	
1130	Emily	Pavelka	
1130	Wayne	Cohen	
1130	Michael	Sarabia	
1130	Kathy	Wright	
1130	Michele	Vaillancourt	
1130	Virginia	Knapp	
1130	Martha	Gorak	
1130	Neville	Dunn	
1130	Michael	Henderson	
1130	Fay	Forman	
1130	Catherine	Saint-Clair	
1130	Douuglas	Sedon	
1130	Lisa	Mazzola	
1130	Tami	Swartz	
1130	Pat	Lovell	
1130	Kellen	Dunn	
1130	Jeffery	Luther	
1130	Elsa	Knutson	
1130	Nancy	Rupp	
1130	Nancy	Or	
1130	Rebecca	Berlant	
1130	Michelle	Macy	
1130	Autumn-Ray	Russell	
1130	Sara	Keesling	
1130	Henry	Gaudsmith	
1130	Mary	Johnson	
1130	d'Anne	MacNeil	
1130	Nicholas	Kovalcik	
1130	Meryl	Pinque	
1130	Nancy	Dillard	
1130	Ronda	Reynolds	
1130	Ann	Coz	
1130	Miriam	Baum	
1130	Maralyn	Mencarini	
1130	Elise	McCoubrie	
1130	William	Miller	
1130	Tom	Harris	
1130	Mary	Gershanoff	
1130	Denise	Lytle	
1130	Teresa	Smith	
1130	Carlos	Nunez	
1130	Dee	Buttimer	
1130	Dara	Rider	
1130	Julia	Barton	
1130	Ben	Bluhm	
1130	Dave	Joslyn	
1130	Michael	Ierulli	
1130	Margaret	McGinnis	
1130	Olivia	Mitas	
1130	Karen	McBee	

Comment ID	First Name	Last Name	Organization
1130	Mark	Kenyon	
1130	Stephanie	Brinkmann	
1130	Eric	Melick	
1130	Mark	Meeks	
1130	Brian	Adkins	
1130	Amelia	Pfeiffer	
1130	Carolyn	Eichner	
1130	Priscilla	Marinez	
1130	Sarah	Stewart	
1130	Susan	McMullin	
1130	Elizabeth	Miller	
1130	Amy	Musser	
1130	Sabrina	Schaffer	
1130	Hallie	Cummings	
1130	Michael	Nowak	
1130	Melissa	Rohm	
1130	Brie	Havens	
1130	Raquel	Snow	
1130	Jeffrey	Phillips	
1130	Carol	Houck	
1130	Beth	Piburn	
1130	Terri	Erwin	
1130	Stefanie	Reinhold	
1130	Courtney	Barth	
1130	Keala	Murdoxk	
1130	Michael	Brouillette	
1130	Michael	Brouillette	
1130	Susan	Mills	
1130	John	Grant	
1130	Karl	Prokop	
1130	Sharon	Gaskill	
1130	Jan	Emerson	
1130	Joan	Holliday	
1130	Lisa	Musgrave	
1130	Elaine	Becker	
1130	Emmy	Reed	
1130	Madison	Nykamp	
1b	Tom	Hallberg	Greater Yellowstone Coalition
2b	Kathy and Tom	Hoffman	
3b	Ron	James	Teton County Idaho Board of County Commissioners
4b	Michael	Pernice	
5b	Molly	Robertson	
6b	Katie	Schensky	
7b	Debra	Taylor	
8b	Robin	Upton	
9b	Lorin and Liza	Wilson	
10b	Olivia	Wilson	
11b	Ken	Wiseman	
12b	Lynne	Wolfe	
13b	Cynthia	Riegel	
14b	Barb	Beller	
15b	Dawn	Christensen	
16b	Justine	Fielding	
17b	Barbara	Arondwitz	
18b	Rolonda	Bjornson	
19b	Dan	Burgette	
20b	Barbara	Frank	

Comment ID	First Name	Last Name	Organization
21b	Jimmy	Harmelin	
22b	Jared	Power	
23b	Georgie	Stanley	
24b	Madison	Nykamp	
25b	Doug	Brimeyer	Wyoming Game and Fish Department
26b	Marcinko	Robert	
27b	James	Robertson	