SWAMP EDDY

DRAFT Decision Notice

Lolo National Forest
Plains/Thompson Falls Ranger District
Sanders County, Montana

October 2019

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SWAMP EDDY
Decision Notice

1.0 Decision

This decision authorizes vegetation treatments on approximately 3,637 acres outside the 2017 Sheep Gap Fire perimeter, road management activities within the 28,000-acre project area, recreation management actions at the mouth of Swamp dispersed recreation site, and amendment of the Lolo Forest Plan under the 2012 Planning Rule (36 CFR 219.13(b)(3)). The amendment is summarized below and discussed in more detail in Appendix D.

This notice documents my decision to implement the **Modified Proposed Action** as presented in the Swamp Eddy Environmental Assessment (EA) with the following changes:

- Add approximately 165 acres of timber harvest (Units S101 through S108 – see map in Appendix A) near the CC Divide at the head-end of East Fork Swamp Creek to further achieve project objectives by addressing an ongoing outbreak of defoliator insects and fir engraver beetle. Douglas-fir tussock moth, spruce budworm, and hemlock loopers are causing moderate to severe defoliation of Douglas-fir, subalpine fir, and grand fir trees as well as understory shrubs. Fir engraver bark beetles are also causing mortality in grand fir, likely the result of several stress factors including overstocking, defoliation, and past drought. The Regional entomologist surveyed the site and indicated that this is likely the first year of a two to three-year outbreak. Outbreaks of this nature generally occur on a ten to fifteen-year cycle and are likely to reoccur in the same stands as long as suitable habitat for the insects exists. Therefore, I have decided to conduct management actions to reduce overstocking of the insects' primary forage, which would improve the resilience of these stands to future outbreaks. I believe this action is consistent with the project's purpose and need to restore resilient vegetative conditions.
- Add approximately 2 miles of temporary road, consisting of multiple segments ranging in length from 800 to 3200 feet. Approximately 0.8 miles is needed to access the additional harvest units described above. Since issuance of the Swamp Eddy EA, the remaining 1.2 miles of temporary road have been identified as necessary to facilitate logging due to terrain breaks. Newly identified temporary roads are in upper slope to ridgetop locations and do not cross streams. All constructed temporary roads will be decommissioned after harvest operations are completed.

The potential effects of these modifications have been evaluated. The analysis determined that the addition of 165 acres of timber harvest (an increase of about 9 percent over the acres displayed in the EA) and 2 miles of temporary road will have no effect on environmental resources and/or will be within the scale and scope of the original analysis. Documentation of this subsequent analysis and findings is contained within the Project File.

Authorized Activities

The Selected Action will achieve the purpose and need of the project by implementing the activities described below and displayed on the maps in Appendix A. More details are provided in Appendix B.

Vegetation Management Activities

Table 1: Summary of Vegetation Treatments (refer to Map 1)

Treatment Type	Acres
Commercial Treatments	
Intermediate Timber Harvest	152
Small Tree Commercial Thin	226
Regeneration Timber Harvest	1,553
Subtotal	1,931
Non-commercial Treatments	
Non-commercial Thin (acres)	278
Mixed Severity Prescribed Burn (acres)	741
Low Severity Prescribed Burn (acres)	687
Subtotal	1,706
TOTAL	**3,637**

Intermediate Timber Harvest treatments (e.g. commercial thinning) are designed to enhance growth, quality, vigor, and composition of the existing stand. Generally smaller trees are removed from the lower and main canopy, retaining the larger trees of desired fire-tolerant species with gaps between the crowns. Within some stands, prescribed fire will be applied following harvest activities.

Small Tree Commercial Thinning will occur within ponderosa pine plantations that originated from timber harvest and subsequent planting in the 1960s. Today, these stands are densely stocked with trees that range in size from 5 to 10 inches in diameter and are at high risk to insect-induced mortality. Commercial thinning will remove smaller trees from the lower and main canopy.

Regeneration Timber Harvest treatments are designed to replace the existing stand with a stand that has a species composition and stocking density that meets desired future conditions specified in management objectives. Regeneration harvests will occur where stand conditions (insects, disease, blowdown, etc.) do not meet and are not projected to meet desired conditions and where intermediate harvest cannot alter stand development to a desired condition. Prescribed fire will be applied following harvest to reduce fuel and prepare the site for natural regeneration or planting. Natural regeneration is expected at various densities and species, and most of these units will be planted to ensure regeneration of larch, ponderosa pine, and blister rust-resistant white pine.

Non-commercial thinning will occur in young (20-40 years old) stands to remove smaller trees from the lower and main canopy, retaining the larger trees of desired fire-tolerant species with gaps between crowns. This will provide growing space to reduce competitive stress, resulting in trees that grow bigger faster, develop characteristics that increase fire-tolerance both at individual tree and at stand levels, and better resist some of the most damaging insects and diseases. The resulting stand densities will typically be between 110 and 170 trees per acre, but that will vary by species distribution and tree sizes. The trees cut during this process will be left on site and allowed to decompose back into the soil.

Low Severity Prescribed Burn treatments will primarily be low intensity surface fire. This type of burning will occur on drier ponderosa pine/Douglas-fir forest types where wildfire historically burned at frequent intervals, with low to mixed severities. This burning will be used to improve big game winter range areas and forest stand resilience.

Mixed Severity Prescribed Burn treatments will be a combination of low to moderate severity surface fire with areas that will likely burn at high severity where surface fuels are heavy. This type of prescribed burning will occur primarily in mixed conifer forest types where there is existing tree mortality.

Road Management Activities

- Herbicide treatment of weeds will be conducted as needed on roads not currently drivable that will be opened for access to timber harvest units and/or those to be physically stored or decommissioned. Weed treatments on drivable roads within the project area are already authorized under the 2007 Lolo National Forest Integrated Weed Management Record of Decision.

Table 2: Summary of Road Management Activities (refer to Map 2)

Road Management Activity	Miles
Maintenance	47
Temporary Road Construction (multiple segments ranging from 0.1 to 0.8 miles in length)	4.6
Decommission[1]	**Total: 79**
System Roads (no physical treatment)	6
Non-system Roads	73
Physical closure	4
Administrative closure (no physical treatment)	69
Add Existing Non-system roads to the National Forest System	**Total: 16**
Add existing non-system roads and keep open yearlong for public motorized use	1
Add existing non-system roads and close yearlong to public motorized use	2
Add existing non-system roads and store	13
Convert Existing Non-system Road to Non-motorized Trail	0.4

[1]See Table 3 below for closure method.

Maintenance activities will include surface blading, minor earth work (e.g. cut and fill shaping), road surface shaping, ditch cleaning and reshaping, roadside clearing and/or brushing, seeding disturbed areas, drain dip and cross drain cleaning and construction, culvert cleaning, armoring, and/or replacement, slash filter windrow and sediment trap construction near live water crossings. Because these roads are intended for long-term access, and many will remain open to public travel, work will be performed to minimize environmental impacts and to provide a safe and stable road.

Temporary roads will be constructed to a minimal standard to provide access for timber harvesting equipment and log trucks. These roads will be decommissioned following use for this project. Decommissioning of the roads will generally include replacing overburden (excavated soils) back onto the road prism to return the ground to its natural contour as much as possible, placing woody debris on the disturbed area, and seeding the disturbed soil.

Decommissioning treatments will occur on roads not needed for future use. Activities could vary from full recontouring of roads found to be causing resource impacts to no treatment of roads that are fully revegetated, contain no stream crossings, and have no associated resource impacts (see Table 3 for proposed decommissioning treatments). Road decommissioning in this project will not affect currently drivable, legal public motorized access.

Add non-system roads to the National Forest road system: Approximately 16 miles of existing non-system roads were identified as needed over the long-term and will be adopted to the National Forest road system:

- Approximately 1 mile of these roads will be added to the system as open yearlong for public motorized use. These roads are currently drivable and primarily associated with the mouth of

Swamp dispersed recreation site and one segment provides access to State land in lower Swamp Creek.

- Approximately 2 miles are located behind yearlong closed gates and will be available for administrative use only.

- The remaining 13 miles will be placed in storage and available for administrative use when needed at some time in the future.

Convert Existing non-system road to non-motorized trail: A short segment of a non-system road will be converted to a trail and used to connect the Sacajawea Peak trail #385 to National Forest System Road (NFSR) 7581.

Table 3: Road Decommissioning and Storage Levels for Existing Roads

Road Treatments	Miles
Road Decommissioning	**79**
3D	2
5	2
3DN (Administrative)	75
Road Storage (roads to be added to the system)	**13**
3S	2
3SN	11

Decommission Level 3D: Closure activities would include road surface ripping (de-compaction) along the entire length of the roadway, placement of woody debris on the road surface, removal of structures (culverts, bridges) and reshaping of stream crossings to natural contours, installation of water bars at frequent intervals, seeding of the road prism, and recontouring the entrance of the road. On flatter terrain, boulders could be used to close the road entrance.

Decommission Level 5: Closure activities would include full recontouring; replacing overburden (excavated soils) back onto the road prism to return the ground to its natural contour, removal of structures (culverts, bridges) and reshaping of stream crossings to natural contours, placing woody debris upon the disturbed area, and seeding and fertilizing the disturbed soil.

Decommission Level 3DN (Administrative closure): These roads are already revegetated with brush and trees, and no physical activities would be conducted on the ground. The intention of this treatment is to administratively decommission roads without re-disturbing road surfaces that are already stable from natural processes.

Storage Level 3S: Closure activities would be the same as those described for Decommission Level 3D. However, the roads to be stored are needed for long-term access and would be reopened in the future when needed.

Storage Level 3SN (Administrative storage): Roads to be added to the system that are needed for long-term access, but not in the near future. No physical treatments would occur as these roads are already in a stored condition.

Recreation Management Activities (refer to Site Plan in Appendix A)

Project activities at the mouth of Swamp dispersed recreation site to reduce resource damage and provide for public safety and sanitation include:

- reconstruction and realignment of the access road

- development/designation of a parking area outside the riparian zone
- placement of boulders and/or other natural materials to confine motorized use to the designated road and established camping areas.
- development of non-motorized trails to concentrate use in appropriate areas
- installation of a vault toilet

Forest Plan Amendment

The Selected Action will amend the Lolo Forest Plan by changing the management area designation on two parcels of land totaling 527 acres that were incorrectly mapped near Combest Peak during the development of the 1986 Lolo Forest Plan (see map in Appendix D):

- Approximately 481 acres will change from Management Area 27 (land where timber management is not economically or environmentally feasible due to physical features of the parcels) to Management Area 25 (land with a medium degree of visual sensitivity and is available for varying degrees of timber management), which is the current allocation of adjacent lands.
- Approximately 46 acres will change from Management Area 27 (land where timber management is not economically or environmentally feasible due to physical features of the parcels) to Management Area 16 (timber management), which the current allocation of adjacent lands.

This amendment to correct forest plan management area allocations applies to this project as well as other future land management actions in these specific areas until the Forest Plan is revised (36 CFR 219.14(a)(3)). Projects and/or other agency actions authorized before this decision may proceed unchanged (§ 219.15(a)). See Appendix D for more detail.

Mitigation

I have incorporated into my decision specific resource protection measures to avoid or minimize environmental harm from activities authorized in the Selected Action. These requirements are listed in Appendix C.

2.0 Rationale for the Decision

I have made my decision based on the information in the Swamp Eddy EA, the supporting documentation in the Project File, and consideration of issues, public comments, and relevant science. I have determined my decision is consistent with the Lolo Forest Plan, laws, regulations, and agency policy outlined in Forest Service manuals and handbooks. I have also considered the potential cumulative effects. I believe the Selected Action provides for the best balance of management activities to respond to the purpose and need, while being responsive to issues and public input identified through the analysis. I have adopted all practical means to avoid or minimize environmental harm from the Selected Action.

The alternatives I had to choose from included:

- No Action
- Modified Proposed Action

Meeting the Purpose and Need

The purpose and need for the Swamp Eddy project is listed below and discussed in detail in the EA on pages 1-5:

- Restore vegetation conditions that are resilient to natural disturbances such as fires, insects, disease, drought, and other environmental shifts so ecological processes will sustain composition, structure, species, and genetic diversity in the future.
    - Re-establish a mosaic of tree age, species, and size classes across the landscape in varying patch sizes
    - Promote ponderosa pine, western larch, and western white pine
    - Reduce forest fuels
- Provide wood products that contribute to local and regional economies and the sustainable supply of timber from National Forest System lands.
- Maintain a suitable transportation system to support long-term land management and public uses and reduce adverse environmental effects.
- Reduce resource damage and provide for public health and safety at the mouth of Swamp dispersed recreation site.

Restore Resilient Vegetative Conditions

The Swamp Eddy project was initiated in 2016 in response to concerns about hazardous fuel conditions and declining forest health. Before these issues could be addressed, the Sheep Gap Fire burned nearly 16,000 acres (55 percent) of the Swamp Eddy project area in September 2017. Due to the overall high severity of the fire, the need to conduct vegetation treatments to achieve forest health and resiliency objectives no longer exists currently within the fire perimeter. However, these vegetation needs remain for the unburned lands located within the project area.

My decision authorizes vegetation treatments (commercial and non-commercial) to reduce the risk or extent of and increase the resilience to insect and disease infestation on approximately 3,637 acres where the primary Forest Plan goals are to provide for healthy stands of timber and optimize timber growing potential. These treatments will also decrease the likelihood that treated stands will support high-severity fire. Resultant forest stands will have structures, densities, and species composition that are more adaptable and sustainable over time.

My staff worked with Forest Service entomology and pathology professionals from the Northern Regional Office to identify forest health hazard risks (root disease, bark beetles, and defoliator insects) and develop effective treatments to address these needs within the project area. Although naturally occurring, these pathogens have greater impact today due to the altered forest composition primarily from fire suppression which has led to more uniformity in tree species, density, size, and age compared to historic conditions.

All vegetation treatments are designed to be consistent with the scientific literature and local experience with similar treatments in similar forest types. A discussion of the science basis for these treatments is contained within Appendix C of the Swamp Eddy EA.

The analysis summarized in the EA, as supported by the documentation in the Project File, clearly displays that the authorized vegetation activities will not have significant adverse effects on the environment.

I did not select No Action because it will not provide for healthy stands of timber and optimize timber growing potential, which are Forest Plan goals for the area as previously stated. Approximately 70 percent of the project area has moderate to high hazard and risk of loss from root disease. If I chose to do nothing, root disease susceptible species (e.g. Douglas-fir) would continue to suffer mortality and lose basal area over time. Dense stands would continue to grow and increase in their susceptibility to bark beetles and fuel hazard would be maintained at current increasing levels. Crown and surface fuels would continue to accumulate as trees grow and die from insects, disease, and inter-tree competition. Drought susceptibility and susceptibility to environmental shift (e.g. climate change) would also be maintained at current and increasing levels in stands that are not treated.

Support Communities

One of the goals outlined in the Lolo Forest Plan is to provide a sustained yield of timber and other outputs at a level that will help support the economic structure of local communities and provide for regional and national needs (Forest Plan, page II-1). Harvest treatments that achieve vegetation restoration objectives will yield various wood products to local and regional forest industries. In doing so, the Selected Action will also contribute to the maintenance of a forest industry infrastructure, which provides employment, benefitting local communities, and markets for products that result from forest restoration and other projects. I recognize the need for a strong forest industry to help accomplish forest restoration and other vegetation treatments now and into the future.

In consideration of the goals and objectives of the Lolo Forest Plan, I believe it is important for the Forest Service to support local communities especially where the agency manages the majority of the land base as it does in Sanders County. The Swamp Eddy project will contribute employment opportunities within the county where the current unemployment rate is nearly twice the State average. I have decided to proceed with the Selected Action because it will contribute both directly and indirectly to the economy of Sanders County and surrounding areas (EA, pages 82-84).

Maintain Suitable Transportation System

During the development of the Swamp Eddy project, my staff conducted a project-level Travel Analysis to identify which roads are needed as part of the long-term transportation system, with consideration of Forest Plan management area allocation, public recreation, and private land access. As part of this process, the environmental risks of each road were also assessed. To provide an appropriate accounting of the entire existing road system, all existing roads, including non-system roads were mapped and evaluated. Within the project area, there are approximately 205 miles of road under Forest Service jurisdiction, about half of which (or 115 miles) are system roads. The rest are non-system roads that were constructed for mining or logging access before the 1970s. Most of these non-system roads have narrow prisms, heavily grown-in with vegetation. In the Travel Analysis, the majority of these non-system roads were identified as unneeded primarily because there are alternate roads that are more suitably located.

The Travel Analysis resulted in the recommendation for some roads to be decommissioned or adopted into the National Forest road system. In addition, maintenance activities were prescribed for needed roads. Authorized maintenance actions will complement the road work recently accomplished under the post-fire Burned Area Emergency Response effort and fire salvage timber sales, which included culvert replacements, storm-proofing, and drainage maintenance. For unneeded roads, field surveys were conducted to determine the level of treatment appropriate to close them. Physical treatments were prescribed only where resource issues were identified.

Although I am authorizing decommissioning of 79 miles of road, currently drivable public motorized access will not be affected by this activity. The roads proposed for closure are currently restricted yearlong to motorized travel and/or impassable due to vegetation (EA, page 80).

Approximately 4.6 miles of temporary road, consisting of multiple segments, will be constructed to access vegetation treatment units in order to achieve vegetation objectives. After use for this project, temporary roads will be recontoured to the natural hill slope and the sites rehabilitated. The analysis

indicates temporary road construction will have little, if any, effect on water quality and wildlife species or their habitat. These roads will be in upper slope locations and contain no stream crossings. Temporary roads will be closed to public motorized travel. The analysis concludes that temporary road construction will not have significant effects on the environment due to project design and applied resource protection measures. Without temporary road construction, the ability to meet the project's vegetation purpose and needs will be reduced.

My decision reduces the environmental impacts of roads through physical closure treatments (4 miles) and maintenance (47 miles).

I believe my decision maintains a transportation system that will meet existing and future access needs while addressing environmental concerns. Consistent with the Lolo Forest Plan, roads within the Swamp Eddy project area will be "the minimum number and size needed to support resource management" (Forest Plan, pages II-2 and II-17).

Consideration of Public Comments

I value public input and carefully considered the comments received on this project. My staff addressed the issues raised during the initial scoping period on the Proposed Action by refining the project design, identifying additional resource protection measures, and by conducting analysis to determine environmental effects (EA, pages 7-9). Since that time, we received additional comments on the Swamp Eddy Environmental Assessment (August 2019), which were supportive of the project. One person requested additional timber harvest be considered. Another person expressed concern about cumulative effects of water yield considering the Sheep Gap Fire.

Request for More Timber Harvest

The commenter who requested more timber harvest, recommended a specific area be considered. The suggested area was evaluated during project development, but the stands are not of a size, species composition, or condition that warrants silvicultural treatments at this time.

After the 2017 Sheep Gap Fire, my staff reevaluated the Swamp Eddy area for vegetation treatment needs. They identified approximately 400 acres of additional timber harvest outside the fire perimeter above what was included in the initial proposed action to further address project objectives. My decision also includes 165 additional acres of timber harvest than was described in the Swamp Eddy EA to respond to the ongoing defoliator insect and fir engraver beetle outbreak (see Section 1.0). Based on existing conditions in the area and Forest Plan direction, I believe the scale of this project is appropriate to achieve identified objectives.

Effects to Water Yield

My staff carefully assessed the potential effects of the Swamp Eddy project on water yield. The analysis concluded that project vegetation treatments and road activities will not have measurable effects to water yield. The projected reduced forest canopy conditions resulting from the project combined with the existing condition (including the Sheep Gap Fire and past harvest on all ownerships) will be below the thresholds that research indicates would result in detrimental changes in water yield. As a precaution, the implementation of the 741-acre mixed severity prescribed burn (Unit MS1) in West Fork Swamp Creek will not occur until timber harvest operations are completed (see Appendix C, resource protection measure #11) to minimize potential effects to water yield. Timber harvest treatments will likely begin in 2021 (4-years post-fire), which will allow time for additional hydrologic recovery from the 2017 Sheep Gap Fire and past harvest. Harvest activities will not occur all at once but will be spread out over 3 to 5-year period. Thus, peak stream flows will not be affected (Swamp Eddy EA, pages 44-45).

Responses to public comments on the EA are contained in Appendix E of this Decision Notice.

3.0 Public Involvement

Pre-Scoping Collaboration

In August 2014, a letter was sent to over 200 individuals and organizations inviting them to participate in a collaborative effort to help in the development of site-specific projects on NFS lands in Sanders County. Several people including local residents, County Commissioners, Sanders County Resource Advisory Committee (RAC) members, representatives of timber industry, Montana Department of Natural Resources and Conservation, and other organizations responded. Discussions regarding the Swamp Eddy project began in April 2015 at a meeting held in the Sanders County Courthouse. On October 14, 2015, the Forest Service sponsored a public fieldtrip to the project area. The Forest Service used the valuable input from the collaborative participants to develop the proposed action for the project.

In addition to the project's natural resource objectives, collaborative participants wanted to highlight the social and economic benefits this project would provide to the public, including enhanced recreation opportunities, employment, and income within Sanders County.

In October 2018, the Sanders County Collaborative requested that the Swamp Eddy project be continued after the Sheep Gap Fire (letter dated 10/26/2018). Members felt that the reasons the area was originally identified for treatment are still valid outside the fire perimeter. They believe the Swamp Eddy project will contribute to one of their group's stated goals, which is to help improve the economic stability of Sanders County (ibid.).

On December 12, 2018, the Forest Service met with the Sanders County Collaborative to share what the modified project proposal would likely include. Members expressed their support.

Scoping

On March 28, 2016, a scoping letter soliciting comments on the proposed action was mailed to 175 landowners, organizations, other agencies, and individuals who had previously requested notification about the types of activities included in the project. The scoping letter and associated map were posted on the Lolo National Forest website. A legal notice requesting comments was published in the *Missoulian* newspaper on March 31, 2016.

A project announcement and public meeting notice was published in the *Clark Fork Valley Press* and *Sanders County Ledger* on April 6th and 7th, respectively. The Forest Service held a public meeting on April 12th to share information about the project and encourage public comment. Twelve people attended the meeting.

At the completion of the scoping period, eleven letters had been received. Issues identified from public comments are addressed in the EA on pages 7-9.

Environmental Assessment

On August 12, 2019, a notice of availability of the Swamp Eddy EA was sent to individuals and organizations that had previously commented on or expressed interest in the project. The EA was posted on the Lolo National Forest website. The 30-day comment period on the EA began with the publication of legal notice in the *Missoulian* newspaper on August 14, 2019. At the close of the comment period, 7 letters had been received. Two additional letters were received after the comment period closed. The Agency's response to comments is contained in Appendix E of this Decision Notice.

4.0 Finding of No Significant Impact

After considering the environmental effects described in the Swamp Eddy EA, I have determined that the Selected Action will not have a significant effect on the quality of the human environment based on the context and intensity of its impacts (40 CFR 1508.27). Therefore, an environmental impact statement will not be prepared.

I base my findings on the following:

The Selected Action will implement activities that are of limited scope and duration, affecting only the immediate area around the proposed vegetation treatment units, roads, and recreation management activities. The project, in its entirety, will likely be implemented over a period of five to eight years with individual site treatments being of shorter duration (e.g. a few days or single season). The project was designed to minimize environmental effects through vegetation treatment location, logging methods, silvicultural prescriptions, best management practices, and resource protection measures (EA, Section 2.1.1; Decision Notice, Appendix C). Implementing regulations for NEPA (40 CFR 1508.27) provide criteria for determining the significance of effects. Significance, as used in NEPA, requires consideration of both context and intensity.

(a) Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale, rather than the world as a whole. Both short- and long-term effects are relevant (40 CFR 1508.27).

The effects of the Selected Action are limited in context. The project activities are limited in size (vegetation treatments including timber harvest, prescribed burning, and other non-commercial vegetation treatments will be on a total footprint of approximately 3,637 acres, which is about 13 percent of the National Forest System land within the Swamp Eddy project area and less than one percent of the Plains/Thompson Falls Ranger District) and duration (management actions associated with the proposal will be completed within an approximate 5-8 year time frame). Effects are local in nature and are not likely to significantly affect regional or national resources.

Resource protection measures (EA, Section 2.1.1; Decision Notice, Appendix C) are incorporated into the Selected Action to minimize and avoid adverse impacts to the extent that such impacts will be almost undetectable and immeasurable, even at the local level.

Within the context of the landscape as a whole, or at the stand level, the ecological consequences are not found to be significant in either the short- or long-term.

(b) Intensity. This refers to the severity of impact. The following ten aspects are considered in the evaluation of intensity (40 CFR 1508.27).

1. Impacts that may be both beneficial and adverse.

I considered the beneficial and adverse impacts associated with the Selected Action as presented in the Swamp Eddy EA. Potential adverse effects from the Selected Action have been minimized or eliminated through project design or resource protection measures. For this project, there are no known long-term adverse effects or cumulative effects to resources such as soils, wildlife, water, or fisheries. Impacts are within the range of effects described in the Lolo National Forest Plan Final Environmental Impact Statement. Based on the detailed resource reports contained within the Project File and summarized in the EA, I conclude that the specific direct, indirect, and cumulative effects of the Selected Action are not significant, and this action does not rely on beneficial effects to balance adverse environmental effects.

2. The degree to which the proposed action affects public health or safety

All burning of slash and natural fuels will comply with State Air Quality Standards and be coordinated through the Montana Airshed Group.

Herbicide treatment of weeds along roads will comply with label directions and be consistent with mitigation measures outlined in the Lolo National Forest Integrated Weed Management Environmental Impact Statement and Record of Decision (USDA 2007).

It is my determination that by incorporating the resource protection measures for air quality and following herbicide application requirements, the project will have no adverse effects on human health and safety.

3. Unique characteristics of the geographic area, such as proximity to historic or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas

I considered the characteristics of the geographic area. The project area does not contain any parklands, prime farmlands, wild and scenic rivers, or ecological critical areas.

The project area does contain wetlands and riparian areas, but they will be protected through resource protection measures (Appendix C), best management practices, and adherence to Forest Plan requirements.

Heritage surveys have been conducted. The project will have no adverse effect on heritage properties. The Montana State Historic Preservation Office has concurred with this finding (letter dated October 1, 2019).

Based on this information, I conclude that the Selected Action will have no effects on unique resources.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial

As used in the Council on Environmental Quality's guidelines for implementing NEPA, the term "controversial" refers to whether substantial dispute exists as to the size, nature or effect of the major federal action, rather than the existence of opposition to a use. A limited and focused proposed action was developed based on purpose and need for action, resource concerns, and public input. Specific design features and resource protection measures will minimize effects on resources.

Most public comments were supportive, but there were a few concerns expressed about the project's potential effects to water quality and public motorized access. These concerns were addressed through project design and application of resource protection measures. The analysis concluded that water quality will be protected (EA, page 44) and currently drivable public motorized access will not change (EA, page 80).

Based on the limited context of the Selected Action, review of the public comments received to date, and the analysis documented in the EA and Project File, I do not find any highly controversial effects to the human environment.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risk

Based on my review of public comments received on this project and the analysis documented in the EA and Project File, I conclude that there are no uncertain or unique characteristics in the project area which have not been previously encountered or that will constitute an unknown risk to the human environment.

A technical analysis (EA and Project File) that discloses potential environmental impacts (which is supportable with use of accepted techniques, reliable data, and professional judgment) has been

completed, and I believe that the impacts of implementing this project are within the limits that avoid thresholds of concern.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration

The Swamp Eddy project is a site-specific project that does not set precedence for future actions or represent a decision in principle about future considerations. Any proposed future project must be evaluated on its own merits and effects. The Selected Action is consistent with the Lolo Forest Plan and the capabilities of the land.

7. Whether the action is related to other actions with individual insignificant but cumulative significant impacts

Connected, cumulative, and similar actions have been considered and included in the scope of the analysis. The analysis accounts for past, present, and reasonably foreseeable future actions (EA, Chapter 3, Section 3.1). Based on my review of the analysis and disclosure of effects in the EA, resource reports, Biological Assessments and Evaluations, and other analyses in the Project File, I conclude that the Swamp Eddy project will not contribute potential cumulative adverse impacts (EA, pages 32-85).

8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, or may cause loss or destruction of significant scientific, cultural, or historic resources

A comprehensive evaluation of heritage resources was conducted, and the Forest archaeologist determined that there will be no adverse effects to known sites. The Montana State Historic Preservation Office has concurred with these findings (letter dated October 1, 2019). In the event that such resources are discovered during project implementation, they will be evaluated and protected.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973

Threatened Species Determinations

Species	Determination
Grizzly Bear	May affect, not likely to adversely affect
Canada Lynx	May affect, not likely to adversely affect
Bull Trout	No effect to the species or designated critical habitat in the Clark Fork River

None of the federally listed Threatened and Endangered species that have the potential to occur on the Lolo National Forest will be adversely affected by project activities.

In accordance with Section 7 of the Endangered Species Act, the Forest Service is currently consulting with U.S. Fish and Wildlife Service (USFWS) regarding the potential effects to grizzly bear and Canada lynx.

10. Whether the proposed action threatens a violation of Federal, State, or local law requirements imposed for the protection of the environment

As discussed in Section 5.0 below, the Selected Action meets all federal, state, and local laws. It also meets the National Environmental Policy Act disclosure requirements (Swamp Eddy EA).

The Selected Action is consistent with the National Forest Management Act (NFMA) and the Lolo Forest Plan. This decision includes a forest plan amendment to change the management area allocation on approximately 527 acres to correct mapping errors that occurred during development of the Forest Plan (see Appendix D for more information).

5.0 Findings Required by Law, Regulation, and Policy

I have determined that my decision is consistent with the laws, regulations, and agency policies related to this project. The following summarizes findings required by major environmental laws.

The National Environmental Policy Act (NEPA)

NEPA requires Federal agencies to: (a) use a systematic interdisciplinary approach in planning and decision-making; (b) consider the environmental impact of proposed actions; and (c) consider alternatives to the proposed action. I find that the analysis process and EA documentation of the Swamp Eddy project is consistent with NEPA.

The National Forest Management Act (NFMA)

On April 9, 2012, the Department of Agriculture issued a final planning rule for National Forest System land management planning (2012 Rule) 77 FR 68 [21162-21276]). None of the requirements of the 2012 Rule apply to projects and activities on the Lolo National Forest, as the Lolo Forest Plan was developed under a prior planning rule (36 CFR §219.17(c)). Furthermore, the 2012 Rule explains, "[The 2012 Rule] supersedes any prior planning regulation. No obligations remain from any prior planning regulation, except those that are specifically included in a unit's existing plan. Existing plans will remain in effect until revised" (36 CFR §219.17). This decision includes a forest plan amendment governed under the 2012 Planning Rule as amended in December 2016. Application of the 2012 Planning Rule to the amendment is documented in Appendix D.

Consistency with Forest Plan Standards, Goals, and Objectives

The NFMA requires that projects and activities be consistent with the governing Forest Plan (16 USC 1604(i)). The Lolo Forest Plan (1986) establishes management direction for the Lolo National Forest. This management direction is achieved through the establishment of Forest Plan goals and objectives, standards and guidelines, and Management Area goals and accompanying standards and guidelines.

This decision is consistent with the standards, goals, and objectives of the Lolo Forest Plan (USDA Forest Service 1986) as documented in the Swamp Eddy EA and resource reports in the Project File.

Suitability for Timber Production

No timber harvest, other than salvage sales or sales to protect other multiple use values, shall occur on lands not suited for timber production [16 USC 1604 Sec.6 (k)].

Stands identified for harvest treatment in the Swamp Eddy project area were examined for suitability by a Certified Silviculturist, Soil Scientist, and other resource specialists. Harvest treatments are located in management areas (MA) suitable for long-term timber production as described in the Forest Plan, amended by this decision.

Based on the analysis provided in the EA and Project File, the vegetation treatments identified in these areas meet these objectives/standards. The silvicultural diagnosis process and the Forest Plan were used to determine that all areas identified for timber harvest are suitable.

Timber Harvest

All projects that involve timber harvest for any purpose must comply with four requirements found in 16 USC 1604 Sec.6 (g)(3)(E). I find that the prescribed treatments involving timber harvest shall only occur on lands where:

(i) Soil, slope, or other watershed conditions will not be irreversibly damaged.

The Forest Service fully assessed the potential effects of timber harvest on soil and water resources. The analysis is documented within the Soil and Aquatics sections of both the EA and Project File. The Selected Action avoids impairment of site productivity, water quality, and aquatic habitat. This determination is supported by disclosures in the above sections of the EA and the application of design criteria, best management practices, and resource protection measures to help prevent the loss of soil or reduction in water quality as described in Chapters 1 and 2 of the EA. The effectiveness of BMPs is discussed in the EA and Hydrology report in the Project File. Field inventories and analysis verified that the selected treatments will meet Regional soil quality standards.

(ii) There is assurance that such lands can be adequately restocked within five years after harvest.

Within the Swamp Eddy project area, establishment of regeneration on past even-aged harvest units has successfully occurred within the five-year time frame or follow-up planting or other actions have been implemented, resulting in certifiably stocked stands. With this local history of successful regeneration and the planned silvicultural treatments, I am assured that treatments involving even-aged harvest will be restocked within the required time frame.

(iii) Protection is provided for streams, stream-banks, shorelines, lakes, wetlands, and other bodies of water from detrimental changes in water temperature, blockages of water courses, and deposits of sediment, where harvests are likely to seriously and adversely affect water conditions or fish habitat.

Upon review of the Swamp Eddy EA, I find that the timber harvest activities associated with the Selected Action will comply with applicable Clean Water Act and Montana State Water Quality standards and Lolo Forest Plan standards. As documented in the Aquatics section of the EA, timber harvest will not adversely affect water conditions or fish habitat. Application of BMPs and stream buffers will protect water resources from harvest activities.

(iv) The harvesting system to be used is not selected primarily because it will give the greatest dollar return.

The purposes of the harvest treatments for this project are to improve forest health and resiliency. In treatment units prescribed for commercial timber harvest, generally the smaller understory or codominant trees will be removed and the larger, more disease- and fire-resistant trees will be left on site. Although economic feasibility is a consideration during project development, the existing and desired stand and landscape conditions drove the selection of harvest systems and not the potential for greatest dollar return. The analysis concluded that the project is economically feasible meaning that the commercial timber sale portion of the project is likely to sell given current market conditions (EA, page 83).

<u>Clearcutting and Even-aged Management</u>

When timber is to be harvested using an even-aged management system, a determination that the system is appropriate to meet the objectives and requirements of the Forest Plan must be made and, where clearcutting is to be used, must be determined to be the optimum method.

a. For clearcutting, it is determined to be the optimum method, and for other such cuts it is determined to be appropriate, to meet the objectives and requirements of the relevant land management plan. [16 USC 1604 Sec.6 (g)(3)(F)(i)]:

No clearcutting is prescribed. However, even-aged harvest treatments that are designed to create a new age class while retaining a patchy overstory of large trees will occur on approximately 1,553 acres. These methods have been determined to be appropriate to meet land management and project objectives.

Within the Swamp Eddy project, even-aged regeneration harvest treatments are prescribed for areas heavily impacted by mortality caused by bark beetles and or root disease. I have determined that the

silvicultural systems in the Selected Action are appropriate to meet the objectives and requirements of the Forest Plan.

b. The interdisciplinary review as determined by the Secretary has been completed and the potential environmental, biological, esthetic, engineering, and economic impacts on each advertised sale area have been assessed, as well as the consistency of the sale with the multiple use of the general area. [16 USC 1604 Sec.6 (g)(3)(F)(ii)]:

Full interdisciplinary review has been completed for this project (refer to the Swamp Eddy EA and Project File). All treatments meet a portion of the multiple use goals and objectives in the Lolo Forest Plan for designated Management Areas.

c. Cut blocks, patches or strips are shaped and blended to the extent practicable with the natural terrain [16 USC 1604 Sec.6 (g)(3)(F)(iii)]:

Cutting units were designed to blend with the natural environment as much as possible and meet visual quality objectives.

d. Cuts are carried out according to the maximum size limit required for areas to be cut during one harvest operation, provided, that such limits shall not apply to the size of areas harvested as a result of natural catastrophic conditions such as fire, insect and disease attack, or windstorm [FSM Region 1 supplement 2400-2001-2-2471.1, 16 USC 1604 Sec.6 (g)(3)(F)(iv)]:

Within the Swamp Eddy project, several treatment areas will result in openings that exceed 40 acres in size, the maximum generally allowed by Forest Service Manual 2470, Section 2471.1, Region 1 Supplement 2400-2001-3. As per FSM 2471.1, Regional Forester approval is being requested.

e. Such cuts are carried out in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, and esthetic resources, and the regeneration of the timber resource [16 USC 1604 Sec.6 (g)(3)(F)(v)]:

Documentation of the effects of harvesting on other resources is contained in the Swamp Eddy EA and Project File. Protection of all resource values is maintained. All sites considered for treatment will use established harvest methods. Treatments are designed to sustain and perpetuate native seral species. Resource protection measures (Appendix C), standard operating procedures (Appendix C), and applicable best management practice measures will be sufficient to protect soil and water resources. As stated above, regeneration on past even-aged harvest units within the Swamp Eddy project area have successfully occurred. With this local history of successful regeneration and the planned silvicultural treatments, I am assured that treatments involving even-aged harvest in the Selected Action will be restocked within the required time frame.

Necessity of Roads

The NFMA requires that the necessity of roads be documented, and that road construction be designed to "standards appropriate for the intended uses, considering safety, cost of transportation, and impacts on land and resources" [16 USC 1604 Sec.8]. NFMA also requires that "all roads are planned and designed to re-establish vegetation cover on the disturbed areas within a reasonable period of time, not to exceed ten years…unless the road is determined necessary as a permanent addition to the National Forest Transportation System" [16 USC 1604 Sec.8]. A transportation plan and project-level Travel Analysis was completed for the project area that analyzed current and future transportation needs. In order to access treatment areas, I have decided to construct approximately 4.6 miles of temporary road in multiple segments. Temporary roads are needed to access vegetation treatments and will be reclaimed after use for this project and revegetated within ten years. The completed environmental assessment documented in the Swamp Eddy EA and Project File determined that the construction of temporary roads will not have significant impacts on the land or resources.

Based on these actions and analyses, I believe the Selected Action meets the intent of the NFMA road requirements.

Sensitive Species

Federal law and direction applicable to sensitive species include the National Forest Management Act and the Forest Service Manual (2670). The National Forest Management Act directs that guidelines for land management plans provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives [16 USC 1604 Sec.6 (g)(3)(B)]. The Lolo National Forest Plan contains standards for sensitive species. The Regional Forester has approved the sensitive species list – those plants and animals for which population viability is a concern (FSM 2670.5).

In making my decision, I have reviewed the analysis and projected effects on all sensitive species listed as occurring or possibly occurring on the Lolo National Forest (Biological Evaluations in the Project File). I acknowledge the findings, which document that the Selected Action will have no adverse impacts on sensitive species.

Clean Water Act and State Water Quality Standards

Upon review of the Swamp Eddy EA and Project File, I find that activities associated with the Selected Action will comply with applicable Clean Water Act and Montana State Water Quality standards through application of best management practices. An in-depth discussion of the effects on aquatic resources can be found in the Hydrology and Fisheries reports in the Project File and are summarized in the Aquatics section in Chapter 3 of the EA.

Clean Air Act

Prescribed burning activities will be coordinated to meet the requirements of the State Implementation Plans, Smoke Management Plan, and Federal air quality requirements.

Endangered Species Act (16 USC 1531 et. seq.)

Under provisions of this Act, Federal agencies are directed to seek to conserve endangered and threatened species and to ensure that actions are not likely to jeopardize the continued existence of any of these species. The Swamp Eddy project is consistent with the Endangered Species Act. Pursuant to Section 7(c) of the Act, my staff prepared a biological assessment, which discloses the potential effects of the project on listed species. The assessment concluded that the project may affect but will not adversely affect grizzly bear and Canada lynx. The Forest Service is currently consulting with U.S. Fish and Wildlife Service regarding these findings. The project will have no effect on any other listed species.

National Historic Preservation Act, American Indian Religious Freedom Act, and Native American Graves Protection and Repatriation Act

Cultural resource reviews have been completed on areas to be affected by ground-disturbing activities. The project is not expected to have any effects on cultural resources because all known sites eligible for the National Register of Historic Places will be avoided. Recognizing the potential exists for unidentified sites to be encountered or disturbed during project activities, standard provisions for their protection will be included in all contracts used to implement this project. These provisions will allow the Forest Service to unilaterally modify or cancel a contract to protect cultural resources, regardless of when they are identified. This provision will be used if a site were discovered after project activities had begun. This project complies with the Region 1 programmatic agreement with the State Historic Preservation Office and the Advisory Council on Historic Preservation.

The Forest Service consulted with the Confederated Salish and Kootenai tribes during the analysis process. The intent of this consultation has been to remain informed about Tribal concerns regarding the American Indian Religious Freedom Act (AIRFA) and other tribal issues. In addition, the Flathead,

Kootenai, and Upper Pend d'Orielles Indian Tribes reserved rights under the Hellgate Treaty of 1855. These rights include the "right of taking fish at all usual and accustomed places, in common with citizens of the Territory, and of erecting temporary buildings for curing; together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land." The Federal government has trust responsibilities to Tribes under a government-to-government relationship to ensure that the Tribes reserved rights are protected. Consultation with the tribes throughout the project planning helps insure that these trust responsibilities are met.

Migratory Bird Treaty Act

On January 10, 2001, President Clinton signed an Executive Order outlining responsibilities of federal agencies to protect migratory birds. Upon review of the information in the Swamp Eddy EA (pages 78-79) and Wildlife report filed in the Project File, I find that the Selected Action complies with this Executive Order.

Roadless Area Conservation Rule

On January 21, 2001 the 2001 Roadless Area Conservation Rule (Roadless Rule) was established (36 CFR 294 Subpart B) to provide, within the context of multiple use management, lasting protection for inventoried roadless areas within the National Forest System. The 2001 Rule prohibited road construction, road reconstruction, and timber cutting, sale and removal in inventoried roadless areas with some exceptions.

About 14 percent of National Forest System land within the Swamp Eddy project area is located within two inventoried roadless areas (IRAs): Cherry Peak and Patrick's Knob-North Cutoff (see maps in Appendix A).

Authorized activities within the IRAs include approximately 741 acres of prescribed burning (Cherry Peak IRA) and 1.2 miles of road decommissioning (0.3 miles in Cherry Peak IRA and 0.8 miles in Patrick's Knob-North Cutoff IRA). Road decommissioning will be administrative and not require any physical treatment on the ground because these roads are vegetated, contain no stream crossings, and pose no identified environmental risk. Prescribed burning and road decommissioning are not prohibited under the Roadless Rule. These activities meet the purpose and need for the project (see Section 2.0 of this document and the EA, Chapter 1) and will have no notable effect on roadless characteristics (EA, pages 84-85).

6.0 Pre-decisional Administrative Review Process (Objection Process) and Implementation

The Swamp Eddy project includes activities that are designed to implement the goals and objectives of the Lolo Forest Plan that are not authorized under the Healthy Forests Restoration Act. Project activities included in this decision are subject to the objection process pursuant to 36 CFR 218, subparts A and B. The forest plan amendment is subject to the objection process pursuant to 36 CFR 219, subpart B.

Objections will only be accepted from those who have previously submitted specific written comments regarding the proposed project during scoping or other designated opportunity for public comment in accordance with §218.5(a) and §219.53(a). Issues raised in objections must be based on previously submitted timely, specific written comments regarding the proposed project unless based on new information arising after the designated comment opportunities.

Objections, including attachments, must be filed via mail, express delivery, or messenger service: (to Objection Reviewing Officer, USDA Forest Service, Northern Region, 26 Fort Missoula Road, Missoula, MT 59804); FAX to (406) 329-3411; email to appeals-northern-regional-office@usda.gov; or by hand-delivery (Monday through Friday, 8:00 a.m. to 4:30 p.m., excluding holidays) to the same address.

Objections must be submitted within 45 calendar days following the publication of a legal notice in the *Missoulian* newspaper. The publication date in the newspaper of record is the exclusive means for calculating the time to file an objection. Those wishing to object should not rely upon dates or timeframe information provided by any other source. The regulations prohibit extending the time to file an objection.

The objection must contain the minimum content requirements specified in §218.8(d) and §219.54(c), and incorporation of documents by reference is permitted only as provided in §218.8(b) and §219.54(b). It is the objector's responsibility to ensure timely filing of a written objection with the reviewing officer pursuant to §218.9 and §219.56. All objections are available for public inspection during and after the objection process.

At a minimum an objection must include the following (§218.8(d) and §219.54(c)):

1) The objector's name and address, with a telephone number, if available;
2) A signature or other verification of authorship upon request (a scanned signature for Email may be filed with the objection);
3) When multiple names are listed on an objection, identification of the lead objector (verification of the identity of the lead objector shall be provided upon request);
4) The name of the proposed project, the name and title of the Responsible Official, and the name(s) of the National Forest(s) and/or Ranger District(s) on which the proposed project will be implemented;
5) A description of those aspects of the proposed project addressed by the objection, including specific issues related to the proposed project; if applicable, how the objector believes the environmental analysis or draft decision specifically violates law, regulation, or policy; suggested remedies that would resolve the objection; supporting reasons for the reviewing officer to consider;
6) A statement that demonstrates connection between prior specific written comments on the particular proposed project or activity and the content of the objection, unless the objection concerns an issue that arose after the designated opportunities for comment.

If objections are filed, the responsible official may not issue a decision document approving the project until the reviewing officer has responded in writing to all objections. The project and Forest Plan amendment may be implemented immediately after the decision is signed.

If no objections are filed within the 45-day filing period, approval of the proposed project in a decision document may occur on, but not before, the fifth business day following the end of the objection filing period. Implementation can begin immediately after the decision is signed.

Further information about this decision can be obtained from Erin Carey, District Ranger, or Pat Partyka, Project Leader. Contact information is included on the cover page of this document.

CAROLYN UPTON
Forest Supervisor

Date

APPENDIX A

Maps of the Selected Action

APPENDIX B

Details of the Selected Action

Table B-1: Selected Action Treatment Areas

Unit #	Acres[1]	Treatment Type[2]	Logging System[3]
C01	18	Regeneration Cut	Skyline
C02	10	Intermediate Harvest	Skyline
C03	9	Intermediate Harvest	Skyline
C04	25	Intermediate Harvest	Skyline
C05	2	Intermediate Harvest	Tractor
C06	35	Regeneration Cut	Skyline
C07	43	Intermediate Harvest	Skyline
C07X	9	Intermediate Harvest	Skyline
C08	14	Regeneration Cut	Tractor
C09	13	Regeneration Cut	Skyline
C10	28	Regeneration Cut	Skyline
C10X	8	Regeneration Cut	Skyline
C11	7	Intermediate Harvest	Skyline
C12	42	Regeneration Cut	Skyline
C13	26	Non-commercial Thin	--------
C14	62	Regeneration Cut	Skyline
C15	14	Regeneration Cut	Tractor
C16	23	Regeneration Cut	Skyline
C16X	29	Regeneration Cut	Skyline
C17	44	Regeneration Cut	Skyline
C17X	48	Regeneration Cut	Skyline
C18	37	Regeneration Cut	Skyline
C19	26	Intermediate Harvest	Excaline
C20	59	Intermediate Harvest	Skyline
C21	41	Regeneration Cut	Skyline
C22	21	Non-commercial Thin	--------
C23	5	Non-commercial Thin	--------
C24	12	Non-commercial Thin	--------
C25	30	Non-commercial Thin	--------
C26	26	Regeneration Cut	Skyline
C27	19	Regeneration Cut	Skyline
C31	18	Non-commercial Thin	--------
C32	28	Non-commercial Thin	--------
C33	35	Non-commercial Thin	--------
C34	21	Non-commercial Thin	--------

Unit #	Acres[1]	Treatment Type[2]	Logging System[3]
C36	5	Non-commercial Thin	--------
C37	84	Small Tree Commercial Thin	Skyline
C38	26	Non-commercial Thin	--------
C38X	11	Regeneration Cut	Skyline
C39X	27	Regeneration Cut	Skyline
C40X	23	Regeneration Cut	Skyline
C41	11	Non-commercial Thin	--------
C41X	74	Regeneration Cut	Skyline
C42X	96	Regeneration Cut	Skyline
C44X	14	Regeneration Cut	Skyline
C45X	5	Non-commercial Thin	--------
E21	25	Intermediate Harvest	Tractor
S04	43	Regeneration Cut	Skyline
S04X	8	Regeneration Cut	Skyline
S05	14	Intermediate Harvest	Skyline
S06	9	Intermediate Harvest	Skyline
S07	20	Regeneration Cut	Skyline
S08	24	Regeneration Cut	Tractor
S14	57	Small Tree Commercial Thin	Skyline
S17	65	Small Tree Commercial Thin	Skyline
S18	20	Small Tree Commercial Thin	Skyline
S19	21	Non-commercial Thin	--------
S42	29	Regeneration Cut	Skyline
S43	20	Regeneration Cut	Skyline
S44	21	Regeneration Cut	Skyline
S45	26	Regeneration Cut	Skyline
S45X	14	Regeneration Cut	Skyline
S46	22	Intermediate Harvest	Skyline
S46X	23	Intermediate Harvest	Skyline
S54	21	Regeneration Cut	Skyline
S56	15	Non-commercial Thin	--------
S57	7	Regeneration Cut	Tractor
S67	23	Regeneration Cut	Skyline
S69	17	Regeneration Cut	Skyline
S70	24	Regeneration Cut	Skyline
S71	23	Regeneration Cut	Skyline
S72	19	Regeneration Cut	Skyline
S74	18	Regeneration Cut	Skyline
S74X	7	Regeneration Cut	Skyline
S89	19	Regeneration Cut	Excaline

Unit #	Acres[1]	Treatment Type[2]	Logging System[3]
S90X	30	Regeneration Cut	Skyline
S91X	26	Regeneration Cut	Skyline
S92X	30	Regeneration Cut	Skyline
S96X	26	Regeneration Cut	Tractor
S97X	12	Regeneration Cut	Skyline
S101	21	Regeneration Cut	Skyline
S102	60	Regeneration Cut	Tractor
S103	6	Regeneration Cut	Tractor
S104	30	Regeneration Cut	Skyline
S105	13	Regeneration Cut	Skyline
S106	8	Regeneration Cut	Skyline
S107	9	Regeneration Cut	High-bank
S108	18	Regeneration Cut	Skyline
LS12	16	Low Severity Burn	--------
LS14	212	Low Severity Burn	--------
LS15	112	Low Severity Burn	--------
LS16	112	Low Severity Burn	--------
LS17	15	Low Severity Burn	--------
LS18	23	Low Severity Burn	--------
LS19	46	Low Severity Burn	--------
LS20	28	Low Severity Burn	--------
LS21	124	Low Severity Burn	--------
MS1	741	Mixed Severity Burn	--------

[1]Acres are approximate
[2]Activity may be modified depending on the site-specific conditions within the unit at the time of implementation.
[3]Equipment reflects the primary yarding system. Units may contain incidental areas that will require another yarding system.

Table B-2: Road Treatments for the Selected Action

Road #	BMP	EMP	Length (Miles)	Management Action[1]
17318	0.00	0.31	0.31	Decommission: Closure Level 3DN
17350	0.57	1.67	1.10	Decommission: Closure Level 3DN
17350	1.67	1.86	0.19	Decommission: Closure Level 3DN
17356	0.68	0.79	0.11	Add to System: Store Level 3S: Long-term access
17356	0.79	0.91	0.12	Decommission: Closure Level 3DN
18251	1.71	2.58	0.87	Decommission: Closure Level 3DN
18259	0.00	3.13	3.15	Decommission: Closure Level 3DN
18272	0.20	0.43	0.23	Decommission: Closure Level 3DN
18272	0.43	0.53	0.11	Decommission: Closure Level 3DN
18308	0.00	0.64	0.69	Decommission: Closure Level 3DN

Road #	BMP	EMP	Length (Miles)	Management Action[1]
35019	0.00	0.19	0.19	Decommission: Closure Level 3D
35020	0.71	0.86	0.15	Add to System: Store Level 3SN: Long-term access
35024	0.00	0.99	0.99	Decommission: Closure Level 3DN
35077	0.15	1.02	0.87	Decommission: Closure Level 3DN
35078	0.00	0.95	0.95	Decommission: Closure Level 3DN
35079	0.00	0.80	0.80	Add to System: Store Level 3SN: Long-term access
35079	0.80	1.07	0.27	Add to System: Store Level 3SN: Long-term access
35079	1.30	1.67	0.37	Decommission: Closure Level 3DN
35080	0.00	0.70	0.70	Add to System: Store Level 3SN: Long-term access
35081	0.00	0.99	0.99	Add to System: Store Level 3S: Long-term access
35082	0.00	0.67	0.67	Decommission: Closure Level 3DN
35083	0.00	0.08	0.08	Decommission: Closure Level 3DN
35084	0.00	0.55	0.54	Decommission: Closure Level 3DN
35085	0.00	0.39	0.39	Decommission: Closure Level 3DN
35087	0.00	0.17	0.16	Decommission: Closure Level 3DN
35088	0.00	1.52	1.51	Add to System: Store Level 3SN: Long-term access
35089	0.00	0.37	0.36	Decommission: Closure Level 3DN
35090	0.00	0.76	0.76	Decommission: Closure Level 3DN
35091	0.00	1.09	1.09	Decommission: Closure Level 3DN
35092	0.00	1.71	1.71	Decommission: Closure Level 3DN
35093	0.00	0.22	0.22	Decommission: Closure Level 3DN
35094	0.00	0.65	0.65	Decommission: Closure Level 3DN
35095	0.00	1.28	1.28	Decommission: Closure Level 3DN
35096	0.00	0.31	0.31	Add to System: Store Level 3SN: Long-term access
35096	0.31	0.52	0.21	Decommission: Closure Level 3DN
35098	0.00	0.86	0.86	Decommission: Closure Level 3D
35099	0.00	0.23	0.23	Decommission: Closure Level 3DN
35100	0.00	0.35	0.34	Add to System: Yearlong Closure, Map Code A; Long-term access
35101	0.00	1.21	1.21	Decommission: Closure Level 3DN
35103	0.30	0.68	0.38	Decommission: Closure Level 3DN
35104	0.22	0.52	0.30	Decommission: Closure Level 3DN
35143	0.00	0.46	0.46	Decommission: Closure Level 3DN
35143	0.46	1.32	0.86	Decommission: Closure Level 3DN
35144	0.00	0.20	0.20	Decommission: Closure Level 3DN
35161	0.00	0.83	0.83	Decommission: Closure Level 3DN
35168	0.00	0.73	0.73	Decommission: Closure Level 3DN
35169	0.00	0.49	0.49	Decommission: Closure Level 3DN
35382	0.00	0.15	0.15	Decommission: Closure Level 3DN
35383	0.00	0.49	0.49	Decommission: Closure Level 3DN

Road #	BMP	EMP	Length (Miles)	Management Action[1]
35384	0.00	1.33	1.32	Add to System: Store Level 3SN: Long-term access
35385	0.42	0.94	0.52	Add to System: Store Level 3SN: Long-term access. Store beyond developed spring.
35385	0.00	0.42	0.52	Add to System: Yearlong Closure, Map Code A. Provides access to developed spring.
35386	0.00	0.23	0.23	Decommission: Closure Level 3DN
35387	0.00	0.48	0.47	Decommission: Closure Level 3DN
35430	0.43	0.87	0.44	Add to System: Store Level 3SN: Long-term access
38594	0.00	0.36	0.36	Decommission: Closure Level 3DN
38595	0.00	0.14	0.14	Add to System: Keep Open for access to mouth of Swamp dispersed recreation site
35019-A	0.00	0.08	0.08	Decommission: Closure Level 3DN
35019-B	0.00	0.31	0.31	Decommission: Closure Level 3DN
35019-C	0.00	0.10	0.10	Decommission: Closure Level 3DN
35024-A	0.00	1.05	1.05	Decommission: Closure Level 3DN
35024-B	0.00	0.80	0.80	Decommission: Closure Level 3DN
35024-C	0.00	0.40	0.40	Decommission: Closure Level 3DN
35024-D	0.00	0.64	0.64	Add to System: Store Level 3S: Long-term access
35024-E	0.00	0.28	0.28	Add to System: Store Level 3SN: Long-term access
35079-A	0.00	0.30	0.30	Decommission: Closure Level 3DN
35079-A	0.48	0.92	0.44	Decommission: Closure Level 3DN
35080-A	0.00	0.84	0.84	Decommission: Closure Level 3DN
35080-B	0.00	0.44	0.45	Decommission: Closure Level 3DN
35080-C	0.00	0.18	0.18	Decommission: Closure Level 3DN
35080-D	0.00	1.36	1.41	Decommission: Closure Level 3DN
35080-E	0.00	0.44	0.48	Decommission: Closure Level 3DN
35080-F	0.00	2.00	1.99	Decommission: Closure Level 3DN
35080-G	0.00	0.64	0.64	Decommission: Closure Level 3DN
35080-H	0.00	0.53	0.55	Decommission: Closure Level 3DN
35080-I	0.00	0.50	0.50	Decommission: Closure Level 3DN
35080-J	0.00	0.34	0.34	Decommission: Closure Level 3DN
35081-A	0.00	0.37	0.37	Decommission: Closure Level 3DN
35081-B	0.00	0.09	0.09	Decommission: Closure Level 3DN
35081-C	0.00	0.63	0.44	Add to System: Convert to Trail (#385)
35081-C	0.00	0.63	0.19	Decommission: Closure Level 3DN
35082-A	0.00	0.10	0.10	Add to System: Store Level 3SN: Long-term access
35082-B	0.00	0.96	0.96	Decommission: Closure Level 3DN
35082-C	0.00	1.54	1.54	Add to System: Store Level 3SN: Long-term access
35082-D	0.00	0.88	0.88	Decommission: Closure Level 3DN
35082-E	0.00	1.09	1.09	Decommission: Closure Level 3DN
35085-A	0.00	0.28	0.28	Decommission: Closure Level 3DN

Road #	BMP	EMP	Length (Miles)	Management Action[1]
35085-B	0.00	0.50	0.50	Decommission: Closure Level 3DN
35085-C	0.00	0.81	0.81	Decommission: Closure Level 3DN
35087-A	0.00	0.23	0.23	Add to System: Store Level 3SN: Long-term access
35087-B	0.00	0.43	0.43	Decommission: Closure Level 3DN
35087-C	0.00	0.44	0.44	Decommission: Closure Level 3DN
35087-D	0.00	0.20	0.20	Decommission: Closure Level 3DN
35088-A	0.00	0.55	0.55	Decommission: Closure Level 3D
35088-B	0.00	0.21	0.21	Decommission: Closure Level 3DN
35089-A	0.00	0.32	0.32	Decommission: Closure Level 3DN
35089-B	0.00	0.22	0.22	Decommission: Closure Level 3DN
35089-C	0.00	0.56	0.56	Decommission: Closure Level 3DN
35089-D	0.00	0.18	0.18	Decommission: Closure Level 3DN
35089-E	0.00	0.07	0.07	Decommission: Closure Level 3DN
35090-A	0.00	0.80	0.80	Add to System: Store Level 3SN: Long-term access
35090-B	0.00	0.45	0.44	Decommission: Closure Level 3DN
35091-A	0.00	0.74	0.73	Decommission: Closure Level 3DN
35092-A	0.00	1.37	1.37	Decommission: Closure Level 3DN
35092-B	0.00	3.32	3.32	Decommission: Closure Level 3DN
35092-C	0.00	0.44	0.44	Decommission: Closure Level 3DN
35092-D	0.00	1.18	1.18	Decommission: Closure Level 3DN
35092-E	0.00	0.49	0.49	Decommission: Closure Level 3DN
35093-A	0.00	0.82	0.82	Decommission: Closure Level 3DN
35093-B	0.00	0.32	0.32	Decommission: Closure Level 3DN
35093-C	0.00	0.28	0.28	Decommission: Closure Level 3DN
35093-D	0.00	0.34	0.34	Decommission: Closure Level 3DN
35094-A	0.00	0.46	0.46	Decommission: Closure Level 3DN
35094-B	0.00	0.45	0.44	Decommission: Closure Level 3DN
35094-C	0.00	0.23	0.23	Add to System: Store Level 3SN: Long-term access
35094-D	0.00	0.43	0.43	Decommission: Closure Level 3DN
35094-E	0.00	0.15	0.15	Decommission: Closure Level 3DN
35094-F	0.00	0.59	0.59	Decommission: Closure Level 3DN
35094-G	0.00	0.11	0.11	Decommission: Closure Level 3DN
35094-H	0.00	0.52	0.52	Decommission: Closure Level 3DN
35094-I	0.00	0.48	0.48	Decommission: Closure Level 3DN
35095-A	0.00	0.29	0.29	Decommission: Closure Level 3DN
35095-B	0.00	0.61	0.61	Decommission: Closure Level 3DN
35095-C	0.00	0.33	0.33	Decommission: Closure Level 3DN
35095-D	0.00	0.55	0.55	Decommission: Closure Level 3DN
35095-F	0.00	1.22	1.22	Decommission: Closure Level 3DN

Road #	BMP	EMP	Length (Miles)	Management Action[1]
35095-G	0.00	0.25	0.25	Add to System: Yearlong Closure, Map Code A; Long-term access
35095-G	0.25	0.44	0.19	Add to System: Yearlong Closure, Map Code A; Long-term access
35096-A	0.00	0.20	0.20	Add to System: Store Level 3SN: Long-term access
35096-B	0.00	0.24	0.24	Decommission: Closure Level 3DN
35096-C	0.00	0.32	0.17	Decommission: Closure Level 3DN
35096-D	0.00	0.33	0.33	Add to System: Store Level 3S: Long-term access
35097-A	0.00	0.41	0.05	Decommission: Closure Level 3DN
35098-A	0.00	0.43	0.43	Decommission: Closure Level 3D
35098-B	0.00	0.22	0.22	Decommission: Closure Level 3DN
35100-A	0.00	0.42	0.42	Decommission: Closure Level 3DN
35143-A	0.00	0.35	0.35	Decommission: Closure Level 3DN
35143-B	0.00	0.62	0.62	Decommission: Closure Level 3DN
35143-C	0.00	0.71	0.71	Decommission: Closure Level 3DN
35168-A	0.00	0.53	0.53	Add to System: Yearlong Closure, Map Code A; Long-term access
35169-A	0.00	0.34	0.34	Decommission: Closure Level 3DN
35169-B	0.00	0.35	0.35	Decommission: Closure Level 3DN
35382-A	0.00	0.16	0.17	Decommission: Closure Level 3DN
35382-B	0.00	0.28	0.28	Add to System: Keep Open for access to State land
35383-A	0.00	0.46	0.46	Decommission: Closure Level 3DN
35383-B	0.00	0.07	0.06	Decommission: Closure Level 3DN
35384-A	0.00	0.51	0.51	Decommission: Closure Level 3DN
35384-B	0.00	0.55	0.55	Decommission: Closure Level 3DN
35384-C	0.00	0.03	0.03	Decommission: Closure Level 3DN
35385-A	0.10	0.19	0.09	Decommission: Closure Level 3DN
35385-A	0.00	0.10	0.10	Decommission: Closure Level 3DN
35385-B	0.00	0.14	0.21	Add to System: Yearlong Closure, Map Code A; Long-term access
35385-C	0.00	0.08	0.08	Add to System: Yearlong Closure, Map Code A; Long-term access
35385-D	0.00	0.07	0.07	Decommission: Closure Level 3DN
35385-E	0.00	0.18	0.18	Decommission: Closure Level 3DN
35385-F	0.00	0.17	0.17	Decommission: Closure Level 3DN
35385-G	0.00	0.13	0.13	Add to System: Yearlong Closure, Map Code A; Long-term access
35385-H	0.00	0.18	0.18	Decommission: Closure Level 3DN
35385-I	0.00	0.18	0.18	Decommission: Closure Level 3DN
35385-J	0.00	0.15	0.15	Decommission: Closure Level 3DN
35385-K	0.00	0.04	0.04	Decommission: Closure Level 3DN
35385-L	0.00	0.24	0.24	Add to System: Store Level 3SN: Long-term access

Road #	BMP	EMP	Length (Miles)	Management Action[1]
35385-M	0.00	0.11	0.11	Decommission: Closure Level 3DN
35385-N	0.00	0.02	0.02	Decommission: Closure Level 3DN
35385-O	0.00	0.02	0.02	Decommission: Closure Level 3DN
35385-P	0.00	0.42	0.42	Add to System: Store Level 3SN: Long-term access
35385-Q	0.00	0.22	0.22	Decommission: Closure Level 3DN
35386-A	0.00	0.79	0.79	Decommission: Closure Level 3DN
35387-A	0.00	0.87	0.87	Decommission: Closure Level 3DN
35387-B	0.00	0.15	0.15	Decommission: Closure Level 3DN
35387-C	0.00	1.12	1.12	Decommission: Closure Level 3DN
35387-D	0.00	0.42	0.42	Decommission: Closure Level 3DN
35387-E	0.00	0.25	0.25	Decommission: Closure Level 3DN
35387-F	0.00	0.30	0.30	Decommission: Closure Level 3DN
35387-G	0.00	0.41	0.41	Decommission: Closure Level 3DN
35387-H	0.00	0.16	0.16	Decommission: Closure Level 3DN
35387-I	0.00	0.09	0.09	Decommission: Closure Level 3DN
35387-J	0.00	0.32	0.32	Decommission: Closure Level 3DN
35387-K	0.00	0.05	0.05	Decommission: Closure Level 3DN
38595-A	0.00	0.15	0.15	Decommission: Closure Level 3D
38595-B	0.00	0.08	0.08	Add to System: Keep Open for recreation access – mouth of Swamp dispersed recreation site
38595-B	0.08	0.40	0.32	Add to System: Yearlong closure, Map Code A: Long-term access and power line access.
38595-C	0.00	0.19	0.19	Add to System: Keep Open for recreation access – mouth of Swamp dispersed recreation site
38595-D	0.00	0.07	0.07	Add to System: Keep Open for recreation access – mouth of Swamp dispersed recreation site
38595-E	0.00	0.10	0.09	Decommission: Closure Level 3DN
45184-B	0.04	0.08	0.04	Add to System: Store Level 3SN: Long-term access
45199-D	0.10	0.20	0.10	Add to System: Store Level 3SN: Long-term access
J70568	0.00	0.62	0.62	Decommission: Closure Level 3DN
J70569	0.00	0.18	0.18	Decommission: Closure Level 3DN
J70569-A	0.00	0.10	0.10	Decommission: Closure Level 3DN
J70569-B	0.00	0.16	0.16	Decommission: Closure Level 3DN
J70569-C	0.00	0.10	0.10	Decommission: Closure Level 3DN
J70569-D	0.00	0.06	0.06	Decommission: Closure Level 3DN
J70569-E	0.00	0.09	0.08	Decommission: Closure Level 3DN
J70570	0.00	0.50	0.50	Decommission: Closure Level 3DN
J70571	0.00	0.66	0.66	Decommission: Closure Level 5
J70572	0.00	1.09	1.09	Decommission: Closure Level 5
J70573	0.00	0.47	0.47	Decommission: Closure Level 3DN
J70574	0.00	0.20	0.20	Decommission: Closure Level 3DN

Road #	BMP	EMP	Length (Miles)	Management Action[1]
J70574-A	0.00	0.15	0.15	Decommission: Closure Level 3DN
J70574-B	0.00	0.22	0.22	Decommission: Closure Level 3DN
J70703	0.00	0.05	0.05	Decommission: Closure Level 3DN

BMP = Beginning mile point
EMP = End mile point
[1]Level of Closure could vary depending on site-specific conditions found at the time of implementation.

Table B-3: Closure Level Descriptions

Closure Level	Treatment Description
Decommission	
3D	Road surface ripping (de-compaction) along the entire length of the roadway, placement of woody debris on the road surface, removal of structures (culverts, bridges) and reshaping of stream crossings to natural contours, installation of water bars at frequent intervals, seeding of the road prism, and recontouring the entrance of the road. On flatter terrain, boulders could be used to close the road entrance. Remove from National Forest System.
3DN	Administrative closure (no physical treatment). Remove from National Forest System
5	Full recontouring; replacing overburden (excavated soils) back onto the road prism to return the ground to its natural contour, removal of structures (culverts, bridges) and reshaping of stream crossings to natural contours, placing woody debris upon the disturbed area, and seeding and fertilizing the disturbed soil. Remove from National Forest System
Storage	
3S	Closure activities would be the same as those described for Decommission Level 3D. However, the roads to be stored are needed for long-term access and would be reopened in the future when needed. Retain on National Forest System.
3SN	Administrative closure (no physical treatment). Retain on National Forest System

Table B-4: Summary of Temporary Road Construction

Road #	Length (miles)	Closure Method
35168-Aext	0.8	Decommission Level 5
35098-Aext	0.1	Decommission Level 5
7698ext	0.4	Decommission Level 5
16385ext	0.3	Decommission Level 5
35168-A	0.4	Decommission Level 5
35090	0.6	Decommission Level 5
35087-Aext	0.6	Decommission Level 5
17351ext	0.4	Decommission Level 5
16127-Aext	0.2	Decommission Level 5
16127-Bext	0.2	Decommission Level 5
35090-Aext	0.4	Decommission Level 5
35168-Bext	0.2	Decommission Level 5
Total	4.6	

APPENDIX C

Resource Protection Measures and Monitoring

Project-specific Resource Protection Measures

Resource Protection Measure	Description of Project-Specific Resource Protection Measure	Units/Location
Soils		
1	All existing soil wood (wood in an advanced state of decay) will be retained unless it is deemed a hazard to equipment operations. Non-merchantable materials will be left standing within project units.	All harvest units
2	Residual slash materials will be left on the forest floor for 1 year prior to prescribed burning to allow for improved nutrient cycling and coarse woody debris recruitment.	Unit E21
3	Activity units will be reforested after harvest and post-harvest activities are complete following the silvicultural prescription. Reforestation is required as a resource protection measure to increase soil nutrient inputs, add organic matter, and decrease soil erosion potential in Units C08, C15, and S08. Additional reforestation units are proposed beyond those required for soil mitigations. These units will also benefit the soils resource; however, they are not needed as a soil resource protection measure.	Units C08 and C15: within skid trail prisms. S08: throughout the unit with emphasis on rehabilitated temporary road prism.
4	To offset detrimental soil disturbance where activity units do not meet soil regulatory framework. Following harvest, slash of mixed sizes (at least 50%, less than 6 inches diameter) will be placed over skid trails in the prescribed units. Slash will cover approximately 65-70% of the skid trail to a depth of approximately 2-3 inches where available (approximately 10-15 tons/acre).	Unit C05, C08, C15, S57, S96X, S101, S102
Wildlife		
5	To protect nesting eagles, prescribed burning in Unit LS21 will occur between August 15 and February 1. Burning may occur outside this time period if surveys indicate the known nest located within the unit is inactive.	Unit LS21
Vegetation		
6	Ponderosa pine stumps over 12 inches in diameter will be treated with a registered borate product within 24 hours for powdered product or within 72 hours for liquid product to prevent infection by *annosum* root disease spores.	All harvest units
Weeds		
7	Unless otherwise agreed, haul roads and potential landings will be treated with herbicide prior to harvest activities. When possible, weeds will be treated at least one growing season prior to activities.	Haul routes and landings
8	Roads will be treated with herbicide prior to ground-disturbing road activities including but not limited to road maintenance and decommissioning unless existing road conditions (i.e. vegetation on road, road barriers, etc.) prohibit reasonable access for spraying equipment as determined by the District Road Engineer or District Weed Coordinator.	Roads

Resource Protection Measure	Description of Project-Specific Resource Protection Measure	Units/Location
	If existing road conditions prohibit access, then treatment will be deferred until the road activities clear the obstruction. The determination of which roads to be treated will be made by the District Weed Coordinator based on weed inventories and treatment schedules.	
9	Prescribed burning in drier habitats groups (groups 1, 2 and the drier habitat types of group 3) will take place in the spring or during spring-like conditions in the fall. • If pre-ignition native vegetation is less than 50% of ground cover, the District Weed Coordinator will perform a field visit and make a site-specific determination for burn activities. Burning may be deferred until the native plant community recovers and is able to compete with noxious weeds. • The amount of bare mineral soil exposed by burning will be minimized to less than 15% of the total unit area. • Burn boundaries will be modified, where possible, to avoid burning through large areas (3-5 acres) with high mineral soil exposure (greater than 15%) and low native plant ground cover (less than 50%).	Prescribed burn units
Aquatics		
10	Unit E21, a 150-foot stream buffer will be applied to West Fork Swamp Creek along the unit's southern boundary. Timber harvest or ground-based equipment will be prohibited within the buffer. No buffer is needed on the unit's western boundary as there is no stream or swale present.	Unit E21
11	Prescribed burning in MS1 will occur after timber harvest operations are completed to minimize potential cumulative effects to water yield, considering the 2017 Sheep Gap Fire.	Unit MS1
Heritage		
12	Forest Service archaeologist and Confederated Salish and Kootenai Tribal Preservation staff will be involved in site design and implementation of ground disturbing activities at the mouth of Swamp dispersed recreation site. Monitoring will be conducted by the Forest Service as described below. The Confederated Salish and Kootenai Tribal staff will be invited to participate in monitoring.	Unit LS21 and mouth of Swamp dispersed recreation site
13	The tread on Trail #404 will be maintained. Equipment crossings of the trail will be minimized and designated. At the close of harvest operations in these units, the affected trail segments will be re-established.	Units C23, C31, S57, S96X, S102, S103
14	A 100-foot no-equipment buffer will be applied around the rock cairn located on the ridgetop in Unit C08. To the extent practicable, skidding equipment will re-use existing skid trails.	Unit C08
Botany		
15	A 75-foot buffer will be applied around the clustered lady's slipper population in Unit C40X. No timber harvest or prescribed burning activities will occur within the buffer.	Unit C40X
16	To protect whitebark pine trees along the ridge and in the upper elevations of Unit MS1, prescribed burning will occur when snow cover is present in these areas. Within the provided polygon of high-density whitebark pine trees, if more than 25 percent of the polygon burns severely enough in a patchy mosaic to kill 90% of the whitebark pine trees, planting blister rust-resistant whitebark pine seedlings is required.	Unit MS1
17	A 30-foot buffer will be applied around each of two patches of clustered lady's slipper plants in Unit S70. No timber harvest or equipment skidding will occur within the buffer. Post-harvest prescribed burning will occur in the spring	S70

Resource Protection Measure	Description of Project-Specific Resource Protection Measure	Units/Location
	before green-up.	
18	A 40-foot buffer will be applied around 3 patches of short-flowered monkeyflower plants in Unit LS19. Prescribed burning and site preparation activities will not occur within the buffer.	LS19

Standard Operating Procedures

Standard Operating Procedures	Units/Location
Soils	
Summer Operating Conditions: • Ground-based harvest will only occur on dry soils. Soil moisture will be evaluated at the bottom of the root tight layer (2-6 inches below soil surface). Refer to Table B1 in Soil File 4 (Lolo NF Ground-Based Harvest Guidelines) for dry soil, field assessment information. • All ground-based harvest will be limited to slopes of 35% or less unless otherwise approved by soil scientist. Winter Operating Conditions: • Winter operating conditions will require frozen ground or depth of snow sufficient to support equipment and protect soil surface. Because depth of snow necessary to protect forest floor varies with snow density, sufficient snow depth will be approved by the Timber Sale Administrator.	All tractor units: Summer Operating Conditions Optional for all tractor units: Winter Operating Conditions
• Existing skid trails and landings will be reused to the extent possible to limit new soil disturbance. • Skid trails will be spaced 75 to 100 feet apart to minimize soil disturbance of the harvest footprint. • By purchaser agreement, in lieu of waterbars, slash of mixed sizes (at least 50% less than 6 inches diameter) will be placed over skid roads to prevent erosion in units. Slash will cover approximately 65-70% of the road or trail to a depth of approximately 2-3 inches (approximately 10-15 tons/acre).	All tractor units
If seasonally moist areas are present at time of harvest, a 50-foot no-equipment buffer will be applied around wet area.	All units

All Landings
• Existing landings will be re-used to the extent possible
• Sites will be seeded using appropriate Lolo NF native grass mix
 	
Ground-based Harvest Units
• Landing rehabilitation (erosion control) will occur on dry soils and will be completed as follows:
  o Landing site preparation (scarification) to a depth of 4-6 inches will occur.
  o Slash material will be placed throughout site, 3-6 inches thick.
• In highly accessible areas along open roads, barriers will be placed to block vehicle entry into landings.
	Log Landings

Level of temporary road and excaline trail decommissioning will depend on existing condition of the site prior to road or trail construction and will be decommissioned following site-appropriate combinations of the following: • Top soil and slash will be stored along the temporary road to the greatest extent possible and pulled back over the road surface	Temporary roads and excaline trails

Standard Operating Procedures	Units/Location
during decommissioning. • The temporary road surface will have site preparation to a depth of at least 6 inches. Site preparation may include recontouring, de-compaction, and/or scarification. • Site will be seeded using appropriate Lolo NF native grass mix, with seeding occurring prior to slash placement. • By purchaser agreement, in lieu of waterbars, slash of mixed sizes (at least 50% less than 6 inches diameter) will be placed over temporary roads and excaline trails to prevent erosion in units. Slash will cover approximately 65−70% of the road or trail to a depth of approximately 2−3 inches where available (approximately 10-15 tons/acre).	
Region 1 soil quality standards require that prescribed fire activities limit areas of severe soil burning that are larger than 10 x 10 ft^2 to less than 15% of the project area. In this definition, severe soil burning results in complete consumption of duff and litter material resulting in bare top soil that is at risk for soil erosion. To meet this requirement, the depth and timing of strip head-fire will be adjusted to limit burn severity if necessary, to protect the soil resource.	All prescribed burn units.
Wildlife	
Snags and snag replacements will be retained in timber harvest units consistent with the Lolo National Forest Dead and Down Habitat Components Guidelines (June 1997) and Appendix N of the Lolo Forest Plan. Unless specified for removal in the silvicultural prescription, snags will remain within treatment areas. Snags that need to be cut for safety or operational reasons will remain in the unit.	All timber harvest units
Weeds	
Soil disturbance will be minimized.	Project Area
Off-road equipment will be cleaned (power or high-pressure cleaning) of mud, dirt, and plant parts before moving into the area.	
If gravel or other material is hauled for road surfacing, it will be from a site (pit) that has been previously treated for weeds and is currently weed free.	
Disturbed sites will be seeded with native seed mixtures or appropriate Lolo seed mixtures.	
Skid trails, skyline corridors, and landings will be approved by the Timber Sale Administrator prior to use. Where possible, they will be located where there are no obvious weed infestations.	
Temporary roads will be treated with herbicide prior to final road obliteration unless waived by the District Weed Coordinator.	
Roads to be physically decommissioned or stored will be sprayed with at least one herbicide treatment before closure.	
Straw and/or other material used for road stabilization and erosion control will be certified weed-free or weed seed-free.	
Any use of herbicides for weed control will follow mitigation measures outlined in the Lolo National Forest's 2007 Integrated Weed EIS and Record of Decision to protect water resources. These measures include: ▪ All application of herbicides will be performed by, or supervised by, a state licensed applicator following all current legal application procedures administered by the Montana Department of Agriculture. ▪ All herbicides will be handled following Environmental Protection Agency (EPA) label guidelines and other state and federal laws for storage, application, and disposal methods. ▪ Mixing will take place at least 150 feet from open water unless spill containment devices are readily available, and an anti-back siphoning device is used when drafting water. ▪ Applicators will review stream and wetland areas to ensure that herbicides will not be applied to open water.	

Standard Operating Procedures	Units/Location
▪ Herbicides will be used to water's edge only when absolutely needed and provided the product label allows such use. ▪ Herbicide applications near live water or in areas with shallow water tables will follow label directions. ▪ Herbicide applicators will not initiate spraying when heavy rains are forecast that could cause offsite herbicide transport into sensitive resources such as streams. ▪ Herbicide applicators will be familiar with and carry an Herbicide Emergency Spill Plan to reduce the risk and potential severity of an accidental spill. Herbicide applicators will also carry spill containment equipment. ▪ Herbicides will not be applied if snow or ice covers the target vegetation. ▪ Low boom pressure (less than 40 pounds per square inch) will be used to reduce drift. ▪ Drift reduction products will be used as needed near sensitive resources. ▪ Ground-based herbicide application will occur only when wind speed is 10 mph or less. ▪ If commercial applicators are used for the application of restricted use pesticides, Forest Service contract administrators will check to make sure their Montana commercial restricted use pesticide license is current.	
Aquatics	
Timber harvest and ground-based equipment will be prohibited within stream buffers. Stream buffer widths will be the standard buffer widths outlined in the Lolo National Forest Plan, as amended by the 1995 Inland Native Fish Strategy: 300 feet of fish-bearing streams, 150 feet of non-fish-bearing streams, and 100 feet of wetlands. See project-specific resource protection measure for Unit E21 in Table 2-5 above.	Harvest units
Road surfaces and drainage will be improved to protect water quality and fisheries. All roads segments used for haul will have BMP measures installed before timber haul use. BMPs include adequate road surface and ditch drainage, functioning ditches, adequate spacing of drain dips or ditch relief culverts, leadouts or drainage structures before stream crossings, road shaping to shed water off the surface and not into streams and graveling of areas where drainage treatments may not be fully effective due to stream proximity. BMPs will be maintained for their effectiveness through the life of the project.	Haul roads
As needed, slash filter windrows will be applied to stream crossings on haul routes and select areas where the road is within 300 feet of streams before blading, haul, and other project activities are to occur. As needed, slash filter windrows will be placed on relief culvert outlets that are within 300 feet of a waterway.	
Short-term BMP actions will be implemented on an as needed basis and include silt fences, straw bales, or other temporary effective measures to reduce turbid water from reaching streams.	
Erosion control measures (e.g. straw bales, wattles, silt fences, hydro mulching, slash, etc.) will be implemented where necessary and remain in place during and after ground disturbing activities. Erosion control devices are required on reconstructed roads within 300 feet of streams or drainage crossings and temporary roads. Disturbed areas will also receive appropriate seeding and mulching, and/or slash treatment.	
Implementation of road BMP treatments will occur between April 1 and October 15 during dry weather periods, unless otherwise agreed to with a watershed specialist (hydrologist or fisheries biologist).	
If winter haul occurs: • Snow plowing will maintain a minimum 2 inches of snow on the roadway to protect the road surface. All debris except snow and ice that is removed from the road surface and ditches shall be deposited away from stream channels at agreed locations. • Snow berms will not be left on the running surface of the road. Berms left on the shoulder of the road will be removed and/or drainage holes will be opened and maintained in them. Drainage holes will be spaced as needed to obtain satisfactory surface	

Standard Operating Procedures	Units/Location
drainage without discharge on erodible fills. • Ditches and culverts will be kept functional during and following road use. Snow removal will be done in such a way as to protect surface water drainage structures and the road surface.	
Erosion control measures will remain functional until disturbed sites (roads, culverts, landings, etc.) are stabilized; typically for a minimum period of one growing season until vegetative cover stabilizes and reduces runoff potential. This will require regular inspection, in particular following rainfall events and prior to fall and spring runoff and may require maintenance.	Project area
Temporary road construction will occur between April 1 and October 15 during dry weather periods unless otherwise agreed to with a watershed specialist (hydrologist or fisheries biologist) and engineering.	Temporary roads
Instream work/disturbances will need a Montana Fish, Wildlife & Parks issued 124 Stream Protection Act permit. Instream work is limited to July 15–August 30, unless otherwise stated in the 124 permit.	Roads
Forestry Best Management Practices will be utilized to minimize effects to soil and water.	All activity areas
Heritage	
If previously unrecorded heritage resources are encountered during project implementation, activities will be halted, and a Forest Archaeologist will be notified immediately. If necessary, additional mitigation measures will be developed in consultation with the Montana State Historic Preservation Office.	Project area

Monitoring

During and after project completion, implementation and effectiveness monitoring will be conducted to: (1) determine whether the original objectives of the activities are met; (2) determine the need for additional action; and (3) educate and assist in the design of future projects.

Monitoring of project activities conducted under contract will occur during and immediately following contract implementation. All preparation and subsequent project-associated operations will be monitored by Forest Service representatives to ensure compliance with specifications.

Weeds

In conjunction with other post-harvest monitoring or inventory activities, harvest and prescribed burn units will be monitored for the presence of new weed infestations. In addition, roads treated with herbicide will be monitored for herbicide efficacy, the presence of new weeds, and/or the spread of existing weeds. Follow-up actions will depend on the monitoring findings.

The mouth of Swamp dispersed recreation site will also be monitored for weeds in conjunction with other recreation responsibilities. New infestations will be treated.

Soils

The Lolo National Forest Soil Monitoring Program objective is to evaluate project design standards and mitigations to ensure they were implemented so that a project complies with the Lolo Forest Plan and Region 1 soil quality standards. Swamp Eddy units S04, S08, S14, S44,

S97X, and C17X will be added to the Forest soil monitoring program for post-harvest soil quality assessment. Post-harvest monitoring will be initiated 2-3 years following an activity.

Heritage

Following implementation, heritage sites located within areas affected by project activities will be inspected to assess their condition.

APPENDIX D

Lolo National Forest Plan Amendment

October 2019

This amendment changes the Management Area designation for two parcels of land totaling approximately 527 acres (see attached map) that were incorrectly mapped during the development of the 1986 Lolo Forest Plan. These parcels are located near Combest Peak on the Plains/Thompson Falls Ranger District

- Approximately 481 acres in the Miller Creek drainage is changed from Management Area 27 (land where timber management is not economically or environmentally feasible due to physical features of the parcels) to Management Area 25 (land with a medium degree of visual sensitivity and is available for varying degrees of timber management), which is the current allocation of adjacent lands.

- Approximately 46 acres in the East Fork Swamp Creek drainage is changed from Management Area 27 (land where timber management is not economically or environmentally feasible due to physical features of the parcels) to Management Area 16 (timber management), which the current allocation of adjacent lands.

Management direction for these management areas is summarized in the Forest Plan as follows:

- MA 16: Forest Plan, pages III-70 though III-77
- MA 25: Forest Plan, pages III-127 through III-134
- MA 27: Forest Plan, pages III-141 through III-143

This amendment is consistent with the provisions outlined in the 2012 Planning Rule (see below). This minor modification of management area allocation does not affect the Forest Plan's overall framework, which provides for sustainability, diversity, multiple uses, and timber management. Projects and/or other agency actions authorized before this decision may proceed unchanged (36 CFR 219.15(a)).

Consistency with the 2012 Planning Rule (as amended in December 2016)

The above described forest plan amendment to the Lolo National Forest Land and Resource Management Plan (Lolo Forest Plan) will change the area to which existing Forest Plan direction applies but will not change the text of that plan direction. The purpose of the amendment is to correct Forest Plan management area mapping errors to appropriately allocate how the affected parcels will be managed based on field-verified characteristics of the area. More specific information about the amendment is provided below.

Per the National Forest Management Act and its implementing regulations at 36 CFR 219 (2012 Planning Rule), a plan may be amended at any time. Plan amendments may be broad or narrow, depending on the need for the change. The responsible official has the discretion to determine whether and how to amend the 1986 Lolo Forest Plan and to determine the scope and scale of any amendment. Although the Lolo Forest Plan was developed using the 1982 Planning Rule procedures, this amendment was prepared under the 2012 Planning Rule. The following sections describe how the procedural requirements of the 2012 Planning Rule were applied to the amendment.

Compliance with the Rule's Procedural provisions

As explained below, this amendment complies with the procedural provisions of the 2012 Planning Rule (36 CFR Part 219.13(b)). These provisions include:

- using the best available scientific information to inform the planning process (§ 219.3)

  The Lolo Forest Plan (1986) acknowledges that management area boundaries are not firm lines, but represent a transition from one set of opportunities and constraints to another with management area direction established for each. Management area boundaries are flexible to assure that the values identified are protected and to incorporate additional information gained from further on-the-ground reconnaissance and project-level planning (Forest Plan, page III-1). Site-specific data collected for the Swamp Eddy project environmental analysis served as a check on the correctness of the land allocation in the Plan (Forest Plan, page V-2). Based on field reviews, Forest resource specialists determined the identified areas were incorrectly mapped.

  They confirmed the interpretation in the Lolo National Forest Lands Systems Inventory (LSI) (1988) classification, that these parcels generally have a moderate to high timber productivity and good natural regeneration potential. Thus, a determination was made that there is assurance these parcels can be adequately restocked within five years after harvest as required by the National Forest Management Act. Therefore, they may be considered suitable for timber production.

- providing opportunities for public participation (§ 219.4) and giving public notice (§ 219.16)

  As described in Section 3.0 of this Decision Notice, opportunities for public comment on the forest plan amendment were provided during initial scoping (Project File documents D-001 and D-002) and during the 30-day comment period on the Swamp Eddy Environmental Assessment. The forest plan amendment is described on pages 18-19 of the EA. The legal notice (Project File document G-004) that initiated the 30-day comment period on the EA also included information about the forest plan amendment. This notice was published in the Missoulian newspaper on August 14, 2019 and subsequently posted on the Lolo National Forest website.

  No comments were received regarding the forest plan amendment proposal.

- Using the applicable format for plan components (§ 219.7(e))

Because the amendment is limited to where existing plan direction applies, the Forest Plan formatting will not be changed (§ 219.13 (b)(4)).

- the plan amendment process (§ 219.13)

  This amendment is based on a preliminary identification of the need to change the plan. The need for change to correct Forest Plan management area mapping errors was identified through field reviews as described above. The public has been provided opportunities to participate as described above. This plan amendment is consistent with Forest Service NEPA procedures. An environmental assessment was prepared and the forest plan amendment along with project activities will be authorized by this Decision Notice. There are no significant effects as described in the finding of no significant impact (see Section 4.0 in this Decision Notice).

- stating whether or not projects authorized at the time of amendment may continue without change (§ 219.15(a))

  As stated in Section 1.0 of this Decision Notice, projects and/or other agency actions authorized before this decision may proceed unchanged.

- setting the effective date for amendments (§ 219.17)

  As stated in Section 6.0 of this Decision Notice, this forest plan amendment will be effective immediately after the decision is signed pursuant to 36 CFR 219.17(a)(3).

- providing an objection opportunity (subpart B)

  As stated in Section 6.0 of this Decision Notice, this forest plan amendment is subject to the objection process pursuant to 36 CFR 219, subpart B.

Compliance with the Rule's Applicable Substantive Provisions

Because the Lolo Forest Plan was prepared using the 1982 planning rule procedures, the current planning rule requires that the responsible official determine which specific substantive rule provisions are directly related to the amendment and any apply such requirement(s) within the scope and scale of the amendment. The purpose of the amendment is such that provisions in § 219.10(a)(1) – *Integrated resource management for multiple use including aesthetic values, timber harvest, and viewsheds*; and § 219.11(b) – *timber harvest for the purpose of timber production*, are directly related to the amendment. Both parcels have been determined suitable for timber production based on field reviews conducted by appropriate Forest Service resource specialists. The 481-acre parcel in Miller Creek has a medium degree of visual sensitivity from viewpoints such as the town of Plains and Highway 200. Therefore, the purpose of the amendment to correct forest plan allocations is directly related to the aforementioned provisions.

The scope and scale of the amendment (§ 219.14(c)(1)) is based on the need for change (as described above), the site-specificity of the change, and the relatively small area affected (less than ½ of one percent of the acres contained within the Lolo National Forest). Consistent with related provisions of § § 219.10(a)(5) and 219.11(a)(v), the existing Forest Plan identifies timber suitability for each management area and includes management direction to provide habitat conditions for wildlife.

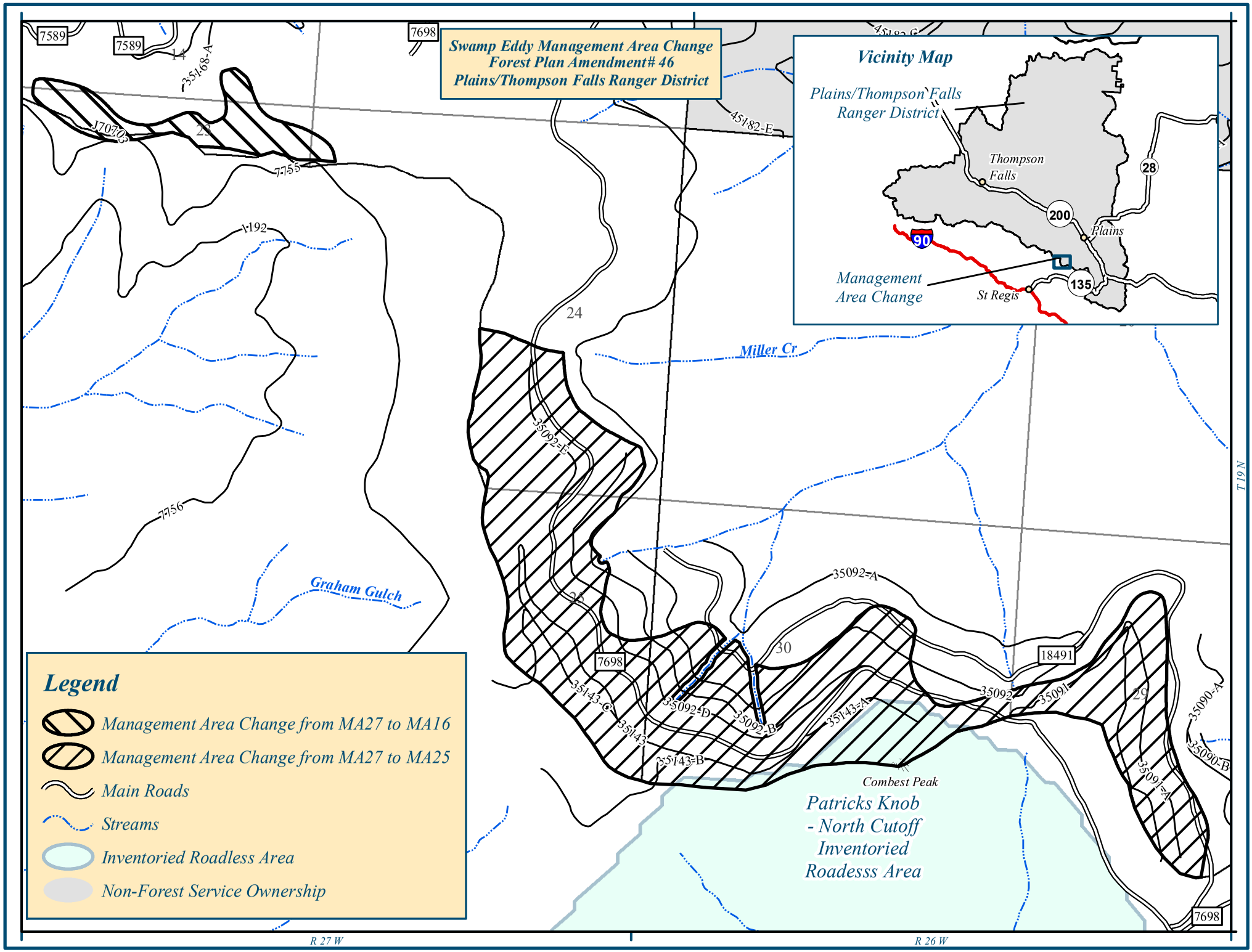
The existing Forest Plan components addressing the related substantive provisions of timber suitability will be applied (Forest Plan components at pages II-1 through II-20 and Management Area standards (see previous citations on page D-1 of this document)) per the amended MA boundaries and allocations.

The amendment will only modify where existing direction is applied and will not affect the ability of the Plan to manage for the related substantive provisions. In context of the Lolo National Forest as a whole, the amendment will apply to less than on half of one percent of the Forest land base. Therefore, I find

that the amendment will apply the Forest Plan direction for suitable timber lands, consistent with the related requirements of the Rule. No change to the amendment or additional plan direction is necessary to apply the related substantive requirements.

Based on the NEPA analysis in the EA and as summarized here, I have determined that the amendment will not have substantially adverse effects on any resource or use and will not substantially lessen protections for species. Furthermore, the planning rule at 36 CFR 219.13(b)(5)(ii)(B) states that where I have made a Finding of No Significant Impact, there is a rebuttable presumption that the amendment will not have substantial adverse effects. No evidence has been presented to rebut that presumption.

All future projects and activities must be consistent with the amended plan. The Forest Service's prior interpretation of consistency, that projects need only be consistent with plan standards and guidelines, and not the 2012 Planning Rule consistency provisions at 36 CFR 219.15(d), applies when an amendment developed and approved under the 2012 Planning Rule does not change the text of the plan direction but simply applies existing plan direction to a different or additional area or areas within the plan area [as in this case] (see FSH 1909.12, ch. 20, sec. 21.33).


Swamp Eddy Management Area Change
Forest Plan Amendment# 46
Plains/Thompson Falls Ranger District
Vicinity Map
Plains/Thompson Falls Ranger District
Thompson Falls
Plains
St Regis
Management Area Change
90
200
135
28
Legend
Management Area Change from MA27 to MA16
Management Area Change from MA27 to MA25
Main Roads
Streams
Inventoried Roadless Area
Non-Forest Service Ownership
Miller Cr
Graham Gulch
Combest Peak
Patricks Knob - North Cutoff Inventoried Roadesss Area
7589
7698
18491
35168-A
J7070
7755
1192
7756
35092-E
35092-A
35143-G
35143
35143-B
35092-D
35092-B
35143-A
35092
35091
35091-A
35090-A
35090-B
45182-E
T 19 N
R 27 W
R 26 W

APPENDIX E

Response to Public Comments on the Swamp Eddy Environmental Assessment

Comment Period Summary
On August 12, 2019, a notice of the availability of the Swamp Eddy Environmental Assessment (EA) was sent to individuals and organizations that had previously commented on or expressed interest in the project. The EA was also posted on the Lolo National Forest website. The 30-day comment period on the EA began with the publication of legal notice in the *Missoulian* newspaper on August 14, 2019.

At the close of the comment period, 7 responses had been received. Two responses (Mineral County Resource Coalition and Idaho Forest Group) were submitted after the close of the comment period.

Letter 1: Larry Hoffland
Letter 2: Mineral County Resource Coalition
Letter 3: Sanders County Commissioners
Letter 4: American Forest Resource Council
Letter 5: Montana DNRC
Letter 6: Sanders County Collaborative
Letter 7: Mineral County Commissioners
Letter 8: Idaho Forest Group
Letter 9: Fred Cavill

Aquatics

1) Comment: "Since the Sheep Gap fire the water shed needs special care. No more clear cuts especially those over 10-20 acres. The water is leaving too fast now and need cover to prevent fast & early destruction at runoff. Since several sections are also in private timber the Forest service has to be more conservative on public lands….Protect the WATER and kill the WEEDS!" (Letter 9)

Forest Service Response: Although the project includes regeneration harvest, no clearcuts are proposed. As described in the Swamp Eddy EA (page 43), surveys conducted in fall 2018 and spring 2019 indicated stream channels are stable and understory vegetation is recovering in riparian areas. Burned Area Emergency Response (BAER) work conducted since the fire includes road surface storm-proofing, drainage maintenance, and culvert replacements to address potential issues with post-fire runoff events. BAER work also included weed spraying and monitoring along roadsides within the fire perimeter (EA, page 29). Previous to BAER weed spraying, approximately 1,400 acres of roadside herbicide treatment of weeds occurred within the project area since 2007.

Potential effects of the Swamp Eddy project on water yield were carefully assessed. The analysis concluded that project vegetation treatments and road activities would not have measurable effects to water yield. The projected reduced forest canopy conditions resulting from the project combined with the existing condition (including the Sheep Gap Fire and past harvest on all ownerships) would be below the thresholds that research indicates would result in detrimental changes in water yield. As a precaution, the

implementation of the 741-acre mixed severity prescribed burn (Unit MS1) in West Fork Swamp Creek will not occur until timber harvest operations are completed (see Appendix C, resource protection measure #11) to minimize potential effects to water yield. Timber harvest treatments will likely begin in 2021 (4-years post-fire), which will allow time for additional hydrologic recovery from the 2017 Sheep Gap Fire and past harvest. Harvest activities will not occur all at once but will be spread out over 3 to 5-year period. Thus, peak stream flows will not be affected (Swamp Eddy EA, pages 44-45).

Economics

2) Comment: "Sanders County continues to face challenging economic times, consistently ranking at or near the top of the list of Montana counties with the highest unemployment rates. We appreciate the Forest Service recognizing the importance of supporting communities by including it as a stated purpose and need. The project you are proposing will generate jobs and wages from both the commercial as well as the noncommercial treatments they contain. The economic benefits to the county in terms of both direct and indirect jobs for all aspects of the projects should be clearly displayed in your analysis and considered in the final decision." (Letter 3)

Similar Comments
"We appreciate the strong recognition given to the economic stability of our rural communities and the need to contribute to the national, regional, and local demand for timber." (Letters 2, 6, and 7)

"The project will also contribute to a sustainable timber industry and to the economic viability of the local community." (Letter 5)

Forest Service Response: Thank you for your support.

3) Comment: "AFRC is concerned about the project being economical since 93 percent of the logging will be done using skyline or excaline logging systems. We suggest not burdening the potential purchasers with other heavy costs such as slash disposal, seeding, or ripping. Additionally, AFRC suggests using tractor skidding on slopes over 35% to more efficiently capture the economic value of the timber and to provide more revenues back to the Forest for other resource improvements. The nearby Colville National Forest is testing skidding on slopes up to 45%. Additionally, many acres have been bypassed in the past because of concern about damage to soil from compaction, erosion and other issues. Today's new high tech logging equipment has a very light footprint and damage to the soil resource is minimal. These issues were discussed on both of our prior field trips, and the Forest seemed open to try." (Letter 4)

Forest Service Response: Purchasers costs such as slash disposal, seeding, ripping, and other activities are accounted for during timber sale appraisal and are reflected in the minimum bid.

The Lolo National Forest limits tractor skidding to slopes less than 35 percent (Lolo Forest Plan, p. G-1). Ground-based harvest on slopes greater than 35 percent often results in increased detrimental soil disturbance on sensitive soils, including soils with volcanic ash caps and those influenced by silt deposits from Glacial Lake Missoula which exist in the Swamp Eddy project area. Previous soil monitoring conducted on the Lolo, Flathead, and Idaho Panhandle National Forests shows that where ash caps are present, there is a greater likelihood for long-term loss of productivity from soil compaction and rutting within skid trail prisms (Lolo National Forest Soil Monitoring Reports 2006-2018).

During recent field trips, the Forest has expressed openness to tethered logging trials. Other new technologies have not been brought forward for discussion. However, they would be considered on a site-specific basis considering soil conditions.

General – Support

4) Comment: "I support this project. I approve of logging to increase the health of the forest, the continuation of sustaining the Thompson Falls mill and the jobs that are supported by both this logging and mill support. I believe the thinning will be beneficial to the reduction of the insect infestation in the trees." (Letter 1)

Similar Comments

"The MCRC strongly supports this project in its entirety as proposed in the Modified Proposed Action in the Draft EA. We strongly support the seven key items listed in the Purpose and Need for Action." (Letter 2)

"We strongly support active management of National Forest System lands within Sanders County…We do appreciate the work your team has done on this project, especially considering the changes created in the aftermath of the Sheep Gap fire of 2017." (Letter 3)

"The Department of Natural Resources and Conservation (DNRC) supports the Modified Proposed Action Alternative outlined in the EA. We agree there is a strong need to treat vegetation in this landscape to increase resiliency to insects and disease and reduce wildfire risk. The project is not only important for the national forest system lands, but also for private landowners and DNRC, which has fire protection and manages Trust Lands in the area. It's critical to reduce the dense tree stocking and high fuel loading in the project area to reduce intense fire behavior and facilitate safe wildland fire operations." (Letter 5)

"In closing, the Sanders County Collaborative strongly supports this project in its entirety as proposed in the Modified Proposed Action in the Draft EA. We strongly support the seven key items listed in the Purpose and Need for Action." (Letter 6)

"The Mineral County Commissioners strongly supports this project in its entirety as proposed in the Modified Proposed Action in the Draft EA. We strongly support the seven key items listed in the Purpose and Need for Action." (Letter 7)

"…we are intimately familiar with the project and **strongly support the project as proposed in the DEA as the Modified Proposed Alternative**….and **support the proposed management objectives identified in the Purpose and Need for Action**." (Letter 8)

Forest Service Response: Thank you for your support of this project.

NEPA Process

5) Comment: "Considering the location of the project and the work that is being proposed, following the Sheep Mountain fire, AFRC believes that analyzing this project using an Environmental Assessment is adequate. We don't believe that there are any significant resources that will be impacted requiring an EIS." (Letter 4)

Forest Service Response: As displayed in the Swamp Eddy EA, the analysis supports a finding of no significant impact (see Draft DN, section 4.0).

Forest Plan

6) Comment: "AFRC supports changing the management area designation on two parcels of land that were incorrectly mapped near Combest Peak during the development of the 1986 Lolo Forest Plan." (Letter 4)

Forest Service Response: Thank you for your support.

Public Involvement

7) Comment: "Additionally, we applaud the Forest for their continued effort to share information throughout project design and development phases with our local collaboratives to develop these projects with strong collaborative support." (Letter 8)

Forest Service Response: Thank you for your comment.

Recreation

8) Comment: "We support the proposal to address the Swamp Creek dispersed recreation site in a way that addresses the existing erosion and safety issues without over-developing the site." (Letter 3)

Similar Comments

"Finally, we appreciate the work being included to improve the dispersed recreation site at the mouth of Swamp Creek." (Letters 2 and 7)

"Finally, we appreciate the work being included to improve the dispersed recreation site at the mouth of Swamp Creek. The Sanders County Collaborative is open to working with the Forest Service in the future to secure grants for this recreation opportunity." (Letter 6)

Forest Service Response: Thank you for your support of this activity.

Roads

9) Comment: "Regarding public access, please be very thoughtful and judicious with your various road treatments. While we understand the resource concerns and the financial challenges of maintaining a large road network, we also remind you of how important the Forest Service road system is to our communities for firewood gathering, hunting, berry picking, recreation, etc." (Letter 3)

Forest Service Response: Public access was carefully considered during project development. As displayed in the EA (page 80), public access will not measurably change in the Swamp Eddy project area.

10) Comment: "AFRC supports for the most part your proposed roads package…AFRC recognizes that the road maintenance on 47 miles of haul roads is needed to remove the timber. We would also like to remind the Forest that road decommissioning is very expensive, and we support doing most of that work using the Administrative closure option which does not require the purchaser to recontour those roads." (Letter 4)

Forest Service Response: Road surveys indicate that about 4 miles (5 percent) of the 79 miles of road to be decommissioned will require physical treatment. The remaining roads are benign and are not currently causing any identifiable environmental harm because of their location and well-vegetated condition (EA, page 80).

Vegetation

11) Comment: "AFRC appreciates that the Forest is proposing to commercially treat 1,655 acres or 13% of the remaining unburned area, however, in looking at the project map there seems to be large blocks not getting treatments. This may be due to stands not being in a merchantable size category, access issues, or other factors, but it would seem that with the forest health issues outlined above, all treatable acres would have been included. Specifically, I am referring to parts of sections 1, 2,3,11, and 12 in T.19 N., R.28E. There also appears to be a lot of untreated lands adjacent to the Weyerhaeuser lands (in the WUI) in the southeast corner of the Project area….Getting all possible lands treated during one entry is not only important for forest health issues, but it is also important for providing raw material to the sawmills in the local areas….Treating more acres would also benefit the local counties and communities." (Letter 4)

Forest Service Response: The specific area you identified was evaluated during project development. The stands in this area are not of a size, species composition, or condition that warrants silvicultural treatment at this time.

After the 2017 Sheep Gap Fire, the Forest Service reevaluated the Swamp Eddy area for vegetation treatment needs. Approximately 400 acres of additional timber harvest were identified outside the fire perimeter above what was included in the initial proposed action to further address project objectives. This decision also includes 165 additional acres of timber harvest than was described in the Swamp Eddy EA to respond to the ongoing defoliator insect and fir engraver beetle outbreak (see Section 1.0).

12) Comment: "AFRC supports Regional Forester approval for openings larger than 40 acres to treat forest health issues such as root rot." (Letter 4)

Forest Service Response: Thank you for your support of this activity.

13) Comment: "AFRC encourages the Forest to do heavy thinnings or other intense silvicultural prescriptions around all private lands to ensure forest heath and to prevent the spread of insects, disease and fire onto adjacent ownerships. We suggest thinning down to a 40 sq.ft. per acre basal area. AFRC suggests the use of shaded fuel breaks may be appropriate, especially near the WUI and along the major roads in the Project area. These fuel breaks have been shown to be effective in slowing or stopping wildfires while at the same time improving the health and vigor of leave trees." (Letter 4)

Forest Service Response: In general, there are 2 to 3 miles of various forest thinning and regeneration harvests on State and Weyerhaeuser lands between the National Forest System land in the area. Additional harvest and prescribed burning for fuel reduction or fuel breaks were not deemed necessary at this time.

14) Comment: "In closing, with the current undesirable forest health conditions that exist across the forests in Montana, there is always more we believe could and should be done to increase the acres treated to address these forest health issues on a larger scale. However, we believe the Forest has done a good job of identifying the priority areas and developing appropriate management objectives and silvicultural prescriptions for this landscape." (Letter 8)

Forest Service Response: Thank you for your supportive comments. Please also see response to comment #10 above.

Implementation

15) Comment: "Also please consider available means to favor local contractors where possible." (Letter 3)

Forest Service Response: At the time of implementation, the various available tools will be considered.

16) Comment: "AFRC suggests looking more at the use of DxP for any commercial harvests. We believe that better results can be achieved in a much more efficient and cost effective manner by utilization of basal area thinning. On our recent tours we discussed using DxP and the Forest thought it had good potential." (Letter 4)

Forest Service Response: Designation by prescription (DxP) eliminates marking timber by use of prescriptive language in the contract for the purchaser to select trees to cut or leave. Inspections coordinated with the Forest Service Cruise Designer, Silviculturist, Sale Administrator, and Contracting Officer must occur both during and after harvest to determine compliance with prescriptions in order to maintain accountability of forest products and achievement of resource objectives.

DxP has potential to be used in certain site-specific situations. It may be more efficient and cost-effective, but while it decreases marking costs it also increases purchaser and sale administration costs.

17) Comment: "The project has been identified as a proposed project on the program of work for the Montana GNA Program. We believe this project is a good candidate for the GNA Program and respectfully request that the Forest Service and GNA Program directors continue to work together to develop it as a GNA Project." (Letter 8)

Forest Service Response: The Forest Service and Good Neighbor Authority (GNA) program directors are in constant negotiations of which projects across Montana best fit the GNA program. At this time, no decision has been made to include the Swamp Eddy project into the GNA program.

Wildlife

18) Comment: "The Forest has done a good job of analyzing any impacts to threatened or endangered species." (Letter 4)

Forest Service Response: Thank you for your supportive comment.