MONTANA FIRST JUDICIAL DISTRICT COURT
LEWIS AND CLARK COUNTY

WILDEARTH GUARDIANS and PROJECT COYOTE, a project of the Earth Island Institute; FOOTLOOSE MONTANA; and GALLATIN WILDLIFE ASSOCIATION, Plaintiffs, v. STATE OF MONTANA, by and through the MONTANA DEPARTMENT OF FISH, WILDLIFE, AND PARKS; and MONTANA FISH AND WILDLIFE COMMISSION, Defendants, and OUTDOOR HERITAGE COALITION and MONTANA SPORTSMEN FOR FISH AND WILDLIFE, Defendants-Intervenors.	Cause No.: DDV-2022-896 **OPINION AND ORDER ON MOTIONS**

Before the Court are the following motions:

1. Plaintiffs' Motion for Leave to Amend (Dkt. 109), filed March 10, 2025; and

2. Plaintiffs' Motion for Preliminary Injunction (Dkt. 120), filed October 15, 2025.

Plaintiffs Wildearth Guardians and Project Coyote are represented by Robert Farris-Olsen, David K.W. Wilson, Jr., Jessica L. Blome, and Susann M. Bradford. Plaintiffs Footloose Montana and Gallatin Wildlife Association are represented by Brian K. Gallik and Henry J. Tesar. Defendant State of Montana, including the Department of Fish, Wildlife and Parks (FWP or "the Department") and Fish and Wildlife Commission ("the Commission"), is represented by Alexander R. Scolavino, III, and Jeff M. Hindoien. The Commission is additionally represented by J. Stuart Segrest. Finally, Defendant-Intervenors Outdoor Heritage Coalition and Montana Sportsmen for Fish and Wildlife ("Intervenors") are represented by Matthew G. Monforton and Gary R. Leistico.

These motions are fully briefed, and a hearing was held November 14, 2025. The Court heard argument from Jessica Blome and Susann Bradford for Plaintiffs, Alexander Scolavino for the State, and Gary Leistico for Intervenors. For the reasons that follow, the motion for leave to amend will be granted in part and denied in part, and the motion for a preliminary injunction will be denied.

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BACKGROUND[1]

A. State Management of Wolf Population

Wolves have been managed by the State continuously since 2011. Between 2012 and 2019, hunters and trappers harvested wolves at an average rate of 242 per year. (FWP Hunting Season-Quota Change Supporting Information at 6, Blome Decl. Ex. D, Doc. 15 at 656.) Human-caused wolf mortality peaked in calendar year 2020, when 303 wolves were harvested and 355 wolves in total were killed by human activity. (2024 FWP Wolf Report at 39 Table 1, Bradford Decl. Ex. F, Dkt. 126 at 96.) During this period, the statewide wolf population estimated by the State's integrated patch occupancy model, or iPOM, remained relatively steady, declining slightly from 1,264 in 2011 to 1,178 in 2020. (Dkt. 126 at 67.)

In 2021, the legislature passed several measures designed to reduce the wolf population in Montana. Perhaps the most significant change came from Senate Bill 314, which directed the Commission to establish hunting and trapping regulations "with the intent to reduce the wolf population in this state to a sustainable level, but not less than the number of wolves necessary to support at least 15 breeding pairs." Mont. Code Ann. § 87-1-901(1). The legislature allowed the Commission to authorize up to an unlimited "bag limit" for a single hunter (the "bag limit" refers to the number of wolves that a single licensee may harvest through hunting, trapping, or both). *Id.* § 87-1-901(2)(c). The legislature also allowed the Commission to authorize baiting and use of artificial light or night vision scopes for nighttime hunting on private land. *Id.* § 87-1-901(2)(d),(e). House Bill 224 required the Commission to permit the use of snares for trapping wolves. *Id.* § 87-1-901(1). House Bill 225 authorized the Commission to begin

[1] Unless context clearly dictates otherwise, the following are the Court's findings of fact. Mont. R. Civ. P. 52(a)(2)

the wolf trapping season as early as the first Monday following Thanksgiving and to adjust the season length and start in individual regions based on regional recommendations. *Id.* § 87-1-304(8). Senate Bill 267 allowed for third-party reimbursement of costs incurred relating to the licensed hunting or trapping of wolves. *Id.* § 87-6-214(1)(d). Plaintiffs refer to these bills collectively as the "2021 Wolf Statutes."

The 2021 Wolf statutes were amended in 2025. House Bill 259 authorized the Commission to add infrared and thermal imaging scopes to the permissible devices that may be used to assist nighttime hunting on private land. 2025 Mont. Laws 432. House Bill 219 expanded the permissible third-party reimbursements to include all lawful takes of wolves, including so-called "control" or "conflict" removals. 2025 Mont. Laws 188. The terms "control removal" and "conflict removal" refer to the lawful, authorized taking of a wolf without having purchased a license, often by government agencies, and typically for the purpose of killing wolves that threaten livestock or human safety. *See* Mont. Code Ann. § 87-5-131(3); Admin. R. Mont. 12.9.1303–.1305.

The Commission met in August 2025 to consider and adopt seasonal hunting and trapping regulations for the 2025-2026 season. At the conclusion of the meeting, the Commission adopted a wolf hunting season from September 15 to March 15, consistent with previous years, and a trapping season in most areas from December 1 to March 15.[2] Instead of using regional quotas, the Commission adopted a statewide quota[3] of 458 wolves, including a regional

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[2] Trapping can potentially affect grizzly bears, which are a federally managed endangered species; accordingly, trapping dates are timed to minimize potential conflict with grizzly bears.

[3] Importantly, the term "quota" here refers to a ceiling, not a floor: once the Department learns that the quota has been met, either statewide or in a particular region, 24-hour notice is given to all hunters and trappers of the season's closure in the relevant area. (2025 Wolf, Furbearer, and Trapping Regulations at 16, Bradford Decl. Ex. A, Dkt. 126 at 23.)

quota of 60 wolves in Region 3 (an increase of 8 wolves from 2024-2025), and maintained a quota of 3 wolves each in Wildlife Management Units (WMU) 313 and 316, which adjoin Yellowstone National Park. The Commission also authorized up to 100 control or conflict removals of wolves. Finally, the Commission authorized the use of thermal and infrared scopes consistent with statute and increased the bag limit for an individual hunter to 30 (15 hunting and 15 trapping; at least 5 wolves must be from Region 1 or 2 for either sublimit).

The Commission has consistently used quotas to regulate wolf hunting and trapping in Montana in recent years. In 2021, the Commission established a quota of 450 wolves, similar to what they have approved for 2025. The total public harvest for that season was 273 wolves (60.7% of the quota). For the 2024-2025 season, FWP used regional quotas that amounted to 334 wolves across the state; the total statewide harvest was 297 wolves (88.9% of the quota). The quotas were not reached in Regions 1 and 2 (western and northwestern Montana), where wolf populations are most numerous; the quotas were reached, however, in Region 3 (southwestern Montana) and WMU 313 and 316. In 2024, the Region 3 quota was 52, and the WMU 313 and 316 quotas were 3 wolves apiece. Notably, except in individual regions, the aggregate statewide quota has not been achieved in any year since 2021. No season in the last five years met the 2024-2025 statewide quota of 334 wolves. (Podruzny Decl. ¶ 33, Dkt. 133 at 16.)

The Commission also establishes a ceiling for conflict or control removals, which are primarily made due to livestock depradation. Notably, according to FWP's 2024 Wolf Report, livestock depredation has declined from a high of 233 in 2009 to 100 per year or less today. (Dkt. 126 at 76.) In 2024, 25 wolves were killed as control removals. (*Id.* at 82.) Control removals averaged

39 per year from 2020 to 2024. (*Id.* at 101.) On average, 9 of these removals are by private citizens (5 in 2024). (*Id.* at 77–78.) In addition to lethal control, FWP works with other stakeholders and livestock producers to reduce wolf-livestock conflicts, avoiding the need for control removals. (*Id.* at 80.)

In total, 348 wolf mortalities were documented in 2024. Of these, 308 were attributable to hunting and trapping; 25 due to control removals; 5 due to illegal takes; 4 due to vehicle/train collisions; and 6 from other causes. (*Id.* at 82.) For harvested wolves, the Department tracks the method of take, and reports this on their Wolf Dashboard.[4] With respect to some of the methods authorized by the 2021 Wolf Statutes, the dashboard reflects that for the 2024-2025 season, 9 wolves were taken by use of snares, and 4 were reported taken via nighttime hunting. In 2024-2025, the "bag limit" for an individual was 20 (10 hunting; 10 trapping). The 2024-2025 Wolf Harvest Report, also found on the dashboard website, reflects that despite this bag limit, only 1 hunter took 10 wolves and 1 trapper took 9 wolves. The vast majority of individuals only took 1 wolf (84 hunters and 34 trappers).

B. Impact of Wolf Removals on Wolf Populations

Gray wolves are a social animal that largely organize themselves in packs. (vonHoldt Decl. ¶ 6, Dkt. 125 at 2.) Notably, most wolves in a pack do not reproduce; rather, the number of wolves who breed is a small fraction of the overall wolf population. Federal delisting criteria required the State to maintain a population sufficient to support at least 15 breeding pairs, which is also a requirement of Montana law. *See* Mont. Code Ann. § 87-901(1). The Department

[4] Available: https://fwp.mt.gov/hunt/regulations/wolf. The Department suggested at the preliminary injunction hearing that the Court could take judicial notice of the dashboard. The Court agrees taking judicial notice is appropriate, and it does not appear that Plaintiffs contend the information on the dashboard is inaccurate, at least with respect to the data regarding lawfully harvested wolves. *See* Mont. R. Evid. 201.

projects that this requires the State to maintain a population of at least 450 wolves.

1. Effect of Harvest on Population

The total authorized removal of wolves (either by harvest or control removal) allowed by the Commission for the 2025-2026 season amounts to 558 wolves, which is 51.1% of the 2024 wolf population estimated by iPOM (1,091 wolves). (*See* 2024 FWP Wolf Report Table 10, Dkt. 126 at 67.) Within a 95% confidence interval, the loss of 558 wolves would range from 56.5% (lower confidence interval of 988 wolves) to 46.3% (upper confidence interval of 1,206 wolves) of the current estimated population. (*See id.*) Likewise, the authorized harvest of 458 wolves would (if fully successful) amount to 41.9% of the iPOM-estimated population, and within a 95% confidence interval, a fully successful harvest would remove 38.0% to 46.3% of the 2024 wolf population. (*See id*.)

The number of wolves taken each year does not arithmetically determine the following year's population. The rate at which wolves are replaced must also be considered. Gray wolves are capable of increasing their population relatively rapidly due to a short time to sexual maturity and the ability to produce large litters. (vonHoldt Decl., Dkt. 125 at 42.)[5] Notably, despite an average annual harvest of 282 wolves from 2020 to 2024 and an average annual human-caused mortality of 322 wolves during that same period, the iPOM-estimated wolf population has declined from 1,162 to 1,091, a change of only 71 wolves despite the confirmed mortality of 1,608 wolves. (*See id.* at 67.) If[6] iPOM accurately captures the delta in wolf population over time, this would suggest a

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[5] Cassidy et al., Human-caused mortality triggers pack instability in gray wolves, Front Ecol Environ 28(8): 356–362 (2023)

[6] The Court recognizes this "if" is very much disputed by Plaintiffs.

substantial annual wolf replacement rate that largely offsets the population decline from lethal take.

In the 2024 Wolf Report, the Department included various projections of the impact of different removal scenarios on wolf populations relative to this "minimum" population of 450 wolves. (*See* 2024 Wolf Plan at 44 Figure 3, Dkt. 126 at 101.) At a mortality level somewhat similar to 2024 (harvest of 308 and assumed annual average removals of 39), the total wolf population is expected to modestly decline over time. Even by 2029, the wolf population would not be expected to approach the minimum of 450 wolves. If wolves were harvested more aggressively at 334 wolves per year (in line with the mortality in 2020, a peak year for wolf mortality), then populations would decline more quickly, but the midpoint projected population would still be slightly above 450 wolves by 2029. By contrast, if the Commission's authorized harvest of 458 wolves is fully met each year, then the wolf population would decline more precipitously, with the midline projected population crossing the 450-wolf threshold by 2027. And if there were a big spike in control removals as well causing mortality to approach the full 558 wolves authorized to be taken this year, then the wolf population would approach the 450-wolf "minimum" in a single season.

Quentin Kujala, a wildlife biologist and the Department's current Chief of Conservation Policy, has urged caution in interpreting these projections. Kujala observes that no statewide harvest has ever exceeded 350 wolves, even in years with higher quotas or no quota at all. (Kujala Decl. ¶ 6, Dkt. 135 at 3.) Moreover, the iterative forecast assumes the annual harvest to be static over time—in other words, the model asks what happens if the same number harvested

in 2025 are harvested in every succeeding year. Kujala notes that this is not likely to be the case because a substantial decline in wolf abundance will likely result in less hunter and trapper success with each succeeding year, even if quotas remain the same. (*Id.*) Kujala also notes that the United States Fish and Wildlife Service has found that the 2025-2026 regulations "will not be detrimental to the survival of the species." (*Id.* ¶ 8, Dkt. 135 at 4–5.)

2. Sustainability and Population

The parties dispute what constitutes a "sustainable" wolf population in Montana. In particular, Plaintiffs criticize a focus on absolute wolf population numbers as a proxy for sustainability and the practice of "managing to the minimum" (the State denies that this is what they do). Plaintiffs' argument relies heavily on the work of Bridgett vonHoldt, a professor of ecology and evolutionary biology at Princeton University. vonHoldt has published extensively on the subject of North American wolf ecology and their genetic diversity.

vonHoldt argues that a focus on overall population numbers is inadequate to assess the long-term health and sustainability of gray wolves. Rather, vonHoldt champions the notion of "effective population size" that focuses on the breeding population, which she argues is more critical to long-term sustainability and genetic health of the wolf population. (vonHoldt Decl. ¶ 16, Dkt. 125 at 7.) The effective population is affected by population size, but it also depends on "sex ratios, dispersal or migration rates, number of reproductive individuals, [and] genetic assessments" of wolves. (*Id.*) vonHoldt estimates that effective population size for North American gray wolves ranges from 5.2-9.3% of the total population on average. (*Id.* ¶ 17.) If the current total wolf population is 1,091 wolves (using the iPOM estimate), this would translate into an effective

population size of 56.7 to 101.5 wolves. (*Id.* ¶ 18.) A loss of 558 wolves would reduce the effective population to between 27.7 and 49.6 wolves (notably, 27.7 would correspond to a population of less than 15 breeding pairs). (*See id.*)

vonHoldt also notes that the dynamics of lethal take have a more complex relationship to wolf sustainability than just the raw reduction in population. Lethal take—particularly of breeding wolves or important members of the pack—can disperse packs and cause substantially reduced survival and reproduction for the dispersed pack members. It can impact litter size, which vonHoldt indicates is a marker for genetic fitness. Pack dispersal can negatively impact cultural memory of wolf packs, leading to more (not less) conflict with livestock and undermine the effectiveness of wolves' survival. And pack disruption can inhibit genetic diversity, which over time leaves wolf populations vulnerable to other hazards.

Finally, vonHoldt criticizes the practice of managing to a minimum population. At levels close to the minimum threshold for sustainability, wolf populations are more vulnerable to "stochastic" shocks. For example, disease, drought, natural disasters, or other randomly occurring events that might not threaten the survival of a robust population are more likely to push a population near the minimum sustainability threshold into a threatened status.

The State does not appear to take issue with vonHoldt's basic thesis about the importance of the breeding population and pack health to sustainability. Rather, the State contends that vonHoldt has greatly overestimated the peril Montana wolves face. Ryan Kovach, a wildlife biologist employed as the Department's fish conservation geneticist, provided a detailed rebuttal to vonHoldt's affidavit and cited publications. He disputes that the literature shows

a significant decline in genetic variation among Northern Rockies wolves since hunting and trapping began. (Kovach Decl, ¶ 5, Dkt. 136 at 3.) Kovach notes that the wolf population in Montana has connectivity with wolves in Idaho, Wyoming, and Canada, which greatly reduces the risk of genetic isolation. (*Id.* ¶¶ 8, 16.) Moreover, researchers unaffiliated with the Department have rebutted vonHoldt's estimates of effective population size and found them not sufficiently reliable to inform management decisions. (*Id.* ¶ 10 (citing M. Kardos & R.S. Waples, Low-coverage sequencing and Wahlund effect severely bias estimates of inbreeding, heterozygosity and effective population size in North American wolves, *Molecular Ecology* e17415 (2024)). In other words, the Department contends the ratio of effective population to absolute population estimated by vonHoldt is not accurate. (*Id.* ¶ 10–11.)

3. Current Season Harvest

According to the Department's seasonal regulations, wolf kills must be reported to the Department within 24 hours. The Department's wolf dashboard retains up-to-date information on the current season's harvest. As of December 12, 2025, the dashboard reflects that 85 wolves (out of a statewide quota of 458) have been harvested during the current season, including 19 (out of a quota of 60) in Region 3, 3 (out of a quota of 3) in WMU 313, and 1 (out of a quota of 3) in WMU 316. The dashboard reflects two of these were night-hunting kills.

C. Estimate of Wolf Populations in Montana

The parties return to a familiar subject in this litigation: the accuracy of iPOM. Citing new research since 2022, Plaintiffs contend iPOM is inherently flawed and systematically biased to over-estimate wolf populations.

The State maintains, as it did before, that iPOM is based on the best available science and is a valid and reliable model for estimating population. The accuracy of iPOM matters to Plaintiffs' motion for a preliminary injunction for two reasons: (1) the Commission relies on iPOM to determine the liberality of hunting and trapping regulations and to set quotas; and (2) the Department relies on iPOM to assure the Court that wolf sustainability is not presently at risk of irreparable harm.

1. History and Description of iPOM

Initial estimates of wolf population in Montana after reintroduction relied heavily on direct counts of wolves, often aided by use of radio collars. (Podruzny Decl. ¶ 6, Dkt. 133 at 2.) Wolves, however, are a wide-ranging, highly mobile, and elusive species, making direct counting difficult and resource-intensive. As the population increased, the verified count diverged from the likely true population because of undercounting and resource limitations. (*Id.* ¶¶ 7–8.) Thus, the State looked for a more reliable and cost-effective means of estimating population and, by extension, the number of breeding pairs. (*Id*. ¶ 9.)

Beginning in 2007, the Department began collaborating with the University of Montana Cooperative Wildlife Research Unit to develop a method for statistically estimating wolf populations using more readily gathered data. The resulting method, termed "POM" (or "patch occupancy model"), relied on hunter observations of wolves combined with field work by biologists, along with estimates of territory size and pack size. (Podruzny Decl. ¶¶ 10–12, Dkt. 133 at 4–5.)

iPOM, which stands for "integrated patch occupancy model," is the methodology currently used by FWP to determine wolf abundance. It is a

refinement of POM. iPOM's workings are described in a paper principally authorized by Sarah N. Sells, Ph.D., a wildlife biologist with the Montana Cooperative Wildlife Research Unit at the University of Montana – Missoula. (Gude Decl. Ex. A, Dkt. 132 at 14–31.)[7] iPOM estimates wolf population using three constituent models: (1) a model for how much territory wolves occupy; (2) a model for the size of a wolf pack's territory; and (3) and a model to estimate the size of a wolf pack. (Podruzny Decl. ¶ 24, Dkt. 133 at 11.) The output of these three models is used to determine an estimate of wolf populations for each calendar year and a population range representing a 95% confidence interval. iPOM estimates are systematically larger than the former POM estimates of populations; the Department states, however, that this is because POM assumed a more constant territory size, and iPOM better recognized that territory and pack sizes vary by space and time. (*Id.* ¶ 28.) iPOM has been in use since 2020. (*Id.* ¶ 27.)

Much of the controversy in this case centers on the occupancy model, which measures the total area in Montana occupied by wolves. The occupancy model divides Montana into a grid with 600-square-kilometer cells (slightly less than 25 km x 25 km). The Department surveys a random sample of elk hunters for any sightings or encounters with wolves during the five-week general rifle hunting season (typically in November of each year). The Department records the number of wolves sighted and the date and location of encounters, and it then categorizes the data by grid cell and the week of the hunting season (weeks 1-5) in which the encounter occurred. The Department acknowledges there is uncertainty in this method: hunters may misidentify or

[7] Sarah N. Sells, et al., Integrating basic and applied research to estimate carnivore abundance, *Ecol. Applications* e2714 (2022).

miscount wolves, and multiple hunters may redundantly count the same wolves.[8] (Podruzny Decl. ¶ 15, Dkt. 133 at 6.) The Department employs a false-positive occupancy model to estimate the likelihood that hunter observations were erroneous. (*Id.* ¶¶ 16–18.) The Department also accounts for several variables, termed covariates, that can influence the relationship between sightings and population.

In addition, the Department also gathers direct information about wolf populations. This relies on more traditional field work to determine "centroid" locations (the centers of known pack activity or known den locations for verified packs) for known wolf packs. Using the combination of certain and

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uncertain estimates, iPOM applies statistical methods to estimate a probability of occupancy for each grid cell.

Molly Parks, the large carnivore coordinator for FWP, described in her declaration the Department's direct wolf monitoring program. The Department employs five full-time "wolf specialists" whose duties include collaring, monitoring, data management, as well as public outreach, conflict resolution, reporting, and interagency coordination. (Parks Decl. ¶ 11, Dkt. 134 at 4.) The wolf specialists work year-round collecting field data on wolves through a combination of visual observation, radio collars, howl surveys, remote photography via trail cameras, winter track surveys, and known wolf mortality. (*Id.* ¶ 12.) The wolf specialists have experience, training, and local knowledge of the territories in which they work. (*Id*. ¶ 19.) They use information

[8] Plaintiffs raise the specter of hunters strategically overestimating wolves. Importantly, however, the hunter surveys are not self-reported. Instead, they are gathered from a random sampling. Given the sheer number of elk hunters in Montana, the random sampling should minimize the influence of the handful of hunters who might be motivated to exaggerate reports. The Court does not believe Plaintiffs will likely show this to be a significant problem with FWP's methodology.

about physical markings and coloring of identified wolves to help identify unique packs. (*Id.* ¶ 20.) Based on all of this information, the wolf specialists identify centroids and assign a degree of certainty to each centroid (either "uncertain," "fairly certain," or "certain," based on the quality of the information gathered about the pack). (*Id*. ¶ 16.) The centroids they generate are input into the iPOM occupancy model to evaluate the accuracy of hunter observations of wolves. (*Id*.)

The other two models are based primarily on research about wolf populations and ecology along with historical data about gray wolf territory and pack sizes in Montana. The Department uses a territory size model predicated on the notion that wolves will naturally select territories that maximize food benefits and minimize travel, competition, and risk of mortality. The Department applies factors known to affect territory size to model territory sizes for wolf packs in Montana. The wolf pack size model predicts the size of packs in each cell based on historic wolf pack data and factors known to influence pack size. It expressly incorporates the assumption that public harvest is a primary negative influence on wolf pack sizes. (Podruzny Decl. ¶ 25, Dkt. 133 at 11.) The application of all three models is used to estimate population.

2. Plaintiffs' Criticism of iPOM

Plaintiffs' attack on the reliability of iPOM is predicated on the work of Robert L. Crabtree, Ph.D., whose doctorate is in forestry, range, and wildlife science and who is currently the Chief Scientist at the Yellowstone Ecological Research Center. Crabtree's affidavits draw heavily on his own work and papers studying patch occupancy models as well as the work of Scott Creel, a professor of ecology at Montana State University-Bozeman. In brief, Crabtree's contention is that iPOM is systematically biased to over-estimate wolf

populations and its design tends to suppress year-to-year changes in wolf population. Crabtree's work is replete with various critiques, but the main ones appear to be the following: (1) the Department's reliance on hunter surveys and under-utilization of direct, marked wolf counts; (2) the presence of bias in the model design; (3) deficiencies in the covariates selected by the Department to be applied to the model; and (4) lack of replicability and validation. Each is discussed below.

Hunter Surveys and Direct Counts. Crabtree emphasizes the importance of using direct counts and "marking" (using radio collars, ear tags, or DNA samples) to avoid double-counting and to validate the predictions of statistical models. (Crabtree Decl., ¶ 16, Dkt. 123 at 6.) Crabtree criticizes hunter surveys as prone to error and misidentification. He also contends hunters are ill equipped to provide information to determine whether two or more wolves traveling together are part of a stable territorial pack, and that the same wolves can be counted in multiple grids because of their range throughout the general hunting season. (Crabtree Decl. ¶ 18.) He observes that in studies of other highly mobile wildlife species—specifically, birds—the false positive error counts by untrained observers were substantial. (Crabtree Decl. Ex. C, Dkt. 123 at 45.)[9] And he cites elsewhere in his work to studies of other species where small false positive rates caused large overestimates of population. (Crabtree Decl. Ex. C, Dkt. 123 at 49.) Finally, Crabtree questions the reliability of the Department's marking of centroids, contending their method is too imprecise and that "even slight errors" in centroid location "leads to a severe overestimation of abundance." (Crabtree Decl. ¶ 19, Dkt. 123 at 8.)

[9] Robert Crabtree, et al., Misleading biases in methods for estimating wolf abundance using spatial models, *Academia Biol.* 2025:3 (Oct. 15, 2025).

Bias. Crabtree identified several forms of bias that he argues causes iPOM to over-estimate true population. First, he contends that iPOM suffers from a resolution bias because of the large size of the grid cells and lack of attempt to incorporate the relationship between snow and prey during the study period. (Crabtree Decl. ¶ 20, Dkt. 123 at 8.) Plaintiffs offer other examples of resolution problems—for example, prey density is estimated at the level of each FWP region, which is many times larger than a wolf pack's territory. (Crabtree Decl. Ex. B, Dkt. 123 at 33.)[10] Crabtree cites other academics who recommend using a grid size smaller than an animal's average range when the animal is highly mobile to better detect changes. (Crabtree Decl. Ex. C, Dkt. 123 at 44.)

Second, Crabtree contends that iPOM suffers from "closure bias" because it assumes wolf pack territories are stable; in truth, he contends that the widespread elk hunting during the survey period along with the coinciding start of wolf hunting season might affect pack location and pack dispersal during the survey period. (Crabtree Decl. ¶ 21, Dkt. 123 at 8–9.) For instance, late fall is a time when many young wolves disperse from their pack. (Crabtree Decl. Ex. C, Dkt. 123 at 44.)

Third, Crabtree favorably cites Creel, who criticizes the sequential use of the three constituent models for relying on some of the same information (for example, centroid locations) that could systematically cause error in one model to compound. (Crabtree Decl. Ex. C, Dkt. 123 at 43[11].)

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[10] Scott Creel, Methods to estimate population size of wolves in Idaho and Montana (2023) (unpublished technical paper).

[11] Robert Crabtree, Misleading bias in methods for estimating wolf abundance using spatial models, *Academia Biology* 2025:3 (Oct. 10, 2025).

Covariates. Plaintiffs also criticize the ability of iPOM to detect changes in wolf populations. A running theme is a challenge to the factors selected by FWP as "covariants"—in other words, factors other than occupancy and abundance that might explain relative differences in observations of wolves. Crabtree and Creel point out, for example, that some of the covariates used—for example, ruggedness of terrain and human population density—are static. (Crabtree Decl. Ex. B, Dkt. 123 at 32.)[12] The use of static covariates that do not reflect changing conditions could bias the model in favor of producing the same numbers each year despite significant underlying changes. (Crabtree Decl. Ex. C, Dkt. 123 at 48.) Other covariates are criticized as circular or missing important factors like localized prey density that might impact territory size. (*Id.*)

Replicability and Validation. Finally, Crabtree contends that iPOM is not appropriately validated. He alleges that he was not provided the empirical data needed to fully test iPOM and assess the magnitude of any over-estimation errors. He contends that the Department does not retain hunter survey information,[13] making it difficult or impossible to replicate their results. And he argues that the Sells 2022 paper does not truly validate iPOM because it compares iPOM to the similar, and older, POM and minimum counts—as he colorfully puts it, this is not "validation nor verification because one cannot use biased apples to validate biased oranges." (Crabtree Decl. Ex. C, Dkt. 123 at 50.)

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[12] Scott Creel, Methods to estimate population sizes of wolves in Idaho and Montana (2023) (unpublished technical paper).

[13] As it happens, the Department represented at oral argument that it does indeed maintain hunter survey data, but that someone affiliated with the Department wrongly represented to Plaintiffs earlier in the litigation that the data did not exist. It does not appear that Crabtree would have had any reason to be aware of this correction at the time he wrote his affidavit, and that Crabtree (appropriately) relied on the representations made by the Department previously.

3. Department's Response to iPOM Criticisms

The Department's response to Plaintiffs' criticisms is less robust than the Court would have expected. Much of it is either too general for the Court to assess the strength of the competing arguments or overly focuses on compliance with academic norms rather than the soundness of Plaintiffs' critiques. For instance, Justin Gude's response to the cited Creel 2023 technical paper is to complain that it was not subjected to peer review and to assure the Court that he and the Sells co-authors "considered each point made by Creel" and "outlined the extent to which we agreed or disagreed with each point and then considered the degree to which each point would affect the methods or recommendations stemming from the methods." (Gude Decl. ¶ 9, Dkt. 132 at 4.) This outline and response is not included in the materials submitted by the State, making it impossible for the Court to assess competing claims about Creel's claims. (*See* Crabtree Supp. Decl. ¶ 13, Dkt. 140 at 5–6.)

Gude also does not respond substantively to Crabtree's 2025 paper in Academia Biology. Instead, he appears to suggest Crabtree deliberately timed the publication to coincide with the motion for a preliminary injunction. (Gude Decl. ¶ 15, Dkt. 132 at 8.) He criticizes the journal as "obscure" and complains that their peer review process—and there is no suggestion that this is Crabtree's fault—did not include directly contacting the Department for a response before accepting the paper for publication. (Gude Decl. ¶ 15, Dkt. 132 at 8.) Gude walks the Court through an extensive discussion of dueling complaints to the publishers of the Sells 2022 and Crabtree 2025 articles, each alleging misrepresentations or the reliance on non-replicable data, and the disputes over disclosure of data.

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(Gude Decl. ¶¶ 10–17.) Crabtree then responded in kind with his own version of events. (Crabtree Supp. Decl. ¶¶ 14–19.)

D. Relevant Procedural History

Although this case has been pending for several years, it has scarcely made it out of the pleadings stage. The lawsuit began in late October 2022 with the initial Petition and Application for Writ of Mandate and Complaint for Declaratory and Injunctive Relief. (Dkt. 1.) It alleged five causes of action: (1) that the State had effectively modified the 2002 Wolf Plan without complying with the requirements of the Montana Administrative Procedure Act (MAPA); (2) that the wolf quota for the 2022-2023 season was *ultra vires* and in violation of the separation of powers; (3) that the 2021 Wolf Statutes and the 2022-2023 seasonal hunting and trapping regulations violated the public trust doctrine; (4) that the 2021 Wolf Statutes, seasonal regulations, and quota for 2022-2023 were preempted by and contravened the National Park Service Organic Act; and (5) that the same laws and regulations were preempted by and contravened federal land management law.

On November 10, 2022, the Court granted a temporary restraining order essentially rolling back the seasonal hunting and trapping regulations to the ones in effect for the 2020-2021 season. An evidentiary hearing on Plaintiffs' application for a preliminary injunction was held November 28, 2022, and the next day the Court vacated its temporary restraining order and denied the application for a preliminary injunction.

The State then moved to dismiss the initial complaint and in response, Plaintiffs filed a First Amended Verified Petition and Application for Writ of Mandate and Complaint for Declaratory and Injunctive Relief ("First

Amended Complaint" or "FAC"). (Dkt. 38.) The FAC joined Footloose Montana and Gallatin Wildlife Association as plaintiffs, modified some factual allegations, and added a sixth cause of action alleging a violation of the Article II, Section 8 right to public participation. Count VI alleged that the seasonal regulation exemption to MAPA violated Article II, Section of the Montana Constitution. The State moved to strike the FAC (which was filed as a matter of course pursuant to Rule 15(a)(1)) as untimely. This Court denied the motion.

More motions followed. The State and Intervenors promptly moved to dismiss the FAC. Plaintiffs equally promptly filed an "application for declaratory judgment and writ of mandate," which the Court construed as a motion for partial summary judgment with respect to Counts I and II of the FAC. On January 10, 2025, this Court dismissed Counts III (public trust doctrine claim), V (preemption other than the National Parks Organic Act), and VI (public participation) of the FAC. A few weeks later, on February 7, 2025, the Court denied the application for a writ of mandamus and dismissed Counts I and II of the FAC, which concerned the 2002 Wolf Plan.

The Court issued a scheduling order pursuant to the parties' stipulation on February 19, 2025. The stipulated scheduling order provided: "Request for joinder or amendment of pleadings must be filed on or before **March 10, 2025**." (Stip. Sched. Or., Dkt. 108 at 2 (emphasis in original).) On March 10, Plaintiffs moved to amend the pleadings. The proposed Second Amended Verified Petition and Complaint for Declaratory and Injunctive Relief ("Second Amended Complaint" or "SAC") generally follows the same structure as the FAC. It includes Counts I through III and V of the FAC solely for the purposes of noting their dismissal and, with respect to Counts I through III,

making clear these were involuntarily dismissed to preserve their appellate remedies. More significantly, the proposed SAC revises Count VI to allege not that the MAPA exemption for seasonal regulations is unconstitutional, but instead that the regulations at issue here are not truly "seasonal." The proposed SAC also adds a seventh cause of action alleging the 2021 Wolf Statutes and the Commission's wolf hunting regulations infringe on the right to a clean and healthful environment guaranteed by Article II, Section 3 and Article IX, Section 1(1) of the Montana Constitution.

STANDARDS

The Court has discretion whether to grant leave to a party to amend its pleadings. *Farmers Co-op. Ass'n v. Amsden, LLC*, 2007 MT 286, ¶ 12, 339 Mont. 445, 171 P.3d 690. Indeed, it "is an abuse of discretion for the district court to refuse to permit amendments to pleadings which are offered at a reasonable time and which should be made in the furtherance of justice." *Loomis v. Luraski*, 2001 MT 223, ¶ 41, 306 Mont. 478, 36 P.3d 862. Nevertheless, the Court may deny leave for reasons including "undue delay, bad faith or dilatory motive on the part of the movant, repeated failure to cure deficiencies by amendments previously allowed, undue prejudice to the opposing by virtue of allowance of the amendment, [or] futility of amendment." *Loomis*, ¶ 41 (quoting *Prentice Lumber Co. v. Hukill*, 161 Mont. 8, 17, 504 P.2d 277, 282 (1972)).

To obtain a preliminary injunction, the applicant must establish the following: [1] "the applicant is likely to succeed on the merits"; [2] "the applicant is likely to suffer irreparable harm in the absence of preliminary relief"; [3] "the balance of equities tips in the applicant's favor"; and [4] "the order is in the public interest." Mont. Code Ann. § 27-19-201(1). The Court must interpret this

standard in a manner that "closely follow[s] United States supreme court case law." *Id.* § 27-19-201(4).

DISCUSSION[14]

A. Motion for Leave to Amend Complaint

Plaintiffs seek leave to amend the complaint in two primary respects. First, Count VI previously alleged that the seasonal regulation exemption to MAPA embedded in Mont. Code Ann. § 2-4-102(11)(b)(iv) is itself unconstitutional as an infringement on the right to public participation guaranteed by Article II, Section 8 of the Montana Constitution. The revised Count VI would not challenge the constitutionality of § 2-4-102(11)(b)(iv), but instead argue that the regulations adopted by the Commission exceed the scope of this exemption because they are effectively permanent regulations masquerading as seasonal regulations. Second, the FAC previously alleged that the 2021 Wolf Statutes and the Commission's regulations implementing those statutes violated the public trust doctrine. The SAC still challenges the constitutionality of the 2021 Wolf Statutes and corresponding regulations, but it instead alleges a direct violation of the right to a clean and healthful environment guaranteed by Article II, Section 3 and Article IX, Section 1(1).

The proposed SAC is not untimely. Although there has been a lengthy gap between the filing of the First and Second Amended Complaints, this is largely attributable to motions practice regarding the FAC and delay waiting on this Court's orders. As Plaintiffs note, they moved for leave to amend within two months of the Court's order on the motion to dismiss the FAC. More

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[14] Unless context clearly indicates otherwise, the following are the Court's conclusions of law. Mont. R. Civ. P. 52(a)(2)

importantly, they moved for leave to amend within the agreed timeline of the parties for seeking joinder or amendment of pleadings.

Permitting the proposed SAC would not cause undue prejudice to either the State or Intervenors. The proposed amended causes of action are but a riff on the themes that have already run throughout this litigation: (1) the impact of the 2021 Wolf Statutes and liberalized hunting regulations on wolf populations; and (2) the reliability of iPOM. Although the legal theories have changed somewhat, they address the same basic issues the Court heard back in November 2022. Amendment will not cause delay because the parties already have a scheduling order that contemplated a pretrial conference in late 2026, a year away. Indeed, because Plaintiffs seek purely equitable relief that is unconstrained by any statutes of limitations, the likely result of the Court denying amendment is that Plaintiffs would bring a new lawsuit challenging the Wolf Statutes and the 2025 seasonal hunting regulations. That lawsuit would involve the same parties, arguments, and interests. Little would be accomplished by denying amendment.

The State and Intervenors argue amendment of Count VI should be denied because amendment is futile. Contrary to their argument, the new Count VI is not an exact analogue of the old Count VI. Most notably, Plaintiffs no longer contend the seasonal regulation exemption is unconstitutional; rather, they primarily make the more pedestrian argument that: (a) the regulations actually adopted by the Commission are "seasonal" in name only; (b) therefore, the seasonal regulation exemption does not apply; and (c) because the regulations, which are actually rules, did not undergo formal rulemaking, they are void. Plaintiffs also try to constitutionalize their argument by claiming that rules not

adopted in conformity with MAPA violate Article II, Section 8, but that is not the gravamen of the claim. Rather, the claim hinges on whether facially seasonal regulations can nevertheless at least some times fall outside the seasonal regulation exemption in statute.

Nevertheless, the Court agrees that amending the complaint as Plaintiffs propose with Count VI is futile because it does not state a claim for which relief can be granted.

The Court begins with what it means to be a "rule." A "rule" is defined in statute as follows:

> "Rule" means each agency regulation, standard, or statement of general applicability that implements, interprets, or prescribes law or policy or describes the organization, procedures, or practice requirements of an agency. The term includes the amendment or repeal of a prior rule.

Mont. Code Ann. § 2-4-102(11)(a). MAPA outlines a specific process for the promulgation of administrative rules. In most instances, "[p]rior to the adoption, amendment, or repeal of any rule, the [promulgating] agency shall give written notice of its proposed action." Mont. Code Ann. § 2-4-302(1)(a). Additionally, "the agency shall afford interested persons at least 20 days' notice of a hearing and at least 28 days from the day of the original notice to submit data, views, or arguments, orally or in writing." Id. § 2-4-302(4). A rule that fails to substantially comply with the procedural requirements of notice-and-comment rulemaking is invalid. *Id.* § 2-4-305(7); *State v. Vainio*, 2001 MT 220, ¶ 27, 306 Mont. 439, 35 P.3d 948.

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The definition of "rule," however, is subject to several enumerated exceptions. Relevant here is the exemption from the definition of "rule" for "seasonal rules adopted annually or biennially relating to hunting, fishing, and trapping when there is a statutory requirement for the publication of the rules." Mont. Code Ann. § 2-4-102(11)(b)(iv). There are thus two elements that distinguish these rules from the type of "rule" subject to the formal rulemaking requirements of MAPA: (1) they must relate to "hunting, fishing, and trapping"; and (2) they must be adopted on an annual or biennial basis. It is this latter requirement that addresses Plaintiffs' concerns about circumvention of rulemaking.

A "rule" adopted pursuant to formal rulemaking operates like a statute: once promulgated, it remains in effect indefinitely. Indeed, once promulgated, the agency cannot just rescind the rule, because "the amendment or repeal of a prior rule" is itself a "rule" for which formal rulemaking is required. *See id.* § 2-4-102(11)(a). Thus, formal notice-and-comment rulemaking is important to ensuring public participation precisely because once the rule is enacted, it remains in effect with no further review.

By contrast, a "seasonal" hunting regulation does not remain in effect indefinitely. Even if parts of the regulations never change—and even if the current Commission's intention is that the regulations never change—the Commission must nevertheless re-adopt those changes at least every other year. If they do not, they cease to be in effect. Each time the Commission renews the regulations, it must comply with its own procedural rules and Montana open meeting laws to permit public comment on the hunting and trapping regulations. The Commission must do this whether the substance of the regulations is a

carryover from prior years or not. All issues are subject to debate and revision anew each cycle. And while the current Commissioners may wish certain regulations to remain in effect indefinitely, the Commission's membership changes over time, and there is no guarantee the next Commission to adopt seasonal regulations will support the work of their predecessors. In other words, the requirement for regular, periodic approval of regulations ensures regular public participation that compensates for the lack of formal notice-and-comment rulemaking.

To be sure, the Commission's regulations reflect—as they must—statutory mandates that do endure beyond any year. But that is no different from any of the other hunting, fishing, and trapping regulations the Commission issues, all of which implement the legislature's directives as codified in statute.

There is no dispute that the Commission's wolf hunting and trapping regulations remain in effect only for a single season and that they are adopted on an annual basis by the Commission. Indeed, that process has played itself out multiple times during the pendency of this case. Because the rules relate to hunting and trapping, and because they must be re-adopted annually or biennially or they cease to have effect, they plainly fall within the statutory exemption for seasonal hunting regulations. Accordingly, Plaintiffs' proposed revised Count VI fails to state a claim as a matter of law. Because it is futile, leave to amend Count VI will be denied.

B. Motion for Preliminary Injunction

Plaintiffs also seek a preliminary injunction to prevent the Department "from allowing the hunting and trapping of wolves pursuant to the 2025 Wolf Furbearer Trapping and Hunting Regulations." (Pls.' Notice of Mot.

for Temp. Restraining Order & Prelim. Inj., Dkt. 120 at 2.) The basis for the preliminary injunction is Plaintiffs' claim that the 2025 seasonal regulations have so liberalized hunting and trapping that allowing the season to continue will cause irreparable harm to the sustainability of gray wolf populations in Montana.[15] The Court will assess this argument in light of the standard set forth in Mont. Code Ann. § 27-19-201.

1. Likelihood of Success on the Merits

Plaintiffs have two active claims in light of the Court's holding above with respect to amendment of the complaint: (1) their preemption claim predicated on the impact of Montana's statutes and regulations on Yellowstone wolf populations; and (2) their *Held* claim. The request for a preliminary injunction focuses on the latter claim.

The Montana Constitution guarantees all Montanans an inalienable and judicially enforceable right to a "clean and healthful environment." Mont. Const. art. II, § 3. The State has a constitutional duty to "maintain and improve a clean and healthful environment in Montana for present and future generations." *Id.* art. IX, § 1(1). And the legislature has the specific duty to "provide adequate remedies for the protection of the environmental life support system from degradation." *Id.* art. IX, § 1(3). When they were adopted, these protections were intended to be "the strongest environmental protection provision found in any state constitution" and to be "both anticipatory and preventative." *Held v. State*, 2024 MT 312, ¶ 23, 419 Mont. 403, 560 P.3d 1235 (quoting *Park County Envt'l Council v. Mont. Dep't of Envt'l Quality*, 2020 MT 303, ¶ 61, 402 Mont. 168, 477 P.3d 288). The right is intended to "permit no degradation from the present

[15] Plaintiffs' brief in support also appeared to suggest a preliminary injunction was warranted because the Commission denied the public an adequate opportunity for participation at the meeting where it adopted the 2025 regulations. Plaintiffs represented at oral argument, however, that they are not proceeding on that claim.

environment and affirmatively require enhancement of what we have now." *Held*, ¶ 24 (quoting *Mont. Envt'l Info. Ctr. v. Dep't of Envt'l Quality [MEIC]*, 1999 MT 248, ¶ 63, 296 Mont. 207, 988 P.2d 1236). Moreover, its scope—in particular the requirement to protect the "environmental life support system"—is intended to be "all-encompassing, including but not limited to air, water, and land." *Held*, ¶ 23 (quoting *MEIC*, ¶ 67). State action implicating the right to a clean and healthful environment and the adequacy of the remedies the legislature has adopted to protect the environment from degradation are both judicially reviewable and enforceable. *MEIC*, ¶ 63.

Intervenors argue that the right to a clean and healthful environment focuses primarily on pollutants to the land, water, and air, and does not reach wildlife regulation. Echoing this Court's own analysis on the public trust doctrine (Op. & Order on Mots., Dkt. 101 at 7–13), Intervenors note the well-established proposition that the "protection and preservation of the state's wildlife is peculiarly within its police power and the state has great latitude in determining by what means are appropriate for protecting wildlife." *State v. Egdorf*, 2003 MT 264, ¶ 26, 317 Mont. 436, 77 P.3d 517 (quoting *Baldwin v. Fish & Game Comm'n*, 436 U.S. 371, 391 (1978)). Just as all exercises of the police power are subject to constitutional constraints, however, so too is the State's prerogative to manage wildlife. While the legislature may "impose such terms and conditions as it sees fit" to manage wildlife, this power may only be exercised "as long as constitutional limitations are not infringed." *State v. Jack*, 167 Mont. 456, 460, 539 P.2d 726, 728 (1975). Moreover, the Supreme Court has more expressly acknowledged that wildlife preservation does fall within the ambit of the Constitution's guarantees. In *State v. Boyer*, 2002 MT 33,

308 Mont. 276, 42 P.3d 771, the Supreme Court rejected a claim that a game warden's warrantless demand to inspect a fishing catch violated the fisherman's right to privacy. The court reasoned that any subjective expectation of privacy the fisherman had was not one society accepted as reasonable because of the constitutional mandate to regulate fish and game for the purpose of preserving them for future generations:

> Article IX, Section 1(1) of the Montana Constitution provides that "[t]he state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations." To safeguard Montana's wildlife for present and future generations, the Legislature provided for the appointment of game wardens to "enforce the laws of this state and the rules of the [D]epartment with reference to the protection, preservation, and propagation of game and fur-bearing animals, fish, and game birds." Such a system includes the ability of game wardens to inspect game in the field. It also encompasses proper licensing and specific game limitation requirements. Those who apply to the State for permission to harvest or remove Montana's natural game are on notice that they are rightfully subject to such regulations. **In summary, our Constitution, laws, and regulations mandate special considerations to assure that our wild places and the creatures that inhabit them are preserved for future generations.**

Boyer, ¶ 22 (emphasis added; internal citations omitted).

Additionally, the Supreme Court has repeatedly adopted an expansive view of the scope of the right to a clean and healthful environment. In *MEIC*, for instance, the Supreme Court declined to link the right to a clean and healthful environment only to that environmental degradation shown to be "conclusively linked to ill health or physical endangerment." *MEIC*, ¶ 77.

Reviewing the history of the Constitutional Convention proceedings, the court concluded that the delegates adopted the adjectival phrase "clean and healthful" to strengthen the guarantee, not to weaken or limit its scope. *MEIC*, ¶ 75. In *Held*, a constitutional challenge to the State's exclusion of consideration of greenhouse gasses in environmental impact review, the State made a similar argument to the one advanced by Intervenors: that the clean environment envisioned by the Framers was one free of pollutants to air, soil, and water. *See Held*, ¶ 26. The court rejected this argument, noting that even if the Framers did not specifically contemplate human-caused climate impacts, climate change was nevertheless "harming Montana's environmental life support system," bringing it within the ambit of the constitutional protection. *Held*, ¶ 30.

Similarly, Plaintiffs are likely to show that a sustainable wolf population in Montana forms part of the "environmental life support system" of the state. Wolves were, of course, native to the Northern Rockies prior to their 20th century extirpation. Crabtree summarizes the ecological benefits of wolves:

> In fact, local economies benefit from wolves for numerous reasons, and wolves play a crucial role in maintaining healthy ecosystems that humans rely on. Direct benefits include the suppression of overabundant elk, deer, and coyote populations which cause damage to livestock and crops; maintaining healthy game populations by culling out the weak and suppressing disease from spilling over from wildlife and humans; restoring vegetation that aids water quality, songbirds, and insect pollinators; making roads safer by reducing deer-vehicle collisions; and generating income and jobs (82-million-dollar economy around Yellowstone). Naturally formed larger packs, those that are not killed, enhance these benefits. Overall, wolves play an inordinately prominent role, being at the top of the food chain. Not even grizzly bears or polar bears can

> outcompete or defeat a pack of wolves. Small changes in wolf numbers have significant effects on species and processes further down the food chain.

(Crabtree Decl. ¶ 15, Dkt. 123 at 5–6.) To be sure, there are also negative impacts from wolves, particularly when their population gets too large: livestock depredation, harm to ranchers' and farmers' livelihood, elk depopulation, and safety risks for humans and domestic pets. Nevertheless, the point remains that Plaintiffs are likely to show that wolves are sufficiently integral to the ecosystem that their continued existence at a level sufficient to sustain their population in perpetuity and positively contribute to the ecosystem forms part of the "environmental life support system" of the state as contemplated by the Constitution.

The question, however, is not only whether the right to a clean and healthful environment includes the protection of a sustainable wolf population—it likely does—but also whether Plaintiffs are likely to show that the 2021 Wolf Statutes and the Commission's implementing regulations are likely to impinge on that right. This is an intensively factual question, and at this stage it is Plaintiffs' burden to show not only that they *might* prevail, but they are *likely* to prevail. Mont. Code Ann. § 27-19-201(3). Thus, if the Court simply cannot say who is likely to prevail, then Plaintiffs are not entitled to a preliminary injunction.

Here, the Court cannot say today who has the better of the argument. To prevail, Plaintiffs must show that the Commission's policies are (or will likely) diminish the health of the wolf population to an extent that it endangers their long-term sustainability or their positive contribution to the ecosystem of Montana. At this juncture, several facts stand in their way.

The preponderance of the available evidence in the preliminary injunction record suggests that wolves have proved remarkably resilient in the face of liberalized hunting. Accepting as valid the iPOM population estimates (more on that shortly), the wolf population in Montana has declined only modestly despite high quotas and greatly liberalized hunting and trapping regulations since 2021. Annual statewide harvest has only occasionally exceeded 300 wolves regardless of the quota established. Even though bag limits have expanded several times, few hunters take advantage of the entire limit; most fall far short. There is evidence of only a handful of kills attributable to use of night-time artificial aids, snares, or baiting. Plaintiffs speculate that these methods are likely to result in more hunting and trapping success than in the past, but they offer nothing concrete to support this conjecture.

Plaintiffs argue that the State establishes quotas so that they may be met, and therefore the Court should assume that they will be. The Court, however, cannot assume; rather, it must instead follow the available evidence. A quota is a ceiling, not a floor. The State could plausibly choose to regulate the public harvest without a quota at all, instead regulating the methods of permissible hunting or the length of the season to limit wolf mortality. Likewise, there is little reason to believe that just because the Commission authorizes 100 control removals that this number will be achieved. Control removals may only be effectuated under conditions established in statute and administrative rule. Livestock depredations—the main driver of these removals—has steadily declined, and conflict removals have declined as well. There is little reason to believe that 2025-2026 will be any different from the experience of recent years.

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The Department's argument that Plaintiffs misread the Department's wolf population projections is well-taken. The assumption that wolf populations will plunge to the 450-wolf threshold within one or two seasons requires the satisfactions of several unproven conditions: (1) that the 2025-2026 season will be markedly more lethal than other recent seasons; and (2) that the seasonal hunting regulations and corresponding wolf mortality will remain constant from season to season. Neither is a safe assumption, and neither has been proven at this stage.

Plaintiffs offer a valid criticism of the 450-wolf threshold. This appears to be derived from the federal criteria for delisting. The minimum necessary to avoid relisting of wolves, however, is not necessarily the same threshold necessary to protect wolves' contribution to the environmental life support system of the State. Additionally, vonHoldt's argument that managing to the minimum increases vulnerability to stochastic crashes (and makes error in wolf population estimates far more significant) is a sensible one that is not refuted by any of the Department's evidence.

Nevertheless, Plaintiffs also haven't proffered an alternative standard: they have not identified what benchmark is necessary to be assured that the constitutional guarantee of a clean and healthful environment is satisfied. That standard cannot be no hunting or trapping. The hunting and trapping of wild game is well ensconced in Montana's history and traditions, as it was at the time of the 1972 Constitutional Convention. Indeed, the voters later expressly added to the Constitution a provision requiring that the "opportunity to harvest wild fish and wild game animals is a heritage that shall forever be preserved." Mont. Const. art. IX, § 7. Thus, the clean and healthful environment guarantee cannot

plausibly be read to prohibit all hunting, fishing, and harvesting of a species simply because the species is charismatic or was once endangered. Moreover, the legislature has acknowledged broad authority in the area of wildlife regulation, and it has set a presumptively valid benchmark of 15 breeding pairs, which the Department determines to require 450 wolves. For this Court to conclude that this is too few, it must be able to define what is enough. Plaintiffs have not offered a means to do so.

Additionally, Plaintiffs have not persuaded the Court that they are likely to show that wolves are on the verge of irreparable injury based on current estimated numbers.

Perhaps Plaintiffs' most robust challenge to the status quo is found in its criticism of iPOM. Plaintiffs raise credible concerns about its methodology and Crabtree offers a detailed explanation of the reasons he believes the model is prone to over-estimation bias, the potential for static covariates to mask changes in population, and lack of replicability because some of the data and inputs into the model are inadequately disclosed. Some aspects of his critique are addressed, albeit not with the level of rigor and detail that would be necessary to assess who is likely correct. For instance, Kevin Podruzny mentions that they employ a false-positives model to help mitigate error from hunter misidentification or redundant reporting, but no details are provided about the model. (Podruzny Decl. ¶ 18.)

Likewise Molly Parks describes the types of data gathered by wolf specialists, but she does not describe with detail the method by which this data is used to determine centroid locations. In particular, the Court cannot determine if the centroid locations are indeed "hand marked" (as Crabtree describes it) or if there is some sort of mathematical, analytical, or algorithmic method of

determining centroid location with the available data. Given Crabtree's representations about the perils of even small errors with centroid location, the ability to measure uncertainty in centroid locations appears to be a significant matter to the accuracy of iPOM. The existing record does not allow the Court to assess this question.

Many of Crabtree's other criticisms—the presence of various forms of bias and potential deficiencies in the covariates employed—have not been addressed to date. The Gude and Podruzny declarations constitute the primary rebuttal to Crabtree, but they spend little time addressing these issues head-on. The only cited academic article is the original Sells 2022, which (by definition) does not address the subsequent criticisms of the Sells 2022 article. Gude responds to the Creel 2022 paper by assuring the Court that they have considered his points and outlined a response, but that outline was not provided to the Court. The remainder of Gude's declaration focuses excessively (in the Court's view, anyway) on the internecine squabbles over the Department's sharing of data, the quality of the journal in which Crabtree published, the tit-for-tat publicly disseminated essays on iPOM from 2023, and the dueling complaints about whether the Sells 2022 and Crabtree 2025 met standards for publication. It appears the Department wants the Court to find Crabtree to be aligned with Plaintiffs and thus not credible. The Court, however, is less concerned with whether Crabtree supports Plaintiffs than whether his science is correct. In general, the Court is more interested in assessing the objective soundness of each party's position than in refereeing the palace intrigues of academia.

Notably, this Court is not the only one to be concerned about whether the Department is taking the Creel and Crabtree concerns seriously. In

Center for Biological Diversity v. United States Fish and Wildlife Service, __ F.3d __, 2025 WL 2223573, at *24 (D. Mont. Aug. 5, 2025) (appeal pending), Wildearth Guardians is among the plaintiffs challenging the United States Fish and Wildlife Service's (USFWS) 2024 rejection of a petition to relist gray wolves in the western United States. The federal district court vacated USFWS's determination in substantial part because of its reliance on Idaho and Montana's population estimates. The court summarized the academic debate between Creel, Crabtree, and Sells, before concluding that USFWS failed to adequately respond to the concerns Creel (in particular) and Crabtree raise:

> The Service, however, dismissed both Creel (2022) and Crabtree (2023) in favor of Sells (2023). Sells (2023)[16] is responsive to Crabtree (2023). . . . However, Sells (2023) does not respond to Creel (2022)'s criticisms. And while the Service acknowledged Creel (2022)'s allegation of bias, it merely responded that "Montana has committed to increase monitoring intensity if harvest and population metrics indicate wolf abundance is significantly reduced," and that there are still "no published estimates of potential bias." In doing so, the Service once again avoided grappling with the substance of Creel (2022)'s criticism. "Just as it is not enough simply to invoke 'scientific uncertainty' to justify an agency action, it is not enough to invoke 'adaptive management' as an answer to scientific uncertainty." The Service failed to comply with the ESA by relying on Montana's wolf population estimates without addressing serious concerns regarding those estimates.

Center for Biol. Diversity, at *24 (internal citations omitted). Indeed, the district court commented that based on the evidence before it, "neither Idaho's [model] nor Montana's integrated patch occupancy model is well-suited for application on a smaller scale, i.e., an adaptive management level." *Id.* at *25.

[16] The Sells 2023 article cited by Judge Molloy has not been made part of the preliminary injunction record in this case.

As the Court observed at the preliminary injunction hearing, environmental measurement is a critical aspect of environmental protection. Perhaps the closest analogue to the right to a clean and healthful environment is the other "policy" right in the Montana Constitution, the right to a quality education. The two subject matters are obviously quite different, but the logic of the Supreme Court's application of the latter right carries over to the former. In *Columbia Falls Elementary School District Number 6 v. State*, 2005 MT 69, 326 Mont. 304, 109 P.3d 257, the Supreme Court upheld a decision finding that the system for funding public schools violated the Montana Constitution. The court observed that without having a definition of what a "quality education" means, "the legislature had no reference point from which to relate funding to relevant educational needs." *Columbia Falls*, ¶ 27.

Similarly, the wolf population of Montana cannot be managed to a level that is both sustainable "for present and future generations," Mont. Const. art. IX, § 1(1), and sufficient to avoid degradation of the "environmental life support system," *id.* art. IX, § 1(3), without an adequate reference point. Here, that means the State must have a reasonably good understanding of the current general health and abundance of the gray wolf population in Montana. Without that, the Commission cannot sensibly construct a public harvest or adopt other wolf population control measures that will manage the population without threatening its sustainability. The Creel and Crabtree critiques go directly to the question of whether the State now indeed has a reasonably good understanding of the state of gray wolf health in Montana.

Given the foregoing considerations Plaintiffs have raised serious questions on the merits of iPOM's accuracy and whether it is sufficiently reliable

to ensure wolf populations are adequately protected to comply with the Constitution. A showing of "serious questions," however, is no longer a sufficient means of obtaining a preliminary injunction. *See* Mont. Code Ann. § 27-19-201(4)(b) (2025) (forbidding courts from using a "serious questions test" to determine whether a preliminary injunction is warranted). Instead, Plaintiffs must instead demonstrate a "likelihood of success," which can be challenging to establish in the face of significant factual disputes. *See Stensvad v. Newman Ayers Ranch, Inc.*, 2024 MT 246, ¶ 24, 418 Mont. 378, 557 P.3d 1240, *superseded by statute as stated in Stephenson v. Lone Peak Preserve, LLC*, 2025 MT 148, ¶ 13, 423 Mont. 46, 571 P.3d 1042.

Ultimately, the Court cannot assess Plaintiffs' likelihood of success on the merits of their claim that iPOM is unreliable at the preliminary injunction stage. Despite the underwhelming response by the Department to the concerns of Crabtree and Creel, the reliability of iPOM is the subject of a heavily fact-intensive, technical, and complex debate. At this point, all the Court has before it are competing affidavits and a sprinkling of academic papers, all presented on a cold record. The clashes in the methodology are not presented with the sort of detail needed to evaluate them. Without the aid of adversarial testing and a more fulsome engagement of the issues, the Court (which is certainly not an expert in wildlife biology) is unequipped to say which side will ultimately prove correct. Because the Court cannot say whether Plaintiffs are likely to show iPOM to be reliable or not, Plaintiffs have necessarily not carried their burden of proof to establish a likelihood of success on the merits.

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2. Likelihood of Irreparable Injury

The second requirement of a preliminary injunction is that injunctive relief in advance of a conclusive determination on the merits must be necessary to avert likely irreparable injury. To establish this requirement, the applicant must show that "irreparable injury is likely, not merely speculative, I the absence of an injunction." *Montanans Against Irresponsible Densification, LLC [MAID] v. State*, 2024 MT 200, ¶ 15, 418 Mont. 78, 555 P.3d 759.

The Court is not persuaded that irreparable injury is likely to result without an injunction. Although there are serious concerns with the accuracy of iPOM, the record is insufficient at this stage to conclude that it is unreliable for the reasons already stated, and there are no competing estimates of wolf populations in the record. For its part, iPOM shows a wolf population that has remained fairly resilient in the face of increased liberalization of hunting and trapping. There are no other concrete indicators in the record of a currently plummeting wolf population—for example, abrupt drops in hunting and trapping yields, minimum counts from FWP personnel, or livestock depredations that could signal a rapidly shrinking population. Plaintiffs have not shown that hunting and trapping is likely to achieve anything near the quota established by the Commission; indeed, the Department's position seems preliminarily borne out by the harvest numbers reported to date on the Wolf Harvest Dashboard. In short, nothing suggests that the 2025/2026 season is likely to push wolf populations to an unsustainable level or cause them irreparable injury. Accordingly, Plaintiffs have not established a likelihood of irreparable injury.

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3. Balance of the Equities and Public Interest

Because this is an application for a preliminary injunction against the government, the Court considers the balance of equities and the public interest together. *Cross v. State*, 2024 MT 303, ¶ 53, 419 Mont. 290, 560 P.3d 637.

The balance of the equities does not favor an injunction. For the reasons set forth above, Plaintiffs have not shown that wolf sustainability is imminently threatened by allowing the season to go forward as planned. By contrast, a preliminary injunction in advance of a final merits determination comes with several substantial drawbacks.

First, in the absence of a demonstrated constitutional deprivation, a preliminary injunction would put the Court in the position of policymaker, second-guessing the judgments of both the Department's expert staff and the duly appointed members of the Commission. An injunction without a definitive showing of constitutional necessity would thus undermine the prerogatives of the executive branch.

Additionally, the hunting and trapping regulations have been adopted and published since August. Outfitters, hunters, and trappers have already made plans for the season in reliance on those regulations. An injunction would upset their settled plans and potentially cause those whose business depends on hunting and trapping economic injury.

Thus, the balance of the equities and public interest does not favor an injunction.

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CONCLUSION

For the foregoing reasons, Plaintiffs should be permitted to amend their complaint to directly allege the 2021 Wolf Statutes and the regulations implementing them violate the right to a clean and healthful environment. Plaintiffs should not be permitted to amend the complaint to allege the hunting and trapping regulations are void under MAPA because that claim is futile. Additionally, Plaintiffs have not demonstrated entitlement to a preliminary injunction.

Accordingly,

IT IS ORDERED:

1. Plaintiffs' Motion for Leave to Amend (Dkt. 109), filed March 10, 2025, is **GRANTED** in part and **DENIED** in part. Plaintiffs may file a Second Amended Complaint in conformity with this Opinion and Order.

2. Plaintiffs' Motion for Temporary Restraining Order and Preliminary Injunction (Dkt. 120), filed October 15, 2025, is **DENIED**.

DATED this 19th day of December 2025.

/s/ Christopher D. Abbott
CHRISTOPHER D. ABBOTT
District Court Judge

cc: Robert M. Farris-Olsen, via email
David K. Wilson, via email
Jessica L. Blome, via email
Susann M. Bradford, via email
Brian K. Gallik, via email
Henry J. Tesar, via email

Jeffrey M. Hindoien, via email
Alexander R. Scolavino III, via email
J. Stuart Segrest, via email

Matthew G. Monforton, via email
Gary R. Leistico, via email

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