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Working to protect and restore Western Watersheds and Wildlife

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VIA EMAIL (letter only) and HAND-DELIVERY (letter with attachments)

Re: Scoping Comments: Predator Damage Management in Idaho

Dear Mr. Grimm:

Please consider these comments from Western Watersheds Project, WildEarth Guardians, the Center for Biological Diversity, Friends of the Clearwater, Boulder-White Clouds Council, Wilderness Watch, and Animal Legal Defense Fund on the scoping notice for an Environmental Assessment for Predator Damage Management (PDM) in Idaho. Combined, our groups represent hundreds of thousands of members and supporters across the country who care about and support the protection of wildlife in Idaho.

Introduction

Wildlife Services has lost the trust of the American public and wildlife scientists over its controversial animal damage control activities on behalf of agribusiness interests. The Wildlife Services program has been marked by secrecy, controversy, public opposition, reprehensible employee behavior, stale and deficient environmental reviews, and indiscriminate killings of large numbers of animals, both target and non-target. A 2012 series in the Sacramento Bee discusses unreported killings, killings of family pets, injuries to people, unintended consequences, and unintended consequences. WS has reportedly killed over 46.5 million animals since 1996, including more than 52,000 reported unintentional killings in the last 10 years.¹

¹ See Center for Biological Diversity et al., Petition for Rulemaking Pursuant to the Administrative Procedure Act, 5 U.S.C. § 553(e), to the USDA for Promulgation of a Regulatory Scheme to Govern the Wildlife Services Program (Dec. 2, 2013) (attached).

The absence of any binding regulatory framework to govern its activities, a scathing [New York Times Editorial](#), harsh criticism of Wildlife Services' predator control programs by professional societies such as the American Society of Mammologists and The Wildlife Society, and a pending investigation by the U.S. Department of Agriculture Inspector General into Wildlife Services illustrate that the agency program has lost touch with American values and is entrenched in a 19th-century mindset of killing at the expense of American wildlife.

Given the repeated criticisms, investigations, and Congressional inquiries into the functions of this agency program, and the clear science demonstrating the importance carnivores play in healthy, functioning ecosystems, Wildlife Services should be suspending – not continuing or expanding – all predator control activities. The many recent Wildlife Services scandals show an agency program that is out of control, and one that fails to use the best available information or to serve the interests of the public-at-large, rather than the whims of a narrow constituency of special agricultural interests. These scandals only underscore why we have no reason to believe Wildlife Services' continued PDM program will be anything but detrimental to Idaho's spectacular wildlife and natural environment.

Background

Thank you for agreeing to conduct a new, statewide comprehensive analysis of Wildlife Services' predator damage management activities in Idaho as a result of the Notice of Intent to Sue sent to you by several of the undersigned groups on September 8, 2014.

Such an analysis is long overdue because the analyses currently in effect are outdated, extremely inadequate, and highly fragmented and piecemealed. They include:

- A 1996 Central and Northern Idaho Predator Control Environmental Assessment (EA), along with a subsequent 2004 finding of no significant impact (FONSI).
- A 1998 EA and FONSI for Bird Damage Management in Idaho, followed by an Amendment and FONSI in 2003 and again in 2006.
- A 2002 EA and FONSI for Predator Damage Management in Southern Idaho, with a "five year update" in 2007 and another FONSI in 2008.
- A 2004 EA and FONSI for Rodent Damage Management in Idaho.
- A 2011 EA and FONSI concerning Idaho wolf management.

An EIS is Required for the Entire Idaho PDM Program

The National Environmental Policy Act (NEPA) requires agencies to prepare an Environmental Impacts Statement (EIS) for "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). An agency may avoid an EIS only if the action will have no significant impact. 40 C.F.R. § 1508.9(a), 1508.13. The NEPA regulations list ten factors that help determine whether an agency action "may" cause significant impacts and therefore require an EIS. 40 C.F.R. § 1508.27(b). The

factors include: effects that are “highly uncertain or involve unique or unknown risks” or “likely to be highly controversial,” *id.* § 1508.27(b)(5), (4); “[u]nique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, [] wetlands, [] or ecologically critical areas,” *id.* § 1508.27(b)(3); “[t]he degree to which the action . . . may cause loss or destruction of significant scientific, cultural, or historic resources,” *id.* § 1508.27(b) (8); and the presence of cumulative impacts, *id.* § 1508.27(b)(7). The presence of even just “one of these factors may be sufficient to require preparation of an EIS in appropriate circumstances.” *Ocean Advocates v. U.S. Army Corps of Engineers*, 402 F.3d 846, 865 (9th Cir. 2005).

An EIS is clearly required for Idaho WS’s entire PDM program (including wolves and all birds, which WS claims it does not need to include). Numerous significance factors are triggered. As demonstrated by the science, petitions, and articles summarized herein and attached, killing carnivores and other wildlife is highly uncertain, risky, and extremely controversial—both scientifically and publically. It also involves scores of unique areas such as designated Wildernesses, Wilderness Study Areas, and streams. WS blows up beaver dams in streams around the state, even those containing bull trout protected under the Endangered Species Act (ESA). As described herein, the PDM program creates serious cumulative impacts on a range of species and on Idaho’s environment, including trophic cascades.

The 2011 Idaho WS Wolf EA is substantively inadequate, now outdated, and inextricably intertwined with the rest of WS’s PDM program. It is now outdated because new science has revealed that private hunting and trapping, combined with WS’s wolf-killing activities, has taken a far higher toll on wolves than expected. WS must prepare a coherent statewide EIS on its entire PDM program, including wolf killing.

Moreover, Idaho WS cannot tier to the 1994/1997 Nationwide Programmatic EIS (PEIS). Tiering is only permissible if the tiered-to document *actually analyzed* the impacts in question. *See Te-Moak Tribe v. U.S. Dep’t of the Interior*, 608 F.3d 592, 605 n.13 (9th Cir. 2010). The PEIS utterly fails to do so. It is extremely out-of-date and contains no discussion of modern carnivore or beaver science, trophic cascade effects, current social science, evolving attitudes about predators, current status of special-status species, or cumulative impacts of private hunting and trapping, among many other environmental impacts of PDM. For example, recent social science has found that increased hunting did not lead to improved public acceptance of wolves, but actually to decreased acceptance. Hogberg et al, *Public Attitudes towards Wolves in Wisconsin: 2013 Survey Report* (2013) (attached). The inadequacies of the PEIS are explained in detail in an attached report, *Demand for Immediate Supplementation of the 1994/1997 Animal Damage Control PEIS* (WildEarth Guardians 2009).

Purpose and Need

Wildlife Services’ Invitation for Public Involvement describes a need to continue its PDM activities in Idaho based on several reasons. The first is a stated need to protect agricultural resources—in particular, livestock.

WS implies that livestock are an extremely important economic driver in the state by stating that they form 53% of total farm commodity receipts. It implies that predators, in particular coyotes and wolves, are responsible for a great deal of depredation: about 25% of losses to sheep and lambs, valued around \$1.5 million. It notes that losses are not distributed evenly, and that impacts on individual producers can be substantial.

These statements on agriculture and livestock are extremely misleading and rely on several incorrect assumptions.

WS vastly overestimates the contribution of agriculture in general, and particularly livestock, to the state's economy. We have attached several State of Idaho economic documents that illustrate these errors.

The 2013 State of Idaho Employment Profile (attached) states that there were only 23,731 agriculture jobs out of 631,019 covered jobs in the state in 2013, or about **3.8% of Idaho jobs**. Several of the other economic attachments provide slightly varying figures, but they are all in this ballpark.

WS fails to distinguish between feedlots, dairies, and public lands grazing, instead lumping all together as livestock. Public lands grazing, the focus of WS's efforts, encompasses but a small fraction of total livestock. There are about 1,750 public land ranchers in the state who provide about 1,500 jobs (many ranches are too small to support even one employee). Therefore, public lands ranching, the heavy focus of WS PDM activities, provides only a small fraction of the agriculture jobs in the state, and miniscule fraction—perhaps 1/500th—of all jobs in Idaho.

Even in rural areas, agriculture in general and livestock in particular provide far fewer jobs than WS implies. The Custer County Soil and Water Conservation District Five-Year Resource Conservation Business Plan for July 1, 2015-June 30, 2019 states that agriculture only provided **2.4% of all jobs** in the county, for a ranking of 9th. Livestock and public lands livestock are but (unquantified) fractions of this 2.4%. So, even in one of the most ranched counties in Idaho—and one in which WS conducts a great deal of predator killing—the percentage of ranching jobs is very small indeed. The ranked list is as follows:

Custer County Employment 2013

1. *Government 30%*
2. *Mining 23%*
3. *Leisure/Hospitality 15.50%*
4. *Trade/Utilities/Transportation 15.50%*
5. *Education and Health Services 4.3%*
6. *Financial 3.5%*
7. *Construction 3.1%*
8. *Professional and Business Services 2.6%*

9. *Agriculture 2.4%*
10. *Information 2%*
11. *Other 1%*

Custer County Plan at 16.

WS fails to discuss the far more significant contributions of wildlife, recreation, and tourism to the economy of Idaho—industries which the PDM program harms. As a 2012 letter to WS from the American Society of Mammalogists (attached) notes, “millions of citizens generate over \$100 billion in economic activity to observe native wildlife in its native habitats (Leonard 2008), especially on our federal public lands, where much of WS’s work is conducted. Wolf watching alone has been estimated to generate \$70 million annual economic impact on the Greater Yellowstone Area (Stark 2006).” According to Bergstrom (2013), Americans spend \$55 billion and generate over \$100 billion in economic activity on nonconsumptive uses of wildlife in native habitats, especially on federal public lands. The EIS must contain an accurate discussion of livestock and public lands ranching jobs, as well as recreation and other wildlife-related jobs.

WS also implies that native carnivores have a far greater impact on livestock than is accurate. Numerous reports have shown that livestock losses due to coyotes and other native carnivores are relatively low when compared to other causes. Hebblewhite (2011) (attached) discredits a study claiming that recolonizing predators increased livestock calf mortality, finding bias in favor of livestock producers caused spurious results, and that in fact, effects from wolves and grizzly bears were very minor. National Agricultural Statistics Service surveys repeatedly find that bad weather, calving problems, and illness kill far more livestock than native carnivores. *See Coyotes in our Midst* (2005) at 12 (summarizing several NASS reports and noting that in 2000, native carnivores were responsible for the loss of 0.15% of the cattle/calf population nationwide). The EIS must contain an accurate, unbiased description of carnivore impacts upon livestock, as well as a discussion of public lands livestock grazing’s heavily subsidized fee compared to private lands, a subsidy which was set in part to account for increased losses on public lands.

Further, WS’s simplistic purpose statements regarding livestock protection fail to acknowledge the growing body of science finding that predator damage management is not only ineffective, but may actually serve to *increase* the risk of livestock depredation. This research is discussed in more detail below. Thus, contrary to WS’s assumptions, non-lethal methods may be more effective at reducing livestock depredations in the long-term. The purpose and need statement must accurately reflect the science demonstrating that lethal PDM is ineffective.

The additional justifications given for PDM are likewise misleading, unsupported, and incomplete. For example, WS describes damage to property, although it admits that in recent years the average annual loss to property per year was merely \$4,849. WS fails to disclose how much it costs to run its PDM program in general, or its property damage

management program in particular. It is most likely far more than this each year. WS fails to explain whether and why such paltry damages justify a far more expensive program of control. Such a cost-benefit analysis must be included in the EIS. What is the perceived need to poison hundreds of thousands of starlings at feedlots each year? What are the alternatives?

Overall, WS fails to acknowledge that a program that has killed millions of native mammals, including many protected species, is utterly out of touch with the changing values of America. *See* Bergstrom (2013) (summarizing kills over the years). Bergstrom concludes that WS predator damage management's "survival into the 21st century defies the consensus among ecologists that significant reductions in local populations of native primary consumers and apex predators has had far-reaching consequences on primary production, nutrient flows, disease incidence, and biodiversity at all levels and at all spatial scales." *Id.* (citing literature). Please analyze available literature on these changing values in America including information attached.

WS describes damage to public safety, but fails to describe the significant risks to public safety created by its PDM activities. As described in more detail below, aerial shooting, trapping, and poisoning create numerous public safety risks to humans, domestic and companion animals, and other wildlife. WS must conduct an analysis of whether the minor public safety risks from wildlife outweigh the real risks from the PDM program.

Alternatives

We welcome the inclusion of the following alternatives as stated in your scoping document: Provide Technical Assistance Only, Provide Nonlethal PDM Only, and No Federal PDM by Idaho WS. Please note that the "no action" alternative should be no federal PDM, considering it is a project without current NEPA coverage, which cannot continue without new authorization. Nor should that alternative blithely assume that some other entity would assume WS's activities. Rather, it should assume that WS's agricultural constituents would find other nonlethal methods to deal with their perceived predator problems, and analyze the consequent ecological restoration of targeted species populations and ecosystem function. The consideration of alternative requirement ensures that agency decisionmakers "[have] before [them] and take[] into proper account all possible approaches to a particular project (*including total abandonment of the project*) which would alter the environmental impact and the cost-benefit balance." *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228 (9th Cir. 1988) (citing *Calvert Cliffs' Coordinating Committee, Inc. v. United States Atomic Energy Comm'n*, 449 F.2d 1109, 1114 (D.C. Cir. 1971) (emphasis added)). Lack of a no action alternative may prevent consideration of the environmental baseline as NEPA requires. *Half Moon Bay Fishermans' Marketing Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988).

Further, to accurately assess the biological and environmental significance of future WS operations, WS cannot just start with the existing baseline conditions, but must also "provide adequate analysis about how these [past] projects, and differences between

the projects, are thought to have impacted the environment” in order to understand the significance of future operations. *Lands Council v. Powell*, 395 F.3d 1019, 1028 (9th Cir. 2005) (citations omitted); *see also Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 809-10 (9th Cir. 1999) (noting that impacts of past agency actions are to be regarded as cumulative effects, not baseline conditions). In this case, the impacts of decades of WS PDM must be analyzed.

We also request an alternative consisting of no federal PDM on federal public lands because of the increased public interest, wildlife habitat values, and recreational conflicts on public lands. This alternative would potentially allow WS to only provide lethal control on private land when contacted by the landowner. This analysis should consider the economics of public lands livestock grazing and how it would survive without WS. An alternative analyzing no federal PDM in Wildernesses or Wilderness Study Areas is also necessary due to the incompatibility of PDM with the governing mandates of those areas, as described in more detail below. The analysis must also seriously consider ending public lands livestock grazing, and the subsequent restoration of western ecosystems and lack of need for PDM. “Simultaneously restoring apex predators and retiring livestock grazing on these lands hold promise for restoring western ecosystems and mitigating the likely effects of climate change (Beschta et al. 2013), but such restoration is inhibited in part by a legacy of predator and rodent control on these lands.” Bergstrom (2013) (citing literature).

Unlike the analyses in WS’s existing NEPA documents, all alternatives must be given a full and fair evaluation. As described in detail below, this requires a full and fair evaluation of the ecological role and baseline conditions of every species targeted for or vulnerable to PDM. It also requires a detailed analysis of the countless valid alternatives to lethal PDM that have been developed in recent years, including but not limited to fladry, solar powered electric fencing, use of calving barns, noise for preventing livestock protection, “livestock husbandry” (coordinated birthing schedules, birthing pens, etc), and strict requirements to remove dead livestock. Breck et al. (2011) (attached) concludes that “changing husbandry practices to limit calving to a seasonal endeavor and that performance payment may be a better compensation strategy than ex post compensation schemes.” For beavers, please analyze the use of “beaver bafflers” (submerged, perforated pipes) for use in preventing beaver dams in culverts. *See Suggestions in changing Wildlife Services range from new practices to outright bans* (The Sacramento Bee, May 6, 2012)(attached).

The description and analysis of the proposed action must also contain far more information than prior analyses, as described in more detail below. This requires a full and fair evaluation of the ecological impacts of the removal of every species targeted for PDM, as well as non-target species likely to be affected and indirect impacts of materials used in PDM such as lead shot and poisons. It also requires a full and fair evaluation of the direct and indirect consequences of PDM methods.

For example, how often are traps and snares checked? Does WS follow the state of Idaho rule on checking traps every 72 hours, or something more strict, and how are

such rules enforced? Where are each type of traps placed—on both private and public lands, and are there any restrictions on distances from roads or trails? How often are M-44 sodium cyanide capsules checked? Where are they placed—on both private and public lands, and are there any restrictions on distances from roads or trails? How are impacts of PDM tracked and monitored? Is it possible for animals killed by M-44s to leave the bait site and be uncounted?

Scientific monitoring is critical to determine whether methods are effective. Does WS conduct any population monitoring of targeted or affected species or their alternate natural prey? Does it determine whether WS killing is additive with other causes or mortality? Will Wildlife Services improve its record keeping and provide that data to the public?

The Role of Carnivores in Ecosystems and Ecological Risks of Removal

The EIS must include an up-to-date discussion of the role of carnivores in ecosystems and the environmental impacts of their removal. As described in an attached report, War on Wildlife, carnivores have many complex and positive effects on the ecosystem, and their removal has many harmful impacts. War on Wildlife at 13-34. As described in Bergstrom (2013):

[L]eading ecologists have concluded that many of the world’s pandemics, irruptions of undesirable species and collapses of desirable ones, and destabilization of ecosystems, resulting in lost ecosystem services, have been caused by the loss of apex predators (Estes et al. 2011) and of important small native herbivores (Delibes-Mateos et al. 2011).

Numerous recent studies discuss the concept of trophic cascades and how carnivore removal significantly alters native plant communities, wildfire, biogeochemical cycles, invasive species, and more. *E.g.*, Beschta, R.L., Ripple, W. J. Large predators and trophic cascades in terrestrial ecosystems of the western United States. *Biol. Conserv.* (2009); Estes et al. Trophic downgrading of planet earth. *Science* (2011) (attached). A recent study documented a trophic cascade on plant communities (including increased forb richness) following wolf reintroduction in Wisconsin. Callan et al. 2013 (attached). The EIS must thoroughly analyze this concept, including what effect reduced carnivore populations causes on other species and the health of ecosystems in Idaho.

Coyotes have been found to play an integral role in maintaining the health and integrity of a variety of native ecosystems. Coyotes can have a “top-down” effect on ecosystems, primarily by regulating the numbers of smaller predators, such as foxes, raccoons, skunks, and feral cats through competitive exclusion and direct killing. Studies have found that “changes in predator communities may have cascading impacts that facilitate the emergence of zoonotic diseases” such as Lyme disease. Levi et al. 2012 (attached). Please analyze these issues and whether they are occurring in Idaho.

A recent white paper by Dr. Robert L. Crabtree summarizes the complex social

and ecological effects of killing coyotes. Project Coyote (2013) (attached). He explains that “[i]t cannot be over-emphasized how powerfully coyote populations compensate for population reductions.” He summarizes the effects of coyote control in the following points:

Demographic Compensation: (this is a particularly strong response for coyote populations because the primary reason they kill ungulate neonates, both domestic and wild, is to feed fast-growing pups)

- Breeding adults produce more pups when there is direct reduction in territorial pack size. There is a weak to negligible effect on litter size at birth; however, the compensatory response of litter survival is remarkable. For example, prior to wolf restoration, adult coyote mortality averaged only 9%, pack size was 6, and litter survival was 28%. After wolf restoration, adult coyote mortality increased to 30% to 50%, pack size fell to 3, and coyote pup survival abruptly rose to 78%—a nearly three-fold increase. Analysis from 20+ field studies indicated a similar response to human exploitation.
- Immigration of breeding adults into the exploited area to fill vacant territories and find available mates. This response can be immediate. . . .
- A higher percentage of females breed and produce pups. Two litters per territory can also occur with abundant/available prey.
- The average age of reproductive females is lowered, eliminating older, less productive alpha females. First-time breeders (young alphas) have higher pup survival than older breeding pairs.
- Increased natal philopatry—yearlings and young betas tend to forego dispersal and continue to reside in the exploited area.
- Regardless of the level of exploitation, the number of breeding pairs in a target area is consistent from year to year unless 70% or more of the coyote population is removed annually. This level of control is extremely difficult and costly to achieve let alone document.

Behavioral Responses:

- Lower pack size results in selection of larger prey items (e.g., ungulate neonates) over more numerous small prey items (e.g., rodents). This is particularly detrimental to livestock when alternate prey abundance is low which is often due to overgrazing practices.
- Adjust vocal communications—less vocal around humans.
- Activity cycles—more nocturnal and less diurnal.
- Denning behavior (guarding and location)—less susceptible to enemies.
- Avoidance of novel stimuli including control techniques. Perceived avoidance of sustained control activities.

Changes in Coyote Culture/Society:

- Increases in information sharing within and between new territorial pack members; this leads to increased exposure to novel prey (livestock).
- Because there is a strong shift to fewer subordinates—betas are immediately recruited to alpha breeding status—livestock-killing alpha adults are predominant

in the population structure.

- Killing the alpha male results in immediate replacement or the remaining pack breaks apart and disperses to form breeding pairs elsewhere.
- Indiscriminate control methods have accelerated and amplified selection pressures to perpetuate a ‘dispersal genotype’ adapted to rapidly colonize and successfully reproduce. Remember that during the predator eradication era (approximately 1860’s to 1960’s), large carnivore populations declined substantially (with regional extirpation) while coyotes tripled their abundance and distribution across North America.
- Their cultural evolution likely interacts with their biological evolution to further accelerate and amplify selection pressures.

Ecological Impacts:

- Mesopredator release: Decrease in apex predator populations reduces the competition and/or intraspecific killing rates with other predators or mesopredators (e.g., foxes, raccoons, skunks, feral cats, etc.). This causes an increase in their abundance (i.e., release), which in turn, can have detrimental effects on other species (e.g., groundnesters, songbirds, amphibians, and rodents) and other unintended ‘ripple’ effects or trophic cascades.
- Loss of ecosystem services: alleviation of control pressures on prey populations (e.g., rodents, large herbivores) can lead to vegetation changes.
- Loss of ecosystem services: Disruption and increase of disease spread.
- Loss of ecosystem services: Loss of subsidies to scavengers (e.g., wolves provides food for many other species).

Project Coyote (2013) at 5-7. Dr. Crabtree concludes that there is little, if any, scientific basis to justify control programs that indiscriminately target adult coyotes. In fact, the science suggests that widespread control (even selective control) increases immigration, reproduction, and survival of remaining coyotes. WS must analyze this science in its EIS.

The Role of Beavers in Ecosystems and Ecological Risks of Removal

According to its recent 2013 BA, Idaho WS currently conducts an extensive beaver dam breaching program, detonating with explosives or otherwise removing about 100 dams every five years. It also traps dozens of beavers in the state every year.

The EIS must describe baseline levels of beavers in Idaho and population trends over time, and contain an analysis of the role of beavers in the ecosystem. The beneficial impacts of beavers to ecosystems and many species including listed salmonids are summarized in a report titled Beaver and Climate Change Adaptation in North America (attached).

The EIS must then analyze the myriad direct and indirect environmental impacts on the environment of their removal, including on beaver populations, stream conditions, amphibians (including Columbia spotted frog), and fish species (including ESA-protected species such as bull trout, salmon, and steelhead). The benefits of beavers to western

ecosystems are well documented and include stabilizing streams, slowing snowmelt runoff, capturing sediment, and increasing large woody debris in streams. *Id.* These effects are particularly beneficial to fisheries; beavers can create fish habitat where no suitable habitat previously existed. *Id.* at 23-24 (citing literature). They can increase low flows and make intermittent streams perennial. *Id.* at 24. Beaver ponds are important refugia for fish during drought times and winter, and critical rearing habitat for juveniles. *Id.* (citing literature). Science also indicates beaver presence improves water quality. WS must address and incorporate these issues.

The Efficacy of Predator Damage Management

Numerous studies call into question WS's traditional assumption that killing carnivores effectively protects commercial livestock and ungulates over the long-term. This science must be considered in detail, as it deeply undermines the very reason for most of WS's programs (if not its very existence).

For example, in a very recent study, scientists studied the effects of wolf mortality on livestock depredations in Idaho, Montana, and Wyoming over a 25-year time period from 1987 to 2012. Wielgus & Kaylie (2014) (attached). They collected numbers of livestock depredated, livestock populations, wolf population estimates, number of wolf breeding pairs, and wolves killed through control methods. The data demonstrated that as the number of wolves killed increased, the number of livestock depredations the following year also increased. In other words:

[T]he number of livestock depredated the following year was positively, not negatively, associated with the number of wolves killed the previous year. The odds of livestock depredations increased 4% for sheep and 5-6% for cattle with increased wolf control – up until wolf mortality exceeded the mean intrinsic growth rate of wolves at 25%.

The researchers hypothesized that increased wolf removal may lead to increased social disruption and pack instability, which may result in reduced effective prey use through loss of knowledge and ability. As Wielgus and Peebles put it, “[w]e do not yet know the exact mechanism of how increased wolf mortality up to $\leq 25\%$ results in increased livestock depredations, but we do know that increased mortality is associated with compensatory increased breeding pairs, compensatory number of wolves, and depredations.”

Numerous other studies report similar findings. A study conducted in Minnesota concluded that “no analysis indicated that trapping wolves substantially reduced the following year’s depredations at state or local levels.” Harper et al. (2008). A Wildlife Conservation Society paper “assessed the efficacy of long-term efforts by the U.S. government to improve the viability of the sheep industry by reducing predation losses.” It found that “government-subsidized predator control has failed to prevent the decline in the sheep industry and alternative support mechanisms need to be developed if the goal is to increase sheep production and not simply to kill carnivores.” Berger 2006 (attached).

A years-long study using telemetry monitoring of 930 radio-collared calves at two high-risk predation sites occupied by Mexican gray wolves suggested that the most important factors in determining depredations were duration of extent of exposure of stock to predators and husbandry techniques, such as limiting calving to a seasonal endeavor (Breck et al. 2011). Indeed, confirmed depredations in recent years in the Mexican wolf reintroduction program demonstrates, if anything, an overall positive correlation between wolf removals for depredations and additional depredations the following year.

One possible contributing factor is that livestock owners who oppose the presence of wolves but who are reimbursed for depredations may not be motivated to take practical measures to protect livestock, knowing that depredations will result in wolf removals.² Please analyze this phenomenon when people take more risks when they do not bear the risk of harm, also known as a “moral hazard.”

Further analysis by other researchers in the United States and Canada “does not support the notion that removal of wolves at current intensity reduces depredation, immediately or in the following years.” Musiani et al. (2003). Other studies have shown that “killing carnivores may be a reciprocally self-cancelling action, as reducing wolf populations causes “mesopredator release” and increases coyote predation. Prough et al. 2009.

A recent Idaho study found that while killing predators is often posed as a solution to depressed ungulate populations, “predator–prey dynamics are complex and the effect on prey populations is often an interaction of predator life history, climate, prey density, and habitat quality.” Hurley et al. 2011 (attached). It found that “[c]oyote removal decreased neonate mortality only when deer were apparently needed as alternate prey, thus removal was more effective when lagomorph populations were reduced,” and “detected no strong effect of coyote or mountain lion removal alone on mule deer population trend.” Instead, winter severity was the most important influence on population growth. It concluded that “*benefits of predator removal appear to be marginal and short term in southeastern Idaho and likely will not appreciably change long-term dynamics of mule deer populations in the intermountain west.*” (emphasis added). Please analyze this and related studies in detail, particularly if WS plans to do (or cooperate in) any predator control to supposedly help ungulate populations in Idaho—as it has done for years in the Lolo Zone.

New science questions the efficacy of predator control to help sage-grouse. It is doubtful that sage-grouse would ever derive any measurable benefit from predator

² This phenomenon was documented in High Country News, in which a ranch hand was quoted boasting about bringing a cow about to give birth to the vicinity of a wolf den and branding her there to create an olfactory lure through the blood attendant to branding. When the cow and her newborn calf were killed that night by wolves, Wildlife Services then killed a wolf (J. Dougherty. 2007. “Last Chance for the Lobo.” High Country News, 12/24/2007).

control programs. Scientific findings are unanimous in reporting that while predation is an important cause of sage-grouse death and reduced nesting success, it only poses a threat in habitats where human-caused disturbance and habitat fragmentation have upset the natural balance (Bui et al. 2010, Dzialek et al. 2011). By introducing fences and tall structures into key sage grouse habitats, human development creates unnatural perches and nesting sites for ravens and birds of prey, leading to unnatural levels of predation on resident grouse (Prather 2010). By fragmenting habitats with roads, pipelines rights-of-way, and other linear disturbances, and adding unnatural food sources in the form of dumps, development in sage-grouse habitats increases the vulnerability of grouse (Kristan and Boarman 2007, Nonne et al. 2011). Blomberg et al. (2012) evaluated the demographics of sage grouse in central Nevada, and indicated that populations were controlled strongly by habitat factors, rather than predation. Predation has not been documented to limit sage grouse populations, and therefore there is little scientific support for predator control programs (Hagen 2011). Thus, the only “science-based” predator control program that would be effective would be to eliminate human disturbances in sage-grouse habitats, by closing dumps that attract ravens, dismantling fences and powerlines that provide perches for predators, and restoring roadways that fragment sagebrush habitats.

Predator killing programs that focus on larger predators like coyotes often result in an increase in smaller predators that are released from suppression, and these predators (such as foxes and skunks) may pose a far greater problem for sage grouse populations than coyotes, which are poor grouse predators (Mezquida et al. 2006). And even when killing programs focus on the most important sage grouse predators, they can result in an increase in predator populations when social structures break down and all predators – not just the dominant animals – start breeding. Finally, predator populations quickly rebound to their original levels once there is a break in predator “control” efforts. Thus, predator killing programs will never be a long-term solution that helps restore sage grouse populations.

Predation can be a proximate factor influencing sage-grouse nest success and brood survival (Connelly et al. 2000b). Bui et al. (2010) found that human activity and industrial development could result in increased raven activity. Ingelfinger and Anderson (2004) documented that ravens commonly nest on wellfield structures, and that oil and gas development was associated with increased raven populations. Livestock grazing reduces grass height, negatively affecting sage grouse hiding cover, which can have a significant effect on nest and chick survival (Gregg et al. 1994, Watters et al. 2002, Kolada et al. 2009, Doherty et al. 2014). Madden et al. (2015) reviewed the scientific literature and determined that predators have a negligible impact on sage grouse populations. Furthermore, Mezquida et al. (2006) found that predator control programs potentially result in increased predation on sage grouse. The Service, to date, has applied the best available science to inform state and local governments and groups that focusing efforts on predator control programs will do little to influence sage grouse population dynamics, and instead pointing to the need to focus on maintaining and improving habitat conditions (*see* Aldridge and Brigham 2003).

The Sage-Grouse Monograph confirms that there is little evidence to support broad-scale predator control. Hagen, C. A. 2011. Predation on Greater Sage Grouse: facts, process, and effects. Pp. 95–100 in S. T. Knick and J. W. Connelly (editors). Greater Sage-Grouse: ecology and conservation of a landscape species and its habitats. Studies in Avian Biology (vol. 38) (attached).

Finally, WWP has documented in prior comments to you that conditions in the specific areas proposed for predator control to benefit sage-grouse in Idaho were suffering from serious adverse livestock grazing impacts, resulting in the removal of vegetative cover vital to sage-grouse, among other effects. Thus, removing livestock and livestock infrastructure (including fences and troughs) and allowing for restoration could have equally significant or better impacts on grouse protection. Please consider these issues in detail in determining whether predator control to allegedly benefit sage-grouse makes any sense.

Direct, Indirect, and Cumulative Impacts of WS Wolf-Killing on Wolves, Wolf Populations, and the Ecosystem

The wolf population in Idaho has markedly declined, and appears to be continuing to decline, since hunting and trapping wolves was legalized. According to the *2013 Idaho Wolf Monitoring Progress Report*,³ wolf populations in Idaho have declined approximately 25% since 2009 when the population was estimated at approximately 870 wolves.⁴ The estimate for the Idaho wolf population was 659 at the end of 2013 (see Figure 4 pasted below, from *2013 Idaho Wolf Monitoring Progress Report* at p.8). Considering the publically reported numbers of wolves killed in the 2014/2015 hunting and trapping season⁵ is keeping pace with, but at a slightly lower level, the 2013/2014 season, it is likely that the 2014 annual report will record additional declines in the Idaho wolf population.

³ Idaho Department of Fish and Game and Nez Perce Tribe. 2014. *2013 Idaho wolf monitoring progress report*. Available at <http://fishandgame.idaho.gov/public/docs/wolves/reportAnnual13.pdf>

⁴ While the graph included with the *2013 Idaho wolf monitoring progress report* indicates that the 2009 population estimate was 856 wolves, the *2010 Idaho wolf monitoring progress report* revised the estimate upward to 870 wolves.

⁵ 2014-2015 Hunting / Trapping Season, Idaho Fish and Game, available at <http://fishandgame.idaho.gov/public/hunt/?getpage=121>

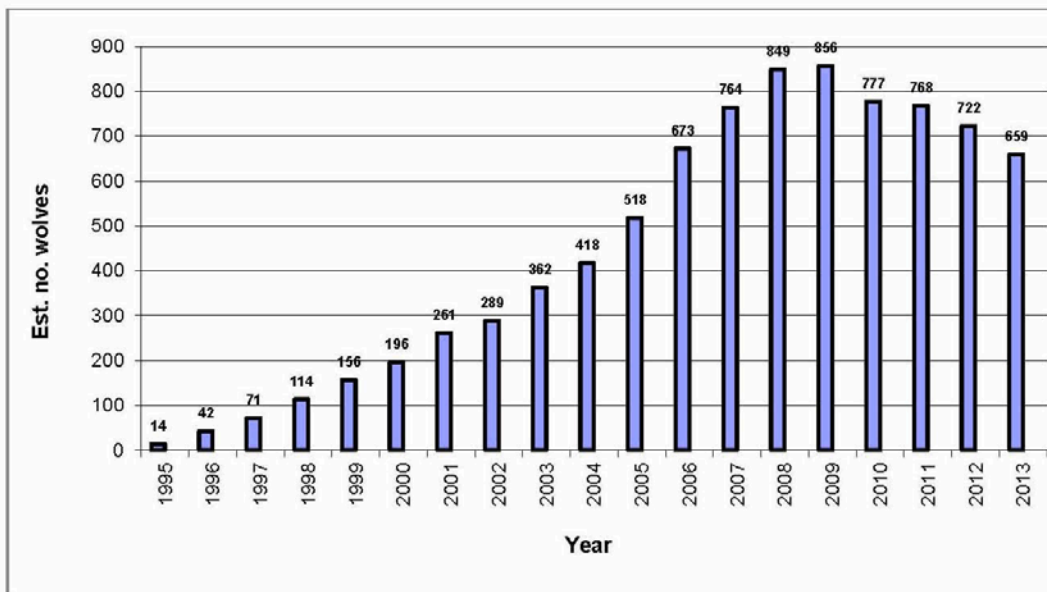


Figure 4. Estimated number of wolves in documented packs, other documented groups, and lone wolves in Idaho at year-end, 1995-2013. Not all packs were presumed documented. Annual numbers were based on best information available and were retroactively updated as new information was obtained. See Appendix A for population estimation method.

Indeed, a IDFG *Overview and Wolf Status Update*⁶ that will be presented to the Idaho Fish and Game Commission on January 22, 2015, indicates that monitoring of wolves is becoming increasingly difficult due to hunting and trapping activities. Wolf packs are increasingly becoming smaller and more numerous but confirmation of breeding pairs is becoming more difficult. It is getting much more difficult for the IDFG to confirm the required minimum number of breeding pairs. The report estimates only 15-25 packs. According to the USFWS final rule, if the number of breeding pairs drops below 15 for 3 consecutive years then there is a status review. If the number of breeding pairs below 10 breeding pairs then there is a status review.

The impacts of WS killing, in conjunction private hunting and trapping, are almost certainly significant in causing this decline. WS conducts extensive wolf-killing, which must be described in detail. For example, WS has cooperated with IDFG in a series of aerial gunning missions in the Lolo hunting zone over the past decade, which have killed dozens of wolves. IDFG reported killing 23 wolves in 2014, 14 in 2012, and more in 2011. Please review all of these incidents, including WS's involvements, the methods used, and the numbers killed. Please describe in detail how many wolves WS has killed or cooperated in the killing of, statewide, at least over the past decade.

⁶ Overview and Wolf Status Update – Jim Hayden, Staff Biologist and George Pauley, Regional Wildlife Manager. January 22, 2015 (attached). Also available at http://fishandgame.idaho.gov/public/about/commission/2015/01_January/15_Wolf_Update.pdf

The EIS needs to thoroughly analyze any perceived justification for this type of killing (presumably related to elk), the environmental impacts of the killing, and whether the killing even worked to meet its perceived justification. As described above, science indicates otherwise. What monitoring has been done to see if the killing has even had any impact on elk populations? It must review the science indicating that elk numbers are going down for habitat reasons, and that they are likely to continue to go down.

The EIS must analyze the impacts of WS killing on the wolf population along with impacts from other forms of mortality, both in the Lolo Zone and statewide. It must review in detail the ecological impacts of this killing, and wolves and on other species. What monitoring has been done on wolves? Does WS monitor or tailor its wolf-killing activities to account for wolf pack social structure? How has the population of wolves changed since such killing events? How has it affected wolf behavior and pack structure? Please review the literature suggesting that splintering wolf packs via killing affects how wolves hunt. For example, smaller packs cannot guard the animals they have killed, and often before they can come back from the den or other locations, ravens and other scavengers will consume a kill, forcing the wolves and/or coyotes to kill yet another elk or deer. Has WS done any monitoring to determine whether its wolf-killing actually achieves its “goals” in the long-term?

What are the impacts on other species of this wolf population decline? Carrion left over from wolf kills provides food for scavengers such as wolverine. What are the impacts on scavengers from killing so many wolves and removing this food source? How does WS’s PDM activities comply with the relevant Forest Plans? Has it coordinated with the Forest Service in these actions? What are the impacts on wintering wildlife of such low aerial flights?

The EIS must also analyze new science finding that small, token populations of wolves, as well as persecuted or exploited wolves, do not perform their well-documented ecological benefits as well. For example, Ortiz (2013) (attached) found that “exploitation of large carnivores, even if sustainable numerically, undermines the commonly expressed rationale for their conservation, namely the restoration and preservation of ecosystem functionality,” due to “(i) the necessity of behavioral adjustments in large carnivores to anthropomorphic risk, which may limit their contribution to the ‘landscape of fear’, and (ii) the observation that many of the same features that put large carnivores at the apex of trophic systems also make them vulnerable to human exploitation and persecution, with implicit consequences for their ecological functionality and evolution.” Another recent study found that heavily hunted or persecuted wolves have higher stress and reproductive steroids than wolves with lower hunting pressure. Bryan et al. (2014) (attached). How are these phenomena occurring in Idaho’s heavily exploited population?

Direct, Indirect, and Cumulative Impacts of WS Trapping on Target and Non-Target Wildlife

The EIS must contain a full analysis of the direct and indirect impacts of its trapping program on both target and non-target species (and individuals) that are trapped

by WS PDM activities. It should also contain an analysis of the cumulative impacts of WS trapping, in conjunction with private trapping and hunting and other threats.

Idaho WS's 2013 BA admits it conducts an extraordinarily extensive trapping program, including the following.

- Small cage traps are widely used by ID WS (up to 200 projects annually) for capturing small mammals such as skunks, feral cats, raccoons, yellow-bellied marmots, fox squirrels and ground squirrels.

- Large cage traps are occasionally used by ID WS (up to 20 projects annually) for the capture of coyotes, red foxes, feral dogs, feral swine and mountain lions.

- Culvert traps (zero to 5 projects annually) when dealing with nuisance black bear problems or livestock depredation.

- Avian cage traps are commonly used by ID WS (up to 100 projects annually) to capture waterfowl and nuisance birds.

- Corral traps are occasionally used by ID WS (up to 20 projects annually) to capture feral swine and Canada geese.

- Quick-kill/body-gripping traps are frequently used by ID WS (more than 200 projects annually, but not daily) to capture woodpeckers and various mammals.

- Hancock traps and basket or purse type traps are designed to live-capture beaver, which are relocated and released, or euthanized - rarely used by ID WS (zero to 5 projects annually).

- Foothold traps are versatile and used extensively by ID WS (daily) for capturing numerous species.

- Padded-jaw pole traps are rarely used by ID WS (zero to 5 projects annually).

- Foot or leg snares are used occasionally (up to 20 projects annually) for PDM activities.

- Neck/body snares are used extensively by ID WS (daily) to capture a variety of species (*i.e.*, coyotes, red foxes, beavers, feral swine and wolves).

- Raptor traps are rarely used by ID WS (zero to 5 projects annually).

Please analyze in detail the impacts on the health of animals caught in traps and their young. WS frequently assumes that animals caught and released are “unharmful.” However, available information indicates otherwise. An animal caught in a trap may become weakened from lack of food and water. It may be dehydrated, frostbitten, or traumatized by being trapped, particularly if it is trapped for days. (How often does WS check traps, and how are the trap-check requirements enforced?) Even if an animal is able to walk away when released, its injuries may later become infected or otherwise lethal. It may have decreased success in hunting or other living skills later on, impacting their survival. And animals caught in traps are unable to hunt for or care for young, which may cause the young to become weakened or die.

A tragic example of capture trauma and injuries is the case of Macho B, the wild jaguar intentionally snared and drugged by the Arizona Fish and Game Department in 2009. As described in an attached article, “Macho B: Cover-up amid celebrations” (AZ Central 2012), the jaguar suffered then suffered injuries and capture trauma, causing him to lose 20 pounds in less than two weeks. He was then recaptured, diagnosed with kidney failure, and euthanized. Presumably, the drug the jaguar received after being snared caused or contributed to the kidney failure.

A Washington Department of Fish and Wildlife guide to Trapping Wildlife (2005) (attached) states that “despite the perception that live capture in cage traps is humane, animals often experience stress and physical damage during capture. Captured animals may also suffer from exposure to extreme weather and lack of water. Such injuries, trauma, and disorientation can lead to the death of an animal days after it has been released.” WDFW also includes a section titled “When Not to Trap.” That includes the following advice:

Never trap an adult animal that is caring for dependent offspring. . . . If young are seen, heard, or you suspect they may be present, the most humane thing to do is to leave the family alone until they move on their own. . . . When an adult animal is trapped, look for enlarged teats that are relatively free of hair, which indicate it is a female nursing young. . . . In such a case, release the female on site so she can tend to her young. Permanently separating the nursing female from her young would likely cause the offspring to starve to death. . . .

Never trap an animal during poor weather with the intension of releasing it. Trapped animals expend energy that is normally used to cope with winter conditions and they may die soon after.

For these reasons, please fully analyze the ethics of trapping, cruelty to animals, capture trauma, and the other issued raised here about impacts to trapped animals. Please fully analyze the impacts on wildlife of being drugged and captured. What are the risks of the drugs used? Please analyze the risks and ethical issues posed by the use of traps during birthing, denning, and rearing seasons.

On a related note, the EIS should analyze the risks of and impacts from cruelty to animals by WS employees. WS employee Jamie Olson was caught in 2012 posting photos online of allowing his dogs to attack animals such as coyotes, caught in traps and unable to defend themselves. Retired WS employee Gary Strader stated that allowing dogs to rip into trapped coyotes “was regular practice.” *Animal torture, abuse called a ‘regular practice’ within federal wildlife agency*, Fox News (March 12, 2013) (attached). The article continues that:

Strader, as well as several others, including a management source within the USDA, also charged that Wildlife Services employees often do not

abide by trap-check laws -- meaning animals can be left for days in traps where they die from starvation or the elements.

Id. The article concludes with this anecdote:

Rex Shaddox, a Texas law enforcement officer who worked for Wildlife Services in the 1980's, said he left the agency – which at the time was called Animal Damage Control – after a particularly disturbing occurrence. Shaddox said he and other workers were ordered to report to a city dump in Uvalde, Texas, to witness agency officials experiment with M-44 sodium cyanide on dogs from a local pound that were supposed to be euthanized. “We were told to watch as they held the dogs down and shot cyanide into their mouths, one by one,” he said. “I went home and cried that day. And then I quit.”

Id. Another article reported that Mr. Strader:

alleges he was fired for reporting to superiors that colleagues had killed five mountain lions from airplanes, which is a felony. He said his supervisor told him to "mind his own business." Strader said the same supervisor gave similar advice when the hunter discovered that a snare he set had unintentionally killed a golden eagle. Knowing that the bird was protected under federal law, Strader called his supervisor for guidance. "He said, 'If you think no one saw it, take a shovel and bury it,'" Strader said.

Congressmen question costs, mission of Wildlife Services agency (LA Times, January 4, 2014) (attached). Several 2012 articles by the Sacramento Bee described these same and additional incidents (attached). Please discuss the issues of employee ethics and animal cruelty raised by these incidents. How can WS assure the public that such incidents are not occurring in Idaho?

The EIS must analyze the direct, indirect, and cumulative impacts to forest carnivores (including lynx, wolverine, grizzly bears, fishers, martens, mountain lions, and bobcats) from WS trapping, in conjunction with soaring levels of private trapping in Idaho and other threats, including by describing their current baseline status, quantifying non-target animal kill and capture rates, and analyzing how this is likely to affect the species. Forest carnivores are known for their curiosity and vulnerability to direct and incidental trapping.

Lynx. Please analyze the current status of the ESA-protected lynx and its population trend over time, as well as the impacts of WS's programs on the species. As described in the attached Notice of Intent to Sue sent to IDFG by Center for Biological Diversity, Western Watersheds Project, and Friends of the Clearwater on April 7, 2014 (Lynx Notice Letter), lynx are highly imperiled; yet three cases of non-target trapping of Canada lynx have been documented in Idaho in the last 2-3 years. An additional incident

occurred in January 2014, when a lynx was caught in a trap in the Cabinet Mountains and released. Trapping in Idaho has soared in recent years, and agency officials admit incidental take is being underreported. *See* Lynx Notice Letter. Retired WS employee Carter Niemeyer describes the significant, foreseeable risks of trapping lynx in modern traps intended for other species in a recent declaration, also attached. Numerous lynx trapping incidents have also occurred in neighboring Montana, including one in December, 2014. Please review all known lynx trapping incidents and their impact on lynx status and recovery.

Wolverine. Please analyze the current status of the wolverine and its population trend over time, as well as the impacts of WS's programs on the species. FWS recognizes that "[o]ver much of recent history, trapping has been a primary cause of wolverine mortality." 78 Fed. Reg. at 7880. Trapping and hunting of wolverines is the second greatest threat to the survival of the species. With a population suspected to be only 250-300 animals in the lower 48 states, and the dramatic influence of climate change on the species' habitat, the loss of any wolverines through incidental trapping is significant.

Incidental trapping and hunting remains a risk for wolverine survival. Wildlife Services itself is a significant source of trapping take of wolverines in Idaho. Four cases of incidental wolverine trapping have occurred in Idaho in recent years," *three of which occurred in traps set by Wildlife Services.* 78 Fed. Reg. at 7881. We are aware of at least two very recent incidences in Idaho, one near Arco and one near McCall. This significant impact must be thoroughly analyzed. Has WS changed its activities since these disturbing incidents?

The cumulative impacts of WS's own trapping impacts when combined with private hunting and trapping impacts (both legal and illegal) must be analyzed. The risks posed by the sharp increase in private trapping in Idaho over the past several years must be analyzed. Moreover, numerous scientific papers document not only trapping of wolverines but also poaching as risks to the species (Murphy et al. 2011); (Persson et al. 2009). WS must discuss the risk to wolverines from poaching and attempt to quantify it in Idaho. The U.S. Fish and Wildlife Service (FWS) has not halted the trade in pelts of captive bred wolverine or in captive bred wolverines themselves. 78 Fed. Reg. at 7888. Therefore, a legal market for wolverines and pelts remains in the U.S. and will create an incentive to poach wolverines for sale in the "captive bred" market. The cumulative impacts of unlawful trapping and hunting of wolverines must be analyzed.

Finally, the cumulative impacts of climate change, FWS's top identified threat, on wolverine must be analyzed. *See* 78 Fed. Reg. at 7882. The threat of climate change is so great to this species that even small incidental takes of wolverines from hunting and trapping of other species could be critical to the survival of certain subpopulations or the ability of the species to disperse. Thus, these issues must be given thorough consideration in the EIS.

Grizzly Bears. Please analyze the current status of the grizzly bear and its population trend over time, as well as the impacts of WS's programs on the species.

WS's 2013 BA admits that its trapping program is likely to cause take of grizzly bears. Please analyze the numbers of grizzly bears that WS has purposefully and accidentally caught. Please analyze the fact that precautionary measures for trapping were weakened in the 2013-2014 consultation with FWS.

The impacts of trapping must be analyzed for each separate grizzly bear recovery zone as well as known occupied habitat. The population in the Selkirk ecosystem may be increasing, but high levels of human caused mortality and lack of regulatory mechanisms threaten this population. The current goal for human-caused mortality in the Selkirk ecosystem is zero mortality. The population in the Cabinet-Yaak ecosystem is failing all recovery goals, and the goal for human-caused mortality in that ecosystem is zero mortality. The population in the Greater Yellowstone Ecosystem is increasing; and mortality in that ecosystem is not to exceed 4% of the total population size. There is no official population in the Selway-Bitterroot recovery zone, although a handful of bears have been documented there in recent years. *See* Center for Biological Diversity 2015 (Grizzly Bear Petition) (attached). Thus, even very small numbers of grizzly deaths can have a significant impact. Cumulative impacts from other threats to grizzly bears must be analyzed to all zones.

Fishers. Please analyze the current status of the fisher and its population trend over time, as well as the impacts of WS's programs on the species. The Northern Rockies fisher is one of the rarest carnivores in the West, and came dangerously close to extinction in the early 20th century due to trapping and logging of old-growth forests. Although the Northern Rockies fisher once inhabited areas of northeastern Washington, Idaho, Montana, northwest Wyoming, and north-central Utah, the fisher is found only in sections of western Montana and northern and central Idaho in the United States today. Despite a struggling population, fishers are still legally trapped in Montana, and levels of incidental trapping of fishers in Montana and Idaho have increased alarmingly in recent years. *See* Center for Biological Diversity 2015 (attached) (ESA listing petition for fisher describing population trend and threats to fisher).

Lucid et al. (2013) report that a collaborative project to inventory for fishers and other species across the Idaho Panhandle and adjacent mountain ranges established 112 bait stations from 2010-2012 in the West Cabinet Mountains, Selkirk Mountains, and Purcell Mountains and detected 29 total individual fishers in the three mountain ranges. Other studies have found fishers the Coeur d'Alene, St. Joe, Clearwater, and Lochsa areas of northern and north-central Idaho. Does WS conduct trapping in prime fisher habitat?

The number of fishers incidentally trapped in Idaho has been increasing dramatically since 2006 and recently reached alarming levels. The recent level of incidental captures is the highest level of any time during the 40-year reporting period. Seventy-six fishers were incidentally trapped in Idaho in the 2010-2011 and 2011-2012 trapping seasons. *See* CBD 2015 at 34 (providing citations, and table and graph illustrating numbers of fishers known to be incidentally trapped in Idaho since 2002).

This increased number of incidental captures poses a threat to the survival of the fisher DPS. There are no data which indicate that the increased number of captures can be explained by population expansion. Rather, available data indicate that density is low and the population is small. The number of furbearer trapping licenses sold doubled between 2001 and 2008, indicating that the cause is additional trapping pressure. *Id.* at 33. The EIS must thus analyze the direct, indirect, and cumulative impacts of WS's trapping program on fishers, in conjunction with private trapping and other threats. Is WS aware of any incidents where it has trapped a fisher? What was the result?

Martens. Please analyze the current status of the marten and its population trend over time, as well as the impacts of WS's programs on the species. Is WS aware of any incidents where it has trapped a marten? What was the result?

Scope of Cumulative Impacts Analysis

The EIS must consider the impacts of the Idaho PDM program on wildlife on a regional or Northern Rockies scale, including neighboring states. This is because the wildlife that are targeted or accidentally harmed by WS PDM activities do not have population boundaries that follow state lines. Rather, their populations and sub-populations occur at a regional scale.

For example, WS's trapping program threatens and causes take of grizzly bears. All of Idaho's grizzly bear recovery zones cross state lines: the Selkirk ecosystem, the Cabinet-Yaak ecosystem, and the Greater Yellowstone ecosystem. WS's trapping program likewise threatens and causes take of ESA-protected lynx, which have regional populations not restricted to Idaho. The same is true with wolves. Furthermore, Idaho is a "source" state for wolves, so reduction of populations in Idaho reduces available dispersing animals to neighboring states. A Utah wolf was recently confirmed to have come from Idaho's Boundary pack. How does WS control of wolves affect dispersal and wolf recovery west-wide?

Collateral Damage from Other Predator Damage Management

The EIS must contain a full and fair accounting and analysis of the indirect impacts of its PDM program, including the impacts upon "non-target" species that are killed, harassed, or otherwise affected by WS PDM activities.

This includes, but is not limited to, the following issues.

Lead shot: WS conducts an extensive program of aerial gunning. Does WS use lead shot? Does WS remove the animals it shoots? If WS is leaving carcasses containing lead shot on the ground, then other animals such as raptors are likely ingesting that lead shot and are vulnerable to lead poisoning. *See* Liebezeit et al. (2004) and Warner et al. (2014) (attached). What types of scavengers are likely ingesting the carcasses? Does aerial gunning occur in wolverine habitat? Please fully analyze this impact of PDM. Please also fully analyze the alternative of using an alternative to lead shot.

Secondary poisoning and other risks of toxicants: WS conducts extensive poisoning programs. Idaho WS admits to poisoning the following in 2013 alone:

- 195,650 European starlings using DRC-1339 at feedlots
- 701 starlings, 275 pigeons, 92 magpies, and 26 ravens using DRC-1339 at feedlots
- 180 ravens in livestock fodder
- 260 pigeons elsewhere
- 114 coyotes and 2 dogs using M-44 cyanide capsules
- 500 ground squirrels and 277 marmots/woodchucks using zinc phosphide
- 18 coyotes and 1 fox burrow/den using gas cartridges.

In addition to those poisons, WS's BA states that it also uses Avitrol, rodent/denning cartridges, aluminum phosphide, and compound 1080, and immobilizing and euthanizing agents (Telazol, potassium chloride, and alpha-chloralos).

The EIS must describe in detail the risks of secondary poisoning from use of all poisons utilized. New research and observations on DRC-1339 shows that more species are susceptible than previously believed, and that bird deaths are not being accurately tracked. War on Wildlife at 59-62. New research higher than previously believed risks of secondary poisoning from zinc phosphide. *Id.* at 66-70. New EPA registration documents on Starlicide and other avian poisons should be analyzed (attached). Are poisoned animals monitored and gathered?

Secondary poisoning is particularly concerning for birds because they can fly far beyond the poisoning site, and be unable to be monitored or gathered. Our supporters in Idaho have witnessed starlings dying far from the feedlots where they were poisoned. Please analyze how far starlings and other poisoned species can travel after poisoning, and what the impacts are.

The EIS must describe in detail the efficacy and risks of the toxicants used by Idaho WS. *See* War on Wildlife at 47-70. New research on anticoagulants shows they exacerbate mange. *Id.* at 48. New research on M-44s and sodium cyanide emphasizes the dangers to humans, and several instances of humans and dogs being poisoned occurred in the 2000's. *Id.* at 52-55. A wolf was poisoned by Compound 1080 in Idaho in 2004, and new research shows it persists for months in the soil. *Id.* at 56-58. New research implicates pesticides in amphibian declines, raising fresh concerns about glyphosate. *Id.* at 62-63. And the EPA has released numerous new registration documents on Starlicide and other avian poisons. *See* attached literature.

The EIS must describe in detail the humaneness of poisons used. New research questions the humaneness of various rodenticides. *Id.* at 47-48. New research questions the humaneness of zinc phosphide and describes higher than previously believed risks of secondary poisoning. *Id.* at 66-70.

Aerial gunning: Please fully analyze impacts to wildlife from aircraft activities such as aerial gunning. Where, when, and how often does WS do such flights? How low do gunner aircraft fly? What noise levels does this cause on the ground?

WS must analyze the impacts of such flights on wildlife. The noise of low-level flights and shooting can disturb wildlife. It is well-known that wintering wildlife are sensitive to disturbance and that any disturbance can deplete already-low energy reserves, with resulting harm to wildlife health. Please analyze impacts on wildlife including but not limited to ungulates, grizzly bears, lynx, wolverine, and fishers.

If any flights are done over WSAs, WS must analyze the impacts upon wilderness characteristics (including solitude and any other relevant designating features of the WSA) and compare the flight levels against the flight levels present upon designation of the WSA. *See GYC v. Timchak*, No. CV-06-04-E-BLW, 2006 WL 3386731 (D. Idaho Nov. 21, 2006) (agency action authorizing heli-skiing in WSA violated Wyoming Wilderness Act, NEPA, and NFMA because agency did not compare authorized levels to levels when WSA was designated).

Public Safety

WS has a poor track record of safety. Please thoroughly analyze the risks posed to public safety by all of WS's PDM activities and materials, including but not limited to the following.

Chemical handling. WS has had many accidents regarding toxic agents, and repeatedly failed audits over its unsafe toxin handling. A petition to ban M-44s and Compound 1080 by Sinapu (2007) (attached) summarizes numerous handling problems:

In 1989, a newly-hired predator control agent to the Wyoming office of the Wyoming Department of Agriculture found that those officials had hoarded Compound 1080 despite the ban. They sold 1080 to private individuals who used it to poison wildlife, including bald and golden eagles (Robinson 2005). In 1991, the FWS and the EPA raided the offices of the Wyoming Department of Agriculture; the FWS subsequently engaged in a law enforcement action that led to several convictions (Ibid.). (FWS's investigative documents involving many defendants attached, Exhibits 7 and 8.) . . .

In 2001, approximately 30 pets were poisoned by 1080 in Grand Junction, Colorado and the investigating police officer, David Palacios, who handled the poisoned animals experienced, "flu like symptoms, only 10 times worse" (Lofholm 4/12/01). The Grand Junction police and federal investigators were never able to apprehend the culprit who ultimately dumped the poison into the local sewer system (Lofholm 3/15/01, 4/12/01).

Sinapu (2007) at 23.

In a USDA Performance and Accountability Report for FY 2002, the Office of Inspector General (OIG) found that “APHIS could not account for 60 pounds of strychnine-treated bait and over 2,000 capsules containing sodium cyanide.” (USDA APHIS-WS 2002). The following year, APHIS could account for these toxins, but failed to put in place an “adequate chemical inventory and tracking system.” (OIG 2004). In her February 2002 statement before Congress, Joyce Fleishman, Acting Inspector General for the USDA reported, “We found that APHIS lacks adequate accountability and control over hazardous pesticides and drugs maintained by some of its State offices for use in wildlife damage control” (Fleischman 2002).

Audits were conducted by the USDA Office of Inspector General in 2005 and 2006. GAO (2005), GAO (2006) (both attached). The Inspector General repeatedly found the agency in violation of the Bioterrorism Preparedness and Response Act for failing to secure “dangerous biological agents and toxins,” including not keeping accurate inventories whereby theft, unauthorized sale or other losses of these toxins could be detected. Other violations included regular access to toxins by unauthorized persons, distribution of chemical agents to untrained individuals, failure to update its list of authorized persons, lack of a proper database for toxins and registered persons, and inadequate security plans. All ten of the Wildlife Services sites audited by the Inspector General were found to be out of compliance with bioterrorism regulations. What risks are there relating chemical storage and bioterrorism in Idaho, for all of the chemicals and poisons used? Where are the storage sites, and how does WS control them? The EIS should analyze Idaho WS’s compliance with all chemical storage laws and regulations, and what changes have been made since the audits, if any.

Use of M-44s and Livestock Protective Collars (LPCs). Use of M-44s cyanide devices and LPCs pose an inherent risk to public safety due to the extremely toxic nature of the chemicals used, and because sodium cyanide and Compound 1080 could be used as bioterrorism agents. Compound 1080 (sodium fluoroacetate) is colorless, odorless, tasteless, and water soluble; some countries have categorized this toxin as a threat to water supplies in the event of chemical warfare (Osweiler 1984). The EPA considers sodium cyanide and sodium fluoroacetate Category 1 toxins.

A coalition of conservation groups led by Sinapu (now WildEarth Guardians) filed a petition in 2007 to ban the use of M-44s and LPCs entirely. Sinapu (2007) (attached). Please review and analyze the issues raised in that petition.

A slew of accidents and violations of law have been documented in regard to these poisons, causing many deaths of non-target animals, including protected species and many domestic pets. In 1998, an M-44 killed an adult male grizzly near Helmville, Montana. Wolverine, fishers, and lynx are also vulnerable to M-44s. Many dogs have been killed by M-44s across the West. *See* Sinapu (2007 at 19-20) (listing known incidents). For example, in Spring 2006, WS failed to follow FIFRA use guidelines for M-44s in Utah, causing two dogs to be poisoned within close proximity of humans. In 2008, EPA issued WS a Notice of Warning for placing an M-44 device in a recreational area close to a road, contrary to applicable law, which killed a dog. *See* EPA (2008)

(attached).

Finally, WWP recently received documents via FOIA from Idaho WS indicating that on approximately January 17, 2008, an M-44 injured a dog in Canyon County, Idaho. The death occurred in an area that has a relatively high population density where it would be predictable that pets or people would encounter these devices.

The EIS should analyze the safety of M-44 and compound 1080 use, describe where and how frequently they are used, analyze what changes have been made since these accidents, and seriously consider banning their use entirely.

Aviation accidents. WS aerial gunning planes have had numerous accidents in the West. A plane conducting WS coyote shooting crashed in December 2004 on private lands near Terretton, ID. As WS described it in one of its NEPA reviews, “[t]he fixed wing aircraft was rented ... and was considered a total loss by the insurer.”

We have attached several articles documenting fatal accidents. One from the Salt Lake Tribune concerns a 2007 Utah crash that killed two WS workers who were shooting coyotes. As a Utah Department of Agriculture and Food spokesman states in the article, “Any time you’re in this type of aircraft and flying low to the ground on hilly terrain, there’s a higher degree of risk.” The article states that the deaths brought to five the number of WS employees killed in Utah aircraft crashes since 1996. A crash in 1998 killed an employee shooting coyotes from a two-seat helicopter, and a crash in 1996 killed two WS officers also shooting coyotes. Another attached article, from the LA Times, concerns a 1998 crash that killed another pilot in a plane pursuing coyotes on a cattle ranch. The article states that she was fourth gunner pilot killed in a 17-month period.

Another attached article from the Missoulian documents a 2010 crash where a small helicopter crashed in downtown Kamiah, Idaho, killing two IDFG biologists. The chopper apparently went down after a clipboard fell out of the aircraft and hit the tail rotor.

It appears that the small aircraft used by WS are vulnerable to accidents. Please analyze the significant risks of aerial gunning to public safety, including WS employee safety. Please evaluate in detail whether coyote gunning is worth these risks to lives.

Also, we understand that WS has recently begun using semi-automatic rifles in its gunning aircraft instead of the traditional shotguns, despite increased risk of ricochet. Please confirm and discuss these changes, and the resulting safety implications.

Costs of PDM

The EIS must contain a thorough assessment of the direct and indirect costs of operating the Idaho WS PDM program. For example:

- What are the staff costs of operating the Idaho PDM program?
- What are the equipment costs of operating the Idaho PDM program? *E.g.*, the costs of planes and helicopters for aerial gunning and the fuel to operate them; the cost of weaponry and ammunition used for aerial and other gunning; the cost of chemical poisons.
- Where does the money come from? What percentage of operating funds come from federal appropriations, and what are the other sources of funds?

The EIS must also contain a through cost-benefit analysis as to whether the financial, economic, environmental, and social costs are worth the benefits of each alternative.

Impacts on Wilderness, Wilderness Study Areas, and Other Special Areas

WS must consider the impacts of conducting its PDM activities in Idaho's spectacular assemblage of designated Wildernesses, Wilderness Study Areas, and other protective areas; and whether its activities are consistent with those areas' governing mandates.

The Wilderness Act provides for a National Wilderness Preservation System to assure that man does not occupy or modify all lands within the country, leaving no lands designated for "preservation and protection in their natural condition." 16 U.S.C. § 1131(a). Wilderness areas must be administered in a manner that will leave them "unimpaired for future use and enjoyment as wilderness," and that will provide for "the protection of these areas" and "the preservation of their wilderness character." *Id.* The definition of "wilderness" is an area where the community of life is "untrammelled" by man and the land retains its primeval character and influence, and which is "protected and managed so as to preserve its natural conditions." *Id.*, § 1131(c). These are areas affected primarily by the forces of nature that have outstanding opportunities for solitude or a primitive type of recreation. *Id.*

Agencies administering wilderness are "responsible for preserving the wilderness character of the area." *Id.*, § 1133(b); 36 C.F.R. § 293.2. Section 4(c) of the Wilderness Act further prohibits uses of wilderness that are not consistent with this mandate, and specifically provides that use of motor vehicles, motorized equipment, aircraft landings, or other form of mechanical transport are prohibited in designated wilderness except in narrow circumstances, as necessary to meet minimum requirements for administration. *Id.* § 1133(c).

Likewise, the Central Idaho Wilderness Act specifically protects the "primitive and undeveloped land" and the "wilderness-dependent wildlife . . . which thrive within this undisturbed ecosystem." Pub. L. No. 96-312, § 2(a).

Thus, preservation of wilderness character must be predominant, and courts have narrowly interpreted the exception for motor vehicle use, landing of aircraft, or structures

in wilderness only to those situations that are of “urgent necessity,” rather than mere convenience or benefit.

The NEPA document must consider how the predator killing program will affect each individual Wilderness in Idaho: the Frank Church-River of No Return, Selway-Bitterroot, Gospel Hump, Hells Canyon, Sawtooth, Craters of the Moon, Big Jacks Creek, Bruneau-Jarbridge Rivers, Little Jacks Creek, North Fork Owyhee, Owyhee River, and Pole Creek Wildernesses. Please review in detail which types of PDM is conducted in each of these areas. It should be noted that domestic livestock grazing does not occur on every acre in these Wildernesses and at least one of them, the Selway-Bitterroot Wilderness, has no livestock allotments. It should therefore should be off-limits to PDM, as should be Craters of the Moon. To the best of our knowledge, the Frank Church-River of No Return Wilderness only has one active allotment, the Camas Creek allotment, which is currently closed for the indefinite future to due repeated livestock conflicts with wild Chinook salmon. It should also be off-limits to PDM.

The importance of predators in Wilderness cannot be overstated. Both the Bureau of Land Management (BLM) and Forest Service Manuals recognize the importance of predators and/or the importance of natural processes in determining wildlife populations.

BLM WSAs are governed by the Interim Management Policy for Lands under Wilderness Review (IMP) and Manual 6330. Both of these documents restrict predator killing. The IMP provides that: “Animal damage control activities may be permitted as long as the activity is directed at a single offending animal, it will not diminish wilderness values of the WSA, and it will not jeopardize the continued presence of other animals of the same species or any other species in the area.” Shooting of animals from aircraft is only allowed where specifically authorized.

Manual 6330 sets out a new standard for wildlife killing. It provides that action to control predators (or other native wildlife) in WSAs should be undertaken only:

- [i.] A. to prevent transmission of diseases or parasites affecting human health or safety;
- B. to prevent transmission of diseases or parasites affecting other native wildlife;
- C. to protect domestic livestock within the WSA; or
- D. to enhance recovery of federally listed threatened or endangered species. . . .
- ii. Predator control activities must be directed at the specific offending animal or group of animals. Such activities should be carried out so as to minimize impacts to the wilderness characteristics of the WSA (including the natural interaction of native species). . . .
- iii. Nonnative, domestic, and feral animals maybe killed, hunted, or otherwise controlled by Federal and State agencies to protect wilderness character.
- iv. Acceptable control measures include lethal and nonlethal methods.

Criteria for choosing a particular method include need location, environmental conditions, the preservation of wilderness characteristics, and applicable Federal and State laws. Use only the minimum amount of control necessary to solve the problem.

Manual 6330, §1.6(D)(11)(g).

WWP has documented extensive WS predator control in central Idaho that fails to adhere to these provisions, including extensive trapping and aerial gunning in WSAs, which significantly degrades the wilderness character and quality of the WSAs, including solitude. For example, WWP staff and members have been buzzed by WS aerial gunning planes in the Burnt Creek WSA. Any enjoyment of a wilderness experience is utterly destroyed when a person encounters the ubiquitous WS Danger/Peligro signs warning of M-44 toxic traps placed nearby. Our staff and members have repeatedly seen such signs in the Burnt Creek WSA and surrounding areas.

Please fully analyze how predator control or PDM is consistent with these mandates. Specifically, include the killing of wolves, coyotes, forest carnivores, and any other form of wildlife, as well as the specific methods to do so. What methods are used in wilderness and WSAs? What methods are not? Is killing permitted in wilderness and WSAs to improve game populations? How are WS employees instructed to avoid areas where PDM is prohibited? How does WS ensure that regulations are followed? All impacts from WS activities must be compared to baseline levels of disturbance present in each WSA when it was designated, on all of the relevant resources the WSA was designated to protect. *See GYC v. Timchak*, No. CV-06-04-E-BLW, 2006 WL 3386731 (D. Idaho Nov. 21, 2006) (agency action authorizing heli-skiing in WSA violated Wyoming Wilderness Act, NEPA, and NFMA because agency did not compare authorized levels to levels when WSA was designated).

Please also analyze PDM's consistency with the mandates governing other specially-designated areas such as BLM Areas of Critical Environmental Concern, Forest Service Research Natural Areas, and areas governed by the National Park Service (such as Craters of the Moon National Monument & Preserve and City of Rocks National Reserve). Does WS refrain from PDM in any such areas? Many, if not all, of WS's PDM activities are inconsistent with these mandates, and therefore WS should fully analyze eliminating all PDM activities from wilderness, WSAs, and other specially-designated areas.

Recreation

The EIS should analyze the impacts of PDM on recreation, including but not limited to hiking (with or without dogs), wildlife watching, and backcountry skiing. Recreation is pervasive across Idaho, particularly on public lands. Encounters with many kinds of PDM can destroy a recreational experience. Encountering an M-44 Danger/Peligro sign is disturbing even without dogs, knowing that nearby wildlife may be killed at any moment by a fountain of sodium cyanide. If one has dogs, the experience

is far worse. Any prudent dog owner would have to immediately leash the dog and evacuate the area, knowing that it would be very vulnerable to finding the bait and being killed. A similar experience is true for traps. Our members have had their dogs trapped in traps on public lands. It is traumatic and dangerous to attempt to free dogs from traps. Dogs can bite the person trying to free them due to being in pain. Our members have also come across wildlife suffering in traps and been deeply upset by the experience. Please analyze these impacts.

Please analyze the direct, indirect, and cumulative impacts upon wildlife watching by WS's programs of killing native wildlife such as coyotes, wolves, and beavers. Many of our members enjoy viewing all types of native species in Idaho, including wolves, coyotes, beavers, and other species targeted by WS. Several of our members have directly witnessed WS planes gunning down wildlife in Idaho and were shaken and angry at the experience. Our members have also noticed more depauperate ecosystems due to WS killing. For example, WS killing of wolves, in combination with the private hunting and trapping of wolves, has drastically decreased the opportunities to view wild wolves in Idaho over the past several years. Please analyze this loss. Our members enjoy backcountry skiing and other winter recreation across Idaho. Please analyze the impacts upon winter recreators by WS's aerial winter gunning operations.

Conclusion

Given the incredible controversy currently surrounding Wildlife Services' management of American wildlife, and the uncertain and highly controversial effects of its lethal control of wolves, coyotes, beavers, and all other wildlife, our organizations urge the agency to develop and select an action alternative which limits the agency program's involvement exclusively to non-lethal efforts. Until Wildlife Services can rebuild the trust of the American public and shed its institutional bias toward livestock interests, there is no place for the agency program's involvement in lethal control of carnivores and other wildlife in Idaho.

Please continue to keep us all apprised as the NEPA process continues.

Sincerely,

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