



Via Electronic Transmission

February 12, 2016

Wolf Plan Comments
California Department of Fish and Wildlife
wolfplan@wildlife.ca.gov

To the Department:

The following comments regarding the “*Draft Conservation Plan for Gray Wolves in California*” (“Draft Wolf Plan” or “Plan”) are submitted on behalf of the following organizations and our combined total of more than 2.9 million California members and supporters:

Animal Legal Defense Fund
California Wolf Center
Cascadia Wildlands
Center for Biological Diversity
Defenders of Wildlife
Endangered Species Coalition
Environmental Protection Information Center (EPIC)
Friends of the Wisconsin Wolf and Wildlife
Howling for Wolves
Humane Society of the United States
Klamath Siskiyou Wildlands Center
Living with Wolves
National Wolfwatcher Coalition
Natural Resources Defense Council
Predator Defense
Project Coyote
Sierra Club California
WildEarth Guardians
Western Watersheds Project

INTRODUCTION

We recognize the extraordinary endeavor by many contributors that has resulted in the Draft Wolf Plan. We thank the California Department of Fish and Wildlife (“Department” or “CDFW”) for assembling a Stakeholder Working Group (“SWG”), for the many SWG meetings held by the Department over a several-year process to discuss key issues with SWG members and obtain their input, for the writing of this Draft Wolf Plan for public review, and for providing public comment opportunity via written comments and public meetings. We especially appreciate the opportunity you made available for the public to provide input on the plan by hosting meetings throughout the state, from Yreka to Long Beach.

There are many parts of the Draft Wolf Plan with which we fully agree and support. Other parts are not based on science; we do not support them and believe it would be at best a terrible mistake and at worst a travesty should those provisions be adopted in a final version of the Plan.

We are pleased that the Draft Wolf Plan covers a wide range of topics which are both critical for wolf conservation and essential for public knowledge and understanding as we welcome wolves back to the Golden State. We agree with the Draft Wolf Plan’s emphasis on nonlethal coexistence measures to deter or reduce livestock-wolf conflicts, which are more effective over the long term and far less costly than killing wolves or other predators.¹

¹ McManus et al., 2014; Imbert et al., 2016.

We also appreciate that the Draft Wolf Plan does not place a cap on the wolf population nor create wolf-and-no-wolf zones.

The Draft Wolf Plan's chapter on disease is extremely informative and will, we hope, bring a halt to the baseless claims that wolves will ravage our state with disease. Nothing could be farther from the truth and this chapter does an excellent, scientific and easy-to-understand job of dispelling such claims and presenting the facts.

However, we are concerned that some key topics have been entirely left out and that nearly all of the published literature provided to the Department a year ago by the environmental conservation caucus of the SWG is neither discussed nor cited to in the Draft Wolf Plan. Additionally, key concepts and documents that were drafted, shared and edited by all interested members of the SWG are missing. Additional significant concerns expressed during the SWG process remain among the environmental conservation caucus groups and among the additional groups who have participated in crafting this comment letter.

In the following pages, we address the topics in this bulleted list:

1. CDFW has a legal duty under the Public Trust Doctrine to manage wildlife on behalf of all citizens of California.
2. The Plan should seek to recover wolves, not simply conserve and manage them.
3. The Plan's tone should reflect that wolf recovery is a conservation opportunity, not a challenge to be overcome.
4. Promoting coexistence between wolves and livestock producers is of critical importance.
5. The Plan should prohibit the killing of wolves for depredations on public lands, require use of nonlethal measures before resorting to any lethal control of wolves, and must codify enforceable lethal take provisions.
6. The Plan should explain the correct use of livestock guarding dogs.
7. Depredation Investigations Protocols should be clearly articulated and included in the Plan.
8. Thresholds for population numbers and duration of time for phase transition are inconsistent, too low and not scientifically justified.
9. The threshold for seeking state-delisting is far too low and not scientifically defensible.
10. Seeking federal down-listing in protection levels and/or state legislative permission to obtain kill authority potentially creates confusing conflict between federal and state law, sets dangerous precedent and is unwarranted.

11. Outreach and education efforts should include compliance-enforcement information.
12. The Plan needs to prioritize recovery, conservation and management actions and prioritize securing funds from state and federal sources for implementation.
13. The Plan must include a comprehensive plan of action for public education aimed at recipients of wolf-location information.
14. The Draft Plan lacks key information referenced in the Draft Plan and/or which was discussed and intended by SWG members to be included in the Plan.
15. Wolves, coyotes and bears should not be killed to conserve wild ungulate populations.
16. Threats to wolves from illegal killing due to mistaken identification as coyotes have not been adequately addressed.
17. The Plan includes no discussion of potential economic benefit to local and regional economies from reestablishment of wolves, wolf-related ecotourism and consumer market for predator-friendly raised livestock products.
18. Comments regarding the Plan's assessment of wolf taxonomy, population size and genetics issues regarding hybridization.
19. Ungulate population and habitat management are important aspects of wolf conservation and recovery efforts.
20. CDFW should actively seek out all opportunities to weigh in on land management actions with federal agencies and participate in land management planning processes.
21. The Plan should describe priorities for protecting, restoring and enhancing habitat that would benefit wolves because the State Wildlife Action Plan identifies the gray wolf as a Focal Species of Conservation Strategies.
22. The Plan should identify habitat conservation and connectivity priorities that will benefit wolf recovery.
23. The Plan's trophic cascades discussion should include published research demonstrating wolves' positive impacts in the Western Great Lakes states.
24. The Plan's discussion on impacts of wolf mortality and wolf-killing on wolf packs should include the findings of a 2014 symposium on this very topic.
25. The Plan's discussion of human social tolerance for wolves should address and cite to additional sources.

26. The Plan's discussion of human perceptions and interactions with wolves should include discussion and citation to new paper establishing that the majority of attacks on humans by carnivores is due to inappropriate conduct by humans.
27. Evidence of historical wolf presence in California as indicated in languages, tales, practices and ceremonies of Native Peoples deserves a heading other than "Anecdotal Observations."

COMMENTS

CDFW Has a Legal Duty Under the Public Trust Doctrine to Manage Wildlife on Behalf of All Citizens of California

The State of California has a legal duty to manage its natural resources, including wildlife, in a manner that benefits all of its citizens. This duty is derived from California's statutes and a long common law tradition requiring each state to protect and preserve the natural resources shared by its citizens called the public trust doctrine.

Common law principles reaching back to antiquity place a duty on the state, as part of its sovereign nature as the representative of the people, to hold common natural resources in trust for its citizens.² This trust requires the state to preserve natural resources, and to protect its citizens' interests in those resources, by safeguarding against their exploitation for private gain at the expense of the public good.³ Historically, the public trust doctrine arose to protect the public's right to access tidelands and navigable waters, specifically for their use in navigation, commerce, and fishing.⁴ Over time however, the public trust duty has expanded beyond its traditional boundaries. In California, the public trust duty of the state includes the protection of wildlife resources.⁵ California courts have reached this conclusion directly, citing the important shared resource provided by wildlife.⁶ California Courts have also reached this conclusion implicitly through the recognition that the prudent allocation of other natural resources—namely State waters—requires the State to consider the effect of its decision making on wildlife.⁷ In addition, California Fish & Game Code explicitly states that wildlife resources are held in trust by the State for the benefit of its citizens.⁸ As such, it is clear that California law treats wildlife as an important natural resource that provides significant public benefits and therefore necessitates State protection through a public trust.

² *National Audubon Society v. Superior Court of Alpine County*, 33 Cal.3d 419, 433 (1983).

³ *Berkeley v. Superior Court*, 26 Cal. 3d 515, 521 (Cal. 1980); *See Illinois Central Railroad Company v. Illinois* 146 U.S. 387 (1892).

⁴ *See Illinois Central Railroad Company v. Illinois* 146 U.S. 387 (1892) (In the past, the public trust doctrine limited the state's power to alienate submerged land and acted as a safeguard against the exploitation of those resources for private gain precluding public access).

⁵ *See Center for Biological Diversity v. FPL Group, Inc.*, 166 Cal. App. 4th 1349 (2008).

⁶ *Id.*

⁷ *See National Audubon Society*, 33 Cal.3d 419, 433 (1983).

⁸ California Fish & Game Code § 711.7(a); California Fish & Game Code § 1600.

Because the State represents its citizens in its sovereign capacity, CDFW must exercise its control over wildlife pursuant to the public trust for the benefit of the people as a whole, not only for the benefit of livestock owners, hunters, or individual landowners. The Draft Wolf Plan fails to consider the intrinsic value of wolves as a part of wildlife under the Public Trust Doctrine, thereby necessitating their protection and not simply their management. The Draft Wolf Plan examines the potential negative impacts of wolves on the environment without considering the potential benefits of wolves on the ecosystem. Under the Public Trust Doctrine California's citizens have the right to the aesthetic enjoyment of wildlife and ecological benefit that strong predator populations provide.

California Fish & Game Code § 1801 declares that it is the policy of the state to encourage the preservation, conservation, and maintenance of wildlife resources under the jurisdiction and influence of the State. This section states that fulfilling the objectives of this policy requires the perpetuation of wildlife for their intrinsic and ecological value as well as their more direct benefits to California residents. In contrast, the Draft Wolf Plan explicitly declines to preserve or conserve the impending wolf population, thereby violating CDFW's obligations under Section 1801.

California's Wolf Plan Should be a Recovery Plan, Not Simply a Conservation and Management Plan

The Plan provides for conserving, information-gathering and managing wolves in a 3-Phased approach but does not provide for active "recovery" efforts, despite the fact that in the midst of the SWG process the gray wolf was listed as endangered under the California Endangered Species Act (CESA). The environmental caucus repeatedly raised this issue during the SWG process, to no avail.

The Draft Wolf Plan asserts that CESA does not provide for preparation of recovery strategies except for one aquatic species. (Part I, p. 10.) However, CESA states as follows:

"[I]t is the policy of the state to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat" (F&G Code section 2052) The inclusion of the phrase "restore and enhance" is not mere surplusage but instead informs that it is state policy to take actions for listed species beyond conserving and protecting them. It is an implicit mandate for recovery of the species.

At the public meeting held in Long Beach on January 26, 2016, a Department representative told the public that there isn't enough information available about wolves in California to define "recovery" of wolves. If this is the case, it is all the more troubling that the Draft Wolf Plan provides for consideration of delisting the species when the wolf population reaches 50-75 animals. (Part I, p. 21.) Delisting implies that CESA's protections are no longer needed, *i.e.*, that the species is recovered. By no measure would a wolf population of 50-75 animals be considered biologically recovered and the Department cannot have it both ways. Either there is not yet sufficient scientific information about wolves in California to know what recovery would be and

therefore no population threshold for recovery can yet be set, or there is ample scientific information about wolves in California to propose a threshold number.⁹

All evidence points to the first option. Much of that evidence comes from the Department's own statements which appear repeatedly throughout the Draft Wolf Plan indicating that evidence of historical wolf distribution and abundance is speculative, and that California's landscapes, wild ungulate population numbers and human density are so vastly different from other states which have wolves that information from those states regarding wolves cannot be relied upon to be accurate predictors of how things will play out for and with wolves in California.

Actions and strategies proposed in the Draft Wolf Plan are aimed at conservation of an established wolf population and management of an establishing -- and then established -- wolf population. We recommend the Department revisit all of the action strategies set forth in the Plan and reassess what changes could be made that would aim instead for recovering the species.

The Return of Wolves to California is a Historic Conservation Milestone and Cause for Celebration and the Tone of the Plan Should Reflect This.

In California, as in almost every state of the coterminous United States, the gray wolf was driven to extinction by the early 1900's due to a concerted effort to eradicate the species on behalf of the livestock industry. The fact that the gray wolf is now returning to California is a remarkable event and a testament to the power of the federal Endangered Species Act to bring a species back from the brink when there is political willpower to do so. When wolf OR-7 from Oregon lifted a paw on the Oregon side of the border and set it back down on the California side of the border, he made history and international headlines. Media headlines throughout California laid a welcome mat for this wolf and for the wolves that would follow. After a nearly 90-year absence, the gray wolf is returning to California and the state has an opportunity to right a historic wrong. The tone of the state's wolf Plan should reflect that the return of wolves heralds a historic moment in conservation history in California and an incredible opportunity to restore a species whose presence and natural hunting practices lead to healthier, more biodiverse ecosystems.

Instead, the Draft Wolf Plan's tone regarding wolves is dry and filled with worry and reservations. Its pages contain words like "challenge," "challenging" and "concerned."¹⁰ From all of our organizations' combined reading of the 311-page document, we noted only one sentence which expresses a view from the drafters of the Plan that wolves might be a positive

⁹ We agree with the Department's public statement that there is insufficient scientific information at this time specific to wolves in California to know what would constitute recovery of the species in California -- and therefore no delisting threshold should be proposed at this time. We elaborate further on the Department's proposed delisting threshold in a subsequent section of this comment letter.

¹⁰ The Draft Wolf Plan's tone regarding elk contrasts starkly with how wolves are portrayed. In one of the opening paragraphs of Chapter 6, elk are described in glowing terms as one of California's most important visible natural resources, a significant part of the food chain and a highly-valued species for viewing and hunting. Since elk became the majestic animals they are due to their coevolution with equally magnificent predators including their primary predator, the wolf, a few such similar sentences regarding wolves could be sprinkled throughout the Draft Wolf Plan.

addition to California. On page 17 of Part I, the Draft Wolf Plan posits: “Most interactions between wolves and the public will likely consist of memorable observations.” This magnificent, charismatic and ecologically-important species, the gray wolf, deserves much greater acknowledgment of its significance, beauty and majesty than a one-sentence homage. The Draft Wolf Plan’s perspective needs an attitude adjustment. We believe the vast majority of Californians who are aware that wolves are returning to our State agree with us.

The Plan should notify readers that scientists the world over are calling for the protection and recovery of apex predators like wolves and that the return of wolves is cause for celebration. Apex predators around the globe are in significant decline due to persecution by humans; their decline has serious detrimental effects on the planet’s biodiversity, which in turn impacts human health and well-being.¹¹ The importance of top-level predators in their ability to help moderate impacts from climate change is even a subject of scientific agreement.¹² The Plan should discuss the published literature on this topic and should frame the protection and recovery of wolves in California as a welcome and essential action for wolves and humans alike.

Promoting Coexistence between Wolves and Livestock Producers is of Critical Importance.

Promoting coexistence between livestock producers and wolves is of critical importance for successful wolf recovery in California. We are especially grateful that the Draft Plan has a strong emphasis on the use of proactive measures for protecting both livestock and wolves.

The use of nonlethal management tools to reduce wolf-livestock conflicts is the key to successful coexistence between ranchers, rural communities and wolves, and to the success of CDFW efforts to manage wolves effectively for all constituents.

In order to have an effective nonlethal management effort, more than a description of the tools is needed. The ranching community will need help to both learn how to use the tools effectively and to properly implement their use on the ground. Success is more than just knowing and having the tools. Success will come through understanding, education, training, local on-the-ground assistance, and local and state level support.

It is impossible to list all the individual actions, education tools and printed materials, as well as CDFW and outside support needed to make a nonlethal program successful. However, the nongovernmental organization (“NGO”) community in consultation with the ranching community is working to produce a more complete program that CDFW should use as a foundation for developing a state sanctioned nonlethal management and conflict reduction program. Several NGOs have shared with CDFW the framework for this program, entitled the “California Wolf-Livestock Risk Management Plan Framework.” This was shared with the Department in a meeting with Karen Kovacs and Eric Loft in November 2015.

¹¹ Estes et al. 2014; Ripple et al. 2014.

¹² Urban and Deegan, 2016. http://mobile.nytimes.com/2016/02/06/opinion/t-shirt-weather-in-the-arctic.html?_r=0; Wilmers and Getz, 2005.

This document is a work in progress at this time. However, the NGO community is continuing to develop this program and make it very specific and useful for CDFW and ranchers. A subset of the signatories of this letter intend to have the program materials compiled by late spring of this year. We ask CDFW to work with interested NGOs to continue to develop and refine this program to help make it a something that will work for livestock producers and the Department, and meaningfully contribute to reduced conflicts between wolves and livestock. Once the program framework is more complete, we recommend the state review, edit, and develop it so it can be formally incorporated into the Wolf Conservation Plan.

The information in this conflict reduction program will need to be available, as well as a process to support livestock producers to implement the program. In the plan will be some suggestions on funding sources, from both government and private entities.

It is critically important that CDFW supports this process, and has plans to implement a thorough and well thought out conflict reduction plan. Everyone wins when wolf livestock conflicts are minimized.

California Must Not Kill Wolves for Depredations on Public Lands, Must Require and Rigorously Use Nonlethal Coexistence Measures Before Resorting to Lethal Control of Wolves, and Must Codify Enforceable Lethal Take Provisions.

If there is chronic depredation and correct use of nonlethal measures, and if that depredation is occurring while the livestock are on public land, it is not appropriate to kill those wolves whether the wolves, themselves, at the time of the Department's consideration of removal, are on public or private land. Those depredations, and the nonlethal measures taken to prevent them, should be costs of doing business on public land. As noted below, this is expressly one of the reasons that grazing fees are set so low. The key question is where the livestock were at the time of depredation.

Lethal control of wolves for chronic depredation of livestock should be a last resort and taken only after all reasonable efforts have been exhausted to correctly employ feasible nonlethal methods, strategies and tools, and only in the case of chronic depredations (*i.e.*, multiple depredations by the same pack or individuals). Further, lethal control of wolves in response to depredations on public lands is not acceptable. Public lands are owned by all members of the public, and public lands and wildlife are held in trust by state and federal agencies for all members of the public.¹³ Public lands grazing rates have been set at a rate nearly 20 times lower than the cost to rent private lands for grazing, and American taxpayers subsidize the use of those lands at a cost of more than \$120 million annually.¹⁴ One basis for setting fees so low, as noted

¹³ As explained more thoroughly in the last section of this letter, the Public Trust Doctrine requires that the State manage its natural resources, including public lands and wildlife, to the benefit of all of the people of the State.

¹⁴ Glaser, C., Romaniello, C. and K. Moskowitz. 2015. Costs and Consequences: The real price of livestock grazing on America's public lands. Special Report. Center for Biological Diversity. http://www.biologicaldiversity.org/programs/public_land/grazing/pdfs/CostsAndConsequences_01-2015.pdf

in a 1977 report jointly issued by the Secretary of the Department of the Interior and the Secretary of Agriculture, is to account for the fact that on public lands there may be some losses of livestock due to predators.¹⁵ Public lands are also frequently the very habitat where wolves can find their chief wild ungulate prey species, deer and elk. The killing of wolves and other native predators for livestock losses or for preying on elk or deer on public lands is unacceptable. Any actions or strategies the Department includes in the final Plan or implements on the ground must not include the killing of wolves (whether on private or public land) in response to depredations that occurred on public lands.

We understand from the Draft Wolf Plan that the Department intends to use lethal control of wolves in cases of chronic livestock depredation, after first employing nonlethal methods, tools and strategies, if the Department has lawful authority to do so. There are some very important lessons to be learned for California from wolf management examples set in neighboring Oregon and Washington. The most important of these is the codification of the wolf plan as an administrative rule, and for future provisions concerning lethal take of wolves, that such provisions also are codified.

In many respects, Oregon and Washington have similar wolf plans. However, Oregon has both statutes and agency rules governing wolf conservation, whereas Washington's plan is merely a non-enforceable guidance document.

The California Plan, when finalized, will reflect the agreements collectively arrived at by a diverse group of stakeholders. The Plan itself proclaims that it "covers key issues and potential actions CDFW believes important to the understanding and future conservation of wolves."

California could avoid the mishandling of wolf conservation, and learn from previous mishaps by codifying the Plan's provisions. Though both states have plans similar in substance, Oregon has seen substantial advances in wolf recovery with minimal conflicts, while Washington's wolf management has been plagued by controversy.

Oregon has been the model state for wolf recovery. The Oregon Department of Fish and Wildlife (ODFW) has developed and codified in rule predictable and reliable responses to conflicts and various situation that arise with wolves. While Oregon has permitted killing of wolves in response to livestock depredations, such actions are governed by enforceable rules that leave no party involved guessing as to the response. This predictable arrangement also minimizes the political push and shove that inevitably occurs when there are conflicts or difficult situations.

For example in Oregon, by statute, livestock depredation is only "chronic" if the appropriate authorities confirm at least four qualifying incidents within a consecutive six-month period during Phase I (0-4 breeding pairs).¹⁶ Agency regulations require the livestock producer to prove that he or she removed "unnatural attractants of potential wolf-livestock conflict at least one

¹⁵Study of Fees for Grazing Livestock on Federal Lands. A Report from the Secretary of the Interior and the Secretary of Agriculture. October 21, 1977.

¹⁶ ORS § 498.014(a)(A)

week before the incident,” and that prior to and on the day of the incident, he or she implemented at least one nonlethal measure deemed appropriate by ODFW.¹⁷

These rules governing lethal take of wolves in response to depredation has led to minimal political squabbling, an increasing wolf population (the state has not spent tax payer dollars killing wolves since 2011) and, due to the incentives for increasing preventative measures, depredations have decreased.

The Washington Department of Fish and Wildlife (WDFW) also spent considerable time developing a wolf plan, a document that incorporated the views of a 17-member stakeholder group, 65,000 written comments, and 23 scoping meetings. However, WDFW failed to codify the provisions in rule, and following the Washington Fish and Wildlife Commission’s adoption of the Plan in 2011, the Commission decided to deny a petition for rulemaking to codify lethal control provisions of the Plan. The Commission reasoned that (1) determining the need to use lethal control to stop repeated depredations is a complicated issue, and (2) limiting the flexibility articulated in the Plan reduces the ability to address each case-specific conflict.

However, this flexibility has caused considerable problems for the state, and the discretion so desired by WDFW has led to massive conflict, state legislative investigations, numerous legislative battles, and public controversy. When problems arise with implementing the wolf plan, inevitably there are going to be forceful voices on all sides lobbying for a certain outcome. When there are dead animals involved, these voices tend to get very loud. Having provisions of the wolf plan codified in rule allow a state agency to stick to the Plan and gives state employees a defensible plan of action. Too much discretion can lead to bad outcomes.

As examples, two nearly identical lethal control mishaps in Washington illustrate the need for legally enforceable lethal take provisions. In 2012, WDFW exterminated the 7-member Wedge Pack, costing taxpayers \$76,500. Despite the legislative mandate to “preserve, protect, [and] perpetuate” wolves as “[w]ildlife . . . property of the state,”¹⁸ the commission elected instead to exercise its discretion to benefit the economic interests of a single individual. That individual was grazing his cattle on publicly-owned national forest land, without taking the appropriate nonlethal measures to protect his herd. The killing of the pack led to massive public outcry, administrative rule-making petitions, and a legislative investigation. A spokeswoman for Phil Anderson, then-director of WDFW, said he “never wants to do this again.”¹⁹ Clearly, WDFW’s decision making would have benefitted greatly from clear standards governing agency response.

One month later, WDFW once again chose to subvert the Plan’s standards for lethal take. The Huckleberry Pack situation was eerily similar to the circumstances surrounding the Wedge Pack. The rugged terrain leased by the rancher from a private timber company was ill-suited to sheep grazing. The rancher had experienced no depredations prior to late June 2014. A herder who had been managing the flock quit that summer at some point before the depredations occurred. This

¹⁷ OAR 635-110-0010(8)(b)(B)

¹⁸ RCW § 77.04.012

¹⁹ Cassandra Profita, *The Cost of Killing Washington’s Wedge Wolves*, Oregon Public Broadcasting, Nov. 14, 2012, <http://www.opb.org/news/blog/ecotrope/the-cost-of-killing-washingtons-wedge-wolves/>

same rancher declined nonlethal conflict avoidance resources offered by WDFW and Washington State University earlier that spring. Eventually some depredations were discovered.

Although it was still unclear whether wolves were responsible and though it was likely the rancher's utter disregard for the plethora of resources offered to him that led to the depredation, WDFW agreed to kill four pups through aerial gunning based on the thought that less mouths to feed would result in less depredation. Unfortunately, the USDA/Wildlife Services sharpshooter hired by WDFW to carry out the kill order mistakenly killed the breeding female. The department embarked on its aerial gunning operation in the early morning hours of the weekend without notice to the public and, when contacted, officials at the department indicated they would not respond to comments or questions until the following week. The Huckleberry Pack fiasco occurred under Phil Anderson, the same director overseeing the department at the time of the Wedge Pack disaster. Again, legislative inquiries were launched, there was massive public outcry, and numerous bills lined up for the upcoming legislative session aimed at targeting the agency's funding.

These are clear examples of how discretion regarding wolf conservation and management can lead to horrible decisions and ongoing conflict with potentially devastating implications for a wildlife agency. The California Fish and Game Commission should learn from the examples set by Oregon and Washington. Codifying plan provisions sends a clear message that the will of the people of the state of California, embodied in the Plan, shall determine the department's course of action for wolves. Enforceable provisions provide the department with a shield to defend itself against various interests when attempting to develop plans of action in difficult situations that will inevitably occur. Establishing enforceable boundaries compels discourse and collaboration between parties holding opposite views with respect to wolves.

During the SWG process, the environmental caucus presented the Department and fellow SWG members with proposed regulatory language for codifying the lethal take provisions of the Wolf Plan. Tables in Appendix G refer to an "Operational framework for lethal control" and provide some descriptions of Options/Actions but nowhere does the Plan propose any specific, legally enforceable regulatory language on the use of lethal control of wolves for chronic depredation of livestock. We have included in Appendix A of this comment letter, the proposed regulatory framework prepared by the environmental caucus.

The Plan Should Explain the Correct Use Of Livestock Guarding Dogs.

Part II of the Draft Plan at p. 122 includes a section entitled Predicting the Potential Effects of Wolves on Livestock and Herding/Guard Dogs in California. We present a different perspective which we think is more accurate.

Livestock Guardian Dogs (LGDs) are most effective as sentinels for sheep and cattle when the livestock are bunched up or within fencing during the day or night. There are many existing breeds currently available in the U.S. that have proved effective at alerting humans about predator presence. Examples are Great Pyrenees, Spanish Mastiffs, Pyrenean Mastiffs, Maremma, Anatolian Shepherd, Akbash and others. It is not important, or desirable, to have

extremely aggressive fighting dogs as LGDs. No dogs should be expected or encouraged to fight wolves. Rather, the LGDs serve to alert humans, on site, about the presence of predators. For this reason it is important to have dogs that have instincts and training to stay with the flock or herd, in sufficiently large numbers on site to act as sentinels and deterrents.

It is thought that wolves moving through an area will avoid livestock surrounded by a sufficient size “pack” of LGDs. The LGDs should be trained to stay with the pack rather than roam across the open terrain. Single LGDs on the open range are not expected to serve a useful purpose. LGDs in combination with other tools serve to discourage wolves from seeing livestock as prey. LGDs should be thought of as deterrents rather than “*protection*” against wolves especially when used in combination with tools such as fencing, fladry, removal of boneyard attractants, animal husbandry techniques and lighting such as Foxlights. LGDs in combination with human presence are an effective tool to avoid negative interactions between wolves and livestock in the appropriate setting.

In summary, the Plan seems to regard LGDs as fighting protectors of livestock. We do not believe this is the appropriate way to view them.

Depredation Investigations Protocols should be Clearly Articulated and Included in the Plan.

As noted in the Draft Wolf Plan, wolf depredations on livestock in western states comprise a small fraction of all livestock losses. However, when a wolf-caused depredation is suspected and reported to officials, the ensuing investigation by agency staff is a matter of concern to all the public. The outcome of the investigation is important to livestock producers, conservationists and the general public and, because the outcome could end up designated as a strike against a particular wolf or wolves it is important to the lives of wolves, as well. Thus it is essential that investigations not be left to the whims of whoever is in charge in a particular circumstance.

It is essential that in the Plan the Department *enumerate* defensible procedures for training of investigators, the investigation itself, and criteria for determinations. The depredation investigation protocol should also set forth requirements and procedures for documentation and types of documentation, and for transparency to the public. It may also be necessary to enumerate procedures for review; if so, any third-party reviewer needs to be qualified and unbiased. The local vet, the local sheriff, the local USDA/Wildlife Services agent are not.

Some people want to see every dead animal blamed on wolves; others, none. What is most important is that California gets it right, that California’s Wolf Plan includes a definitive protocol, and that the decisions be defensible and transparent so that conclusions can be verifiable.

Thresholds for Population Numbers and Duration of Time for Phase Transition are Inconsistent, Too Low and Not Scientifically Justified.

As a preliminary matter, we note that the number of breeding pairs (“BP”) specified to mark phase shifts in the Draft Wolf Plan’s adaptive management strategy are inconsistent throughout the document and thus confusing to the reader. Specifically we note the following inconsistencies which need to be rectified:

Part I of the Draft Wolf Plan, at p. 21 states that:

Phase 1 ends at 4 BP

Phase 2 starts at 5 BP

Phase 3 starts at 9 BP

Part II of the Draft Wolf Plan describes these thresholds in a different fashion, in two different places. Part II at p. 272 states that:

Phase 1 ends at 4 BP

Phase 2 starts at 4 BP

Phase 3 starts at 6 BP

Part II at p. 283 states that:

Phase 2 starts at 4 BP

Phase 3 starts at 8 BP

At a substantive level, the thresholds the Department is proposing for numbers of BPs and transitions between management phases is not scientifically-based, have not been adequately justified by the Department, and are unacceptably low. The transition also is proposed to occur after an insufficient period of time has passed to best ensure reliable predictions of the population trend and that breeding pair numbers won’t immediately decline.

The Department asserts throughout the Draft Wolf Plan that California’s landscape, prey base, and human population dynamics are different from other states where wolves are reestablishing. So let’s wait for the science the Department and other researchers develop regarding wolf reestablishment in California over time, before setting numbers goals for Phase shifts (and for delisting).

Threshold numbers should not be set at this time, but instead the Phase I period will allow for information to be gleaned over time until a shift in strategies is warranted. If a Phase I goal is set now, a precautionary approach should be applied, and the Phase I goal should not be less than 12 breeding pairs for at least three consecutive years to allow the Department time to gather sufficient data to determine if that’s even an adequate threshold. The shift from Phase II to Phase III should be left open until we know more about how wolves do in California as they populate the California landscape.

Additionally, time spans between shifts are of too short of duration to reliably indicate population trends and threats to wolf recovery and conservation. The Department should first conduct years of monitoring and data gathering to analyze trends in wolf and prey populations and distributions, among other factors. While Washington’s and Oregon’s state wolf plans set a

minimum duration of three consecutive years at a specified population level before shifting into a next phase of management strategies, the California Draft Wolf Plan inexplicably sets a time threshold of but two consecutive years. The Department provides no scientific justification for proposing a two-year period. Nor does it provide any scientific justification for lessening the time threshold from that employed by Oregon and Washington.

One thing we have learned from other states, as they have gone through or are now going through the early stages of wolf recovery, is that truly adopting proactive nonlethal coexistence methods, tools and strategies takes time. It especially takes time for livestock producers to embrace the concept of coexistence and accept it on a deeper, more cultural level, versus temporary willingness to accept the use of coexistence measures only because they aren't allowed to shoot wolves. Moving too quickly through the phases of an adaptive management approach to wolves can undo all the hard work to implement proactive methods and for nonlethal coexistence measures and philosophy to get a solid and accepted footing in the livestock community. It benefits no person and does not benefit wolves to rush through the phases because of political pressure or some preconceived notion that it is the best approach. Wolves and nonlethal coexistence measures must be given a real chance to succeed.

The Threshold of 50-75 Wolves to Consider State-Delisting is Far Too Low and Is Not Scientifically Defensible.

The Draft Wolf Plan's proposal to consider state delisting at 50-75 wolves (Part I, p. 21) is not based on science. Instead it appears that the Department has settled on these numbers by drawing upon the state Wolf Plans for Oregon and Washington and then setting the bar even lower. The population goals and delisting thresholds in Oregon's and Washington's Wolf Plans have been found to be inadequate by most scientists who have evaluated them. There is no scientific rationale to justify thresholds for delisting in California that are even more deficient.

Washington's wolf Plan divides the state into thirds, sets numerical breeding pair goals for each third of the state and a time duration for which those goals must be maintained before delisting can occur.²⁰ A decision by the Washington Fish and Wildlife Commission to delist wolves must be made "solely on the basis of the biological status of the species being considered, based on the preponderance of scientific data available."²¹ And, "[a] species may be delisted only when populations are no longer in danger of failing, declining, are not longer vulnerable . . . or to meet recovery plan goals, and when it no longer meets the definition [of endangered]."²² Washington's Plan requires the existence for three consecutive years of 15 successful breeding pairs. Of those 15 successful breeding pairs, there must be 4 successful breeding pairs in each third of the state plus an additional 3 successful breeding pairs anywhere else in the state. Thus Washington's wolf Plan sets delisting numbers and time span durations which are significantly higher than what is proposed in the California Draft Wolf Plan and requires a distribution of the wolf population across the entire state. Washington's Plan also provides an option for gradually

²⁰ Wolf Conservation and Management Plan. Wiles, GJ., Allen, H.L. and G.E. Hayes. Washington Department of Fish and Wildlife Wildlife Program. State of Washington. December 2011.

²¹ WAC 232-12-297, §4.1

²² WAC 232-12-297, § 4.2

reducing protections over time from endangered to threatened to state-sensitive to delisted, a safety net mechanism which is not proposed at all in California's Draft Wolf Plan.

Oregon's Wolf Plan includes a phased management approach, divides the state into halves, and sets numerical breeding pair goals for each half of the state and a time duration for which those goals must be maintained.²³ The "conservation population" objective in Phase I for each half of the state is defined as 4 successful breeding pairs for 3 consecutive years; the "management population" objective in Phase II for each half of the state is defined as 7 successful breeding pairs for 3 consecutive years; and in Phase III for each half of the state the Plan's objective is to ensure the wolf population does not decline below Phase II levels. Because Oregon's wolf population was reestablishing via dispersal westward from Idaho into eastern Oregon, when the state's Wolf Plan was drafted, it was presumed that Phase I objectives would be met in the eastern half of the state prior to meeting separate Phase I objectives in the western half of the state (which could occur only once dispersing wolves made their way into western Oregon).

Oregon state law does not allow for delisting of a species in only a portion of the state. Thus Oregon's Wolf Plan provides that consideration of delisting gray wolves can be undertaken when there are 4 successful breeding pairs for 3 consecutive years in the eastern half of the state, and that if state-delisting occurs at that point, the wolf population in the western half of the state will be managed by regulations as though the western half of the state were still fully state-endangered. Only upon reaching 4 successful breeding pairs for 3 consecutive years in the western half of the state may the wolf's west-side population be managed as though no longer state-listed.

The Oregon Endangered Species Act requires that before a species may be delisted, the state Fish and Wildlife Commission must evaluate five enumerated delisting criteria and determine that none of them any longer present a threat to the continued existence of the species. The Act also requires that the Commission's decision be based on documented and verifiable science. If the Commission is relying on data collected by and reports prepared by ODFW, for these to qualify as verifiable requires that the Commission engage an outside scientific peer review panel to evaluate those data and reports.²⁴

In November 2015, ignoring the best available science and the law, the Oregon Fish and Wildlife Commission voted to state-delist wolves in Oregon.²⁵ Three conservation groups have filed a legal challenge and the case is currently pending.²⁶ At the time of the delisting vote by the Commission, ODFW estimated that Oregon's wolf population stood at 82 confirmed observed individuals (ODFW reported 85 confirmed wolves as of mid-July 2015, but in the following two

²³ Oregon Wolf Conservation and Management Plan. Oregon Department of Fish and Wildlife. December 2005 and Updated 2010.

²⁴ ORS §§ 496.171 - 996

²⁵ ODFW news release: Fish and Wildlife Commission delists wolves statewide in split vote (4-2). <http://www.dfw.state.or.us/news/2015/November/110915.asp>

²⁶ Center for Biological Diversity press release: Legal Challenge Filed Over Removal of Protections From Oregon's Gray Wolves. http://www.biologicaldiversity.org/news/press_releases/2015/wolf-12-30-2015.html

months one of these animals was illegally killed and two others were found dead under suspicious circumstances, reducing the known population to 82 animals as of the November delisting decision). Ninety percent of these confirmed wolves reside in eastern Oregon. In western Oregon there exists only one known breeding pair, the Rogue pack (wolf OR-7's pack), and he and his mate have qualified as a successful breeding pair for only two years so far. It will be several more years before western Oregon has 4 successful breeding pairs, and several more years after that before achieving the duration benchmark of at least 4 successful breeding pairs for 3 consecutive years. By the time western Oregon's wolf population may be managed as though no longer state-listed, the overall state wolf population will likely be double the number of wolves which existed at the time the Commission made its delisting vote. Unless, of course, the statewide delisting and transition to Phase II and then Phase III management strategies results in more killing of wolves by agency actions and by legal and illegal killing of wolves by private citizens, which result in an overall state wolf population decline and/or an inability of dispersing wolves to safely make it to the western half of the state.

Thus Oregon's Wolf Plan sets delisting numbers and time span durations which are significantly higher than what is proposed in the California Draft Wolf Plan and requires a distribution of the wolf population across the entire state. It also includes regulatory mechanisms for continuing to protect and manage wolves as though still state-listed in the entire western one-half of the state to which wolves are just starting to make their way. California's Draft Wolf Plan has no similar protective regulatory mechanism to keep dispersing wolves safely protected after an initial population of 50-75 wolves establishes. Since California's wolves are arriving as dispersers from Oregon, an initial population of 50-75 wolves most likely will first reestablish in California's northernmost counties. If delisting were to take place at that population level, the Draft Wolf Plan contains no regulatory mechanism like Oregon's to protect and best ensure the safe establishment of wolves which disperse further south in the identified suitable wolf habitat in the central Sierra Nevada.

The pending Oregon wolf-delisting lawsuit was filed because the Commission violated the Oregon endangered species act when it voted to delist the gray wolf. The Act's delisting criteria were not met, and the Commission did not seek an outside unbiased peer review of ODFW's own status review of gray wolves, as is required by the Act. As part of the public comment period leading up to the Commission's November meeting, 26 highly-credentialed scientists submitted comments on their own. The scientists who wrote comments are among the most experienced professionals in the U.S. and abroad in the field of wolf biology and ecology, mammalogy, population viability analysis and human-carnivore conflict social science. The scientists resoundingly denounced ODFW's status review, population viability analysis and recommendation to delist as being fundamentally flawed, not justified by science, counter to science, ignoring the chief threat to wolf recovery and failing to demonstrate that delisting criteria had been met. A key criticism was that a population of only around 80-85 wolves, inhabiting only 12 ½ percent of identified current suitable wolf habitat in the state could by no measure be considered recovered and in fact this status of population and range distribution demonstrated that wolves are still very much endangered in Oregon. The Commission unfortunately chose to ignore the comment letters sent to them by outside expert scientists, and instead relied on ODFW's status review and some short remarks prepared by four scientists who

were handpicked by ODFW shortly prior to the hearing and whose remarks were not made known nor available to the public until the delisting hearing was already underway.

The comprehensive comments submitted by the 26 outside expert scientists are relevant to California's Draft Plan. The Department proposes to consider removing state protections for the gray wolf throughout California when the species' population reaches a population threshold even lower than that set by Oregon and without consideration for how much of its suitable range gray wolves may or may not be occupying at that point in time. We have compiled these comment letters and provided them to you in Appendix B.

Seeking Federal Down-listing in Protection Levels and/or State Legislative Permission to Obtain Kill Authority Potentially Creates Confusing Conflict Between Federal and State Law, Sets Dangerous Precedent and is Unwarranted

Beginning on page 6, the Draft Wolf Plan details the legal status of wolves in California, highlighting the fact that wolves are currently protected under federal and state law. The Draft Wolf Plan clearly considers this protected status as a burden, as it "affects the state's ability to manage the species with respect to any possible use of lethal take for management." It is highly concerning that the Draft Wolf Plan provides that the CDFW will consider petitioning US Fish and Wildlife Services (USFWS) to down-list wolves to "threatened" in California when two breeding pairs are documented for two successive years, *if wolves in California are still federally listed as endangered*. The Draft Wolf Plan does not state any scientific or legal basis upon which such a request to the USFWS would be made, other than that a down-list would make the task of wolf management in the state of California easier for CDFW, whom, presumably, would seek special status for wolves in the state under ESA Section 4(d), granting the State kill authority.

CDFW offers no explanation for a down-listing request nor does the Draft Wolf Plan state how or why CDFW can show that the wolf population in California is significant and discrete from the Oregon and Washington populations, thus justifying any 4(d) special status. Moreover, considering the Plan's own detailed discussion of how wolves have crossed borders between these states, it is not foreseeable how CDFW could even make such an argument. The Draft Wolf Plan should not be considering taking steps to override federal determination of the protected status of wolves at this point in time merely to allow CDFW more discretionary authority as to how to best manage wolf population. Such an approach degrades the importance of the ESA and listing decisions and creates dangerous precedent for any state to put its individual interests above the best interests of preserving wildlife on a national level.

Even if wolves are federally down-listed and CDFW successfully obtains kill authority, under Section 4(d) of the ESA, if wolves remain listed under CESA, CDFW will still lack kill authority. Thus it is clear that in such a situation, CDFW intends to seek state legislative authority to kill wolves once "Phase 2" population levels are reached, even if the CESA legal status of wolves remains listed as endangered.²⁷ At numerous points in the Plan, CDFW discusses potentially working through the State's legislative process in order to obtain kill authority for wolves, despite the existence of protections under CESA. Again, it is misguided for

²⁷ See Plan, Part I, pp. 21-22, Part II, p. 272 and Appendix G.

CDFW to consider circumventing decisions made about listing status under CESA in order to make its job of wolf management easier. If and when the population of wolves in California reaches a level at which CESA listing may no longer be necessary, proper procedures should be implemented under Section 670.1, Title 14 of the California Code of Regulations to change the legal status of wolves in the State. To do otherwise disregards the significance of species being listed under CESA and thus meriting State protection.

Outreach and Education Efforts Should Include Compliance-Enforcement Information

Compliance-Enforcement Information. The “Outreach Goals” section to “Inform the public” is beneficial. Disseminating facts to dispel rumors and myths and correcting falsehoods are important to all aspects of “Interactions” listed in the “KEY ISSUES for WOLF CONSERVATION” section (Part I). Due to the palpable hostility to wolf recovery programs by a misguided or mis-informed minority, along with a number of reported and well-documented illegal killings of wolves in other states, it is incumbent upon the Department to take extra precautionary measures for wolf conservation.²⁸ Two outreach focus areas that might reduce potential illegal activities should be considered for inclusion in the Plan—compliance and penalties for violation. This may be accomplished by expanding the “Inform the public” section.

Code and Regulation Compliance. Expanding Outreach Goals to cover compliance information related to Fish and Game codes, as well as Federal Endangered Species Act (ESA)²⁹ and California ESA (CESA)³⁰ regulations would be prudent and helpful to the public. The Draft Wolf Plan emphasizes that implementation of any of the strategies must always reflect the legal status of wolves, but the public, as well as livestock owners and sport/trophy hunters, may not be fully aware of more restrictive regulations with listed species protection. The Plan should inform all citizens of ESA’s and CESA’s legal obligations in the event of wolf (or any listed species) interaction. This type of educational outreach information is slightly different from implementation Strategy 7, which seems to focus on the public’s knowledge of wolves and attitudes—also important and worthwhile.

Enforcement—Potential Fines and Penalties. When enforcement reaches citation levels, the public should be apprised of the penalties for violations of ESA and CESA. This information should be included in the Plan:

ESA: Violations may be punished with fines up to \$50,000 and/or one year imprisonment for crimes involving endangered species, and \$25,000 and/or six months

²⁸ In a “Mexican Wolf Conservation Assessment” of 2010, the FWS reported that the “illegal shooting of wolves is the single greatest source of wolf mortality in the reintroduced population.” US District Court, Arizona, Tucson Division, *Wildearth Guardians and NMWA v US Dept of Justice*, Case 4:13-cv-00392-DCB, 5/30/13, p4, item 11.

²⁹ Federal ESA: To “take” means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. §1532(19).

³⁰ CESA: Prohibits the take, possession, purchase, or sale of endangered, threatened or candidate species. CA Fish and Game Code defines “take” as to, or attempt to, “hunt, pursue, catch, capture, or kill.”

imprisonment for crimes involving threatened species. Misdemeanors or civil penalties are punishable by fines up to \$25,000 for crimes involving endangered species and \$12,000 for crimes involving threatened species. A maximum of \$1,000 can be assessed for unintentional violations. Rewards of up to \$2,500 are paid for information leading to convictions.³¹

CESA: Penalties may be imposed for violations of CESA. For taking or possession of a fully protected mammal, the base fine is \$5,000; additional fees to the state, county, courts and surcharge can bring the total bail to \$20,000.³² CalTIP is a confidential secret witness program that provides a number of options (toll free number, 24/7; a website; cell phone texting; or smartphone APP) for the public to report poachers, polluters, or any wildlife violation. If the information leads to an arrest, the caller becomes eligible for a reward. CalTIP rewards are funded by donations; no state funds are used.

By having legal obligations described more thoroughly as well as some semblance of the range of penalties and bail upon conviction, the implementation of the Plan, and especially “Strategy 2—Assess and address threats to wolf conservation,” are more likely to be successful. Strategy 2, c, “Minimize wolf mortality from accidental killing, and 2, d, “Minimize disturbance at active wolf den and rendezvous sites,” are examples of strategies that would benefit from expanded or more in-depth consequential information. Such material does not have to be either threatening or oppressive, but rather educational, which may be helpful to the public. It may also serve as an indicator of how serious the ESA/CESA listings are and how invested CDFW is in wolf conservation.

“Law enforcement” is mildly referenced throughout the Draft Wolf Plan in different roles (communication, presence to reduce poaching, enforcement of game laws, etc.). However, in order for the Plan to reach its goals, the law enforcement component should and will play a much greater role than may be implied. In fact, it may be the linchpin with regard to successful wolf conservation outcomes in light of the aforementioned wolf hostility. In addition to the need to increase wildlife officer staff for law enforcement, the Plan should confirm both the authority and **obligation** of wildlife officers to cite offenders.

The Draft Wolf Plan Should Prioritize Recovery, Conservation and Management Actions and Prioritize Securing Funds from State and Federal Sources for Implementation.

The Draft Wolf Plan has many laudable goals and strategies for conserving and managing wolves here in California. However, the Draft Wolf Plan does not detail specific priorities. It’s imperative that the Department clearly delineate priority actions for implementing the actions detailed in the Draft Wolf Plan.

Priority number one: Secure funding specifically to create and implement a Department wolf program with adequate staffing levels, appropriate training on livestock depredation investigations, and resources to run such program. This program should be equipped to provide

³¹ http://www.endangeredspecieshandbook.org/legislation_endangered.php

³² Uniform Bail and Penalty Schedules, Judicial Council of California, July 2011, page 121.

information and on-going support on the use of proactive tools and strategies available to ranchers for reducing conflicts between livestock and wolves. This should include having nonlethal tools available to lend to ranchers in need on a temporary basis.

Once funding is secured for a Department wolf program and personnel has been hired and trained for such program, the next highest priority for the Department is to ensure that at least one member of each known wolf pack should be captured and outfitted with a GPS-enabled collar so that location data can be used to inform outreach efforts, especially within the ranching community. The Department should expedite establishing Depredation Prevention Agreements with interested and willing livestock producers, which will include nondisclosure agreements to ensure that wolf location data is not inappropriately shared. (See subsequent section for additional details on this subject.)

The Department should work with the Department of Finance and other necessary entities to establish a fund to provide compensation for livestock depredations; this will go a long way to promoting goodwill among the livestock community critical to ensuring long-term wolf recovery.

The Plan Must Include a Comprehensive Plan of Action for Public Education Aimed at Recipients of Wolf-Location Information.

In addition to including a copy of the written nondisclosure agreement that wolf-location information recipients will be required to sign and adhere to, we note a specific, essential need for educational efforts by the Department to recipients of radio-collar information. Recipients must receive educational information about wolf behavior, biology and ecology, appropriate conduct around wolves and legal requirements in advance of their receipt of such sensitive information, and on an ongoing basis.

At the January 21, 2016 public meeting the Department held in Yreka, nearly 300 individuals attended, 37 of which provided oral testimony at the meeting. Much of the testimony from local residents expressed anger, resentment and fear – a desire to not have wolves in California, a disregard for state and federal law protecting wolves, and utter misinformation on what degree of threat wolves could pose to livestock or to human safety. At the same time, several spoke of the need to get radio-collars on wolves and to provide wolf location information to area ranchers.

We agree radio-collar information is important, to help the Department monitor wolves, detect if wolves have been illegally killed, and to help ranchers know when to implement or ramp up use of nonlethal conflict deterrents. Stakeholders in the planning process agreed this was important -- and conservation group stakeholders expressed strongly the need for that disclosure to remain confidential to recipients, to simultaneously be as protective of wolves as possible. Yet the wolf plan refers only vaguely to a confidentiality requirement and does nothing to address how to best ensure those in receipt of the information will not themselves become a source of harm to wolves.

Conservation groups and the public aren't likely to support giving wolf location information to people who hate federal and state government, hate and fear wolves based on inaccurate information and cultural-based beliefs, and are unwilling to follow the law. And the Department has a responsibility to take all steps necessary to ensure that those in receipt of wolf-location information will adhere to the confidentiality requirement, follow the law and have as accurate as possible an understanding regarding wolf biology, behavior and ecology. For the Department to have public support for limited disclosure of wolf location information, it must develop a comprehensive plan of action, described in the Plan, for public education in areas where wolves are likely to return and specifically aimed at those individuals who will be recipients of wolf-location information.

The Draft Plan Lacks Key Information Referenced in the Draft Plan and/or which was Discussed and Intended by SWG Members to be Included in the Plan.

While the Draft Plan has a wide variety of critical provisions that will guide the state's conservation and management of wolves into the future, it also lacks some key information that was discussed and intended by SWG members to be included in the Plan. This includes the following:

- As indicated in a separate section of our comments, Depredation Investigations Protocols should be clearly articulated and included in the Wolf Plan.
- Both Wolf-Livestock and Wolf-Ungulate Conflict Management Strategies, as referenced in Table G.2c on Phase 2 Conservation Actions/Options in Appendix G are missing from the Draft Wolf Plan and should be written up and included. (Chapter 6 of the Draft Wolf Plan also states in its opening paragraph that the chapter will conclude with a discussion of the tools and strategies available for managing wolf-ungulate interactions in California, but no such discussion is included.)
- The Livestock Depredation Protocol that is available on the Department's wolf web page should also be contained within the Plan, with the understanding that it may evolve over time as we learn more about how best to address wolf-livestock conflicts in California.
- List of "Priority Counties" for payment for presence and any other components relevant to these counties should be defined. We suggest Siskiyou, Modoc, Shasta and Lassen be included as Priority Counties at minimum.
- More information is needed on the charge and structure of the Local/County Advisory Groups and the Plan should specify that a Statewide Advisory Group will also be established, with its charge and structure also described within the Plan.
- A specific budget for the Department's Wolf Program, including start-up and annual operating costs associated with the program.
- A collaring plan and confidentiality agreement for wolf location data that will be shared by the Department with any outside interests.
- An outline for how the Department will gather and use information in an adaptive management framework to undertake any future updates to the Wolf Conservation Plan and the required 5-year status review under CESA.

Wolves, Coyotes and Bears Should Not Be Killed To Conserve Wild Ungulate Populations

Proposed triggers for strategies for addressing any future impacts wolves – or coyotes or bears – might have on CA’s wild ungulate population allude to unspecified authority, are counter to science and do not comport with modern understandings of the ecological importance of predators. CDFW offers no peer reviewed science to buttress this approach. If anything recent research has demonstrated that killing coyotes and other predators to boost ungulate populations is questionable at best and may even be counterproductive. Therefore these unsupported and scientifically questionable triggers should be removed from the Plan.

In late 2014, the Department sent an internal draft version of the Plan for peer review by outside scientists. Reviewer Dr. Cristina Eisenberg expressly stated in her comments that while wolf recolonization and recovery in California will undeniably have impacts on ungulates, “the strengths of these impacts are impossible to fully predict” and she does “not expect that wolf predation on elk will be as much of an issue as predicted in the Plan.” Dr. Eisenberg continued, “Relocation of wolves subsequent to a reduction of allocated big game tags is not based on science, it is based on natural resources management economics. It is inappropriate to apply such an economic approach to a wolf population that is in the early stages of becoming established. It risks scapegoating wolves further, and this could have negative impacts on human perception of wolves.” Finally, she noted that, “[l]ethal control of wolves to promote elk and other prey species population growth . . . is unacceptable. Other strategies need to be implemented, such as ungulate or wolf translocation. This opens the door for lethal take without sideboards and scapegoats the wolf in a system in which predator-prey relationships will be highly complex ecologically.”³³

Recent decline in elk in Montana's Bitterroot Valley was at first attributed to wolf predation. What the Montana Department of Fish, Wildlife and Parks (MFWP) discovered, however, is that the primary predator was mountain lion, not wolves. But the action that precipitated the original decline was too generous an issuance of hunting cow tags and thus human hunting was a major factor in the original decline.³⁴

A report issued by MFWP this year surveying elk in Management Unit 313 demonstrates the effect that hunting is having on elk near Yellowstone National Park.³⁵ The final chart in the report (Fig. 3) shows six-point bulls declining in numbers, which represents the impact of hunting outside of the Park. Decline in bulls is likely affecting the overall productivity of the elk herds. While elk herds within Yellowstone have declined over the years since the reintroduction of wolves (Fig. 2), most observers think the 19,000 elk that existed in the park prior to wolves was far too many and that the elk numbers there today are far more sustainable.

The Draft Wolf Plan acknowledges elsewhere how a decline in ungulate populations sometimes had a beneficial effect on vegetation, yet the Department and the Plan clearly consider a decline

³³ Eisenberg, Dr. Cristina. California Wolf Plan Peer Review comment letter to CDFW, January 2015.

³⁴ Perry Backus. Solving the Bitterroot Elk Mystery. How biologists and local volunteers finally figured out what was reducing the popular Ravalli County elk population. Montana Outdoors, Nov-Dec 2014. http://fwp.mt.gov/mtoutdoors/HTML/articles/2014/BitterrootElkResults.htm#.VruPem_2aM9

³⁵ Montana Fish, Wildlife and Parks. 2016. Winter 2016 Hunting District 313 Elk Survey (Gardiner to 6-mile Creek). Prepared by MFWP biologist Karen Loveless.

in elk to be a "negative", as expressed in Chapter 6 and in the coyote/bear/wolf management strategies enumerated in that chapter (and in the tables in Appendix G) that would be triggered by specified declines in ungulate population numbers and/or ratios. In reality, a decline in elk herbivory pressure could be beneficial to many other species--assuming that elk numbers are high enough to be having an impact--which one can't tell from the Department's own documentation. Studies cited elsewhere in the Plan documented higher song bird nesting populations where elk herbivory on willows declined. More willows can also result in greater beaver colonization -- which in California would be a real advantage as beaver impoundments would aid in keeping water flows during drought periods. It would also help endangered species of salmon and trout. The Plan does acknowledge that wolves might affect coyote numbers and cause other changes such as an increase in jackrabbit or higher fox survival. Yet the Plan acts as though these changes are not important if elk numbers decline.

Regarding the Plan's reliance on specific cow/calf ratios as triggers, it is essential for the Plan to note that declines in elk cow/calf ratios usually self-correct to some degree if given time. In both the Bitterroot Valley example mentioned above, as well as in Yellowstone National Park, elk numbers declined due to predators including wolves as well as human hunting (hunting outside of Yellowstone), but after a period of time -- five to seven years -- their numbers began to recover. So the time frame is important. What may seem like a one-way decline may be more of an oscillation. The resulting elk herd is healthier with a higher proportion of reproductive age cows.

The Plan at pp. 104-105 of Chapter 6 contains some discussion of how weather/climate would affect elk and deer. The discussion is focused largely on how climate change could affect the abundance, distribution and structure of natural plant communities on which deer and elk depend for browse, and how that might affect deer and elk. However, the Plan fails to discuss the impacts of drought. This is a remarkable omission given the state of extreme drought that currently exists across much of the western United States and quite notably in California. Productivity declines significantly in drought. In Yellowstone for instance, in 1989, severe drought caused 1/3 of the elk herd to die off due to starvation (this was before wolves were present). Drought will also make elk and deer vulnerable to wolf predation, and though mortality would then in a sense be compensatory, we see a dangerous trend in this Plan which would instead blame wolves for the decline.

The Plan's proposed action strategies for how to address an elk decline are extremely troubling and based on a pro-hunting philosophy, as opposed to being approached as a science issue. The first step should be to eliminate all human mortality, i.e. hunting pressure, and to let elk populations find their own balance. Wolves should not be killed merely to increase elk for hunters to kill. Killing wolves to increase elk for human hunters is a strategy based in philosophy, not a science-based ecosystem approach.

Threats To Wolves From Illegal Killing Due To Mistaken Identification As Coyotes Have Not Been Addressed.

In her peer review comment letter regarding the Draft Plan, Dr. Cristina Eisenberg emphasized the conservation threat to wolves of killings due to mistaken identity as coyotes, and urged that “coyote hunting be eliminated in California, in order to enable wolf conservation to proceed.”³⁶

Dr. Eisenberg’s call to action is well justified and the Draft Plan’s failure to discuss this conservation threat to wolves is incomprehensible. Chapter 9 addresses Wolf Conservation and contains a discussion of threats to wolves including human-caused mortality, yet lacks any discussion whatsoever of human-caused mortality of wolves due to mistaken identification nor proposes any strategies to address this conservation threat. The environmental caucus of the SWG submitted to the Department extensive comments, proposed text and literature citations on this topic more than a year ago, yet none appear in the Draft Plan. The sole statement in the Draft Wolf Plan regarding such killings appears on p. 137, footnote 44, as a token mention of the radio-collared wolf from Wyoming which dispersed to Arizona, was named ‘Echo’ by schoolchildren in a nationwide naming contest, but was then killed two months later by a hunter claiming to have mistaken the animal for a coyote.

The fact is, state and federal officials have reported wolves being shot mistakenly as coyotes in all parts of the country where wolves are returning. Environmental caucus comments sent to the Department more than a year ago included the following:

“It is essential for the safety of this state- and -federally-protected species that members of the public in California know how to distinguish a wolf from other canids. In many states where wolves are starting to return, lone dispersing wolves have been shot by hunters or landowners who stated they thought the animal they were shooting was a coyote. Between 1980-2014, 56 instances of wolves dispersing to areas outside of core recovery areas have been documented; 36 of the animals were shot and killed, another 12 found dead or killed in another manner and the fate of 8 are unknown (Weiss et al. 2014).³⁷ Of the 36 that were shot and killed, in 11 instances the shooter expressly indicated thinking it was a coyote (Weiss et al. 2014). In late December 2014, a radio-collared wolf that had dispersed nearly 500 miles from Wyoming into Utah was killed by a hunter who said he thought it was a coyote.³⁸ In California, as in all states, it is imperative that hunters be certain of the identity of their target before pulling the trigger; in the case of wolves, it is illegal to kill an endangered species and there are penalties, including the potential of jail-time and fines, for violating the law.”

In the 15 months since the release of the report by Weiss et al. until now, at least an additional four instances have been reported of wolves shot by hunters claiming they thought the animals were coyotes. These include the killing of the wolf known as Echo, who weighed 110 pounds; a wolf killed in Oregon in the fall of 2015, and two wolves killed in Iowa in December 2015,

³⁶ *Id.*

³⁷ Weiss et al. 2014.

³⁸ <http://www.sltrib.com/news/1999741-155/utah-hunter-kills-wolf-near-beaver>

which weighed, respectively, 103 and 98 pounds.³⁹ In addition, in North Carolina, at least five red wolves were killed by hunters in 2012 engaged in night-spotlight-hunting of coyotes. The instances we describe here are only the ones that agencies know about. It is highly likely far more dispersing wolves have been mistaken for coyotes and killed than have been reported or discovered.⁴⁰

The Department is on notice of this threat to wolves not just because conservation group SWG members included this topic in our comment letter to the Department a year ago. In early 2013, conservation groups called the Department's attention to a California coyote-killing contest conservation groups had just learned of, which takes place annually since its inception in 2006. That contest, sponsored by Adin Supply and the Pitt River Rod and Gun Club, based in the town of Adin in Modoc County, is held on public and private lands in the northern California counties. This region is the very pathway for dispersing wolves from Oregon to enter into and reestablish in California. Starting in 2013 and continuing over the next several years, conservation groups and the public urged state and federal officials to halt this contest and others like it in California, because contest-hunts are scientifically indefensible, unethical and inhumane to coyotes, and because they create significant risk of harm or death to legally-protected wolves that may be traversing the landscape where the contests are taking place. In the two years that the administrative petition filed by conservation groups in 2012 to list the gray wolf under CESA was pending, the Department admitted it was concerned for the safety of wolves during these contests and had sent law enforcement to the area to advise participants how to distinguish between wolves and coyotes and that it was illegal to kill a federally-protected species.⁴¹ Wolves subsequently in 2014 were listed under CESA by the California Fish and Game Commission, who also in 2015 banned giving out inducements or prizes in contest hunts of nongame mammals and furbearers, however the Adin coyote contest hunt continues to take place each year in the direct path of any wolves migrating into California from Oregon.

In light of the extensive amount of documented death-by-mistaken-identification of wolves which has occurred in states across the nation, and in light of strong concerns expressed by conservation groups and members of the general public to the Department and to the Commission since at least 2013 that coyote-killing contests in northern California are not only counter to science but a conservation threat to wolves entering the state, it is stunning that the Draft Wolf Plan includes no discussion of this threat to wolf recovery and conservation nor any discussion of strategic actions the Department will take to halt or lessen this threat. It is

³⁹ Despite being 2-3 times larger and weighing 3-4 times more than the average coyote, wolves are being shot by hunters claiming mistaken identification.

⁴⁰ Illegal killing of wolves occurs for a number of reasons. One of the chief reasons is accidental killings, either through mistaken identity or when caught in traps set for other species. 76 Fed. Reg. at 26117. It is likely that most illegal killings intentional or not, are never reported to government authorities. *Id.* Because the killings generally occur in remote locations and the evidence is easily concealed, there are no reliable estimates of illegal killings of gray wolves. *Id.*

⁴¹ In its notice of findings for the gray wolf CESA listing, the Commission confirmed that "dispersing wolves and small wolf populations are inherently at risk due to . . . being killed by hunters that mistake them for coyotes" and "[Department staff] have been fearful that . . . unknown wolves that could be in California would be mistaken for a coyote and shot or harmed." California Fish and Game Commission, Notice of Finding and Notice of Proposed Rulemaking Gray Wolf (2014).

imperative this omission is remedied, complete with a strategic plan of action described by the Department.

Comments Regarding The Plan's Assessment of Wolf Taxonomy, Population Size And Genetics Issues Regarding Hybridization.

Taxonomy.

Part II of the Draft Plan, at p. 16 discusses wolf taxonomy. It is good to see that CDFW considers *Canis lupus* at the full species level with respect to the Wolf Plan, as we feel that this view is appropriate. The Plan is also correct that the proliferation of subspecies was a historical error and the only potential subspecies relevant to California is the Mexican gray wolf, *C.l.baileyi*. All of the wolves that may migrate into California, from the north, are of the same species *Canis lupus*.

However, we would like to comment on the inclusion in the Plan of the reference to Chambers *et al.*, 2012. The Plan is correct to point out that scientific peer reviewers have disputed the approach and conclusions of Chambers *et al.* 2012. The lead author on the paper was on the USFWS staff which may have led to bias. In addition, this paper was not subject to independent peer review as is expected for legitimate scientific research. Nor is it at all clear why the conclusions of Chambers *et al.* 2012 would be relevant to this Plan even if its conclusions were thought to be valid by the research community.

We feel that the Chambers *et al.* 2012 paper should not be cited in the text or listed in Table 1.1. Disputed findings that are suspected of being biased and appeared in a non-peer reviewed journal really have no place in the CDFW wolf plan. We believe the inclusion of this material only unnecessarily confuses the reader.

Population Size.

Part II of the Draft Plan, at p. 148 discusses population size. We agree that "California's wolf population will likely be connected through migration with the larger wolf metapopulation in the Pacific Northwest, which will provide important infusions of genetic variation toward population health" and that genetic bottlenecks are unlikely. However, for this to remain true it is important that Washington, Idaho and Oregon maintain a healthy and sufficient size wolf population. California should work with those states to insure healthy populations in all.

Hybridization.

Part II of the Draft Plan, at p. 150, discusses concerns regarding wolf hybridization with other canid species. We disagree with Coppinger *et al.* 2010 that wolves' genomes should be considered as "fixed entities". Nothing in nature is fixed and that is particularly true about the genomes of living animal. Variation at the level of DNA occurs continually, albeit slowly, through mutation, genetic drift and hybridization. Although hybridization with domestic dogs should not be encouraged it is nothing to excessively fear. Wolves and dogs have continued to interbreed for the past 40,000 years ever since the first wolves began to spend time near Pleistocene humans on the hunting trail. And they will in the future. In fact, one of the reasons that it is proving so difficult to establish the timeline of dog domestication is that wolves and

dogs have continued to interbreed over the millennia. As noted in the example of Anderson *et al.* 2009 dogs introduced the black coat color to the wild wolf population. We do not see hybridization as a significant threat to wolves.

The Plan Should Discuss Potential Economic Benefit to Local and Regional Economies from Wolf-Related Ecotourism and Consumer Market for Predator-Friendly Livestock Products.

The Plan does not – but should -- discuss the potential economic benefit that could accrue to entire communities or regions due to wolf-related ecotourism and those visitors' expenditures in local economies. Conservation groups submitted published literature to the Department on this topic previously, and it should be included. The Plan also should discuss the potential financial benefit to individual ranchers who adopt predator-friendly, nonlethal coexistence measures and are able to market their product as such. Many West Coast residents would be willing to pay a premium price for beef or lamb produced without wolves being killed. A complete list of all published literature we submitted to the Department one year ago can be found in Appendix C. Articles pertaining to economic benefit from recolonizing wolves are contained in that list.

Ungulate Population and Habitat Management are Important for Wolf Conservation and Recovery Efforts.

It is important that elk populations are adequately assessed before hunting tags are increased, as was proposed in the recently rescinded Elk Environmental Assessment. The Department states that most elk populations are increasing, however, Rocky Mountain elk populations may be static and systematic surveys for elk have not been implemented in northern California.

We expect CDFW to conduct comprehensive Elk and Deer Management Plans that incorporate the needs of wolves and their effects on native elk populations. Because wolves may rely on healthy populations of ungulates it is imperative that the management plans incorporate clear goals and strategies from the California Wolf Conservation Plan, specifically relating to habitat connectivity and restoration, as well accounting for increasing wolf populations when determining ungulate population thresholds that would initiate management strategies of either species.

Throughout Chapter 6, Wolf Interactions with Ungulates, the Department stresses the difficulty of determining cause-specific mortality of ungulate populations. The cause of specific mortality for elk has not been studied in California and the overall impact from black bear, coyote and mountain lion predation on elk in California is not fully known. Deer mortality is influenced by a long list of factors that are constantly changing. The wolf plan must rely on fact rather than assumptions, when contemplating the initiation of management considerations, particularly in relation to increasing hunting of other predators such as bear and coyote.

The Department should consider the negative effects of livestock grazing on public and private lands. Cattle compete with native ungulates for habitat and forage. Based on six years of field

monitoring by the Project to Reform Public Land Grazing in Northern California, EPIC volunteers have found the impacts of poorly managed grazing on water quality and prime ungulate habitat has resulted in degradation, fragmentation, and overgrazing of native vegetation, such western bunchgrasses, which wild ungulate populations depend on.⁴²

The Department Should Actively Seek Out All Opportunities to Weigh in on Land Management Actions with Federal Agencies and Participate in Land Management Planning Processes.

As outlined in Chapter 8, Coordination with Other States and Federal Agencies, we agree that working with federal land management agencies is extremely important. A strong recommendation from the Department to the U.S. Forest Service and BLM to properly manage current grazing allotments on public lands would go a long way. Current management needs to change in order to improve habitat quality, accommodate for ungulate populations and to minimize overutilization. We strongly urge the Department to participate in forthcoming national forest and BLM plan revisions in the interest of all native California wildlife, including the gray wolf.

We are encouraged to see that strategies defined in Part I of the plan include increased collaboration. We urge the Department to embrace their responsibilities in wildlife management by actively participating and collaborating with the US Forest Service, BLM, US Fish and Wildlife Service and NOAA Fisheries, as all of these agencies, including the Department, are directed to work together. Working together can include participation in upcoming national forest land management plan revisions, as is suggested on page 138, and on a project level through the National Environmental Policy Act planning processes, collaborative and partnership endeavors, such as the Western Klamath Restoration Partnership, Trinity County Collaborative and Firescape Mendocino. These large-landscape collaboratives, which include the US Forest Service as a key partner, cover a vast expanse of Northern California that includes important wolf habitat. These working partnerships are addressing issues such as wildfire, cultural and prescribed burning, wildlife habitat needs and planning treatments that will greatly affect long-term management of our public lands and habitat for both wolves and their native prey species. Please also work with the Department's Landscape Conservation Cooperative Network.

The Plan Should Describe Priorities for Protecting, Restoring and Enhancing Habitat That Would Benefit Wolves Because the State Wildlife Action Plan Identifies the Gray Wolf as a Focal Species of Conservation Strategies

We request that CDFW develop priorities to protect, restore, and enhance habitat that would benefit gray wolves. We would like to remind CDFW of the goals, targets and strategies that are outlined in the State Wildlife Management Plan (SWAP). Table 5.2-3 in the SWAP, identifies the gray wolf as a Focal Species of Conservation Strategies Developed for Conservation Targets

⁴² Pace, F. 2015. Project to Reform Public Land Grazing in Northern California.
http://www.wildcalifornia.org/wp-content/uploads/2016/01/Annual-Report_2015_final-final.pdf

in the Cascades and Modoc Plateau Province, dwelling within the North Coastal mixed evergreen and montane forests. The table below contains conservation strategy categories for the two bioregions that are associated with the gray wolf in the SWAP.

Gray wolf conservation units and targets

North Coastal Mixed Evergreen and Montane Forests	Western Upland Grasslands
Data Collection and Analysis	Data Collection and Analysis
Management Planning	Direct Management
Land Acquisition/ easement/ lease	Economic Incentives
Law and Policy	Land Acquisition/ Easement/ Lease
Outreach and Education	Land Use Planning
	Law and Policy

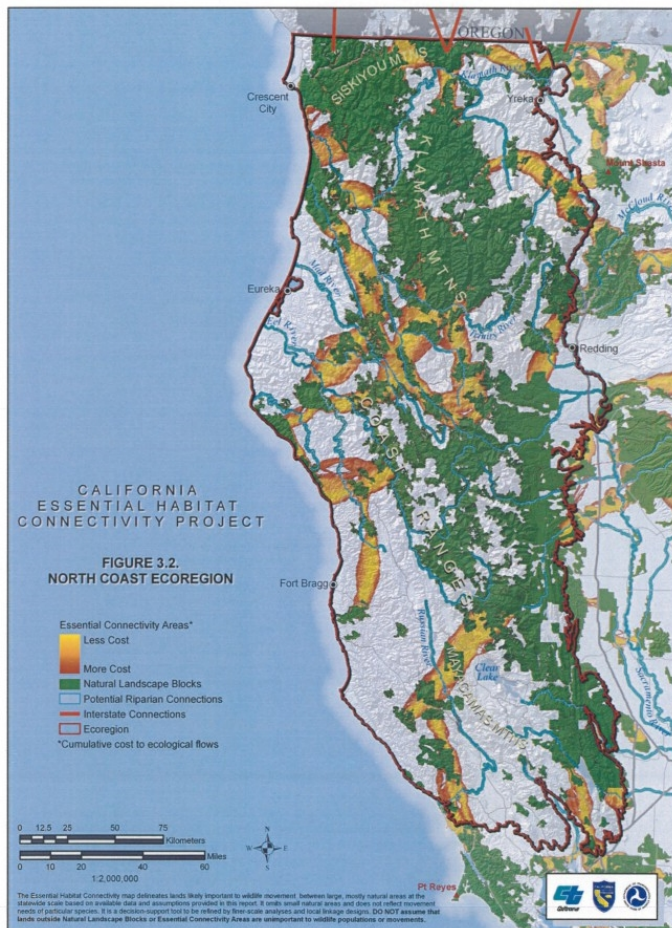
The Plan Should Identify Habitat Conservation and Connectivity Priorities that will Benefit Wolf Recovery

The Draft Wolf Plan acknowledges the significance to wolves of habitat conservation and connectivity with this statement: “First and foremost, large landscapes of suitable and non-fragmented habitat capable of supporting wolves and their primary prey are needed. This priority is not dissimilar from the habitat needs of hundreds of California wildlife species and is a basic tenet in any species conservation plan.” Part I page 13. We agree.

All of the potential concerns for wolf conservation detailed in the Habitat Alteration section of Chapter 9 point to a dire need for habitat connectivity, however the Connectivity section on page 158 of this chapter is extremely limited and is verbatim of what was in the initial Draft plan presented to the SWG a year ago. None of Environmental Caucus comments were included in this version of Draft Wolf Plan which is now out for public comment.

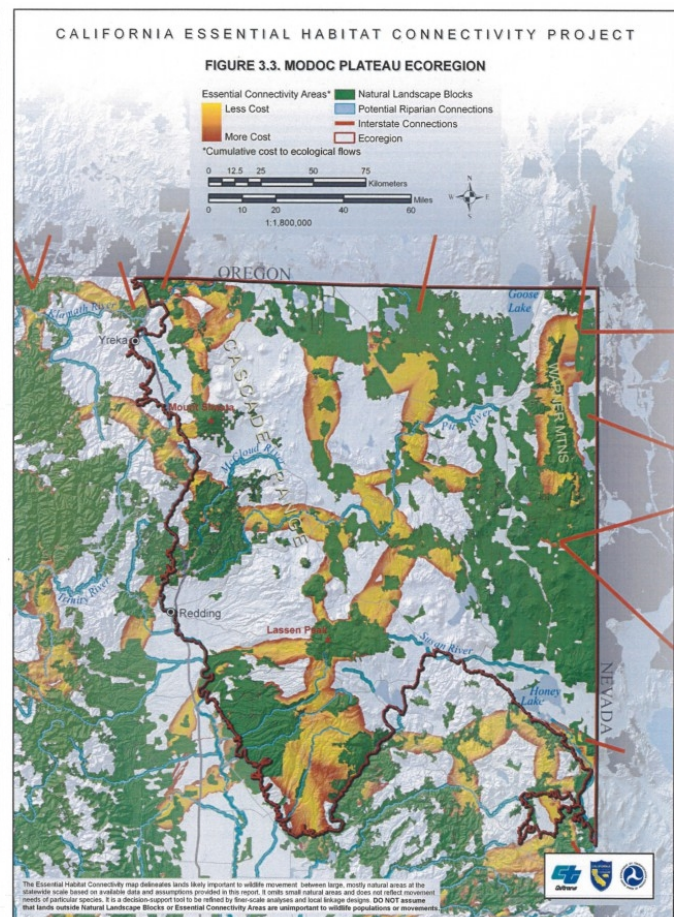
We are perplexed as to why the Department does not recognize its own work done on connectivity. The maps below are from the 2010 Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. For ease this document can be found online at <http://www.dfg.ca.gov/habcon/connectivity/>

We ask that the Department begin developing tangible tasks and deadlines to begin establishing these essential habitat corridors, and incorporate the maps below into the wolf Plan.



California Essential Habitat Connectivity Project

43



California Essential Habitat Connectivity Project

46

The Plan's Trophic Cascades Discussion Should Include Published Research Demonstrating Wolves' Positive Impacts in the Western Great Lakes States.

Chapter 1 of the Draft Wolf Plan introduces the reader to essential information about wolf biology and ecology. In general, it's well-written but the section on trophic cascades seems to do its best to downplay potential effects generated by reestablishment of wolves. In discussing what effects wolves may or may not have on their wild ungulate prey and other parts of the ecosystem, the Draft chapter gives limited examples. It should give readers a broader, more informed perspective on this topic.

For instance, research results are discussed from a study conducted in Banff National Park showing an elk population decline after wolf recolonization. A more inclusive discussion would also contain information from the Wyoming, Montana and Idaho state agencies on elk populations, which are at or above management unit objectives nearly everywhere, and hunter harvest success rates which have for several years been at all-time highs despite the presence of

approximately 1600 wolves across those states. A year ago, conservation group SWG members submitted information, text and citations to the Department on this very topic. None were included in the Draft Wolf Plan but the final version of the Plan should include this information. Citations for this literature are again provided to the Department in the comprehensive list found in Appendix C.

The Draft Wolf Plan's discussion of trophic cascades cautions against assuming that any wolf-related effects on vegetation in Yellowstone National Park could occur outside of parks. A more expansive discussion would include the research from Wisconsin examining vegetative understory in non-wolf-occupied, low-wolf-occupied and high-wolf-occupied areas. Several studies showed positive vegetative responses, especially when comparing low-wolf to high-wolf occupied areas and when sufficient time elapsed, but indicated that research design was important and design factors may have negatively impacted research results. Research results suggested that trophic cascade effects exist, are subtle, require about a decade before they are apparent, do not resemble deer-free conditions, and might become more apparent over time.⁴³

This chapter should also include a discussion of the research from Wisconsin in which researchers concluded that as distribution of Chronic Wasting Disease in deer and wolf range overlap in the future, wolf predation may suppress disease emergence or limit prevalence.⁴⁴

Chapter 1 is where most readers will obtain essential information about wolves. It is imperative that information provided regarding trophic cascades effects of wolves be more broadly representative of the current science and facts on the ground.

The Plan's Discussion on Impacts of Wolf Mortality and Wolf-Killing on Wolf Packs Should Include the Findings of a 2014 Symposium on This Very Topic.

Part II, Chapter 9, on "Wolf Conservation" includes a short discussion on pp. 144-145 regarding responses of wolves to different levels and causes of mortality, and the effect of breeder loss on pack dynamics and size. This section cites to papers by Brainerd et al. (2008), Smith et al. (2010) and Borg et al. (2014), among others. We provide in Appendix D a more comprehensive treatment of the subject, in the form of a white paper co-authored by Dr. John Marzluff and Dr. Aaron Wirsing and two of their graduate students, from the University of Washington's School of Environmental and Forest Sciences.

The paper is a synthesis of findings presented at a symposium held October 29th, 2014 at the University of Washington and co-hosted by the Pacific Wolf Coalition and Professors Marzluff and Wirsing. The subject was "Tackling Wolf Management's Thorniest Issue: The Ecological and Social Complexities of Lethal Control," and the symposium consisted of presentations given by Dr. Douglas Smith, Dr. Scott Brainerd, Dr. Adrian Treves, Dr. Jeremy Bruskotter, Dr. Rob Wielgus, Dr. Donny Martorello and Carter Niemeyer. The paper provides detailed findings described by each presenter, and sums up the findings of the presenters that lethal removal can disrupt wolf pack dynamics, inhibiting recovery objectives in recolonizing populations,

⁴³ Callan et al. 2013; Bouchard et al. 2013; Rooney et al. PowerPoint presentation.

⁴⁴ Wild et al. 2011.

potentially increase livestock depredations, and negatively affect human attitudes towards wolves.⁴⁵

The Plan's Discussion of Human Social Tolerance for Wolves Should Discuss and Cite to Additional Sources.

Polls and Surveys. Part II, Chapter 3, on “Human Interactions and Current Perceptions of Wolves” includes a section discussing human perceptions and attitudes towards wolves (at pp. 47-50). Page 48 notes that “[r]esearchers have conducted a number of surveys to measure human attitudes towards wolves (ranging from positive to negative) or wolf restoration, to gauge public support for such activities. Most of these efforts were conducted prior to wolf restoration and very few occurred post wolf occupancy.”

One year ago, conservation group SWG members provided the Department with surveys and polls gauging public support for wolf restoration and legal protections for wolves. Only one of the surveys we provided is discussed in this section and it relates only to people's attitudes towards wolves. None of the polls and surveys we provided which inquired about people's attitudes regarding wolf restoration and legal protections were discussed or cited to. Most of the polls and surveys we provided were recent, all were conducted after wolf restoration and occupancy occurred in several parts of the U.S., and almost all of them were polls and surveys that gathered data expressly from people living in California, Oregon and/or Washington or all three.

The polls and surveys we provided to the Department show overwhelming support by the public for continued legal protections for wolves, a view that wolves are a part of our natural heritage, and a desire to see wolves restored in the very state where the poll/survey respondent lived.

The discussion in Chapter 3 on polls and surveys should be more broadly representative of existing polls and surveys by including those we previously submitted to the Department. Citations for this literature are again provided to the Department in the comprehensive list found in Appendix C.

Wolf Conservation and Human-Caused Mortality. Part II, Chapter 9 discusses “Wolf Conservation.” In section B, Threats to Wolf Conservation, on pp. 143-145, the chapter discusses threats from Human-Caused Mortality. Pages 143-144 relate the historical extirpation of wolves in the conterminous United States and describe the “sport harvest” of wolves and predator control, but fail to include a discussion of the lack of agency understanding of the key threat to wolf population viability, i.e., human tolerance.

Dr. Adrian Treves, who has authored more than 100 scientific articles on ecology, conservation and society, is director of the Carnivore Coexistence Lab at the University of Wisconsin-Madison. A significant portion of his work is devoted to research on human-carnivore conflicts

⁴⁵ The panel discussion was also videotaped and each panelist's presentation can be viewed and listened to at <http://www.pacificwolves.org/videos/>

and human attitudes towards carnivores. In Chapter 3, his research team's work analyzing data from surveys taken over an 11-year period in Wisconsin is mentioned. Dr. Treves' research results found that when protections for wolves were lifted and state-sanctioned hunting seasons instituted, tolerance for wolves decreased, demands for more wolf-killing increased, and poaching increased. His findings are downplayed by the Department as being results obtained in the early stages of wolf recovery while the population was growing and hunting instituted only a few years ago. However, the Department entirely misses the boat on the overarching message, which is that the main threat to wolf population viability – i.e., human tolerance manifested through illegal take (poaching) – is not adequately understood by any federal or state agency yet and that the management actions agencies take in the absence of understanding can have serious repercussions. Per Dr. Treves, “The available evidence suggests delisting and legalizing or liberalizing lethal control is more likely to increase poaching which is the major threat to wolves in the USA than decrease it.” Dr. Treves' letter to the Oregon Fish and Wildlife Commission on this critical topic can be found in Appendix B (it is the 2nd letter in the compilation of scientists' comment letters). We urge you to read Dr. Treves' letter to the Commission and include a discussion of this crucial topic in section B. of Chapter 9.

The Plan's Discussion of Human Perceptions and Interactions with Wolves Should Include Discussion and Citation to New Paper Establishing that More than 50% of Attacks on Humans by Carnivores is Due to Inappropriate Conduct by Humans.

Part II, Chapter 3, on “Human Interactions and Current Perceptions of Wolves” discusses Human Safety (at pp. 43-45) and Interaction with the Public (at pp. 45-47). Both describe instances of aggression or attacks by wolves on humans and/or contexts for those interactions. One or both of these sections should cite to and include a discussion of a recently published paper which finds that about half of all well-documented reported attacks by carnivores (black bears, brown bears, mountain lions, wolves and coyotes) in Europe and North America have involved risk-enhancing human behaviors, and that prevention and information that can encourage appropriate human behavior when sharing the landscape with large carnivores is of paramount importance to reduce both dangerous human-carnivore encounters and their consequences to carnivores. A discussion of this paper would be beneficial to any reader who lives, recreates or works in landscapes where there are bears, mountain lions, coyotes and wolves in California. It provides published research demonstrating that humans can choose to take actions which are risk-enhancing or risk-reducing and that it benefits us and California's carnivores to be thoughtful and do the latter.⁴⁶

Evidence of Historical Wolf Presence in California as Indicated Languages, Tales, Practices and Ceremonies of Native Peoples Deserves a Heading Other than “Anecdotal Observations.”

In Part II, Chapter 1, Wolf Life History and Background is discussed. At pp. 20-24, historical distribution and abundance of wolves in California, museum specimens and anecdotal observations are described. We are disappointed to see included under the heading “anecdotal

⁴⁶ Penteriani et al. 2016.

observations” the information which comes from the languages, tales, practices and ceremonies of California’s native peoples. Given the 10,000 year history of native inhabitation of California well before the arrival of European explorers, settlers, market hunters, gold rush miners and others, it seems truly and culturally inappropriate to characterize evidence from 10,000 years of culture as mere “anecdotes.” If anything should be characterized in the Plan as anecdotes, it should be the ranchers’ and hunters’ fears, perceptions, attitudes, and beliefs, given no one in California has systematic, scientific observations of wolves to make.

During the SWG meetings, the environmental caucus requested that the Plan distinguish the evidence from California tribes in a separate section. Possibly it could be entitled “Evidence from Traditional Ecological Knowledge.” If that is not an accurate characterization of evidence from language, tales, practices and ceremonies, we feel certain the Department could come up with another suitable, distinct heading.

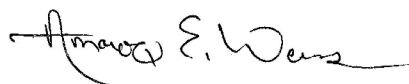
CONCLUSION

As detailed in the comments above, our organizations greatly appreciate the Department’s open, transparent and inclusive approach to planning for wolf conservation and management in California as the species makes its return after a nearly century-long absence. CDFW has a legal obligation to manage wildlife on behalf of all citizens of California. Promoting coexistence between wolves and livestock producers will be of critical importance to the successful management of wolves in our state, and many of our organizations stand ready to assist the Department in its effort to successfully recover gray wolf populations in California.

Numerous concerns remain about various aspects of the Draft Plan, however, including but not limited to the Department’s suggested population thresholds and duration of management phases, reducing protections at state and federal levels, lack of prioritization of actions and missing information. It is our collective hope that the Department will thoroughly review these comments and thoughtfully incorporate our suggestions to make a stronger and more comprehensive Wolf Plan that will guide recovery, conservation and management of the species well into the future.

We appreciate this opportunity to provide these comments and recommendations regarding the Department’s Draft Wolf Plan. Please do not hesitate to contact any of us if you have questions about what we have provided to you.

Sincerely,



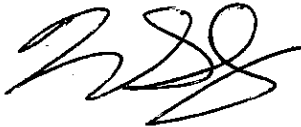
Amaroq Weiss
West Coast Wolf Organizer
Center for Biological Diversity
aweiss@biologicaldiversity.org
707-779-9613



Pamela Flick
California Representative
Defenders of Wildlife
pflick@defenders.org
916-442-5746

/s/ Jessica L. Blome

Jessica L. Blome
Senior Staff Attorney
Animal Legal Defense Fund
jblome@aldf.org
641-431-0478



Nick Cady
Legal Director
Cascadia Wildlands
nick@cascwild.org
541-434-1463



Kimberly Baker
Public Land Advocate
Environmental Protection Information Center (EPIC)
Kimberly@wildcalifornia.org
707-822-7711



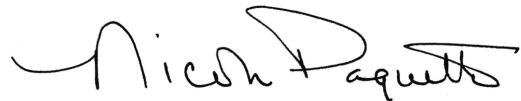
Winston Thomas, PhD
Pacific Region Representative
Living with Wolves
winstonjthomas@gmail.com
650-533-9979



Karin Vardaman
Director, California Wolf Recovery
California Wolf Center
karin.vardaman@californiawolfcenter.org
949-429-9950



Mark Rockwell
Pacific Coast Representative
Endangered Species Coalition
mrockwell@endangered.org
530-432-0100



Nicole Paquette
Vice President, Wildlife Protection
Humane Society of the United States
npaquette@humanesociety.org
301-258-1532



Damon Nagami
Senior Attorney and Director,
Southern California Ecosystems Project
Natural Resources Defense Council
dnagami@nrdc.org
310-434-2300



Camilla Fox
Founder and Executive Director
Project Coyote
cfox@projectcoyote.org
415-945-3232



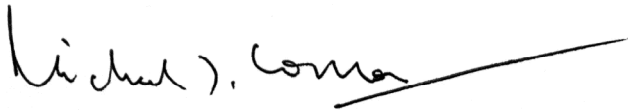
Edward Moreno
Policy Advocate
Sierra Club California
edward.moreno@sierraclub.org
916-557-1100 x109



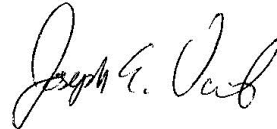
Brooks Fahy
Executive Director
Predator Defense
brooks@predatordefense.org
541-937-4261



Bethany Cotton
Wildlife Program Director
WildEarth Guardians
bcotton@wildearthguardians.org
503-327-4923



Michael J. Connor, Ph.D.
California Director
Western Watersheds Project
mjconnor@westernwatersheds.org
818-345-0425



Joseph Vaile
Executive Director
Klamath-Siskiyou Wildlands Center
joseph@kswild.org
541-488-5789



Maureen Hackett, M.D.
Founder and President
Howling for Wolves
hackett@howlingforwolves.org
612-424-3613

/s Nancy Warren

Nancy Warren
Executive Director
National Wolfwatcher Coalition
nwarren1@earthlink.net

/s Melissa Smith

Melissa Smith
President and Executive Director
Friends of the Wisconsin Wolf & Wildlife
msmith@endangered.org

LITERATURE CITED

(pdfs of listed items are in Appendix E, except Gowan et al. 2015 is in Appendix D.)

Bouchard, K., Wiedenhoef, J.E., Wydeven, A.P., and T.P. Rooney. 2013. Boreal Environment Research 18 (suppl A): 43-49.

California Fish and Game Commission, Notice of Finding and Notice of Proposed Rulemaking Gray Wolf (2014), 9, <http://www.fgc.ca.gov/CESA/gwfindingslistingwarranted.pdf>

Callan, R. Nibbelink, N.P., Rooney, T.P., Wiedenhoef, J.E. and A.P. Wydeven. 2013. Recolonizing wolves trigger a trophic cascade in Wisconsin (USA). Journal of Ecology Vol. 101: 837-845.

Cassandra Profita, *The Cost of Killing Washington's Wedge Wolves*, Oregon Public Broadcasting, Nov. 14, 2012, <http://www.opb.org/news/blog/ecotrope/the-cost-of-killing-washingtons-wedge-wolves/>

Eisenberg, Dr. Christina. California Wolf Plan Peer Review comment letter to CDFW, January 2015.

Endangered Species Handbook. 1983. Animal Welfare Institute.
http://www.endangeredspecieshandbook.org/legislation_endangered.php

Estes, J.A., J. Terborgh, J.S. Brashares, M.E. Power, J. Berger, W.J. Bond, S.R. Carpenter, T.E. Essington, R.D. Holt, J.B.C. Jackson, R.J. Marquis, L. Oksanen, T. Oksanen, R.T. Paine, E.K. Pikitch, W.J. Ripple, S.A. Sandin, M. Scheffer, T.W. Schoener, J.B. Shurin, A.R.E. Sinclair, M.E. Soule, R. Virtanen, and D.A. Wardle. 2011. Trophic downgrading of Planet Earth. Science 333: 301.

Glaser, C., Romaniello, C. and K. Moskowitz. 2015. Costs and Consequences: The real price of livestock grazing on America's public lands. Special Report. Center for Biological Diversity.
http://www.biologicaldiversity.org/programs/public_landsgrazing/pdfs/CostsAndConsequences_01-2015.pdf

Gowan, C.H., Bogezi, C., Marzluff, J.M. and A.J. Wirsing. 2015. Tackling Wolf Management's Thorniest Issue: The Ecological and Social Complexities of Lethal Control. A wolf conservation discussion panel, co-hosted by Pacific Wolf Coalition and University of Washington's School of Environmental and Forest Sciences (October 29th, 2014). 22 pp.
<http://www.pacificwolves.org/wp-content/uploads/2015/10/Lethal-Wolf-Removal-Panel-White-Paper-final-08.28.2015.pdf>

Imbert, C., Caniglia, R., Fabbri, E., Milanesi, P., Randi, E., Serafini, M., Torretta, E. and A. Meriggi. 2016. Why do wolves eat livestock? Factors influencing wolf diet in northern Italy. Biological Conservation 195: 156-168.

Montana Fish, Wildlife and Parks. 2016. Winter 2016 Hunting District 313 Elk Survey (Gardiner to 6-mile Creek). Prepared by MFWP biologists Karen Loveless.

McManus, J.S., Dickman, A.J., Gaynor, D., Smuts, B.H. and D.W. MacDonald. 2014. Dead or alive? Comparing costs and benefits of lethal and nonlethal human-wildlife conflict mitigation on livestock farms. *Fauna & Flora International, Oryx*, 9 pp. doi: 10.1017/50030605313001610.

Oregon Wolf Conservation and Management Plan. Oregon Department of Fish and Wildlife. December 2005 and Updated 2010.
http://www.dfw.state.or.us/wolves/docs/Oregon_Wolf_Conservation_and_Management_Plan_2010.pdf

Pace, F. 2015. Project to Reform Public Land Grazing in Northern California.
http://www.wildcalifornia.org/wp-content/uploads/2016/01/Annual-Report_2015_final-final.pdf

Penteriani, V., del Mar Delgado, M., Pinchera, F., Naves, J., Fernández-Gil, A., Kojola, I., Härkönen, S., Norberg, H., Frank, J., María Fedriani, J., Sahlén, V., Støen, O., Swenson, J.E., Wabakken, P., Pellegrini, M., Herrero, S. and J.V. López-Bao. 2016. Human behaviour can trigger large carnivore attacks in developed countries. *Scientific Reports*, 2016; 6: 20552 DOI: [10.1038/srep20552](https://doi.org/10.1038/srep20552)

Perry Backus. Solving the Bitterroot Elk Mystery. How biologists and local volunteers finally figured out what was reducing the popular Ravalli County elk population. *Montana Outdoors*, Nov-Dec 2014.
http://fwp.mt.gov/mtoutdoors/HTML/articles/2014/BitterrootElkResults.htm#.VruPem_2aM9

Ripple, W.J., J.A. Estes, R.L. Beschta, C.C. Wilmers, E.G. Ritchie, M. Hebblewhite, J. Berger, B. Elmhagen, M. Letnic, M.P. Nelson, O.J. Schmitz, D.W. Smith, A.D. Wallach, and A.J. Wirsing. 2014. Status and ecological effects of the world's largest carnivores. *Science* Vol. 343: 1241484.

Rooney, T.P., Callan, R., Bouchard, K. and N.P. Nibbelink. Trophic Cascades in Great Lakes Wolves. PowerPoint presentation.

Study of Fees for Grazing Livestock on Federal Lands. A Report from the Secretary of the Interior and the Secretary of Agriculture. October 21, 1977.

Uniform Bail and Penalty Schedules, Judicial Council of California, July 2011, page 121.

Urban, M. and L. Deegan, T-shirt Weather in the Arctic, *New York Times*, Feb. 5, 2016.
http://mobile.nytimes.com/2016/02/06/opinion/t-shirt-weather-in-the-arctic.html?_r=0

Weiss, A., Greenwald, N., and C. Bradley. 2014. Making Room for Wolf Recovery. The Case for Maintaining Endangered Species Act Protections for America's Wolves. Center for Biological Diversity. 24 pp.

http://www.biologicaldiversity.org/campaigns/gray_wolves/pdfs/Making_Room_for_Recovery_web.pdf

Wild, M.A., Hobbs, N.T., Graham, M.S. and M.W. Miller. 2011. The role of predation in disease control: A comparison of selective and nonselective removal on prion disease dynamics in deer. *Journal of Wildlife Diseases*. 47(1): 78-93.

Wilmers, C.C. and W.M. Getz. 2005. Gray wolves as climate change buffers in Yellowstone. *PLoS Biology*. 3(4):e92.

Wolf Conservation and Management Plan. Wiles, G.J., Allen, H.L. and G.E. Hayes. Washington Department of Fish and Wildlife Wildlife Program. State of Washington. December 2011. <http://wdfw.wa.gov/publications/00001/wdfw00001.pdf>

NEWS RELEASES

ODFW news release: Fish and Wildlife Commission delists wolves statewide in split vote (4-2). <http://www.dfw.state.or.us/news/2015/November/110915.asp>

Center for Biological Diversity press release: Legal Challenge Filed Over Removal of Protections From Oregon's Gray Wolves http://www.biologicaldiversity.org/news/press_releases/2015/wolf-12-30-2015.html

VIDEO

Wolf conservation discussion panel on ecological and social complexities of lethal control. October 29, 2014. Co-hosted by Pacific Wolf Coalition and University of Washington's School of Environmental and Forest Sciences. <http://www.pacificwolves.org/videos/>

CASELAW

Center for Biological Diversity v. FPL Group, Inc., 166 Cal. App. 4th 1349 (2008).

Berkeley v. Superior Court, 26 Cal. 3d 515, 521 (Cal. 1980);

Illinois Central Railroad Company v. Illinois 146 U.S. 387 (1892).

National Audubon Society v. Superior Court of Alpine County, 33 Cal.3d 419, 433 (1983).

Wildearth Guardians and NMWA v US Dept of Justice, Case 4:13-cv-00392-DCB, 5/30/13, p4, item 11. US District Court, Arizona, Tucson Division.

STATUTES AND REGULATIONS

California

California Fish & Game Code §§ 2050-2069

California Fish & Game Code § 711.7(a)

California Fish & Game Code § 1600

Section 670.1, Title 14 of the California Code of Regulations

Oregon

ORS §§ 496.171 - 996

ORS § 498.014(a)(A)

OAR 635-110-0010(8)(b)(B)

RCW § 77.04.012

Washington

WAC 232-12-297, §4.1

WAC 232-12-297, § 4.2

Federal

16 U.S.C. §1532(19)