CENTER *for* BIOLOGICAL DIVERSITY *Because life is good.*

Oregon Department of Fish and Wildlife June 30, 2010

Via E-mail: ODFW.Comments@state.or.us

Re: Oregon Wolf Conservation and Management Plan revision process.

To Whom it May Concern,

The Center for Biological Diversity is a national non-profit conservation organization dedicated to protecting and restoring imperiled species and their ecosystems. The Center is supported by 7,000 members and on-line activists within Oregon, and 255,000 nationwide. Since our founding in 1989, we have played an active role in promoting the recovery of gray wolves in the United States. We appreciate the opportunity to comment on the Oregon Wolf Conservation and Management Plan and to recommend changes.

Introduction

The 2005 Oregon Wolf Conservation and Management Plan represents the good faith efforts of many Oregonians to express their values and interests, to listen respectfully to others' points of view, and to develop a plan that seeks to balance disparate policy and management approaches. We honor the wolf plan and those who created it for the commendable acts of civic participation that went into its creation. Nevertheless, in significant respects the wolf plan is scientifically unsupportable and legally deficient. The plan as written will not suffice to prevent the re-extirpation of wolves from the State of Oregon – much less to ensure their biological recovery. For these reasons, we request fundamental changes in the plan.

The overarching flaw in the Oregon Wolf Conservation and Management Plan is that it permits livestock owners to demand the trapping and shooting ("take") of wolves without providing safeguards to limit such take. The ensuing aerial gunning of wolves in eastern Oregon, including an ongoing effort to kill two wolves from the state's only breeding pack, along with aggressive wolf reduction measures undertaken in Idaho, undercut the wolf plan's blithe assumption that wolf numbers will steadily increase in the state. In a related flaw, the wolf plan would remove wolves from the state endangered list at an arbitrarily low number of wolves and without ensuring the population's security.

Non-lethal Wolf Deterrence is Voluntary and Feckless

The Oregon Wolf Conservation and Management Plan suggests that state-endangered wolves will receive some tolerance when they prey on livestock through managers' "first choice" use of "non-lethal techniques such as radio-activated guard devices, non-injurious harassment, fladry, husbandry, and others." (p. 38) However, such measures are entirely voluntary:

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> *Generally*, non-lethal techniques *should* be the first choice when wolf/livestock conflicts are reported. . . Wolf managers and livestock producers are *not required* to exhaust all non-lethal techniques, but instead, a *good faith effort* to achieve a non-lethal solution is *expected*. . . . [L]ivestock producers will be *encouraged* to employ management techniques to discourage wolf depredation, and agencies will advise and assist in implementing such techniques. (p. 39, italics added)

The wolf plan's official encouragement to livestock owners to deter wolves from preying on livestock is not nearly as consequential as its extension of almost absolute authority to livestock owners – and their adjoining neighbors -- to order the killing of wolves, including those that have depredated just twice or depredated even once but reported to have "attempted" to depredate on other occasions:

> State or federal agents are authorized to use lethal force on wolves on public or private land at a property owner's or permittee request if the property or an adjacent property has had either two confirmed depredations by wolves on livestock or one confirmed depredation followed by up to three attempted depredations (testing or stalking). For such action to occur, the following criteria apply:
> • The action must be conducted by authorized state or federal personnel only.
> • Attempts to solve the situation through non-lethal means must be documented.
> • No unreasonable conditions exist that are attracting wolf-livestock conflict. (p. 43)

In practice, Oregon Department of Fish and Wildlife has interpreted the last bullet point – unreasonable conditions attracting wolves – as to exclude the existence of livestock carcasses that drew wolves in to scavenge before they began depredating. The two wolves shot last fall for depredating, and the Imnaha Pack of which two wolves are currently hunted, were both drawn to the presence of livestock by carcasses of stock that they had not killed. Non-lethal means that do not include consistent burial or destruction (for example through the use of lime) of livestock carcasses *before* wolves scavenge on them and begin to depredate will seldom prove successful, rendering meaningless the requirement to attempt them.

For wolves to be targeted after just two or even a single depredation will preclude their establishment almost anywhere in Oregon. "Wolf managers working with livestock producers are encouraged to employ management techniques that have the highest likelihood of success to resolving the conflicts and that are reasonable for the individual situation" (p. 39). Once a conflict has developed – i.e. wolves have learned to hunt livestock – clearly the action most likely to end the conflict is to kill the wolves, since dead wolves will not prey on stock again and even the most deterred live wolf might still resume depredating. The wolf plan notes that in the northern Rocky Mountains "members of wolf packs encountering livestock on a regular basis are likely to depredate sporadically" (p. 36). In almost all of Oregon, wolves will encounter livestock on a regular basis, and unless management differs from that practiced in the northern Rockies – principally in the matter of livestock carcass disposal – Oregon wolves too will sporadically prey on stock.

Such sporadic depredations perpetrated by the Imnaha Pack, the last of which occurred on May 31, a full month ago, sufficed to authorize the shooting of two of that pack's members.

These animals are currently being hunted despite the fact that the Imnaha Pack is the only reproducing pack known in Oregon. Despite or perhaps because of the repeated invocation of the romantic yet elliptical phrase "human tolerance" in the Oregon Wolf Conservation and Management Plan (see below), the essence of the wolf plan is *wolf control*. And that is how the plan is interpreted and carried out in the field.

State Wolf Recovery Goal is Scientifically Unsupportable and Legally Deficient

The Oregon Wolf Conservation and Management Plan's criterion for delisting wolves, although obfuscated through recommendations (that have no backing in the Oregon Endangered Species Act and thus do not carry the force of law) for management after delisting, is shockingly at odds with modern scientific findings:

> The conservation population objective for Oregon is defined as four breeding pairs of wolves present for three consecutive years in eastern Oregon. This population objective represents a sufficient number of wolves to ensure the natural reproductive potential of the wolf population is not in danger of failure. . . . This conservation population objective is based on the prediction that, if the protections of the Oregon ESA are withdrawn when four breeding pairs have been present for three consecutive years in eastern Oregon, a naturally self-sustaining population of wolves would continue to exist in Oregon. This will support the necessary findings on the delisting criteria, justifying a Commission decision to delist the species" (p. 27).

To justify removing wolves from the state endangered species list after establishment of just four breeding pairs, the wolf plan states, "Research published in 2003 suggested that the smallest viable wolf populations might be two to three adjacent packs with four wolves each, located 40-60 kilometers apart (Fuller et al. 2003)" (p. 28). Perusal of the cited article [Fuller, T.K., L. David Mech and Jean Fitts Cochrane. 2003. "Wolf Population Dynamics." In: *Wolves, Behavior, Ecology, and Conservation*. Eds. L. David Mech and Luigi Boitani. University of Chicago Press (pp. 161-191)] reveals that this statement reflects a misreading of this passage: "[A] single, isolated pack should have a lower chance of persisting than a group of several adjacent packs. . . . [I]f we were prescribing a formula for the smallest demographically viable wolf population, we might include two to three adjacent packs" (Mech & Boitain, p. 163). The two to three *adjacent* packs, in this off-the-cuff sounding remark, would be in addition to a single pack – totaling three to four adjacent packs that might, conceivably, be viable. Nor do the authors suggest, as the wolf plan intimates, that this casual reference to a prescription for an imagined formula is based on "research;" it is proffered more as a gut-level guestimate.

In contrast, the best available current science indicates a numeric threshold for viability that is scales of magnitude greater than four packs. For example, in Traill, L. W., Corey J. A. Bradshaw, and Barry W. Brook, Minimum viable population size: a meta-analysis of 30 years of published estimates. Biological Conservation 139 (2007) 159-166, researchers found that based on all available literature, the 95% confidence interval for minimum viable population size for mammals is 2,261 to 5,095. Since those numbers refer to an effective population – that is,

breeding animals -- the actual population range to achieve viability for wolves, most of which do not breed, may be several times higher.

. The wolf plan concedes that "State law does not allow the presence of healthy populations of wolves in adjacent states to satisfy delisting criteria, regardless of their importance to wolves located within the state. The number of breeding pairs and their distribution within Oregon must be sufficient to stand alone in determining whether the delisting criteria are met" (p. 29). Thus, the four breeding wolf packs in eastern Oregon that are contemplated as the trigger for consideration of statewide delisting would have to be viable without reference to wolves in Idaho – a highly doubtful situation even as measures undertaken to reduce Idaho's wolf numbers may indeed result in diminishment or cessation of wolf immigration from Idaho.

Despite the wolf plan's proclamation that four breeding pairs would sustain the population, thus justifying a Commission decision to delist, the legal criteria for delisting will not be met at just four breeding pairs:

> • The species is not now (and is not likely in the foreseeable future to be) in danger of extinction in any significant portion of its range in Oregon or in danger of becoming endangered; and
> • The species' natural reproductive potential is not in danger of failure due to limited population numbers, disease, predation, or other natural or human-related factors affecting its continued existence; and
> • Most populations are not undergoing imminent or active deterioration of range or primary habitat; and
> • Over-utilization of the species or its habitat for commercial, recreational, scientific, or educational purposes is not occurring or likely to occur; and
> • Existing state or federal programs or regulations are adequate to protect the species and its habitat.
> These determinations must be based upon verifiable scientific information" (p. 15)

Contrary to the first bullet point, delisting could occur without a single wolf inhabiting the entirety of western Oregon. The wolf plan's delisting criteria thus effectively define western Oregon as not a significant portion of the wolf's range in the state – an unsupportable finding

The second bullet point is also absurd, since just four breeding pairs -- even if they were not at continued risk of government persecution, which they would be – would not be genetically viable. Reintroduced Mexican gray wolves in the Southwest have experienced a major decline in reproductive potential due to inbreeding depression (see Fredrickson, R.J., P. Siminski, M. Woolf, and P.W. Hedrick. 2007. Genetic rescue and inbreeding depression in Mexican wolves. *Proceedings of the Royal Society Bulletin* 274:2365-2371); four wolf pairs in Oregon would also be likely to experience inbreeding depression and declining fertility.

Certifying the third bullet point would also prove difficult, since ongoing grazing of wolf habitat surely comprises active deterioration of the wolf's range or primary habitat -- even disregarding that a single wolf population would indeed comprise "most" of the state's wolf population(s).

The last bullet point, touting existing state or federal programs or regulations adequate to protect the species and its habitat, are contradicted by the uncircumscribed authority to "control" wolves within the wolf plan itself.

"Suitable Habitat" for Wolves is Chimerical and Subordinates Conservation to Livestock.

The Oregon Wolf Conservation and Management Plan's first objective for wolf distribution, population management, and monitoring, together with its footnote, ensure the supremacy of wolf "control" over wolf recovery: "Permit establishment of a naturally reproducing wolf population in suitable habitat within Oregon, connected to a larger source population of wolves, which allows for expansion into other areas of the state" (wolf plan, p. 16). The footnote is as follows:

> Suitable habitat (e.g., high, medium, low suitability) is defined by factors including availability of natural prey, level of human occupation, level of livestock activity, and density of open roads. As habitat generalists, wolves are able to survive in many places. Therefore, unsuitable habitat likely will be defined by human tolerance. Without specific data or experience with wolves on the Oregon landscape, defining the range of habitat suitability must be necessarily vague at this point in time. (p. 16)

The flip side to permitting establishment of wolves in "suitable habitat" within Oregon is that within *unsuitable habitat* wolves will not be permitted to persist. And unsuitable habitat turns out to be almost all of the State of Oregon. In fact, it is unclear if there is any landscape in Oregon sufficiently large to sustain a wolf population through both summer and winter, in which – setting aside the vexatious question of how to measure the effect of "human tolerance" on wolf survival – high levels of natural wolf prey and low levels of human occupation coincide with low numbers of livestock and a low road density. The wolf plan's definition of suitable habitat, coupled with the broad authority it grants livestock owners to command the removal of depredating wolves, effectively defines large swaths of public and private lands as unsuitable and thereby precludes the conservation of wolves in Oregon.

Invoking "Tolerance" Serves to Cloak Brutally Unscientific Practices

Tolerance – as in "human tolerance" and "social tolerance" -- serves in the Oregon Wolf Conservation and Management Plan as an unquestioned lodestar, elevated at once to the status of formal objective but also serving as the rationale behind wolf control. The second objective listed in the wolf plan is to "Promote social tolerance for wolves by effectively and responsibly addressing conflict with competing human values through the use of management measures consistent with long-term wolf conservation in all phases of wolf management status under this plan" (p. 16). The wolf plan states that "The ability to persist will be determined largely by the degree of human tolerance for the species across the state's vast rural landscapes" (p. 18) – an assumption which if true gives credence to the notion of killing some wolves (referred to in the oblique if not Stalinist-sounding phrase "management measures") to ensure the persistence of others. (This assumption also underlies the issuance of take permits for a state endangered species under Oregon law, since such take is only allowed upon a finding that the take "is

consistent with conserving the species in Oregon" – p. 40.) Yet, it turns out that "The locations of livestock on the landscape will influence both distribution and public acceptance of wolves" (p. 24). Thus, it appears, where there are livestock, public acceptance (i.e. social tolerance) will be lower, and wolves will seldom if not never be permitted to persist. Even the wolf plan's reassurance that wolf distribution will expand robustly in the state, comes with caveats:

> It is not the intent of this plan to physically zone the state. However, de-facto zones will exist because management responses will consider habitat suitability factors as defined in footnote 22 (page 16) [i.e. natural prey, human occupation, livestock, open roads, and human tolerance]. Management responses to situations of wolf/human conflict are expected to result in some areas that are not suitable for persistent wolf occupation and others where wolf occupation merits encouragement (e.g., den sites, abundant prey, low human activity). While wolves will not be distributed throughout all of their historic range in Oregon, wolf distribution will not be restricted by management actions to only the most secure habitats. Management must recognize that suitable habitat may well exist outside of these areas and provide opportunity for colonization. Allowing wolves access to habitat throughout the state is intended to provide for their long-term survival in the modern Oregon landscape if in so doing social tolerance is not reduced as a result of conflict. (p. 24)

That last phrase, premising wolves' access to habitat on not reducing social tolerance as a result of conflict, reinforces that at its heart, the wolf plan proscribes or at least severely limits wolf residency in regions with livestock.

Wolf Control Trumps Tolerance

The premise that wolf control can increase human tolerance, and thus allow for wolf recovery is the orthodox position of the U.S. Fish and Wildlife Service, and has served as the basis of policy and management in each of its three gray wolf recovery programs. In the Great Lakes and the northern Rocky Mountains, authority to conduct wolf control proved consistent with increases in the numbers of wolves. In both regions, wolves had access to millions of acres with either no livestock or almost no stock. Wolves in these livestock-free areas consistently replenished wolves in areas of livestock occupancy where wolf control depleted numbers.

The third gray wolf recovery program run by the Fish and Wildlife Service, for the Mexican gray wolf in Arizona and New Mexico, relies on the same policy assumptions but – similarly to landscape management in Oregon – does not include millions of acres devoid of livestock. Mexican gray wolves were reintroduced to the 4.4-million acre Blue Range Wolf Recovery Area in 1998, with an initial goal of establishing at least 100 wolves by 2006, including a projected 18 breeding pairs. Those expectations have been dashed largely as a result of federal predator control. Eleven wolves have been shot by the government, 18 killed inadvertently as a result of capture, and 34 have been captured and not released back to the wild. At last count in January 2010, just 42 wolves including two breeding pairs existed in the wild.

The record with reintroduced Mexican gray wolves demonstrates that a small population of wolves can be effectively suppressed through federal predator control. If predator control is

the likely response to wolf depredations, then growing wolf numbers beyond a few breeding pairs requires either ensuring that wolves are not drawn to livestock, or millions of acres with essentially no livestock. The Oregon Wolf Conservation and Management Plan, through its lack of meaningful measures to deter wolves from depredating the livestock they must encounter regularly, and through its free-fire policy against wolves that depredate just once or twice, precludes wolf recovery in the state.

Summary and Recommendations

The revision of the Oregon Wolf Conservation and Management Plan should include three fundamental reforms, as follows:

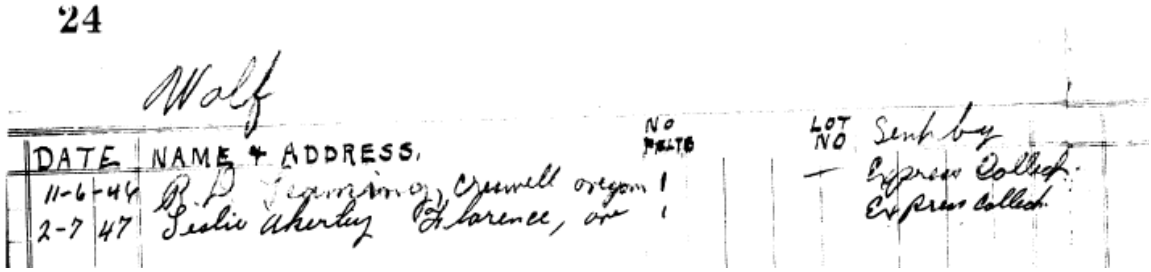
1. Require the removal or destruction (i.e., rendering inedible) of the carcasses of non-wolf-killed livestock so that wolves are not attracted to areas with vulnerable stock. Such a provision would do more to prevent depredations than fladry and other cited measures

2. Eliminate the authorization for killing wolves not caught in the act of attacking livestock. The provision allowing government personnel to kill wolves days, weeks or months after depredations is punitive and bears little practical relation to preventing future wolf depredations, since other wolves may take the place of those that are killed.

3. Raise the bar for consideration of taking wolves off the Oregon endangered species list, from the unsupportable number of four breeding pairs to a number reflecting the needed distribution within and outside the state to ensure Oregon's wolves' connectivity to wolves elsewhere and to ensure the wolves' genetic health. Citing an offhand written reference to an imagined "formula" that might allow four wolf packs to be viable, despite abundant genetic evidence to the contrary, is not defensible.

Historical Correction

The Oregon Wolf Conservation and Mangement Plan erroneously reports that "The last record of a wolf submitted for bounty in Oregon was in 1946 for an animal killed in the Umpqua National Forest in southwest Oregon" (p. 5). However, as reported in Robinson, M. J., *Predatory Bureaucracy: The Extermination of Wolves and the Transformation of the West* (University Press of Colorado, 2005), p. 286, and as evidenced in the copy (see below) of part of a page from the Oregon bounty ledger books from 1946 to 1947, the last wolf in the state was turned in for a bounty on February 7, 1947: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Wolf

DATE	NAME & ADDRESS.	NO PELTS	LOT NO
11-6-46	R. P. [illegible] Creswell oregon		Sent by Express Collect.
2-7 47	Leslie Aberley Florence, or		Express collect

Thank you for you consideration.

Sincerely,

Michael J. Robinson
Conservation Advocate