



IN REPLY REFER TO:
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United States Department of the Interior

NATIONAL PARK SERVICE

Mount Rainier National Park
55210 238th Avenue E.
Ashford, Washington 98304-9751

January 7, 2010

SEPA/NEPA Desk
600 Capitol Way North
Olympia, Washington 98501-1091

Dear Sir/Madam:

We, the Superintendents of Mount Rainier, North Cascades and Olympic National Parks, respectfully submit the following comments to the Washington State Wolf Management Plan:

We commend the Department for the thoroughness and extent of the *Wolf Conservation and Management Plan for Washington State*. Few issues stir more interest than the conservation and management of wolves, and we recognize the substantial challenges associated with balancing all stakeholder perspectives and needs. Furthermore, we appreciate the deliberate and transparent process the Department used to bring together a wide diversity of stakeholders.

The gray wolf population is either extirpated or depleted in NPS units throughout Washington, and the NPS has an affirmative responsibility to secure their recovery and continued existence as a component of the natural fauna of national parks. Current *NPS Management Policies (2006)* direct the parks to "protect and strive to recover all species native to national park system units that are listed under the Endangered Species Act", and supports our responsibilities under Section 7 of the Endangered Species Act. The *Wolf Conservation and Management Plan for Washington State* states its purpose is "to ensure the reestablishment of a self-sustaining population of gray wolves in Washington and to encourage social tolerance for the species by reducing and addressing conflicts". With these convergent goals, we support the overall objective of the plan and look forward to working with the Department on wolf recovery.

In reviewing the alternatives presented, we recommend that the Department reconsider its preferred alternative, and adopt Alternative 3, or a modification of Alternative 2 that includes a separate Pacific Coast recovery zone as outlined in Alternative 3. Throughout the EIS in the impact analysis section, the Department states that under the preferred Alternative 2, "this alternative would be less likely to result in the establishment of wolf populations in far western Washington" (p. 48). Consequently, under the preferred Alternative, it is unlikely that wolves will be restored to Olympic National Park. Under Alternative 3, wolves would be restored to Olympic National Park sooner rather than later, better meeting the state's recovery objectives by shortening the period to delisting and full recovery, and also meeting NPS management objectives. Our position is founded on the following information, much of which is included in the plan:

- The feasibility study on the reintroduction of gray wolves to the Olympic Peninsula (Ratti *et al.* 1999) estimates that 56 wolves could persist on the Olympic Peninsula, principally on lands with Olympic National Park. Unlike the case discussed with Glacier National Park (p. 46), Olympic National Park contains both summer and winter range for the majority of its elk and deer populations. Consequently, wolves in the park would not be in conflict with either livestock owners or hunters, as they may be in other areas of the State.
- As discussed in the Plan on page 45, and illustrated on Figures 5 through 7, there are significant barriers to wolf dispersal (e.g. I-5 corridor) that make it unlikely that wolves will recolonize the Pacific Coast area, and the Olympic Peninsula in particular, on their own.
- As discussed and illustrated in the Plan, the best wolf habitat in state - the largest and highest concentration of potential source habitat (Figure 6b and 7) is on the Olympic Peninsula, within and adjacent to Olympic National Park. As stated on page 37 of the Plan, "for wolves the long

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term persistence of a population in Washington will depend on other factors as well, including proximity and connectivity to source populations (outside and potentially within the state)'. Consequently, by not choosing an alternative that places wolves into the predicted best source population area in the state, achieving recovery objectives may be hampered.

Although we are concerned that the delisting criteria of 15 pairs may be too low for long term population viability in Washington, we defer to the ongoing scientific review for that analysis and hope the State will adhere closely to the recommendations set forth through the analysis. We would also like to express our concerns about the lethal removal of wolves related to declining ungulate populations. We fully realize that the Department has a responsibility to the hunting public. However, your plan also recognizes the ecological role of large predators in the proper functioning of an ecosystem. Given the interactions of predator and prey populations across large landscapes with widely varied jurisdictions and management objectives, we suggest that the plan should also call for discussions with adjoining public land management entities prior to embarking on predator control.

We support the plan's intention to make outreach and education a priority. Additionally, the discussion about wildlife watching opportunities on page 60 of the EIS should also include this activity on NPS units. As has been the case with Yellowstone National Park in Wyoming, NPS units will most likely support the best potential for this activity, which would bring economic benefit to local areas. Furthermore, the NPS has an infrastructure dedicated to the education of the public.

One question that needs clarification in the final plan: What is the coordination with USFWS? Once the state reaches its internal recovery goals (15 pairs) and is prepared to delist, will it petition the USFWS to do a similar action? Even if recovered to state standards, management options may be limited if federal restrictions still apply.

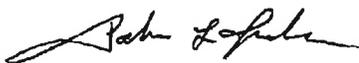
In summary, the NPS supports Washington Department of Fish and Wildlife's proactive effort to recover wolves in the State and commends the State for the process it used to formulate this Plan. Choosing Alternative 3, or modifying Alternative 2 to include a 4th Pacific Coast recovery zone will both allow the state to reach its recovery objectives and meet NPS objectives of restoring extirpated species and restoring ecosystem function in NPS units. We appreciate the Department's work in developing this draft plan, as well as the opportunity to provide our comments. Questions may be directed to: Patti Happe, Wildlife Biologist, Olympic National Park (360-565-3065); Mason Reid, Wildlife Ecologist, Mount Rainier National Park (360-569-2211, x3373); or Robert Kuntz, Wildlife Biologist, North Cascades National Park Service Complex (360-854-7320).

Sincerely,



Randy King, Acting Superintendent
Mount Rainier National Park

Date: January 7, 2010



Palmer L. Jenkins, Superintendent
North Cascades National Park Service Complex

Date: January 7, 2010



Karen Gustin, Superintendent
Olympic National Park

Date: January 7, 2010

Date: 8 January 2010

Washington Department of Fish and Wildlife
Threatened and Endangered Species Program
600 Capital Way North
Olympia, Washington

Attn: Harriet Allen

Thank you for the opportunity to comment on the draft Washington Gray Wolf Conservation and Management plan and Draft Environmental Impact Statement. The Washington Department of Fish and Wildlife made an outstanding effort to develop the management plan using a collaborative approach and developing a broad base of support for the plan. I support these efforts and the preferred Alternative 2. Please consider the following comments as you move to finalize the DEIS and the management plan:

Page 2, line 43-47-"Preliminary genetic testing of the breeding male and female suggests they are descended from wolves occurring in (1) coastal British Columbia and (2) northeastern British Columbia, northwestern Alberta, or the reintroduced populations in central Idaho and the greater Yellowstone area (J. Pollinger, pers. comm.)." This seems more general. Didn't additional analyses suggest they were most closely related to coastal BC wolves?

Chapter 3, page 44, line 7-what is the purpose of averaging the model outcomes? Seems that each model had slightly different criteria and there would be better comparisons. Not sure the value of an average outcome?

In the management plan and the DEIS (Page 55; Lines 11-13) there is wording to suggest that dens sites would be protected during the time they are active, using limited time restrictions for a small area around the site. This approach seems reasonable while gray wolves are state or federally protected but may not be needed once the species is delisted. Consider eliminating this requirement once recovery objectives are met.

In the EIS (Page 57; Line 6) there seems to be a word missing. The sentence now reads: "To date, wolves have caused any sizeable losses..." It looks like it should read: "To date, wolves have **not** caused any sizeable losses..."



The compensation program described in the Management Plan and in Alternative 2 would be one of the most expensive programs proposed to date when compared to other state, federal and private compensation efforts. While the program is important to reduce the effects of wolf recovery on livestock owners and gaining support for wolf recovery, it also needs to be realistic and affordable to be sustained.

Thank you again for the opportunity to provide comments on this important effort. Please contact me if you have any questions regarding these comments. We appreciate the efforts of WDFW to coordinate the management and conservation of wolves with other land management agencies.

Sincerely,

/s/ BILL GAINES

Bill Gaines

R6 Gray Wolf Species Lead





Forest
Service

Olympic
National
Forest

1835 Black Lake Blvd. Suite A
Olympia, WA 98512
360-956-2300 FAX 360-956-2330

File Code: 2670

Date: December 14, 2009

Route To:

Subject: Olympic National Forest review of the Washington Department of Fish and Wildlife Draft Environmental Impact Statement: Wolf Conservation and Management Plan for Washington, October 2009

To: Bill Gaines

I appreciate the opportunity to provide comment to the environmental impact statement for the Washington State Wolf Management Plan for a collective comment from the national forests of Region 6 to Washington Department of Fish and Wildlife. Kurt Aluzas and Susan Piper of my staff provided review and input to the plan as it relates to forest management activities on the Olympic National Forest.

Ungulate Management and Olympic Peninsula

- The draft plan could more thoroughly address the influence of alternate or supplemental prey species of wolf, other than ungulate. This has potential implications for coastal areas of Western Washington within recovery regions that still have intact salmon populations that could provide a supplemental or seasonally important food source. The Olympic National Forest has four federally listed fish within its jurisdiction; further analysis of the impact of the fisheries from wolf predation should be addressed in the DEIS.
- Literature citations in the DEIS show a reliance on Rocky Mountain or eastern wolf research and management. While this is certainly appropriate for the Cascade and eastern Washington portions of the recovery area, there may be literature more appropriate for the Olympic Peninsula. We suggest looking to the body of wolf research from Southeast Alaska in this respect. Historically, wolves most likely used the Olympic Peninsula in the same way that they currently use the island systems of Southeast Alaska, and to some extent there are similarities in vegetation, prey, and human settlement patterns.
- The plan would benefit from a more thorough discussion of how ungulate distribution, in addition to simple abundance, can influence the potential for wolf-human conflicts. For example, in discussing the status of elk populations in Washington, the section covering the Olympic elk herd mentions that the population outside of Olympic National Park is currently below management objectives and discusses the differences in abundance between the east and west sides of the peninsula. The bulk of the elk outside of Olympic Park reside toward the outer perimeter of the peninsula, on agricultural, tribal, and private industrial lands with higher timber harvest than on the



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Olympic National Forest. Past literature suggests that the elk populations within Olympic National Park as being adequate to support a small number of wolves (in considering reintroduction potential). More careful consideration of the distribution of prey populations is imperative on land ownership and capability in providing seasonal habitat for prey.

Public Outreach and Education

- Outreach and education efforts need to be given the same high priority under the preferred alternative as under Alternative 3.

Land Management

- We suggest that the DEIS provides further emphasis to promote a more aggressive and pro-active approach toward developing and maintaining adequate and vibrant prey populations ahead of the return of wolves to these landscapes. The strategies mention other more direct habitat improvement efforts such as improvement of forage production, and the stated commitment of WDFW to work with other public land agencies on these enhancement efforts. Active preemptory efforts to bolster ungulate populations also require an understanding of the regulatory and time constraints on habitat management on the different land ownership types. The timeframe, policy and funding constraints that differ by ownership type, when planning these efforts, is an important consideration. Conducting NEPA analysis and review takes time and National Forests in the Northwest Forest Plan implementation area bear more constraints on habitat management options than other forests, but this is not to imply that improvement to ungulate habitat isn't possible in these areas. Indeed, the Olympic National Forest has active commercial thinning, pre-commercial thinning, road decommissioning, invasive plant control, and native forage re-establishment programs that have benefits to deer and elk populations..

Interagency Coordination

- Much of the potential wolf habitat is on National Forest System lands. Many elements of the draft plan require a high level of coordination with other state and federal wildlife and land management agencies, and the draft plan is explicit in identifying the need for coordination.
- Because of anthropogenic barriers to natural wolf dispersal, the only way that wolves would arrive on the Olympic Peninsula would be through translocation. Expectations of funding for planning and implementation from partner agencies, such as the US Forest Service, will require early of planning as possible. Partnership should also extend to discussions of how to best improve prey populations and improve wolf security, and to enlisting public support and partnerships for these efforts.

If you have further questions on our Forest comments while you are developing the Regional letter, please contact Kurt Aluzas at 360-765-2230. Thank you for the opportunity to comment.

A handwritten signature in blue ink, appearing to read "Dale Hom", with a stylized flourish extending to the right.

DALE HOM
Forest Supervisor



January 8, 2010

Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, WA 98501-1091

To Whom It May Concern:

Thank you for the opportunity to comment on the Draft Wolf Conservation and Management Plan for Washington (hereafter Draft Plan). Please find attached an edited version of the Draft Plan, which is hereby incorporated as part of these comments, by reference. Inserted "sticky notes" have been attached to this copy of the Draft Plan to address specific text within the document. Overall, the Draft Plan is a very thoughtful and comprehensive document and WDFW and the members of the Wolf Working Group (WWG) should be commended for their efforts in crafting a document for managing a mammal which presents so many challenges because of the polarizing opinions and perceptions that surround it. Gray wolves represent an important component of Washington's wildlife heritage that has been absent for many decades and it is important that its rightful place in the ecosystem be restored as a self-sustaining population distributed across the state in areas of suitable habitat. However, there are certain aspects of the Draft Plan which are of concern and which may require considering a different approach to ensure wolves are successful for the long term.

One aspect of the Draft Plan that is confusing and may need additional clarification is how the proposed management objectives for state downlisting and delisting may be impacted by the federally listed status of wolves, particularly in the western two-thirds of the state (west of the current Northern Rocky Mountain Distinct Population Segment (NRM DPS) boundary). It would appear that the U.S. Fish and Wildlife Service (USFWS) approach to gray wolf recovery and delisting in other parts of the country has been based on identifying wolf populations that are considered a DPS (Great Lakes DPS, Northern Rocky Mountains DPS etc.). Based on this approach, one must assume that at some point a DPS must be identified by USFWS for that portion of gray wolf range west of the NRM DPS western boundary, which may include parts of western Oregon and perhaps even portions of northern California. Obviously, a state cannot make a unilateral decision and delist a species and initiate management actions (that may include limited hunting) while the species remains federally listed. A clear explanation of the regulatory and legal framework and possible timelines in which these things might occur should be included in the Draft Plan so the citizens of Washington have an understanding of the process and how state management of wolves might be impacted. Failure to follow the proper process and delisting hierarchy would likely result in lengthy litigation which could affect anticipated management options identified in the Draft Plan, which should be discussed in the Draft Plan.

As is noted in the Draft Plan, a critical aspect for wolf recovery to be successful is social tolerance of wolves. Given the strong emotions at both ends of the spectrum when it comes to wolves and recognizing there are some individuals, including members of the WWG, who would prefer there were no wolves in Washington, increasing social tolerance for wolves will be very challenging. It is paramount to maintain as many management options as possible to ensure that people most likely to be impacted by wolves, especially those in rural landscapes who tend to be more anti-wolf in their opinions, feel like they have some control over their particular situation and are not at the mercy of forces or conditions elsewhere in the state. The preferred alternative recognizes three recovery regions in the state (Eastern Washington, Northern Cascades, and Southern Cascades/Northwest Coast). Given the current NRM DPS boundary and the presently unknown process and timeline for federal delisting in the western two-thirds of the state, establishing recovery criteria for that portion of the state that is currently delisted (Eastern Washington) and which is most likely to be re-colonized sufficiently such that active management of wolves could be considered, independent of meeting recovery criteria in other recovery regions, might serve many purposes. First and foremost, it would likely increase social tolerance for wolves for those people living in the Eastern Washington recovery region, knowing that when wolves attain a certain population/successful breeding pair level, more management tools are available to deal with any negative impacts that may occur. This would likely reduce the illegal human-caused mortality that may occur when people are frustrated and feel the need to take matters into their own hands. This approach would also indicate to people in other recovery regions that the state recognizes the need to manage species as distinct populations, much as is presently done with other big game populations. If state-wide recovery is necessary before any management can occur, then we have no business hunting moose or bighorn sheep until they have established populations in all suitable habitat. Likewise, this would allow the state an ability to manage in portions of the state while the federal delisting process is occurring in the remainder of the state, which may take quite a long time. It is important to learn lessons from those states that have gone before us and as many people in the states of Idaho and Montana were frustrated because of the actions of the state of Wyoming, it would be unfortunate to repeat that scenario in Washington on the state level, where wolves are not able to be managed in areas where they are doing well because portions of the state have not met recovery objectives. Another major reason why this approach should be considered has to do with another aspect of the Draft Plan, which may initially seem like a reasonable recovery tool but may be seriously flawed – translocation.

To date, genetic analysis of those wolves currently in Washington show two distinct source populations – the wolves in the Lookout Pack (Northern Cascades recovery region) seem to have originated from wolves from coastal British Columbia, while the alpha male in the Diamond Pack (Eastern Washington recovery region) appears to have originated from wolves typically found in the Rocky Mountains. It is likely that the Eastern Washington recovery region will be the first area of the state to meet successful breeding pair recovery goals and would then be considered the source population from which to translocate wolves to other recovery regions that

have not met their objectives. Historically, it may be that wolves that inhabited the Cascades were genetically distinct from wolves in eastern Washington and much more research needs to be done before translocating wolves from eastern Washington into the Cascades should occur. An argument that has continued to be put forward in the Rocky Mountains is that the wolves that were reintroduced from Canada are not the same wolves that occurred historically – they are bigger, heavier and are more effective in predating ungulates (not a valid argument in that at least the first source population is pretty much a Rocky Mountain wolf). In Washington, this may well be a valid argument, and unless wolves from the Rocky Mountain genetic source population disperse naturally into the Cascades, serious consideration should be given to delivering them there in the back of a truck. At the very least, an exhaustive search of museum collections across the country should occur in an attempt to determine historical genetic composition and distribution, though Washington-origin wolves are rare in museum collections as only two have been identified in efforts thus far. It is important to maintain genetic diversity and unique populations and translocating Rocky Mountain wolves into the Cascades may be as biologically inappropriate as it would be to translocate Mexican wolves into the Cascades.

Another important and controversial issue in the Draft Plan involves the numbers of successful breeding pairs that must exist for three consecutive years within the recovery regions for downlisting and/or delisting to occur. While this was obviously a challenge for the WWG during the development of the Draft Plan, hence the minority report, it is important to remember that a self-sustaining wolf population that is genetically diverse is the ultimate management objective. If numbers of successful breeding pairs are going to be the determinants in what constitutes a recovered population of wolves, then the science of conservation biology should determine what the ultimate numbers should be, giving full consideration to wolf populations in adjoining states and provinces and how all these populations interact as a metapopulation.

In the Draft EIS, only Alternatives 2 and 3 include the hiring by WDFW of wolf specialists whose duties would include education, outreach, working with livestock producers etc. This approach to managing wolves is unrealistic and verging on unprofessional, presently false choices where choices don't truly exist. Wolves are already in Washington and more are coming soon. They are a challenging, time consuming, and expensive species to manage, but as an agency, this is what WDFW is responsible for doing on behalf of the citizens of the state. To think that it would not be necessary to hire specialists to cover this emerging situation and workload unless Alternatives 2 or 3 are selected as the preferred alternative is unrealistic – regardless of the selected alternative, WDFW is going to need wolf specialists on staff, sooner rather than later.

As with any agency management plan, having adequate financial resources available to implement and monitor a plan is essential and in neighboring states wolves have proven to be a very expensive animal to manage. The cost estimates identified in the Draft Plan are likely to be

Washington Department of Fish and Wildlife
January 8, 2010
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lower than the actual costs and WDFW should identify their priorities on where available dollars will be expended.

Thank you for the opportunity to comment on the Draft Wolf Conservation and Management Plan for Washington.

Sincerely,



Scott Fisher, Washington Department of Natural Resources

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Summary of Comments on Draft Wolf Conservation and Management Plan & Draft Environmental Impact Statement (DEIS)

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Author: sfis490 un Subject: Sticky Note Date: 12/11/2009 11:40:31 AM -08'00'

1 numbers needed for recovery, which would then be placed in a future version of the plan. All
 2 Working Group members rejected this approach and recommended the inclusion of specific
 3 recovery objectives in the plan. It was determined that measureable objectives needed to be
 4 established to: meet state law (WAC 232-12-297); develop and implement management and
 5 conservation strategies that would recover a self-sustaining population in the state; and determine
 6 when downlisting and delisting could occur. The alternative of having no recovery objectives does
 7 not meet the purpose and need of the plan.
 8
 9 Reduced numbers of successful breeding pairs for the conservation/recovery objectives would not
 10 meet the goal of the draft wolf conservation and management plan to “restore the wolf population
 11 in Washington to a self-sustaining size and geographic distribution that will result in wolves having a
 12 high probability of persisting in the state through the foreseeable future (>100 years)” Based on
 13 scientific information about wolf population viability (see Chapter 3, Section A of the draft plan,
 14 Alternative 2) and initial scientific peer review of the conservation/recovery objectives proposed in
 15 the draft plan, the targets of 6, 12, and 15 successful breeding pairs for downlisting and delisting that
 16 are used in Alternatives 1, 2 and 3 are considered minimal or barely adequate for achieving
 17 population viability and recovery.
 18
 19 Restoring wolves to historic population levels was also excluded from consideration by WDFW at
 20 the beginning of the process because it is an unattainable goal given the many changes to Washington’s
 21 landscape during the past 150 years.
 22
 23 The three-year criteria and distribution requirements in three recovery regions are factors that
 24 contribute to the 15 breeding pairs being considered adequate to achieve recovery. For these
 25 reasons, proposals incorporating smaller numbers of successful breeding pairs, reduced geographic
 26 distribution, or shorter time requirements for the targets for downlisting and delisting wolves in
 27 Washington carry a high risk of not achieving the conservation purpose of the draft plan. Such
 28 proposals do not allow for robustness of the population on the landscape over time in light of
 29 fluctuations in numbers between years, genetic issues, and other considerations.
 30
 31 Another alternative that was identified in the public scoping and considered, but not analyzed in
 32 detail, was the reintroduction of wolves into Washington from outside the state. One of the policy
 33 sideboards for the plan that was established by the WDFW director was that wolves would not be
 34 reintroduced into Washington from outside of the state to assist recovery. Instead, recovery would
 35 depend on wolves naturally dispersing back into the state on their own. It was determined that
 36 reintroduction would be an expensive, highly controversial, and unnecessary step because wolves
 37 were already dispersing into the state on their own and would continue to do so.
 38
 39 Lastly, the alternative of “no wolves”, or not allowing wolves to recover in Washington, was not
 40 deemed reasonable and was specifically identified by the WDFW Director as one of the

1 **Lethal take of wolves in the act of attacking (biting, wounding, or killing) domestic dogs:**
2 Under Alternative 2, private citizens would be allowed to kill a wolf that is "in the act" of attacking
3 (defined as biting, wounding, or killing; not just chasing or pursuing) domestic dogs on private land
4 after wolves are downlisted to state sensitive status and on private or public land after they are
5 delisted. During sensitive status, this provision would be reconsidered if used inappropriately or
6 more than 2 mortalities occur in a year.

7 **Compensation payment for confirmed and probable livestock depredation:** Alternative 2
8 recommends a two-tiered compensation system for confirmed and probable wolf-killed livestock on
9 private and public lands. Under this system, higher compensation payments are recommended on
10 grazing sites of 100 or more acres because it is harder to find livestock carcasses on larger acreages.
11 For each documented loss on sites of this size, a two-to-one ratio for payment is used to account for
12 a possible carcass that couldn't be located. Payments recommended on smaller areas do not include
13 payment for unknown animals because livestock owners are typically able to supervise their stock
14 more closely and can find nearly all carcasses.

15 For each animal confirmed to have been killed by a wolf on grazing sites of 100 or more acres, the
16 owner would receive payment at the 2:1 ratio using the current market value; and for each
17 documented probable kill, would receive half the current market value at the 2:1 ratio. For
18 confirmed kills on sites of less than 100 acres, the owner would receive the full current market value
19 of the animal; and for probable kills, half the current market value of the animal. Current market
20 value is the value of an animal at the time it would have normally gone to market. The draft wolf
21 conservation and management plan defines livestock as cattle, calves, pigs, , mules, sheep,
22 lambs, llamas, goats, guarding animals, and herding dogs.

23 **Proactive measures to reduce depredation:** Implementation of proactive non-lethal measures
24 such as modified husbandry techniques and non-lethal deterrents, can reduce (1) livestock
25 depredations by wolves, (2) the need to conduct lethal control, and (3) the costs of compensation
26 programs. Thus, use of such measures can build social tolerance for wolves and aid conservation of
27 the species. However, implementation of these measures can result in higher costs for livestock
28 producers. Under Alternative 2, WDFW would hire wolf specialists whose duties would include
29 working with livestock producers to provide technical assistance on non-lethal management
30 methods and technologies to minimize wolf-livestock conflicts and depredations. WDFW could
31 seek funding for assistance with implementing proactive measures and would work with other
32 organizations and agencies that are interested in providing livestock producers with funding,
33 additional training, and other resources needed to implement this type of assistance.

34 **Ungulate management:** Maintaining robust prey populations will benefit wolf conservation in
35 Washington by providing adequate prey for wolves, supplying hunters and recreational viewers of
36 wildlife with continued opportunities for hunting and seeing game, and reducing the potential for
37 livestock depredation by providing an alternative food to domestic animals. Alternative 2
38 recommends managing for healthy ungulate populations through habitat improvement, harvest

1 management, and reduction of illegal hunting to improve abundance in areas occupied or likely to be
2 occupied by wolves. If research determined that wolves were not meeting recovery objectives in
3 localized areas and prey availability was a key limiting factor, WDFW would consider adjusting
4 recreational harvest levels to provide adequate prey for wolves.

5 **Wolf-ungulate conflict management:** Wolves are expected to inhabit areas of Washington with
6 abundant prey that already support multiple species of predators and recreational hunters. The
7 effect on ungulate populations from adding wolves to existing predation levels and hunter harvest is
8 difficult to predict for Washington, but information from Idaho, Montana, and Wyoming, each of
9 which currently supports 300-850 wolves, suggests that wolves will have little or no effect on elk and
10 deer abundance or hunter harvest across large areas of Washington. Nevertheless, wolves have been
11 linked to declining elk herds in several areas, although they are often just one of several contributing
12 factors affecting the herds (e.g., changes in habitat, severe winter weather, and increasing
13 populations of other predators). Under Alternative 2, after wolves were delisted, WDFW could
14 consider moving wolves, or using lethal control or other control techniques to reduce wolf
15 abundance in localized areas with at-risk ungulate populations if research had determined that wolf
16 predation was a key limiting factor for the ungulate population.

17 **Outreach and education:** Outreach and education efforts are essential to wolf conservation. It is
18 crucial that wolves and wolf management issues be portrayed in an objective and unbiased manner,
19 and that the public receives accurate information about the species. The success of wolf recovery in
20 Montana, Idaho, and Wyoming is attributed, in part, to strong information and education programs
21 about wolves. Under Alternative 2, WDFW would use wolf specialists to develop and conduct
22 outreach and education programs for a variety of interested stakeholder groups, as described in
23 Chapter 12 of the draft wolf conservation and management plan.

24 **3.2.3. Alternative 1**

25 Alternative 1 has a lower standard for protection and restoration of wolves in the state and a more
26 aggressive lethal control strategy. The alternative sets the lowest objectives for achieving geographic
27 distribution, has a reduced emphasis on reestablishing wolves in the Southern Cascades/Northwest
28 Coast Recovery Region, and does not require the establishment of a wolf population in a fourth
29 recovery region (the Pacific Coast) to achieve recovery. This alternative would allow lethal control
30 of wolves by livestock owners to occur sooner than that recommended in Alternative 2 (Preferred
31 Alternative), but offers lower levels of compensation payments for wolf-caused depredation of
32 livestock. It proposes managing ungulate prey populations through standard practices, does not
33 recommend adjusting recreational harvest levels to benefit wolf conservation in certain limited
34 situations, and proposes that removal of wolves could be considered for management of ungulate
35 populations that were below herd objectives (not limited to at-risk ungulate populations) under
36 certain limited circumstances after wolves reach sensitive status. This alternative recommends
37 translocation of wolves within the state if needed, but calls for limited efforts to protect landscape
38 connectivity and conduct outreach and education for wolves.

1 **Distribution Requirements for Downlisting and Delisting:** For Alternative 3, the
 2 conservation/recovery objectives for downlisting and delisting are:

- 3 • From endangered to threatened: 6 successful breeding pairs are present for 3 consecutive
 4 years, with at least 2 successful breeding pairs in both the Eastern Washington and Northern
 5 Cascades Recovery Regions, and at least 2 successful breeding pairs distributed in either the
 6 Southern Cascades or Pacific Coast Recovery Regions, or one in each of these two regions.
- 7 • From threatened to sensitive: 12 successful breeding pairs are present for 3 consecutive
 8 years, with at least 3 successful breeding pairs in each of the four recovery regions.
- 9 • Delisting: 15 successful breeding pairs for 3 consecutive years, with at least 3 successful
 10 breeding pairs each of the four recovery regions, and 3 successful breeding pairs that could
 11 be distributed in any of the four recovery regions.

12 **Translocation:** Translocation goals and implementation would be the same under Alternative 3
 13 and Alternative 2 (Preferred Alternative).

14 **Manage for landscape connectivity:** Maintaining connectivity with wolf populations in Idaho,
 15 Montana, British Columbia, and Oregon is needed to ensure the establishment of a self-sustaining
 16 recovered wolf population in Washington. Under Alternative 3, the need to expand existing efforts
 17 to maintain and restore habitat connectivity for wolves would be emphasized the same as in
 18 Alternative 2 (Preferred Alternative).

19 **Use of non-lethal injurious harassment:** In Alternative 3, use of this tool by livestock owners
 20 and grazing allotment holders (or their designated agents) and oversight by WDFW would be
 21 delayed until wolves were downlisted to state sensitive status. In contrast, Alternative 2 (Preferred
 22 Alternative) recommends that use of this measure be allowed in all listed phases.

23 **Lethal control by state/federal agents of wolves involved in repeated livestock depredations:**
 24 Use of this tool by state/federal agents would be the same under Alternative 3 and Alternative 2
 25 (Preferred Alternative), with use allowed during all state listed statuses and after delisting, consistent
 26 with federal law.

27 **Lethal control by livestock owners of wolves involved in repeated livestock depredations:**
 28 Use of this measure would be allowed by livestock owners (including family members and
 29 authorized employees) with a permit from WDFW after wolves reach state sensitive status under
 30 both Alternative 3 and Alternative 2 (Preferred Alternative). However, while wolves are state-listed
 31 as Sensitive, Alternative 3 would restrict the use of lethal control to private lands that the livestock
 32 owner or family members/authorized employees own or lease. Use would be expanded to both
 33 private and public lands that a livestock owner (including family members and authorized
 34 employees) owns or leases after wolves were state delisted. In comparison, Alternative 2 (Preferred
 35 Alternative) allows use of lethal control on both private and public lands that a livestock owner

Author: sfs490 Subject: Sticky Note Date: 12/11/2009 11:55:34 AM -08'00'
 If Alt. #3 is supposed to provide more protection for wolves, why wait until delisting to use non-lethal injurious harassment?
 Seems more like you're just looking to make it less attractive than the preferred alternative.

1 **Wolf-ungulate conflict management:** Under Alternative 3, WDFW could consider moving
2 wolves or using other non-lethal control measures to reduce wolf abundance in localized areas with
3 at-risk ungulate populations after wolves were delisted and research had demonstrated that wolf
4 predation was a key limiting factor for the ungulate population. This differs from Alternative 2
5 (Preferred Alternative) by restricting control measures to non-lethal techniques only.
6

7 **Outreach and education:** Under Alternative 3, WDFW would use wolf specialists and existing
8 staff to develop and conduct outreach and education programs for wolves. These efforts
9 would be a higher priority than under Alternative 2 (Preferred Alternative) and would rely on both
10 WDFW wolf specialists and other staff (as available).
11

12 **3.2.5. Alternative 4: No Action (Current Management)**
13

14 Analysis of a No Action (Current Management or Status Quo) Alternative (Alternative 4) is required
15 by SEPA. This alternative would maintain WDFW's current management approach toward wolves
16 and would not result in the development of a wolf conservation and management plan. The lack of
17 a recovery plan means that conservation objectives for downlisting and delisting the species in
18 Washington would not be established; thus wolves would remain a state endangered species into the
19 foreseeable future until such a plan was developed with objectives for downlisting and delisting.

20 Under this alternative, wolf conservation and management activities by WDFW would continue as
21 currently performed. Livestock owners would be able to implement proactive non-lethal
22 approaches for resolving conflicts with wolves, and state or federal agents would perform lethal
23 removals of wolves. Without a plan, compensation for wolf depredation of livestock would be
24 limited to that currently paid by conservation organizations or to what the state legislature might
25 provide in the future under Substitute House Bill 1778, effective July 1, 2010. Under this alternative,
26 WDFW would continue to manage ungulate prey populations through standard practices, but would
27 not adjust recreational harvest levels to benefit wolf conservation, or manage ungulate populations
28 through removal of wolves. Translocation of wolves could occur within the state, if needed, but
29 without recovery objectives, there would be a lack of incentive or justification. Efforts to protect
30 landscape connectivity and conduct outreach and education about wolf conservation and
31 management would continue at current levels using existing WDFW staff. Because Alternative 4
32 would not result in the eventual state delisting of wolves in Washington, it does not meet the stated
33 purpose and need of a wolf conservation and management plan.

34 Key elements of Alternative 4 are:

35 **Number of Recovery Regions:** There would be no recovery regions designated under this
36 alternative.

37 **Distribution Requirements for Downlisting and Delisting:** There would be no
38 conservation/recovery objectives designated for achieving state downlisting and delisting of wolves
39 in Washington under this alternative. Wolves would remain listed as endangered until a state
40 recovery plan was developed, with objectives for downlisting and delisting established.

1 relationships still cannot be predicted with confidence despite 50 years of detailed research on this
2 subject (Vucetich and Peterson 2009).

3 A recent finding by Eberhardt et al. (2007) is that predation by wolves has a much lower overall
4 impact on ungulate populations than does antlerless harvest by hunters. Wolves primarily prey on
5 young of the year and older individuals beyond their prime, both of which have lower reproductive
6 value, whereas antlerless removals by hunters are concentrated on adult females of prime age. Thus,
7 wolf predation has considerably less effect on reproductive rates and growth of populations.
8 Eberhardt et al. (2007) also remarked that conservative harvests of females are needed to maintain
9 ungulate populations exposed to hunting and predation by multiple species of large carnivores at or
10 near carrying capacity.

11 As with other predators, wolf predation has the potential to threaten some small populations of
12 prey, which often have a limited capacity to increase. In Washington, examples of such populations
13 potentially include mountain caribou and certain herds of bighorn sheep.

14 Broad predictions of the effect on ungulate populations from adding wolves to existing predation
15 levels and hunter harvest are difficult to make because of localized differences in predator and
16 ungulate abundance and harvest management practices within geographic areas. However,
17 information from Idaho, Montana, and Wyoming, each of which currently supports 300-850 wolves,
18 provides useful insight on impacts that can be expected in Washington as wolves reestablish. In
19 general, wolves have had little or no effect on elk and deer abundance or hunter harvest across large
20 areas of these states, where most populations remain stable or are above population objectives (see
21 Chapter 5, Section B, of the draft wolf conservation and management plan). Wolves have been
22 linked to declining elk herds in several areas, but often they are one of several factors affecting the
23 herds (e.g., changes in habitat, severe winter weather, and increasing populations of other predators).
24 In some wolf-occupied areas, hunter success rates may have reduced because of changes in elk
25 behavior and habitat use rather than by actual declines in elk abundance.

26 *Ungulate Populations in Washington.* Overviews of ungulate species (elk, deer, moose, bighorn sheep,
27 mountain goats, and mountain caribou) and populations occurring in Washington are presented in
28 Chapter 5, Section B, of Alternative 2, Draft Wolf Conservation and Management Plan.

29 **Common to All Alternatives.** Wolves are expected to have little or no effect on the
30 abundance of elk, deer, and moose across most of Washington while wolves remain a state
31 listed species, as suggested by findings in neighboring states. However, abundance of elk,
32 deer, and moose could decline in localized areas where wolves become numerous. In all
33 cases, a number of other contributing factors will affect the extent of wolf impacts to
34 ungulate populations. These include levels of human harvest, habitat quality, winter severity,
35 fluctuating abundance of other predators and prey, human disturbance/development, and
36 the amount of mortality from other sources such as disease and vehicle collisions. The
37 presence of wolves could alter the habitat use, and hence local distributions, of elk, deer, and
38 moose in some areas as they attempt to avoid direct interactions with wolves. Predation on

1 2000. Despite these declines, elk harvest has remained strong, averaging 7,390 animals annually over
2 the past decade. Hunting opportunities for moose, bighorn sheep, and mountain goats in
3 Washington are far more limited than for deer and elk. All three species are hunted only through
4 special permit drawings, with fewer than 100 permits issued annually for each.

5
6 *Recent Impacts of Wolves on Big Game Hunting in Neighboring States.* To date, wolves have caused any
7 sizable losses of hunter opportunity in Montana, although seasons for antlerless elk in some
8 locations have been reduced to compensate for mortality from multiple sources including wolves
9 (MFWP 2007a; C. Sime, pers. comm.). In southwestern Montana, some of the most liberal
10 opportunities for elk harvest over the past three decades are currently being offered in two-thirds of
11 the region's hunting districts, all of which support wolves. However, lethal wolf control in many of
12 these areas to reduce conflicts with livestock may keep local wolf densities low enough to minimize
13 impacts on elk herds. Recently, Montana Fish, Wildlife & Parks has reduced hunting limits for
14 antlerless elk in the northern Yellowstone herd, which has undergone a substantial decline since the
15 mid-1990s due to a large past antlerless harvest, drought, and predation by wolves and other
16 predators (Eberhardt et al. 2007). This is designed to enhance adult female elk survival and to
17 decrease the removal of animals with the highest reproductive potential. Wolf impacts on deer and
18 other ungulates have not been detected to date (C. Sime, pers. comm.). In the northern Yellowstone
19 area, no reductions in hunting permits, harvest size, or hunter success for mule deer or moose have
20 occurred as a result of wolves (White et al. 2003). Montana Fish, Wildlife & Parks has not
21 experienced any declines in hunting generated revenue, license sales, or hunter success on a
22 statewide level because of wolf presence (C. Sime, pers. comm.).

23
24 Wolf impacts on big game hunting in Idaho have not been well quantified. IDFG (2008) reported
25 that wolf predation may be causing reductions in the harvestable surplus of elk in some parts of the
26 state, even if elk populations are not declining. The Lolo region, where experimental wolf control is
27 proposed, has experienced a significant reduction in elk abundance, but this trend began in the mid-
28 1980s, well before wolves became common (IDFG 2006). The extent that wolves have contributed
29 to this decline in recent years is unknown but perhaps significant. IDFG (2008) has also reported
30 that wolves are possibly reducing success rates for some hunters in parts of the state by changing the
31 behavior and habitat use of elk during the hunting season. As observed in the greater Yellowstone
32 ecosystem (Creel and Winnie 2005, Mao et al. 2005), Idaho's elk may now be spending more time in
33 forested areas, on steeper slopes, and at higher elevations than before wolf reintroductions, making
34 it more difficult for hunters to find animals. Changes in herding behavior and movement rates
35 (Proffitt et al. 2009) may also affect hunting success. Other ungulates have not been impacted by
36 wolves in Idaho, with the possible exception of moose (S. Nadeau, pers. comm.). Declines in
37 moose in some areas are poorly understood and may in fact be related to habitat changes or other
38 causes. Big game revenue and tag sales to resident and non-resident hunters have remained stable in
39 recent years for the Idaho Department of Fish and Game (B. Compton, pers. comm.; S. Nadeau,
40 pers. comm.). Some hunters have indicated that they would not return to their hunting areas

1 because of real or perceived impacts of wolves, but whether this has produced significant changes in
2 hunter activity has been difficult to assess.

3 In Wyoming, at present, there are no definitive data showing decreased hunter harvest or
4 opportunity due to wolf predation on elk or moose (WGFC 2008).

5 *Impacts of Wolves on Hunting in Washington.* The effect on ungulate populations from adding wolves to
6 existing predation levels and hunter harvest is difficult to predict in the state because of localized
7 differences in predator and ungulate abundance and harvest management practices within each
8 geographic area. However, information from Idaho, Montana, and Wyoming, each of which
9 currently supports 300-850 wolves, provides useful insight on impacts that can be expected in
10 Washington as wolves reestablish. In general, wolves have had little or no effect on elk and deer
11 abundance or hunter harvest across large areas of Idaho, Montana, and Wyoming, where most
12 populations remain stable or are above population objectives. Wolves have been linked to declining
13 elk herds in several areas, but often they are one of several factors affecting the herds (e.g., changes
14 in habitat, severe winter weather, and increasing populations of other predators). In some wolf-
15 occupied areas, hunter success rates may have been reduced because of changes in elk behavior and
16 habitat use rather than by actual declines in elk abundance.

17 **Alternative 1.** Under Alternative 1, ungulates would be managed to maintain healthy
18 population levels through standard practices (as described in game management plans),
19 adjustments to recreational harvest levels to benefit wolf conservation would not occur, and
20 management of ungulate populations that are below herd objectives could consider removal
21 of wolves under certain limited circumstances after wolves reached sensitive status.
22 Together, these actions would likely result in smaller numbers of wolves, which would
23 probably result in fewer localized impacts to ungulate populations from wolves, and few
24 adjustments of harvest levels (e.g., reductions in antlerless take, shortened hunting seasons,
25 and reduced availability of special permits) to benefit wolves. Because Alternative 1 would
26 be less likely to result in the establishment of wolf populations in a Pacific Coast recovery
27 region, few if any wolf-related impacts to hunting would occur in that part of the state.

28 **Alternative 2 – Preferred alternative (Draft Wolf Conservation and Management**
29 **Plan).** Alternative 2 would manage for healthy ungulate prey populations through standard
30 practices, and would also allow for consideration of some adjustment of recreational harvest
31 levels, if needed, to benefit wolf conservation in certain limited situations. Both scenarios
32 could result in some management restrictions being placed on harvest levels (e.g., reductions
33 in antlerless take, shortened hunting seasons, and reduced availability of special permits) in
34 localized areas. Under this alternative, management of at-risk ungulate populations could
35 consider removal of wolves under certain limited circumstances after delisting occurs.
36 Although hunting of at-risk populations would likely already be prohibited or tightly
37 restricted, removal of wolves could enhance future hunting opportunities. Because
38 Alternative 2 would be less likely to result in the establishment of wolf populations in a

1 *Livestock in Washington.* Estimated inventories of cattle and calves in Washington have remained
2 relatively stable at about 1.1-1.2 million head (including beef and dairy cattle, and cattle confined to
3 feedlots) during the past decade (NASS 2004, 2007a). Surveys from 2002, the most recent year for
4 which full data are available, reveal that cattle inventories per county are generally largest in counties
5 along the Cascade Mountains and in the Columbia Basin. Washington's sheep industry is far smaller
6 than its cattle industry, with estimated sheep numbers fluctuating between 46,000 and 58,000 head
7 during the past decade (NASS 2007a). Sheep inventories were largest in Yakima, Okanogan, Grant,
8 and Whitman counties in 2002. Other livestock vulnerable to wolf predation include goats, llamas,
9 and horses, but incidents involving these species are infrequent in other western states.

10 Many livestock producers in Washington rely entirely on private land for their annual operations,
11 whereas some depend on a combination of private land and public land grazing leases. In these
12 latter cases, animals are typically kept on private land during the winter, with most calving and
13 lambing occurring in late winter or early spring. During the warmer months, livestock are taken to
14 grazing allotments on public lands, many of which occur in more remote locations with rougher
15 topography and natural vegetative cover. Livestock are then gathered in the fall, with young shipped
16 to market and breeding stock returned to private land for winter.

17 About 2.2 million acres in 155 active grazing allotments currently exist on national forests in
18 Washington. This coverage represents about 24% of all national forest lands in the state. By far the
19 most allotments occur in the eastern Washington and are assigned for cattle. Considerable variation
20 exists in the percent of land designated as allotments within each national forest, ranging from a high
21 of 53% in Colville National Forest to 0% in Mt. Baker-Snoqualmie and Olympic National Forests.
22 Numbers of active allotments have declined substantially over the past 15 years primarily because of
23 economic and social reasons (W. Gaines, pers. comm.).

24 *Wolf Depredation on Livestock.* The recovery of wolves in other states has resulted in depredations on
25 cattle, sheep, and other livestock. However, despite significant increases in wolf populations,
26 confirmed losses to wolves have remained infrequent to date relative to total livestock numbers
27 (Bangs et al. 2005b, USFWS 2008a). Bangs et al. (2006) noted that while wolf depredations on
28 livestock were unimportant to the regional livestock industry, they could affect the economic
29 viability of some ranchers. Many factors influence depredation rates on livestock, including the
30 proximity of livestock to wolf home ranges, dens, and rendezvous sites; pack size; abundance of
31 natural prey and livestock; amount and type of vegetative cover; time of year; livestock husbandry
32 methods in both the area of concern and adjacent areas; the use of harassment tools and lethal take;
33 pasture size; and proximity to roads, dwellings, and other human presence (Mech et al. 2000, Fritts
34 et al. 2003, Treves et al. 2004, Bradley and Pletscher 2005). These factors make it difficult to predict
35 where and when depredations by wolves will occur.

36 Wolves don't necessarily attack livestock whenever livestock are encountered, but most wolf packs
37 that regularly encounter livestock are likely to depredate at some point (Bangs and Shivik 2001).
38 Some packs show increasingly frequent depredation behavior, while others may do so once or twice

1 controversial among much of the public, depredation may recur, wolves may respond by becoming
2 more active at night, it can be costly when performed by agencies, it is open to abuse when
3 conducted by the public, thereby requiring law enforcement follow-up, and excessive use can
4 preclude the recovery of wolf populations (Musiani et al. 2005, USFWS 2005, Bangs et al. 2006).

5 *Compensation for Wolf Depredation on Livestock.* Several compensation programs have been developed
6 in the western U.S. to help livestock producers recover some of the costs associated with wolf
7 depredation, with the intention that this will build greater tolerance for wolf recovery. The Bailey
8 Wildlife Foundation Wolf Compensation Trust, which is operated by the Defenders of Wildlife, has
9 been the primary program offering compensation to ranchers for livestock losses (DOW 2008).
10 Under this fund, confirmed losses of livestock and herding/guarding dogs are reimbursed at 100%
11 of their current or projected market value up to \$3,000 per animal, whereas probable losses are
12 reimbursed at 50% of their current or projected market value up to \$1,500 per animal. Idaho and
13 Wyoming have implemented their own state programs to cover other types of losses. Idaho
14 compensates for above-normal mortality as well as lower-than-expected weight gains by livestock.
15 This program also provides partial reimbursement for proactive efforts. Wyoming uses a multiplier
16 for each confirmed depredation on calves and sheep to account for undocumented wolf-caused
17 losses. Calves and sheep are compensated up to seven times the number confirmed but only up to
18 the total number reported missing by a producer.

19 *Impacts of Wolves on Livestock Production in Washington.* The reestablishment of wolves in Washington
20 will affect some livestock producers through wolf-related depredation and/or changes in husbandry
21 and management methods needed for adapting to the presence of wolves. Projections of wolf-
22 caused losses of livestock in the state are described more fully in Chapter 14, Section B, of the draft
23 wolf conservation and management plan. During the endangered and threatened phases of
24 recovery, wolves should pose little detriment to the state's livestock industry as a whole. At the wolf
25 population levels associated with the early stages of recovery, the vast majority of producers will
26 probably experience few if any annual costs, whereas a few individual producers could be more
27 affected. Some of these costs would be offset by compensation from programs such as the Bailey
28 Wildlife Foundation Wolf Compensation Trust or state programs. As wolf populations become
29 larger and more widely distributed, financial impacts are likely to accrue to more producers. Where
30 and when depredations occur will depend on different factors, including the abundance and
31 distribution of wolves and the husbandry methods and locations of livestock in areas occupied by
32 wolves.

- 33 ■ **Alternative 1.** Under this alternative, management of wolf-related conflicts involving
34 livestock and ungulates would be more aggressive. Non-lethal injurious harassment and
35 many forms of lethal control by livestock producers would be allowed during earlier stages
36 of recovery. Some of these actions would likely result in smaller numbers of wolves, which
37 could result in fewer localized wolf-livestock conflicts. Producers would receive lower
38 compensation payments for wolf-related livestock depredation under this alternative.
39 WDFW would also be less available to work with livestock producers in implementing

- 1 **Sensitive** – as defined by Washington law, any wildlife species native to the state of Washington that is
- 2 vulnerable or declining and is likely to become endangered or threatened in a significant portion of its
- 3 range within the state without cooperative management or removal of threats.
- 4
- 5 **Significant portion of its range** – that portion of a species’ range likely to be essential to the long-term
- 6 survival of the population in Washington.
- 7
- 8 **Source population** – a subpopulation whose reproductive success exceeds mortality and therefore
- 9 produces young that emigrate to other subpopulations and unoccupied areas. Source populations are
- 10 generally found in better quality habitats known as source habitats.
- 11
- 12 **Species** – as defined by Washington law, any group of animals classified as a species or subspecies as
- 13 commonly accepted by the scientific community.
- 14
- 15 **Successful breeding pair** – an adult male and an adult female wolf with at least two pups surviving to
- 16 December 31 of a given year, as documented under WDFW’s established protocols.
- 17
- 18 **Threatened** – as defined by Washington law, any wildlife species native to the state of Washington that
- 19 is likely to become an endangered species within the foreseeable future throughout a significant portion
- 20 of its range within the state without cooperative management or removal of threats.
- 21
- 22 **Translocation** – moving animals from one area to another for the purpose of establishing a new
- 23 population.
- 24
- 25 **Unknown loss** – with respect to compensation, the loss of livestock from an area with known wolf
- 26 activity without a carcass as evidence. This would be based on historical records of livestock return rates
- 27 prior to wolf presence/wolf depredation in the area.
- 28
- 29 **Ungulate** – any wild species of hoofed mammal, including deer, elk, moose, bighorn sheep, mountain
- 30 goat, and caribou. Cattle, sheep, pigs, horses, and llamas are also ungulates, but are referred to as
- 31 domestic livestock in this plan.
- 32
- 33 **Viable population** – one that is able to maintain its size, distribution, and genetic variation over time
- 34 without significant intervention requiring human conservation actions.
- 35
- 36 **Wolf recovery/conservation region** – any of three or four broad designated regions in Washington
- 37 where wolves need to become reestablished to meet the conservation goals of this plan. The regions are
- 38 illustrated in Figures 1 and 2.

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So, if an alpha male or female in a pack dies before Dec. 31st after breeding and raising pups thru the summer/fall and at least 2 pups are still surviving after Dec. 31st, would this pack not be considered a "successful breeding pair"?

ACKNOWLEDGMENTS

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insert "wolves"
delete "the species"

1 strategies, and greater prevention of illegal hunting are recommended as measures for sustaining
2 healthy ungulate populations that will support wolves and maintain harvest opportunities.
3 This plan recommends that information and training about the low risk of wolf attacks, preventing
4 habituation, and learning to live with wolves be provided to hunters, trappers, rural landowners,
5 outdoor recreationists, outfitters and guides, forest workers and contractors, and others who might
6 encounter wolves. Dog owners need to be informed on ways to reduce interactions between dogs
7 and wolves and the public should be made aware of the risks posed by wolf-dog hybrids and pet
8 wolves. Implementation of a public outreach and education program is a high priority for aiding
9 reestablishment of the species.

10

11 Wolves are habitat generalists, thus restrictions on human development and other land use practices
12 should not be necessary to recover wolves in Washington. Experience in Idaho, Montana, and
13 Wyoming has shown that no restrictions, other than those occasionally needed to temporarily
14 prevent excessive disturbance of occupied den sites, have been necessary to conserve wolves.
15

16 This plan provides an analysis of the potential economic impacts that wolves could have in the state.
17 At populations of 50 and 100 wolves, which roughly correspond with the upper levels of abundance
18 during the state endangered and threatened phases, a few individual livestock producers could be
19 affected. As wolf populations become larger and more widely distributed, financial impacts are
20 likely to accrue to more producers, although some of these costs would be offset by compensation
21 programs and assistance with proactive measures. Similarly, populations of 50 and 100 wolves
22 should have few negative effects on big game hunting. Larger populations are expected to have
23 somewhat greater impacts on game abundance and hunting opportunity, but such impacts become
24 increasingly difficult to predict. Washington could conceivably develop a wolf-related tourist
25 industry, depending on where wolves reestablish, the population levels they achieve, and the ability
26 of tourists to see or hear wolves. Wolf recolonization is anticipated to have no economic impact on
27 the state's forest products industry.
28

29 Adequate funding for implementing the activities described in this plan is vital to its success. The
30 draft plan includes estimated costs for new activities needed to accomplish important tasks in the
31 first six years of the plan. WDFW will seek funding from a variety of sources, including special state
32 or federal appropriations and private sources, and will initiate partnerships with universities,
33 agencies, non-governmental organizations, and other entities to carry out wolf conservation and
34 management actions in Washington.

1 The group met six times during 2007 and twice in 2008; seven public scoping meetings were held
 2 throughout the state during August 2007. Scientific peer review and the addressing of comments
 3 was completed in July 2009. A Working Group meeting to review the changes resulting from peer
 4 review was conducted in September 2009. The plan then underwent a 90-day public review under
 5 the State Environmental Policy Act (SEPA) process from September to December 2009, including
 6 12 public meetings throughout the state. The Working Group met an additional time prior to
 7 completion of the final plan and presentation to the Washington Fish and Wildlife Commission for
 8 final approval in 2010.

11 WDFW's Listing and Delisting Procedures (WAC 232-12-297, Appendix F) require the
 12 development of recovery plans for species that are state listed as endangered or threatened, and
 13 management plans for species listed as sensitive. These plans identify measurable recovery
 14 objectives and outline strategies to achieve those objectives so that the species can be downlisted
 15 and eventually delisted in the state. The Washington Wolf Conservation and Management Plan will
 16 meet the needs of a state recovery plan and at the same time will provide for management of wolves
 17 while they are state listed as endangered, threatened, and sensitive. A wide range of perspectives and
 18 values related to wolves and wolf management were heard in developing and refining the plan. The
 19 result is a plan that is intended to serve the broad interests of the citizens of Washington for both
 20 conservation and management of wolves in the state.

22 While this document is referred to throughout as "the plan", "this plan", or "the draft plan", it is
 23 Alternative 2 of the Draft Environmental Impact Statement (DEIS), and is a draft plan. The
 24 recommendations given in this plan are for state planning purposes only and conform only to the
 25 requirements of state law. They have not been evaluated under any possible federal requirements.
 26 If wolves are still federally listed in parts of Washington, WDFW would consult and coordinate with
 27 the U.S. Fish and Wildlife Service prior to implementing management actions to ensure consistency
 28 with federal law. Washington was not included in the original Northern Rocky Mountain Wolf
 29 Recovery Plan (USFWS 1987); only the states of Idaho, Montana, and Wyoming were included. The
 30 federal requirements for delisting the Northern Rocky Mountain Distinct Population Segment
 31 (DPS) required Idaho, Montana, and Wyoming to have state wolf conservation plans, but there was
 32 no such requirement for Washington. As of 2009, there are no recovery objectives established for
 33 federal delisting of the gray wolf outside the Northern Rocky Mountain DPS.

35 The purpose of the plan is to ensure the reestablishment of a self-sustaining population of gray
 36 wolves in Washington and to encourage social tolerance for the species by addressing and reducing
 37 conflicts. The goals of the Washington Wolf Conservation and Management Plan are to:

- 39 • Restore the wolf population in Washington to a self-sustaining size and geographic
 40 distribution that will result in wolves having a high probability of persisting in the state
 41 through the foreseeable future (>100 years).
- 42 • Manage wolf-livestock conflicts in a way that minimizes livestock losses, while at the same
 43 time not negatively impacting the recovery or long-term perpetuation of a sustainable wolf
 44 population.
- 45 • Manage ungulate populations in Washington to maintain harvest opportunities for hunters
 46 and an adequate prey base for wolves so that wolf conservation goals can be met.

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Fix dates		
Author: sfis490	Subject: Sticky Note	Date: 12/17/2009 3:50:37 PM -08'00'
Where is that grizzly bear recovery plan??		
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As such, how can the state delist a species west of hwy's. 97 & 17 and propose management when the USFWS has not delisted it at the federal level?		

1 near Calispell Lake in southern Pend Oreille County in May 1994 (Palmquist 2002; WDFW, unpubl.
2 data). This animal was radio-collared and had immigrated from northwestern Montana.

3
4 Overall, from 1991 to 1995, Almack and Fitkin (1998) reported 20 confirmed wolf sightings in
5 Washington. Sixteen of these were made in the Cascades and four in Pend Oreille County, although
6 these records were probably biased towards observations in the Cascades. Almack and Fitkin (1998)
7 concluded that small numbers of wolves existed in Washington, mostly as individuals but with
8 several family units that had reproduced being present. No evidence of large packs or a recovering
9 population was detected. Almack and Fitkin (1998) also confirmed the presence of free-ranging
10 wolf-dog hybrids in the state and believed that a significant number of reported wolf observations
11 probably represented hybrid animals.

12
13 Wolf reports in Washington declined after 1995, probably due mainly to a reduced emphasis on data
14 collection. In February 2002, a radio-marked female spent several weeks in northern Pend Oreille
15 County, including sites near Metaline Falls and the Salmo-Priest Wilderness (Palmquist 2002). This
16 individual had also immigrated from northwestern Montana and soon departed for British
17 Columbia.

18
19 Reports of wolves and tracks have continued since 2002 and have increased in the past several years
20 (Appendix H), although this may partly reflect greater effort by agency biologists and others to
21 obtain and follow-up on wolf reports and to place remote cameras in the field. In most cases,
22 reports have involved single animals. Many have originated from Pend Oreille and Stevens counties,
23 including several individuals photographed by remote cameras at different locations in 2007 (S.
24 Zender, pers. comm.). A pair of wolves was also photographed by a remote camera in Pend Oreille
25 County in 2008 and a calf depredation in northernmost Stevens County in late August 2007 was
26 attributed to one or more wolves by USDA Wildlife Services (R. Woodruff, pers. comm.). In May
27 2009, a probable mated pair, including a lactating female, was photographed by remote cameras in
28 Pend Oreille County. DNA analysis of hair collected at a camera site verified the presence of a male
29 wolf linked genetically to the southern Alberta-northwestern Montana-northern Idaho population
30 (J. Pollinger, pers. comm.). Citizen reports, howling surveys, and remote cameras eventually
31 confirmed the presence of a pack (named the Diamond Pack) of about 8 wolves, including at least 3
32 pups, in July.

33
34 Wolf reports from Okanogan County increased dramatically in 2008 (Appendix H), with subsequent
35 investigation revealing suspected activity dating back a number of years at one or more locations (S.
36 Fitkin, pers. comm.). A pack with at least three adults/yearlings and six pups, designated as the
37 Lookout Pack, was confirmed in the western part of the county and adjacent northern Chelan
38 County in the summer of 2008, when the breeding male and female were captured and radio-
39 collared, and other pack members were photographed near a suspected rendezvous site by remote
40 cameras operated by Conservation Northwest, a non-governmental organization. This represented
41 the first fully documented (through photographs, howling responses, and genetic testing) breeding
42 by a wolf pack in Washington since the 1930s. Radio-tracking locations showed that the pack
43 occupied a geographic area totaling about 350 square miles during the remainder of 2008 and into
44 2009. Preliminary genetic testing of the breeding male and female suggests they are descended from
45 wolves occurring in (1) coastal British Columbia and (2) northeastern British Columbia,
46 northwestern Alberta, or the reintroduced populations in central Idaho and the greater Yellowstone
47 area (J. Pollinger, pers. comm.). The pack produced another litter of at least 4 pups in 2009, as well

1 as a probable litter in 2007 based on a sighting report of 6-8 animals in nearby northern Chelan
2 County in September 2007 (R. Kuntz, pers. comm.) and one of 7-9 animals in Okanogan County in
3 the winter of 2007-2008. A wolf believed to be a member of this pack was killed illegally in
4 December 2008.

5
6 There have also been multiple public reports of wolves in the Blue Mountains dating back to at least
7 2006, including several groups of 2-5 wolves made in Garfield/Asotin and Walla Walla counties in
8 2008 and 2009 (Appendix H; P. Wik, pers. comm.; P. Fowler, pers. comm.). However, so far,
9 howling surveys have not confirmed the presence of breeding wolves in this portion of the state.

10
11 In summary, reports of wolves in Washington have increased over the past several years. The state
12 currently holds single breeding packs in Pend Oreille and Okanogan counties, possibly an additional
13 pack in the Blue Mountains, and at least a few solitary wolves in other scattered locations. Wolves
14 occurring in northern Washington probably represent animals that have dispersed from areas of
15 northern Idaho and northwestern Montana that were naturally repopulated by wolves, or animals
16 that have come from British Columbia. By contrast, wolves present in the Blue Mountains probably
17 originate from central Idaho (via Oregon), where a population was reestablished through
18 reintroductions in 1995 and 1996.

19
20 Continued presence of released or escaped hybrid wolves and pet wolves in the wild in Washington
21 has also been confirmed (Appendix H; Martino 1997, Palmquist 2002).

22
23 Neighboring States and British Columbia

24
25 Wolf numbers in Montana, Idaho, and Wyoming have rapidly grown since the mid-1980s and
26 totaled at least 1,645 animals in 217 recognized packs in 2008 (USFWS et al. 2009). Recolonization
27 of these states began in 1979, when wolves reentered the area near Glacier National Park in
28 northwestern Montana from Alberta. Breeding in this population was first detected in 1986.
29 Dispersers from the park and neighboring areas of Canada gradually recolonized other parts of
30 northwestern Montana over the next decade. Wolves were reintroduced into Yellowstone National
31 Park and central Idaho by the USFWS in 1995 and 1996, and have also contributed to steadily
32 expanding populations in the three states (Bangs et al. 1998). This growth allowed the wolf
33 population in the northern Rocky Mountain states to meet the biological recovery levels set by the
34 USFWS by the end of 2002 (MFWP 2003). At the close of 2008, wolf numbers totaled 846 in
35 Idaho, 497 in Montana, and 302 in Wyoming (USFWS et al. 2009). Wolves are currently distributed
36 primarily in western Montana, central and northern Idaho, and western Wyoming. Two confirmed
37 or suspected packs in northern Idaho exist within a few miles of the Washington border and several
38 others occur to within about 30 miles of Washington (USFWS et al. 2009). Additionally, at least
39 nine sightings involving multiple wolves in northern Idaho were reported within 12 miles of
40 Washington in 2007 and 2008 (USFWS et al. 2008, 2009).

41
42 Pending the outcome of litigation against the federal delisting of wolves in Idaho and Montana,
43 these states have expressed their intentions to establish regulated hunting seasons that would set
44 target population levels at about 500 wolves in 15 to perhaps more than 20 breeding pairs in Idaho
45 and 400 wolves in at least 15 breeding pairs in Montana (USFWS 2009, USFWS et al. 2009). In
46 Wyoming, where wolves remain federally listed, a managed population level of 200-300 wolves
47 containing at least 15 breeding pairs is desired by the U.S. Fish and Wildlife Service (USFWS 2009).

1 outbreaks can be severe and persistent, and can occasionally produce mortalities, but are not
2 considered a serious threat to population persistence (USFWS et al. 2006, 2009).

3
4 Rates of Population Change

5
6 In the absence of human-caused mortality, wolf populations primarily increase or decrease through
7 the combination and interaction of wolf densities and prey densities (Keith 1983, Fuller 1989),
8 although other factors (e.g., disease) may sometimes play a role. Actual rates of change depend on
9 whether the wolf population is pioneering vacant habitat or whether the population is well
10 established. Degree and type of legal protection, agency control actions, and regulated harvest also
11 influence population trends. Once established, wolf populations can withstand high mortality rates
12 provided that reproductive rates are also high and immigration continues (Fuller et al. 2003). In
13 most locations, sustainable mortality rates range from about 32% to more than 50% (Fuller et al.
14 2003).

15
16 Low-density wolf populations can increase rapidly if protected and prey is abundant. Wolf
17 populations in the GYA and Idaho areas exceeded all expectations for reproduction and survival
18 after their initial reintroductions (Bangs et al. 1998). Populations became reestablished in both areas
19 within two years, rather than the predicted three to five years, and pup production and survival were
20 high. However, once densities become high enough, social interactions among packs intensify,
21 causing intraspecific conflict and increased competition for food. These factors eventually cause
22 populations to level off or decline (Keith 1983, Fuller 1989).

23
24 Wolf populations in six regions of Idaho, Montana, and Wyoming increased at mean annual rates of
25 16-56% through 2005 (Mitchell et al. 2008). At Glacier National Park, wolf numbers increased an
26 average of 23% annually from 1986 to 1993 (Fritts et al. 1995), but then leveled off (Fritts et al.
27 1997). Dispersing individuals from packs in this area eventually recolonized vacant habitats in
28 northwestern Montana (USFWS unpubl. data). Some of the packs that formed in this region
29 persisted, but others did not due to illegal killing, control actions where livestock depredation was
30 repeated, and for unknown reasons.

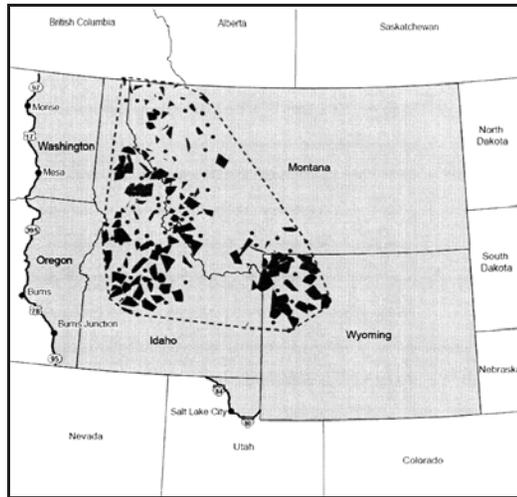
31
32 Over a 26-year period, total wolf numbers in Montana increased from 8 in 1982 to 497 in 84 packs
33 in 2008 (USFWS et al. 2009) for an average annual rate of increase of about 17%. The population
34 remained fairly small (fewer than 20) for about 7 years, and then began a rapid increase that has
35 continued to the present. Numbers have grown in 13 of 19 years since 1989. Prey abundance has
36 influenced wolf population dynamics in northwestern Montana. Expanding white-tailed deer
37 populations during the late 1970s through the mid-1990s were partly responsible for increasing wolf
38 numbers and distribution. However, the population declined after the severe winter of 1996-1997,
39 when smaller prey populations resulted in greater predation on livestock in 1997 and 1998, forcing
40 an increase in the lethal control of wolves (C. Sime, unpubl. data).

41
42 Idaho's wolf population grew from fewer than 20 animals in 1995, when reintroductions first
43 occurred, to an estimated 846 wolves in 2008 (USFWS et al. 2009), which corresponds to a mean
44 annual growth rate of about 33%. Eighty-eight packs were documented in 2008 and had expanded
45 across much of the state from the Canadian border, south to the fringes of the Snake River plain,
46 and east to the Montana and Wyoming borders.

47

1 Montana and northernmost Idaho), wolves remained listed as endangered. In addition to
 2 population objectives in the three states, the USFWS required approved state management plans to
 3 ensure the conservation of the species into the future as a condition of delisting the wolf in Idaho,
 4 Montana, and Wyoming. Washington was not required to have a state wolf conservation plan as a
 5 prerequisite for federal delisting because it was not part of the original Northern Rocky Mountain
 6 Wolf Recovery Plan (USFWS 1987). State wolf management plans were approved by the USFWS
 7 for Montana and Idaho in 2004 and Wyoming in 2007.

8
 9 In 2007, the USFWS proposed formation of a Northern Rocky Mountain distinct population
 10 segment (DPS) of the gray wolf and delisting of this DPS (USFWS 2007a). This proposal
 11 encompassed all of Montana, Idaho, and Wyoming, as well as the eastern one-third of Washington
 12 and Oregon and a small part of north-central Utah (Figure 3). A final delisting decision was
 13 published in the *Federal Register* on February 27, 2008, and became effective on March 28, 2008
 14 (USFWS 2008a). Under this rule, wolves became federally delisted east of Highways 97, 17, and 395
 15 in Washington, but remained federally listed in the state west of these highways (Figure 3). However,
 16
 17



18
 19 Figure 3. Map of the area (light gray shading) designated as the Northern Rocky Mountain distinct
 20 population segment of gray wolves (from USFWS 2009). Existing wolf pack territories as of 2007 are
 21 depicted in dark gray.
 22
 23

1 12 conservation groups challenged this determination by suing the USFWS to prevent delisting. On
2 July 18, 2008, a U.S. district judge granted a preliminary injunction restoring federal protection to
3 wolves in the DPS until the court case challenging the population's delisting could be decided.

4
5 On September 29, 2008, the USFWS asked the U.S. district judge that granted the preliminary
6 injunction to vacate its delisting rule for the DPS. The agency reopened the comment period to
7 again consider delisting wolves in the DPS on October 28, 2008 (USFWS 2008b). On January 14,
8 2009, the USFWS announced its intention to again delist the DPS, with the exception of Wyoming,
9 which no longer has an accepted management plan. The USFWS withdrew this action on January
10 20, 2009, pending further review, but announced its decision to proceed with delisting on March 6,
11 2009 (USFWS 2009). Delisting became effective on May 4, 2009, except in Wyoming. In June
12 2009, two lawsuits were filed by conservation groups opposing delisting, while two others were filed
13 by the state of Wyoming and a coalition of livestock groups and others seeking the delisting of
14 wolves in that state.

15
16 Where federal delisting of the wolf occurs, the USFWS is required under the Endangered Species
17 Act to continue monitoring delisted populations for at least five years to ensure that abundance
18 remains above a threshold for relisting.

19
20 State of Washington

21
22 Wolves were first listed as endangered by the Washington Department of Game in 1980, because of
23 their historical occurrence in the state and subsequent near-extirpation from the state, and because
24 of their existing status as endangered under the federal Endangered Species Act. State law RCW
25 77.15.120 protects endangered species from hunting, possession, malicious harassment, and killing,
26 with penalties described therein (Appendix F). State listing and delisting procedures for endangered,
27 threatened, and sensitive species in Washington are specified in WAC 232-12-297 (Appendix F).

28
29 Tribal

30
31 In the mid-1800s, eight treaties (known as the "Stevens Treaties") were negotiated with tribes in
32 what would become Washington State. The treaties established reservations for the exclusive use of
33 the tribes. Federally recognized tribes with reservations generally have authority to manage fish and
34 wildlife within their reservation. Not all of the state's tribes signed treaties with the federal
35 government. Several of these tribes have reservations designated by executive order. These include
36 the Colville, Spokane, and Kalispel reservations in eastern Washington, and the Chehalis and
37 Shoalwater reservations in western Washington.

38
39 Wolf Management

40
41 Wolf management may vary among tribes in Washington. Although some tribes have traditional
42 and cultural ties with wolves, there is also concern that wolves could reduce opportunities for
43 subsistence harvest of elk, deer, and moose. WDFW has established a Wolf Interagency Committee
44 composed of WDFW, tribes, federal and state land managers, and the USFWS to foster
45 coordination and collaboration on wolf management in the state. Individual tribes in Washington
46 may choose to develop their own wolf management plans. In areas where wolves remain federally
47 listed as endangered, tribes are subject to federal Endangered Species Act regulations. However, in

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Assuming that they have any business exchanging genetic material under natural conditions. Perhaps they represent unique and important genotypes that do not regularly mingle.

1 Current wolf populations in the northern Rocky Mountain states are characterized by high levels of
2 genetic variability (Forbes and Boyd 1996, 1997, vonHoldt et al. 2008), meaning that wolves arriving
3 in Washington from this source should possess adequate genetic diversity. In addition to wolves
4 dispersing into Washington from the Rocky Mountain states, the genetic makeup of wolves in the
5 state would be further diversified by breeding with wolves dispersing into the state from British
6 Columbia.

7
8 Distribution

9
10 One of the criteria for removing a species from state listed status in Washington is that it must
11 occupy a significant portion of its original geographic range. A "significant portion of the species'
12 historical range" is defined under WAC 232-12-297, section 2.9, as that portion of a species' range
13 likely to be essential to the long-term survival of the population in Washington.

14
15 As a habitat generalist, wolves are capable of living in a variety of ecosystems having adequate prey
16 and sufficient human tolerance. Oakleaf et al. (2006) looked at potential wolf habitat in Idaho,
17 Montana, and Wyoming, using the following GIS data layers: roads accessible to two-wheel and
18 four-wheel vehicles, topography (slope and elevation), land ownership, relative ungulate density
19 (based on State harvest statistics), cattle and sheep density, vegetation characteristics, and human
20 density. From that analysis, they concluded, and the U.S. Fish and Wildlife Service (USFWS 2008a)
21 concurred, that the four primary factors related to wolf occupancy and persistence were:

- 22
- 23 1) increased forest cover
- 24 2) lower human population density
- 25 3) higher elk density
- 26 4) lower sheep density
- 27

28 Wolves are expected to persist in habitats with similar characteristics in Washington. Areas with
29 abundant deer, elk, and moose, reduced livestock use, and few potential human conflicts offer the
30 best chance for recovery success. These locations include national forests, national parks, wilderness
31 areas, national recreation areas, designated roadless areas on public lands, and areas with low
32 densities of open roads. In some areas, wolves are expected to follow their prey to lower elevations
33 during the winter.

34
35 Historically, wolf distribution in Washington included much of the state. During the 70 or so years
36 that wolves have been essentially absent from Washington, humans have significantly altered the
37 landscape throughout the state. Habitat once occupied by wolves has been reduced by development
38 and land conversion, with many areas now existing as fragments rather than as large contiguous
39 blocks. Road densities have increased dramatically and the human population has grown to more
40 than six million people.

41
42 Although these changes have reduced the amount of habitat now available to wolves, large areas of
43 Washington continue to have low human densities and are potentially suitable for the species.

44
45 There have been four recent modeling studies that have estimated potentially suitable wolf habitat in
46 Washington. They vary in approach, data layers that were used, and in predictions of amounts of
47 potentially suitable wolf habitat in the state, but most were consistent in predicting suitable habitat in

1 northeastern Washington, southeastern Washington, the Cascade Mountains, and the Olympic
2 Peninsula (Figures 4-7). The four studies include:

3
4 (1) B. Maletzky (unpubl. data) used GIS data layers for the four parameters found by Oakleaf et al.
5 (2006) to be the most important predictors of wolf occupancy and persistence in Montana, Idaho
6 and Wyoming. These included prey density, forest cover, human density, and presence of sheep
7 allotments. Using these parameters, he determined that potentially suitable wolf habitat occurs in
8 the northeastern portion of the state, the Blue Mountains, Cascade Mountains, southwest
9 Washington and the Olympic Peninsula (Figure 4). The model resulted in five different probabilities
10 of wolf occupancy. Figure 4 shows the proportion of suitable habitat likely ($\geq 50\%$ probability) to
11 be occupied. Oakleaf et al. (2006) considered habitat with $\geq 50\%$ probability of occupancy to be
12 high quality wolf habitat; Larsen and Ripple (2006) defined wolf habitat suitability as those lands that
13 predicted a $\geq 50\%$ probability of wolf occurrence (Figure 5).

14
15 (2) Larsen and Ripple (2006) used prey density and the extent of human presence, forest cover, and
16 public lands as parameters. The result projected more suitable habitat in the North Cascades than
17 the Maletzky model (Figure 4) and none in southwestern Washington (Figure 5).

18
19 (3) Carroll et al. (2006) conducted a series of analyses of suitable wolf habitat in the western US,
20 including Washington. The first analysis mapped much of western and northeastern Washington as
21 suitable habitat based on vegetation type (used as a measure of prey abundance) and terrain (Figure
22 6a). Further analysis predicted distribution and demography of wolves in the western U.S. using the
23 spatially-explicit PATCH model (Schumaker et al. 2004). This resulted in predictions of potential
24 distribution and demography of wolves in the western United States under five different landscape
25 scenarios portraying current and future conditions. The PATCH model predicted low probability of
26 occupancy and persistence in the state, under current conditions, except in the Blue Mountains and
27 the Olympic Peninsula (Figure 6b). Under this projection, USFWS (2008a, 2009) reported that the
28 Washington portion of the Northern Rocky Mountain DPS (i.e., eastern one-third of Washington)
29 contained only an estimated 297 square miles of potential wolf habitat.

30
31 (4) In response to questions from the Wolf Working Group, Carroll (2007, unpubl. data)
32 subsequently expanded his analysis of suitable wolf habitat in Washington by considering the
33 influence of linkages with habitat in British Columbia and adjacent states on predicted wolf
34 distribution and demography. GIS data layers used were: (1) vegetative productivity; (2) road density
35 and type together with human population density and distribution, which were used as a measure of
36 wolf mortality (livestock density was not incorporated); and (3) habitat linkages with neighboring
37 states and British Columbia. The results identified areas of potential wolf habitat similar to those
38 indicated by Maletzky (unpubl. data) and Larsen and Ripple (2006), including the Cascades,
39 northeastern Washington, the Olympic Peninsula, and the Blue Mountains (Figure 7). However,
40 most of the habitat within these areas, especially in the North Cascades and northeastern
41 Washington, was considered to be lesser quality "sink" habitat, where resident wolf populations
42 would have difficulty persisting without ongoing immigration from neighboring "source"
43 populations. Sink habitat is nonetheless considered vital in enhancing regional population viability
44 by facilitating dispersal between source populations. In comparison, source habitats are higher
45 quality habitats that support growing populations (source populations) and produce dispersing
46 young. Source habitats therefore play a pivotal role in sustaining viable populations.

1 Models of suitable wolf habitat are most useful for understanding the relative proportions and
 2 distributions of various habitat characteristics related to wolf survival and shouldn't be interpreted as
 3 absolute predictors of areas that will be occupied by wolves (USFWS 2008a). Estimates of suitable
 4 habitat calculated from the four different model results range from a low of about 16,900 square
 5 miles (Carroll 2007) to a high of about 41,500 square miles (Carroll et al. 2006). Maletzky (unpubl.
 6 data) results were about 26,700 square miles and Larsen and Ripple (2006) results were about 19,000
 7 square miles. The average of the four was about 26,025 square miles. The Maletzky (unpubl. data)
 8 projection may be the most realistic because it used the parameters identified by Oakleaf et al. 2006
 9 as most important predictors of suitable wolf habitat, and it was able to use current WDFW GIS
 10 data layers for elk densities in the state. Both Larsen and Ripple (2006) and Carroll (2007) projected
 11 lower amounts of total suitable habitat because their results did not portray southwestern
 12 Washington as potential wolf habitat. The Carroll et al. (2006) model results were highest because
 13 they projected the Puget Sound lowlands as potential habitat. These differences in the models are
 14 likely artifacts of the parameters and GIS data layers used.

16 Models and observations from Idaho, Montana, and Wyoming during the past 20 years (Bangs et al.
 17 2004, USFWS et al. 2009) indicate the types of habitat not suitable for wolves. These include
 18 non-forested rangeland and croplands associated with intensive agricultural use (Carroll et al. 2003,
 19 2006, Larsen and Ripple 2006, Oakleaf et al. 2006, Carroll 2007, unpubl. data; B. Maletzky, unpubl.
 20 data). This unsuitability is due to high rates of wolf mortality, high densities of livestock compared
 21 to wild ungulates, repeated conflict with livestock and pets, local cultural intolerance of large
 22 predators, and wolf behavioral characteristics that make them vulnerable to human-caused mortality
 23 in open landscapes (USFWS 2008a). Consequently, although a few wolves could potentially occupy
 24 the Columbia Basin in Washington, the likelihood of them persisting and establishing a viable
 25 breeding population is low. Lowland areas of the Puget Trough are similarly not expected to
 26 support wolves because of the high human densities, lack of available prey, and reduced forest cover
 27 found there.

29 It is not possible at this time to predict the eventual distribution of wolves in Washington or the
 30 carrying capacity of landscapes to support them. However, future radio-tracking of a suitable
 31 number of wolves reoccupying the state will make it possible to measure a variety of important
 32 biological parameters, including habitat selection and territory sizes. This information can be used
 33 to estimate carrying capacity and will help establish a range of wolf numbers that different regions of
 34 Washington may be able to support based on prey abundance and distribution, human population
 35 densities, livestock allotments, and extent of forested habitat.

37 Landscape Connectivity and Dispersal

39 Some landscape features allow easy passage by wildlife species, whereas others such as unsuitable
 40 natural habitats, rugged topography, human development, and major highways may act as barriers
 41 that constrain, prevent, or redirect movements (Singleton et al. 2002). Landscape features can
 42 therefore influence: (1) levels of gene flow among populations; (2) rates of dispersal to unoccupied
 43 areas with suitable habitat, which can affect the establishment of new populations; and (3) rates of
 44 immigration into existing populations, which can affect the viability of populations, especially those
 45 with low survival or productivity and those occupying fragmented habitats. Wolves are capable of
 46 dispersing long distances rapidly through a variety of habitats and select mates to maximize genetic
 47 diversity (USFWS 2008a). Nevertheless, maintaining connectivity between blocks of potentially

1 Washington. The eventual formation of a source population of wolves in Washington will reduce
2 the dependence on wolf dispersal into the state from outside. Over time, better knowledge of
3 dispersal and immigration rates into Washington will emerge.

4
5 Comparisons between the Northern Rocky Mountain States and Washington for Wolves

6
7 During scientific peer review of this plan, several knowledgeable experts on wolves in the northern
8 Rocky Mountain states commented that wolf restoration in Washington may resemble that which
9 occurred in northwestern Montana from 1979 until well into the 1990s. In contrast to central Idaho
10 and the greater Yellowstone area, both northwestern Montana and Washington lack large core
11 refugia of secure habitat that has large numbers of overwintering wild prey and few livestock
12 (USFWS 2009). Instead, northwestern Montana and Washington feature much more fragmented
13 habitat and a mix of public and private ownership; northwestern Montana also has large holdings of
14 livestock, a natural prey base comprised mainly of deer, and less overall public support for wolf
15 recovery. Because of this combination of characteristics, the wolf population in northwestern
16 Montana grew relatively slowly in numbers and distribution (Bangs et al. 1998). After the first two
17 wolves were recorded in 1979, the first documented breeding pair did not occur until 1986 and the
18 region was not occupied by six successful breeding pairs until 1995.

19
20 Wolf numbers were dampened during this period by wolf-livestock conflicts resulting in significant
21 lethal control, deaths from cars and trains, illegal human-caused mortality, declining ungulate density
22 due to severe winter weather, disease, and an apparently slow rate of immigration from nearby areas
23 of Alberta and British Columbia, where management appeared to be aggressive enough that fewer
24 wolves than expected dispersed into Montana (Bangs et al. 1998, Sime et al. 2007; C. Sime, pers.
25 comm.). Additionally, Glacier National Park and large adjoining wilderness areas to the south did
26 not function as core secure habitat for wolves because their high elevations and harsh winters do not
27 allow significant numbers of ungulates to overwinter (D. Smith, pers. comm.). Wolves in
28 northwestern Montana had among the lowest average pack sizes and population growth rates in the
29 northern Rocky Mountain states through 2005 (Mitchell et al. 2008). Despite these characteristics,
30 the population showed stronger growth during the 1990s and 2000s, with immigration from central
31 Idaho helping supplement the population after about 2002. Because of the proportionally greater
32 level of conflicts with humans, management of wolves in northwestern Montana has required
33 greater agency intervention and cost than wolf restoration efforts in the greater Yellowstone area,
34 central Idaho, and the Great Lakes states (E. Bangs, pers. comm.).

35
36 **B. Conservation/Recovery Objectives for Washington**

37
38 Numbers and Distribution

39
40 This plan sets conservation/recovery objectives to downlist wolves from endangered to threatened,
41 threatened to sensitive, and to delist from sensitive status per WAC 232.12.297. The objectives that
42 were developed from a combination of sources: current scientific knowledge about wolves in other
43 locations, wildlife conservation principles, negotiations among the Wolf Working Group with input
44 from WDFW (see Appendix E), and input from scientific peer review. As such, the objectives
45 attempt to be both biologically and socially acceptable. As wolves recolonize Washington, the
46 population will be monitored to determine trends in abundance, demographic parameters, habitat
47 use, dietary relationships, outcomes of interactions with humans, and other factors pertaining to

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Need to identify which portion of Highway 395 constitutes the western boundary of this recovery region, as 395 runs east on I-90 to Spokane, then north through Colville...

1 population viability. In addition, the status of successful natural migration between isolated
2 populations of wolves both within the state and between Washington and adjacent populations in
3 British Columbia, Idaho, and Oregon will be monitored. The status of wolf populations in areas
4 adjacent to Washington and the permeability of habitat in these areas will also be reviewed. This
5 information can then be used to revise the conservation/recovery objectives, if needed, through
6 methods such as population viability analysis.
7

8 Consistent with the recovery objectives for the Northern Rocky Mountain distinct population
9 segment, the conservation/recovery objectives in this plan are based on numbers of successful
10 breeding pairs rather than packs or individuals. "Successful breeding pair" is used as the unit of
11 measurement because it provides a higher level of certainty in assessing population status and
12 documenting reproduction. A successful breeding pair of wolves is defined as an adult male and an
13 adult female with at least two pups surviving to December 31 in a given year. (This term was
14 formerly known simply as "breeding pair," but Mitchell et al. [2008] recommended use of
15 "successful breeding pair" as a more precise term to indicate that successful rearing of young had
16 occurred.) The U.S. Fish and Wildlife Service used successful breeding pair as their recovery
17 measure "because wolf populations are maintained by packs that successfully raise pups" (USFWS
18 1994, Mitchell et al. 2008). Success of breeding pairs is measured in winter because most wolf
19 mortality occurs from spring through fall, and winter is the beginning of the annual courtship and
20 breeding season (USFWS 2008a). In Washington, verification of successful breeding pairs will be
21 done by WDFW using established protocols.
22

23 Also consistent with the Northern Rocky Mountain objectives and state recovery plans for other
24 species in Washington, the objectives in this plan must be maintained for 3 consecutive years. This
25 is to ensure that numbers are being maintained over time.
26

27 The number and distribution objectives for wolves are expressed in terms of occupancy within three
28 defined recovery regions of the state. These regions are: the Eastern Washington Region, Northern
29 Cascades Region, and Southern Cascades and Northwest Coast Region (Figure 3-5). The western
30 boundary of the Eastern Washington Region follows Highways 97, 17, and 395 and matches the line
31 used by the U.S. Fish and Wildlife Service to demarcate the western edge of the Northern Rocky
32 Mountain distinct population segment for gray wolves in Washington (USFWS 2009).
33

34 Consistent with protocols used in the Northern Rocky Mountain states (Idaho, Montana,
35 Wyoming), and to avoid double-counting successful breeding pairs of wolves, packs with territories
36 straddling recovery region (or state) boundaries will be counted in the area where the den site is
37 located. If the den location is not known with certainty, then other criteria such as amount of time,
38 percent of territory, or number of wolf reports will be used to determine pack residency. Thus, a
39 pack will not be counted in more than one recovery region.
40
41

1 number of successful breeding pairs can be substantially smaller than the total number of packs
2 present, especially as recovery progresses. Average pack size can vary greatly as well (Chapter 2,
3 Section C; Mitchell et al. 2008). Data from Idaho and Montana indicate that the number of
4 successful breeding pairs and packs are usually similar early in recovery (USFWS et al. 2009; C. Sime,
5 unpubl. data), when closer monitoring of each pack can be performed. Thus, expected numbers of
6 packs and wolves in Washington during the endangered and threatened stages are likely to be on the
7 smaller side of the range of estimates presented here.
8

9 This plan's conservation/recovery objectives for Washington are below those thought to be needed
10 for long-term persistence of an isolated population (30 or more successful breeding pairs containing
11 300 or more wolves in a metapopulation) (see Section A of this chapter; USFWS 2008a, WDNR
12 1999). However, Washington's objective of 15 successful breeding pairs distributed across three
13 recovery regions and maintained for 3 consecutive years is believed to be sufficient to result in the
14 reestablishment of a self-sustaining recovered wolf population for the state because of the
15 distribution and time requirements. The three-year criteria, distribution in three recovery regions,
16 and connectivity being maintained with populations in Idaho, Montana, British Columbia, and
17 Oregon, are factors that contribute to the 15 breeding pairs being considered a viable alternative,
18 even though minimal to achieve recovery.
19

20 Smaller downlisting and delisting objectives of 3, 6 and 8 successful breeding pairs for one year, with
21 no distribution requirements, were proposed in a Minority Opinion of the Wolf Working Group
22 (Appendix D). Based on the scientific information on wolf population viability presented in Section
23 A of this chapter, and initial peer reviews of the preferred alternative numbers, 15 breeding pairs is
24 considered minimal or barely adequate for population viability and achieving recovery. Additional
25 blind peer review during the public review process may provide additional information on the
26 adequacy of these numbers.
27



28 An objective of eight successful breeding pairs is that much further below what might be considered
29 adequate (see also Section A, Genetic Diversity of this Chapter). The proposal has the added risk of
30 requiring the number to be achieved for only one year. This would not allow for maintaining
31 robustness of population numbers on the landscape over time in light of fluctuations in numbers
32 between years. With the low numbers, lack of geographic distribution criteria, and single year for
33 the recovery objective to be met, the goal of this plan to "restore the wolf population in Washington
34 to a self-sustaining size and geographic distribution that will result in wolves having a high
35 probability of persisting in the state through the foreseeable future (>100 years)" is unlikely to be
36 met. For these reasons, it has a high risk of not achieving the conservation purpose of the plan and
37 was not considered to be a viable preferred alternative.
38

39 The conservation/recovery objectives presented here represent the numbers needed to achieve the
40 downlisting and delisting of wolves in Washington and do not carry implications for ultimate
41 numbers of wolves that will exist in the state. The delisting objective of 15 successful breeding pairs
42 (with adequate geographic distribution for 3 consecutive years) is not a population "cap" at which
43 the population will be limited. The plan does not place a limit on the numbers of wolves that will be
44 allowed to live in Washington.
45

46 When Washington's wolf population reaches the delisting objectives (15 breeding pairs for 3
47 consecutive years in appropriate distribution), WDFW will begin the process of proposing delisting

1 of the species. This process, described in WAC 232-12-297 (Appendix F), requires the preparation
2 of a status review that examines all pertinent information on abundance, the achievement of
3 recovery objectives, and ongoing threats. Review under the State Environmental Policy Act (SEPA)
4 and public review are also required as part of the delisting process. Delisting is based only on the
5 biological status of the species in Washington. Information from the status review is then presented
6 to the Washington Fish and Wildlife Commission to make the final determination on delisting.

8 Translocation

10 Wolves will be allowed to expand into unoccupied suitable habitat across ownerships and
11 administrative designations in the state, and natural dispersal is expected to be the primary means for
12 wolves to disperse across Washington and recolonize new areas of the state. It is recognized,
13 however, that there may be bottlenecks inhibiting natural dispersal and establishment of wolf packs,
14 particularly for wolves attempting to disperse across the existing mix of private and public lands
15 between northeastern Washington and the northern Cascades and from the southern Cascades to
16 the Pacific Coast due to distance, human-caused mortality, or other potential bottlenecks to natural
17 dispersal. Singleton et al. (2002) evaluated landscape permeability for wolves in Washington and
18 suggested that even the two areas likely representing the greatest impediments to wolf dispersal (i.e.,
19 the upper Columbia-Pend Oreille Rivers and Snoqualmie Pass) were nevertheless probably
20 permeable for wolves.

22 The overall timeframe for wolves to disperse into Washington and reach recovery objectives for
23 downlisting and delisting is difficult to predict, but it is likely to be slow (Carroll 2007) and could
24 take several decades. The first area colonized by breeding wolves in Washington was in the
25 northern Cascades and the next was northeastern Washington. Based on the current proximity of
26 wolf packs in neighboring states and British Columbia, the northeastern and southeastern corners of
27 Washington and the northern Cascades and Pasayten Wilderness will be the likely areas occupied by
28 wolves through natural dispersal. The southern Cascades and western Washington will take longer
29 to recolonize through natural dispersal.

31 Translocation (moving animals from one area of Washington to another to establish a new
32 population) is a conservation tool that is considered a key aspect of this plan (Appendix E). It is
33 included as a tool that could be used to establish and expand populations in recovery regions that
34 wolves have failed to reach through natural dispersal. Potential benefits of translocation are that it
35 could:

- 37 • Address impediments to natural dispersal such as extensive areas of private lands and
38 unsuitable habitat, or excessive mortality from illegal killing, lethal control, vehicle collisions,
39 or other human-related causes.
- 40 • Reduce wolf numbers in some regions where they may increase to carrying capacity prior to
41 downlisting and delisting objectives being met in other recovery regions,
- 42 • Hasten establishment of breeding pairs in areas that are potentially capable of supporting a
43 source population, thereby helping to ensure and maintain viable populations in a significant
44 portion of the state's historical range, as required to meet state recovery objectives.
- 45 • Help lower the overall costs of recovery by achieving population target levels more quickly,
46 thereby allowing downlisting and delisting to begin earlier. Costs would be reduced by

- replacing the more expensive monitoring of breeding pairs that is needed while wolves are listed with the less expensive monitoring of packs following delisting.
- Facilitate achieving recovery goals more quickly, thereby leading to greater management flexibility in addressing conflicts.

The trigger for beginning to evaluate translocation efforts would be prompted when a recovery region had exceeded its delisting requirements by at least one breeding pair (e.g. ≥ 3 breeding pairs for 3 years in the Eastern Washington recovery region), while another recovery region was unoccupied. Wolves would only be translocated out of a recovery region if that region exceeded delisting objectives and removal would not cause the region's population to fall below delisting objectives.

If translocation were to be considered to achieve delisting objectives in a recovery region that wolves have failed to reoccupy, a planning process to determine feasibility and develop an implementation plan would be initiated. These steps are described in Chapter 12, Task 3. The first step would be to prepare a feasibility assessment to determine if sufficient suitable habitat and prey are available to support wolves at potential translocation sites in regions without successful breeding pairs, and to ensure that removal of wolves from a recovery region would not cause it to fall below delisting objectives or jeopardize existing successful breeding pairs. If these conditions are met, an implementation plan would be prepared, which would provide detailed information on translocation methods and the selection of a release site(s).

A public review process would then be conducted to evaluate the translocation proposal. If the proposed translocation site were on federal land, the review process would be conducted under the National Environmental Policy Act (NEPA); if it were proposed on non-federal land, the State Environmental Policy Act (SEPA) process would be used. State wildlife biologists would coordinate with other land management agencies to determine a suitable location to release wolves. Coordination with federal and other state agencies, tribal governments, landowners, and non-governmental organizations would also take place throughout the process. It is recognized that if wolves are still federally listed in portions of Washington when translocation is proposed, collaborative discussions with the U.S. Fish and Wildlife Service will be needed for approval to implement translocations (E. E. Bangs, pers. comm.).

If the translocation proposal is approved following the NEPA/SEPA process, the translocation would then occur followed by post-release monitoring to evaluate success of the project. Two areas that were identified where natural dispersal and recolonization may be slow or difficult were: (1) the southern Cascade Mountain range, which the Wolf Working Group discussions recommended for consideration as a recipient region (Appendix E); and (2) the Olympic Peninsula and Willapa Hills, which scientific peer reviewers also recommended.

If a successful translocation proposal were not approved through the NEPA/SEPA process the Wolf Working Group would be brought back together to work with WDFW to determine if there were other strategies that could be developed to accomplish the recovery objectives.

1 Other Conservation and Management Tools

2
3 A variety of conservation strategies and management tools will be considered to meet
4 conservation/recovery objectives while wolves remain state listed in Washington. These include
5 translocation (discussed above) and other conservation measures that are discussed in later chapters
6 including proactive measures to assist livestock producers in reducing wolf-livestock conflicts,
7 compensation programs for wolf-related livestock losses and deterrence methods, and various
8 harassment options and forms of limited lethal control (all discussed in Chapter 4); prevention of
9 illegal killing, management of prey populations and their habitat, preservation and enhancement of
10 habitat connectivity for wolves, management of human safety concerns and wolf-pet conflicts, and
11 implementation of a comprehensive outreach and education program, and research (all in Chapter
12 12).

13
14 **C. Management after Delisting**

15
16 Reclassification upon delisting

17
18 After the conservation/recovery objectives for delisting are met, wolves could be reclassified to
19 game animal or protected status. Reclassification to a game species would require the approval of
20 the Washington Fish and Wildlife Commission through a public process. If reclassified to a game
21 species, statewide management goals would be established to preserve, protect, perpetuate, and
22 manage wolves and their habitats to ensure a healthy, productive population with long-term stability
23 (D. Ware, pers. comm.). This is the population level that is viable and sustainable while also
24 allowing hunting, and is not a population “cap” intended to keep numbers beneath a specific level.

25
26 Hunting

27
28 There may be proposals to hunt wolves following delisting. It is likely that conservative approaches
29 would be used initially if hunting of wolves in Washington were proposed while population numbers
30 were relatively low. These approaches may include no hunting or hunting on a limited permit-only
31 basis, as is done for moose, bighorn sheep, and mountain goats in Washington, and was
32 implemented for wolves in Idaho and Montana in Fall 2009. Minnesota adopted a phased approach
33 management strategy, whereby wolves would not be hunted for five years post-delisting (MDNR
34 2001). This gives an opportunity to ensure that adequate population numbers are being maintained
35 following delisting and prior to proposals for hunting.

36
37 With regard to hunting, Mitchell et al. (2008) recommended that consideration should be given to
38 protecting wolves in some core habitat areas (e.g., in large blocks of public lands) to maintain pack
39 size and structure, thereby potentially retaining successful breeding pairs and reproductive output.
40 Hunting may also target areas of conflict to reduce the need for agency management and
41 compensation, as is done for other species in Washington such as elk and geese.

42
43 Relisting

44
45 After delisting occurs, it is in the best interest of wolves and the citizens of Washington that the
46 state takes whatever management steps are necessary to safeguard the species from a population
47 decline that would necessitate relisting. Upon delisting, the wolf population will be expected to

1 USFWS et al. (2009) reported that on average 10-25% of all wolf packs in Montana were confirmed
2 to have killed livestock in any given year from 1999 to 2008. In comparison, 33-85% of the packs in
3 Wyoming outside of Yellowstone National Park were involved in depredations annually from 2005
4 to 2008 (USFWS et al. 2009). Wolves don't necessarily attack livestock whenever livestock are
5 encountered, but most wolf packs that regularly encounter livestock are likely to depredate at some
6 point (Bangs and Shivik 2001). Some packs show increasingly frequent depredation behavior, while
7 others may do so once or twice a year, every other year, or even less frequently (USFWS et al. 2009).
8

9 In the northern United States, wolf depredation on livestock occurs more frequently from March to
10 October when livestock spend more time under open-grazing conditions, calving is taking place, and
11 wolf litters are being raised (Fritts et al. 2003, Musiani et al. 2005, Sime et al. 2007). Untended
12 livestock, particularly young calves, appear to be more vulnerable, and the presence of livestock
13 carcasses on a property may increase risk as well (Fritts et al. 2003). Depredations occur on both
14 open grazing sites and inside fenced pastures. Sime et al. (2007) reported that among the 162
15 livestock producers suffering confirmed wolf depredation in Montana between 1987 and 2006, 62%
16 experienced a single incident, 20% experienced two incidents, and 17% experienced three or more
17 incidents.
18

19 In the northern Rocky Mountain states, calves are more commonly killed than other age groups of
20 cattle because of their greater vulnerability (Fritts et al. 2003; Bangs et al. 2005a; Unsworth et al.
21 2005; Sime et al. 2007; Stone et al. 2008; J. Timberlake, pers. comm.). Oakleaf et al. (2003) found
22 that wolves tend to choose the smallest calves and there is evidence that some depredated calves are
23 in poorer physical condition (Bradley and Pletscher 2005). In parts of Canada, wolves sometimes
24 kill yearling cattle more often than calves (Stone et al. 2008). In contrast, adult sheep appear to be
25 taken more frequently than lambs (Fritts et al. 2003). Depredations on sheep commonly involve
26 multiple individuals, whereas those on cattle usually involve single animals. 
27

28 Among Idaho, Montana, and Wyoming, significant variation exists in the number of cattle and sheep
29 killed by wolves, and sometimes variation exists between years (Table 4). While the number of
30 livestock killed by wolves in these states has generally increased over time as wolf numbers have
31 grown, these are small compared to losses caused by coyotes, cougars, bobcats, dogs, bears, foxes,
32 eagles, and other predators. Coyotes and other predators were responsible for almost all of the
33 losses in which the predator was identified (98.8% of the cattle losses and 99.4% of the sheep losses)
34 during 2004 and 2005; wolves were responsible for 1.8% and 0.6% of the losses (Table 5). Most of
35 these predators, such as coyotes, cougars, bobcats, black bears, and foxes, can be legally hunted or
36 are subject to lethal control if depredating. Wolf depredations are also far smaller than combined
37 non-predator losses (e.g., sickness, disease, weather, and birthing problems) in Idaho, Montana, and
38 Wyoming, being less than 0.1% of these losses for cattle and 0.6% for sheep (NASS 2005, 2006).
39 Wolves have caused minor losses of other livestock species and dogs in these states (Table 4).
40

41 It is important to note that the figures presented in Table 4 represent minimum estimates of the
42 livestock actually killed by wolves. Probable losses, in which officials are unable to verify the cause
43 of death, are not included. Additionally, ranchers sometimes fail to locate carcasses or are unable to
44 notify authorities soon enough to obtain confirmation because of the rugged and vast terrain where
45 livestock graze, the extent of carcass consumption by predators and scavengers, or carcass
46 decomposition. In some instances, ranchers may choose not to report their losses. Determination
47 of the ratio of estimated total losses to confirmed kills continues to be debated (Kroeger et al. 2005)

1 livestock, which may be more vulnerable to wolves; delaying the turnout of cattle onto grazing sites
2 until calving is finished or until young wild ungulates are born to reduce opportunities for
3 depredation; allowing calves to reach at least 200 pounds before turning them out to grazing sites
4 can also lower their vulnerability (Oakleaf et al. 2003); and avoiding grazing livestock near wolf
5 territory core areas, especially dens and rendezvous sites, during the earlier portion of the grazing
6 season. Implementation of these methods may result in higher costs to livestock producers.
7

8 One type of proactive program that has been developed and tested in Montana is the Range Riders
9 Project. This program is a collaborative effort between ranchers, government agencies, and
10 conservationists (including the Montana Fish, Wildlife & Parks, Madison Valley Ranchlands Group,
11 Boulder Watershed Association, Turner Endangered Species Fund, USDA Forest Service, Predator
12 Conservation Alliance, the Sun Ranch, USDA Wildlife Services, USDA Natural Resources and
13 Conservation Service, Sweet Grass County Conservation District, and Montana State University
14 Extension Service). The main goal of the project is to reduce predator-livestock interactions.
15 Secondary goals are to (1) detect injured or dead livestock more rapidly, (2) preserve the evidence at
16 potential depredation sites so that investigators can better determine whether or not predation was
17 involved and which species was responsible, (3) improve livestock management and range
18 conditions, (4) increase knowledge about predator-livestock interactions in space and time, and (5)
19 build relationships among project partners. All project collaborators provide funding and in-kind
20 contributions. In particular, significant funding has come through the USDA Natural Resources and
21 Conservation Service's Environmental Quality Incentives Program.
22

23 In the Range Riders Project, cowhands are trained in methods to keep wolves and livestock apart.
24 Riders stay with livestock throughout the grazing season (generally June–October) and chase away
25 any wolves that come near the cattle. Projects were implemented beginning in 2004 on both public
26 grazing allotments and private lands in two valleys in Montana. Protocols varied from place to
27 place, but the underlying premise was continual human presence and immediate response to wolves
28 interacting with livestock. The use of horses and vehicles (where applicable) allowed riders to cover
29 as much ground as possible while checking on livestock. In 2006, areas with riders experienced no
30 confirmed or probable depredations, although wolves were present and were seen and/or chased
31 off. Due to high variability among sites, there is no clear evidence that these efforts have actually
32 prevented depredations. However, when surveyed, many participating producers believed the
33 project was helpful and indicated an interest to continue their participation. Additional range rider
34 projects implemented in Montana are briefly described in USFWS et al. (2009).
35

36 *Non-Lethal Deterrents*

37
38 A number of non-lethal deterrents have been developed for discouraging wolf predation on livestock,
39 including those developed in the Northern Rocky Mountains (Bangs et al. 2005a, 2006, Shivik 2006,
40 and Stone et al. 2008). These deterrents are available to livestock producers and are generally most
41 effective in small areas. The following non-lethal deterrents have been used:
42

- 43 • Guarding animals (primarily dogs) that are kept with livestock and alert herders when wolves
44 and other predators are nearby.
- 45 • Light and noise scare devices that are used to frighten wolves away from confined livestock
46 and alert ranchers and herders to the presence of wolves. These include propane cannons,

1 the depredation occurred. All of these factors and possibly others would be considered in the
2 investigator's best professional judgment.

- 3
- 4 • Confirmed Non-Wild Wolf Depredation – There is clear evidence that the depredation was
5 caused by another species (coyote, black bear, cougar, bobcat, domestic dog) or a wolf hybrid or
6 pet wolf.
- 7
- 8 • Unconfirmed Depredation – Any depredation where the predator responsible cannot be
9 determined.
- 10
- 11 • Non-Depredation – There is clear evidence that the animal died from or was injured by
12 something other than a predator (e.g. disease, inclement weather, or poisonous plants). This
13 determination may be made even in instances where the carcass was subsequently scavenged by
14 wolves.
- 15
- 16 • Unconfirmed Cause of Death – There is no clear evidence as to what caused the death of the
17 animal.

18
19 *Recommended Payment Program for Confirmed and Probable Wolf Depredations*

20
21 It is recognized that the recommendations in this plan for both the definition of livestock and the
22 payment levels for compensation of losses due to wolves differ from those designated in SHB1778.
23 It would require changes to the current law to adopt the recommendations of this plan.

24
25 For this plan, it is recommended that the state compensation fund reimburse livestock owners for
26 confirmed and probable wolf-killed livestock which would include: cattle, calves, pigs, horses,
27 mules, sheep, lambs, llamas, goats, and guarding/herding animals. Appropriate documentation, such
28 as a contract, previous sales record, or current market reports, will be required. Domestic pets and
29 hunting dogs will not be covered for compensation; however, dogs used for animal control efforts
30 under contract with WDFW or other public entities may be eligible.

31
32 A two-tiered payment plan is recommended for confirmed and probable wolf-killed livestock on
33 private and public lands, as presented in Table 8. Recommended payments on grazing sites of 100
34 or more acres are higher because it is harder to find carcasses on larger acreages (see Section A of
35 this chapter). Thus, for each documented loss on sites of this size, a two-to-one ratio for payment is
36 used to account for a possible carcass that couldn't be located. Recommended payments on smaller
37 areas do not include payment for these unknown animals because livestock owners are typically able
38 to supervise their stock more closely and can find nearly all carcasses. Payment is based on current
39 market value, which is defined as the value of an animal at the time it would have normally gone to
40 market. Compensation for other unknown losses (see below, discussion of *Development of a*
41 *Compensation Program for Unknown Losses*) would not be additive or redundant to compensation for
42 confirmed and probable losses.

43
44 For each animal confirmed to have been killed by a wolf on grazing sites of 100 or more acres, the
45 owner will receive payment at the 2:1 ratio using the current market value. For each livestock
46 documented as a probable kill by a wolf on sites of this size, the owner will receive half the current
47 market value at the 2:1 ratio. For each animal confirmed to have been killed by a wolf on grazing

10. RESEARCH

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3
4
5 Development and implementation of research programs are essential parts of any successful wildlife
6 conservation and management plan. Such programs should provide information that can promote
7 adaptive management and process improvement over time. Future conservation and management
8 actions involving Washington's gray wolves will depend on accurate and complete data related to a
9 broad range of biological and social topics, including population status and impacts on affected
10 resources and human activities.

11
12 Extensive research on wolves and their impacts has been conducted in recent decades in Idaho,
13 Montana, and Wyoming, and has provided excellent information for directing wolf recovery and
14 management in those states. This body of work will be useful in guiding future wolf investigations
15 in Washington. In some instances, the results of this research will be directly applicable to
16 Washington, but in many cases similar studies will be needed in-state because of differences among
17 states in habitat quality, prey availability, human densities, and other characteristics.

18
19 Research will be needed to clarify the understanding of wolves in Washington, their impacts on
20 other species, and to guide the development of longer-term area-specific conservation and
21 management objectives for wolves. Research will likely be conducted by WDFW, other federal (and
22 state agencies, tribes, universities, and other scientists and will rely on cooperative relationships
23 among these entities.

24
25 Important research needs relating to wolf conservation and management in Washington are
26 identified in Chapter 12. Availability of funding and personnel will determine the rate at which
27 research is conducted. Long-term commitments of funding and support will be needed to do this
28 work. Efforts will be made to obtain funding from multiple sources to conduct the needed research.
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1.1. Establish and maintain a minimum of two wolf specialist positions within WDFW to locate wolf packs, monitor wolf movements, and conduct other wolf-related activities.

Author: sfis490 Subject: Sticky Note Date: 1/6/2010 12:17:59 PM -08'00'
Task 1.1 will need to occur regardless of which alternative is selected through the EIS process. To tie this task in with some alternatives and not include it under the "no change" alternative is really a false choice. WDFW will need to employ wolf specialists under any of the alternatives.

1.2. Monitor locations of wolves dispersing into Washington and determine when resident packs and territories become reestablished.

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Insert "adult", as pups are not collared.

1.2.1. Use howling and "howlbox" surveys, winter tracking, remote camera surveys, trapping, genetic testing, and other methods to determine locations of recolonizing wolves.

Refinements in survey methodology developed and tested in other states will be employed in Washington when appropriate.

1.2.2. Solicit, collect, and evaluate sighting reports by the public and cooperators and conduct follow-up investigations, where warranted, to locate colonizing wolves and packs.

The public will be encouraged to submit reports of wolf activity and sightings (Appendix L). Outreach will be conducted to encourage the public to provide credible wolf sighting reports. Information on wolf identification and where to report sightings will be included in WDFW publications and on the agency's webpage. All recent and current sighting reports will be mapped and reviewed to evaluate their accuracy and to look for clusters of reports.

1.3. Determine the status, trends, distribution, and other population parameters of wolves while listed.

1.3.1. Trap and radio-collar members of each pack as packs become reestablished.

Radio telemetry will be an important tool for monitoring wolves while listed. The goal will be to collar the breeding male and female, and as many remaining members of each pack as feasible. An attempt will be made to track at least one member of each pack via radio collars using satellite technology to locate and record an individual's movements. Captured animals will be genotyped using collected DNA to allow identification and may be marked with a pit tag.

1.3.2. Determine the locations and numbers of successful breeding pairs, packs, and individual wolves each year.

Numbers of successful breeding pairs (pups surviving until December 31), packs, and total wolves will be determined annually using the results of radio-tracking and other survey techniques. Packs with territories straddling recovery region (or state) boundaries will be counted only in the area where the den site is located. If the den location is not known with certainty, then other criteria such as amount of time, percent of territory, or number of wolf reports will be used to determine

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residency. Thus, a pack will not be counted in more than one administrative area.

- 1.3.3. Determine home ranges, mortality, reproductive success, habitat selection, dispersal, and animal health.

Information from radio tracking and other survey methods will be used to determine ecological and biological characteristics of each pack, such as habitat use, prey selection, locations of den sites and rendezvous sites, number of pups, survival, and mortality.

- 1.3.4. Assess the genetic characteristics and monitor their health through the collection and analyses of biological samples from live-captured and dead wolves.

- 1.3.5. Publish an annual report with monitoring results, including status, trends, distribution, and other population parameters for wolves each year, and assess progress toward meeting conservation/recovery objectives.

- 1.4. Determine the status, trends, distribution, and other population parameters of wolves after delisting.

Following delisting, wolf populations will be monitored to determine annual population status and trends. Because of the difficulty in validating successful breeding pair status as numbers of packs increase, monitoring efforts will change from determining numbers of successful breeding pairs to numbers of packs or total number of wolves. These efforts may provide an indirect estimator of breeding pairs or alternative measures to assist with determining population size. Some newer techniques (e.g., genetic testing of scat and hair, greater deployment of remote cameras, and use of "howlboxes" and hunter surveys) may prove to be more cost-effective and less intrusive than trapping and radio-collaring (Ausband et al. 2009b, USFWS et al. 2009). Collaring may be used in select situations, such as with wolves that appear in new locations.

- 1.5. If needed, move individual wolves within Washington for genetic purposes.

If the results of genetic research (Task 11.2) determine that an isolated wolf population has reduced genetic diversity, an individual wolf from another population/pack may be moved into the population to increase genetic diversity, in an effort to increase population viability. This activity would be conducted solely to facilitate genetic exchange with other populations in the state. Because wolves would already be present in the release area, this would not require a feasibility assessment or reviews under SEPA or NEPA.

2. Protect wolves from sources of mortality and disturbance at den sites.

- 2.1. Identify human-related and natural sources of mortality.

Author: sfs490 Subject: Sticky Note Date: 1/6/2010 12:21:30 PM -08'00'
delete "administrative area", insert "recovery region"

Author: sfs490 Subject: Sticky Note Date: 1/6/2010 12:25:44 PM -08'00'
Big RED flag here...First it needs to be determined if wolves recolonizing the Cascades are genetically distinct from wolves originating from the NRM population before taking a wolf from northeastern WA and dropping it off in the Cascades to "increase genetic diversity". Certainly you wouldn't drop off a Mexican wolf there and wolves from the NRM may be just as inappropriate. Certainly this process should be subject to SEPA review!

wolves is expected to be minimal because, with the exception of tribal trappers, licensed trappers in Washington are only allowed to use box and cage traps.

2.3. Minimize disturbance at active wolf den sites.

2.3.1. Review information pertaining to human disturbance of wolf den sites in other states to determine what protective measures may be appropriate in Washington.

Implementation of such measures around wolf den sites would likely be case-specific. Provide information to landowners where den sites are located on timing and duration of denning, and how to avoid disturbance at the den site.

2.3.2. Evaluate the state's Forest Practices Act Critical Habitats Rule for the gray wolf and determine if it should be revised.

The critical habitat rule protecting the den sites of wolves from disturbance or possible adverse impacts from forest practice activities was established in 1992 under the Washington State Forest Practices Act Critical Habitats Rule for threatened and endangered species (WAC 222-16-080). Since that time, a great deal of information and data on these concerns has been collected on wolves in Idaho, Montana, and Wyoming. This information should be used to evaluate whether the rule is still appropriate or if changes should be recommended.

3. Translocate wolves, if needed, to help achieve conservation/recovery objectives.

The overall timeframe for wolves to disperse naturally into Washington and reestablish a population is difficult to predict, but it could take several decades to reach downlisting and delisting objectives. If wolves have exceeded recovery objectives in some recovery regions and not others, then the process will be initiated to evaluate potential translocation of wolves to areas not achieving recovery objectives. Funding for both a feasibility assessment and an implementation plan should be a high priority.

3.1. Determine if wolves are successfully dispersing to each recovery region and establishing successful breeding pairs.

Howling surveys, monitoring of radio-collared individuals, and other methods will be used to determine whether (1) wolves are successfully dispersing to new areas of the state and (2) sufficient numbers of wolves exist in a recovery region to be used as a source for translocation.

3.2. Prepare a feasibility assessment for translocating wolves into recovery areas where recovery objectives have not been met.

The feasibility assessment will investigate whether an adequate amount and configuration of suitable habitat and prey are available to support successful breeding pairs of wolves at potential translocation sites. Federal and state lands will be targeted for inclusion in the assessment, especially those that are forested and have low densities of people and

- 1 discourage wolf depredation through the use of media materials, workshops,
- 2 website resources, site reviews, evaluations, and other tools.
- 3
- 4 4.2.4. Work with state and federal land managers who administer grazing permits in
- 5 areas of wolf activity to provide permittees with information on resolving wolf-
- 6 livestock conflicts.
- 7
- 8 4.2.5. Provide livestock owners with information on how to report suspected livestock
- 9 depredation and protect the site so that the cause of death can be determined.
- 10
- 11 4.2.6. Inform public and private land managers of wolf activities on their respective
- 12 lands.
- 13
- 14 4.3. Verify reported wolf depredations.
- 15
- 16 Verification of reported wolf depredations is a critical step in the process of managing
- 17 depredation problems. Documenting losses is necessary for both the livestock owner
- 18 and WDFW to understand the severity of the problem, to plan appropriate action, to pay
- 19 compensation, and to foster good relations between agencies and livestock owners.
- 20 Rapid notification of agencies by the livestock owner about suspected depredations is
- 21 crucial for verification, and a timely response to suspected livestock depredation reports
- 22 by state or federal staff is critical for accurately determining the cause of death.
- 23
- 24 4.3.1. Establish a contract with USDA Wildlife Services to assist WDFW staff in
- 25 responding to wolf depredation calls where wolves are not federally listed.
- 26
- 27 Prompt response by personnel trained in depredation investigation techniques is
- 28 important for determining the validity of reported complaints. Either WDFW
- 29 personnel or USDA Wildlife Services personnel will conduct wolf depredation
- 30 investigations.
- 31
- 32 4.3.2. Provide the public with contact numbers so that complaints of suspected wolf
- 33 depredation can be promptly reported.
- 34
- 35 If livestock are suspected to have been killed or injured by a wolf, complaints
- 36 should be reported to WDFW or USDA Wildlife Services as soon as possible,
- 37 preferably within 24 hours of finding the animal. See Appendix L and the
- 38 WDFW wolf website for current contact telephone numbers, reporting
- 39 guidelines, and associated information.
- 40
- 41 4.3.3. Respond to complaints of suspected wolf depredation in a timely manner.
- 42
- 43 Upon receiving a complaint involving suspected wolf depredation, WDFW or
- 44 USDA Wildlife Services will contact the complainant by phone within 24 hours.
- 45 If agency staff determine that a field investigation is warranted, an on-site
- 46 inspection will be made within 24 hours of the telephone consultation. In the
- 47 interim, the livestock operator should be given instructions on how to protect

State Sheep Producers will be engaged to assist on aspects of wolf-livestock conflict management.

5. Manage ungulate populations and habitats in Washington to provide an adequate prey base for wolves and to maintain harvest opportunities for hunters.

5.1. Monitor ungulate populations in areas occupied by wolves.

WDFW and its cooperators already conduct surveys of annual production, recruitment, and harvest of ungulate populations in the state. These data are used to monitor population abundance, trends, and to make recommendations for hunting seasons and other management actions. Nevertheless, management of many populations would benefit from increased survey intensity to improve the precision and accuracy of information. Improvements in survey protocols may enhance efforts to assess the impacts of wolves on prey and to determine if changes in ungulate management strategies are needed.

5.2. Enhance ungulate populations wherever possible, subject to habitat limitations and landowner tolerance.

Maintaining robust prey populations will result in three key benefits for wolf conservation in Washington: (1) providing wolves with an adequate prey base, (2) supplying hunters and recreational viewers of wildlife with continued opportunities to hunt and observe game, and (3) reducing the potential for livestock depredation by providing an alternative to domestic animals. Implement management plans for deer and elk to increase their abundance in areas occupied or likely to be occupied by wolves.

5.2.1. Improve habitat for ungulate populations.

Healthy ungulate populations rely on adequate summer and winter habitat. Deer and elk are generally most abundant in early successional forests, but this habitat has declined in many parts of Washington in recent decades due to reduced timber harvest, fire exclusion, intensification of reforestation methods, development, and other causes.

WDFW will work with other public land agencies, private landowners, non-governmental organizations (e.g., Rocky Mountain Elk Foundation, Mule Deer Foundation), and tribal governments to cooperatively manage forestlands and winter habitat for the benefit of ungulate populations and wolves. This will include the use of appropriate management practices to improve forage quality in various habitats; manage some habitats preferentially for ungulates; reduce road densities and off-road vehicle use in critical habitat; maintain open habitats (e.g., meadows), winter habitats, and productive early successional habitat; improve control of noxious weeds; and protect valuable lands through acquisitions, leases, landowner agreements, and other methods.

1 8.1. If conflicts between wolves and other state and federal listed/candidate species occur,
2 make case-specific evaluations to determine if management responses are needed and, if
3 so, what the responses should be.

4
5 If wolves are federally listed, or if conflicts involve federally listed species, work with
6 U.S. Fish and Wildlife Service to plan and implement appropriate responses.

7
8 8.2. If determined to be needed, develop a response plan in advance to address an anticipated
9 conflict.

10
11 For some species (e.g., mountain caribou), it may be desirable to have a response plan
12 already developed. Determine appropriate potential response options.

13
14 **9. Develop and implement a comprehensive outreach and education program.**

15
16 A comprehensive outreach and education program will be needed to provide accurate and
17 updated information on wolf conservation and management and to prepare Washington
18 residents to coexist with wolves. Such a program will have many aspects to address the varied
19 types of information needs.

20
21 9.1. Provide information to the public about ongoing wolf conservation and management
22 activities.

23
24 9.1.1. Develop a wolf outreach and information plan for Washington.

25
26 9.1.2. Implement wolf outreach and education efforts with programs and materials
27 appropriate for key audiences.

28
29 9.1.3. Provide information on wolf biology, habitat use, history in Washington, status,
30 and threats. As information becomes available, and is appropriate (i.e.,
31 information must be non-sensitive), have maps of current wolf pack territory
32 polygons on the WDFW website. Include links to the websites of other
33 government agencies and non-government organizations with additional wolf
34 information. Update the WDFW website with information on implementation
35 of the wolf plan and adaptive management, including public feedback tools such
36 as surveys and blogs.

37
38 9.1.4. Issue news releases to news media and e-subscribers, as needed, about significant
39 wolf activity or plan implementation, including field activities, new research,
40 management responses, and public conduct advisories.

41
42 9.1.5. Work with local communities, land management agencies, and others to develop
43 safe and unobtrusive wildlife viewing opportunities for wolves, as they may
44 develop in the future.

45
46

- 1 9.4.3. Give presentations to provide information to the public about coexisting with
- 2 wolves in Washington.
- 3
- 4 Before conducting outreach, it is important that any potential staff that might be
- 5 giving presentations (including WDFW) receive accurate background
- 6 information about wolves on an ongoing basis so that they can present
- 7 consistent and factual messages about wolf conservation and management to the
- 8 public. Target communities closest to the most wolf activity and conduct open
- 9 houses, town hall meetings, or other events to teach co-existence with wolves.
- 10
- 11 9.4.4. Work with other agencies and organizations to promote wolf outreach.
- 12
- 13 Work with agencies and a variety of non-governmental and tribal organizations
- 14 to conduct effective information and education programs about living,
- 15 recreating, and working with wolves in Washington. These entities could assist
- 16 in the development and presentation of wolf education materials to the public.
- 17
- 18 A potential model for community outreach is the Grizzly Bear Outreach Project
- 19 (GBOP), a non-governmental organization (<http://www.bearinfo.org>). The
- 20 project engages community members in a process of education and multi-party
- 21 dialogue and provides a non-advocacy setting for the involvement of all
- 22 stakeholder groups. The approach includes:
- 23 • Assessing the knowledge and attitudes of community members prior to
- 24 implementing education components.
- 25 • One-on-one meetings between project staff and community members to
- 26 gauge concerns and share information.
- 27 • Small focus group meetings to discuss grizzly bear issues with 4–6 people
- 28 at a time in informal settings.
- 29 • A coalition of community members to provide a local information source
- 30 and extend the reach of project staff.
- 31 • A project brochure containing information about grizzly bear ecology,
- 32 and sanitation and safety tips for the home, ranch, and campsite for
- 33 distribution to hikers, horse packers, hunters, fishers, and communities.
- 34 • A modular slide show paralleling the content of the brochure.
- 35 • A project website for distribution of information and solicitation of
- 36 comments from the public.
- 37
- 38 A similar program for wolves could be developed for selected local communities.
- 39
- 40 9.5. Develop and provide informational material about wolves and co-existing with them for
- 41 use in school classrooms, environmental learning centers, and other appropriate outlets.
- 42
- 43 9.5.1. Develop and distribute materials for K-12 classrooms.
- 44
- 45 Develop lesson plan kits that include sets of materials and activities for students
- 46 to learn about wolves (identification, biology, behavior, habitat use, history in



state(s)), using WDFW education webpages and as many already established wolf education resources as available and appropriate.

9.5.2. Develop a wolf education webpage.

Work with outreach and education staff to develop a wolf education webpage to assist with lesson planning and presentations, serve as a clearinghouse for approved and appropriate links to more wolf education materials, and provide online learning games and activities.

9.6. Determine public attitudes towards wolves and their recovery in the state.

Conduct public attitude surveys in Washington to determine current perceptions about wolves and needs for information and education. Make follow-up surveys to determine the effectiveness of outreach programs relating to wolves and whether changes are needed in these programs.

10. Coordinate and cooperate with public agencies, landowners, tribes, and non-governmental organizations to help achieve wolf conservation and management objectives.

10.1. Coordinate and communicate with other entities and jurisdictions to share resources, reduce costs, and avoid potential duplication of effort.

10.1.1. Develop memoranda of understanding or cooperative agreements, if appropriate, to spell out roles and responsibilities and to ensure that certain actions are conducted in a timely manner.

It will be desirable to have key contact people identified in advance to facilitate rapid responses and decision making during conflict situations. Coordination with the following agencies and entities will be important: USDA Wildlife Services; U.S. Fish and Wildlife Service; U.S. Forest Service; National Park Service; Bureau of Land Management; tribal governments; Washington Department of Natural Resources; Washington Department of Agriculture; Washington Department of Transportation; other Washington state agencies; county governments; private landowners; law enforcement entities including the U.S. Fish and Wildlife Service, U.S. Forest Service, and county sheriff departments; natural resource agencies in neighboring states and British Columbia; and non-governmental organizations such as the Defenders of Wildlife, Washington Cattlemen's Association, Washington State Sheep Producers, Washington Farm Bureau, and hunting organizations.

10.1.2. Work with adjacent states and British Columbia to encourage maintenance of populations and habitat connectivity to support long-term viability of wolf populations in Washington.

1 location, and species availability. Age and sex of prey should also be investigated
 2 and compared with availability.

3
 4 11.3.2. Investigate the dynamics of ungulate populations in areas occupied by wolves.

5
 6 If management questions arise about the status of ungulate populations in areas
 7 occupied by wolves, the ungulate populations in those areas should be
 8 investigated in greater detail to obtain improved information on abundance,
 9 demographic parameters, and sources of mortality. This information would
 10 provide a strong foundation for determining the extent that wolves or other
 11 factors affect prey populations and for making sound management decisions.

12
 13 11.4. If it is determined to be needed, conduct research on wolf depredation of livestock and
 14 domestic animals.

15
 16 As wolves become reestablished, investigations may be needed on the levels and effects
 17 of depredation on livestock and other domestic animals, and the factors influencing
 18 depredation. Improved baseline data on depredation levels by other carnivores prior to
 19 wolf recolonization will be necessary to assess the impacts of wolves during and after
 20 their reestablishment. There is also a strong need to conduct research on non-lethal
 21 control methods to reduce wolf depredation on livestock.

22
 23 11.5. Conduct research on the broader ecological impacts that wolves have on plant and
 24 wildlife communities.

25
 26 As noted at Yellowstone National Park, wolves have the potential to affect ecosystems
 27 through regulation of ungulate abundance, thereby benefiting a variety of plants,
 28 habitats, and animals. These types of ecological interactions should be investigated in
 29 the future as wolves become reestablished in Washington.

30
 31 **12. Report on and evaluate implementation of the plan.**

32
 33 12.1. Centralize data collected during the wolf monitoring program.

34
 35 WDFW will maintain a centralized database of wolf monitoring data and results to
 36 ensure accurate and consistent information is shared with wolf co-managers and the
 37 public. WDFW maintains a centralized database (Wildlife Resource Data System) and
 38 will retain copies of data collected during annual monitoring activities.

39
 40 12.2. Publish an annual report summarizing information from wolf conservation and
 41 management activities.

42
 43 Because of the intense interest in wolves and the implementation of this plan, WDFW
 44 will produce an annual report summarizing all the activities and results of wolf
 45 conservation and management that occurred in Washington during the previous year.
 46 The first report will be written one year after adoption of this plan. Reports will be
 47 similar to those produced by other western states (e.g., USFWS et al. 2009) and will

Table 18. Projected numbers of packs, successful breeding pairs, lone wolves, and ungulate prey for four different population size categories of wolves in Washington. Because of the absence of biological data on wolves living in Washington, numbers presented here should be considered as very rough approximations.

Number of wolves present	Population size category			
	50	100	200	300
Estimated total no. of prey killed per year ^a	1,130-1,675	2,260-3,350	4,520-6,700	6,780-10,050
Estimated no. of elk killed per year ^a	425-630	850-1,260	1,700-2,520	2,550-3,780
Estimated no. of deer killed per year ^a	705-1,045	1,410-2,090	2,820-4,180	4,230-6,270

^a Numbers represents the estimated range in numbers of prey killed by different sizes of wolf populations based arbitrarily on (1) an average kill rate of 7.2 kg/wolf/day (derived from Table 5.5 in Mech and Peterson (2003)) plus or minus 20%, (2) average body weights of 150 kg per elk and 60 kg per deer, and (3) a diet of 60% elk and 40% deer by biomass (see Table 2, Chapter 2). Because of the large differences in body weight between elk and deer (Chapter 5), fewer elk than deer are expected to be killed. Estimates given here are based on an average annual kill rate of 8.5-12.6 elk and 14.1-20.9 deer per wolf, or about 22.6-33.5 ungulates total per wolf.

noticeable effects on elk and deer abundance in some localized areas occupied by wolf packs, but should not have broad-scale impacts. These levels of loss potentially represent 1-2% of the state's elk population and less than 1% of the combined deer population. With larger populations of wolves, greater numbers of ungulates would be removed annually, with perhaps 1,700-3,800 elk and 2,800-6,300 deer taken if 200-300 wolves became reestablished (Table 18). Predation levels on moose are also difficult to estimate, but may be significant if wolves become numerous in northeastern Washington. Wolf take of bighorn sheep and mountain goats is expected to be minor.

The estimates presented above come with many caveats. For example, wolf expansion may result in lowered coyote and cougar populations, thereby reducing ungulate and other game (e.g., upland birds, rabbits) losses caused by these predators. Changes in harvest strategies (e.g., reduced antlerless take, shortened hunting seasons, etc.) and further efforts to manage habitat for elk and deer may be necessary to offset some wolf-related losses and keep game populations at their intended management objectives. In areas without severe winter snowpack and without full protection for wolves, Garrott et al. (2005) has suggested that wolf impacts on elk may be lower than expected.

Populations of 50 to 100 wolves should have few negative effects on big game hunting in Washington, as demonstrated by the relatively small estimated take of ungulates described above. As in the Yellowstone region (Creel and Winnie 2004, Mao et al. 2005, Proffitt et al. 2009), wolves may also cause some redistribution of game, which could make these species somewhat less vulnerable to harvest. However, these impacts together would be restricted to the relatively few areas occupied by packs during these recovery stages and would probably not reduce statewide harvests of elk and deer by more than 1-3%. If these outcomes discouraged a similar proportion of hunters from hunting, then big game-related hunting expenditures in the state, including the revenues generated by WDFW, could decrease by a comparable amount (about \$100,000 to 300,000 annually). Whether or not the loss of a small percent of the state's elk and deer would affect hunter participation and by how much is unknown. Some outfitters catering to hunters would perhaps be negatively affected, but because this industry is small in Washington, the overall financial impact



MAKAH TRIBAL COUNCIL

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HABITAT PROGRAM

Teresa A. Eturaspe
SEPA/NEPA Coordinator
Washington Department of Fish and Wildlife
600 Capitol Way N.
Olympia, WA 98501-1091

Re: Makah Tribe's Comments on Gray Wolf Management Plan and Draft EIS

Dear Ms. Eturaspe:

The Makah Tribe submits the following comments on Washington Department of Fish and Wildlife's (WDFW) Draft Wolf Conservation and Management Plan for Washington and the Draft Environmental Impact Statement (DEIS) prepared to analyze the environmental impacts of the return of the gray wolf to Washington and implementation of the management plan. The Tribe appreciates that wolf management is an extremely complex issue and requires WDFW to balance a number of policy, scientific and legal issues. The Tribe's comments are set out below and collected under headings which reflect the Tribe's principal concerns regarding the following issues: (1) limited support for specific recovery objectives; (2) lack of federal involvement in developing the Plan and its recovery objectives; (3) translocation so the South Cascades-Northwest Coast Recovery Region; and (4) tribal participation in development of the Plan.

Recovery Objectives are Poorly Substantiated.

(1) Minimum Number of Breeding Pairs.

The plan emphasizes a minimum number of reproductive pairs necessary for a viable for a self sustaining population. The problem with this approach is it appears to be unsubstantiated in terms of habitat availability, connectivity, and prey base. Rather the focus is on recovery objectives that are similar to what was utilized in other States/Regions or "considered" to be the number necessary. On page 21, lines 42-47 the state wolf management plans for Idaho and Montana both list 15 breeding pairs as targets. Similarly, this level is desired by the USFWS for Wyoming as a minimum. Washington's objectives seem to simply be following this line of

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reasoning, in hopes that it may ultimately find favor with the USFWS, without any real thought as to carrying capacity in Washington which is vastly different due to the extensive development in this State as opposed to the northern Rockies. This seems further substantiated by the statement on Page 38, lines 35-42 where the Plan states that the number of wolves necessary for ensuring recovery of Washington's population is difficult to determine and then lists all the factors for this difficulty.

In discussing population viability (pages 37-38), the Plan reviews scientific opinion regarding populations in Wisconsin and the northern Rockies. For the latter, the focus is on the achievement of 30 pairs/300 animals objectives, with possible enhancement to numbers as high as 500 wolves. These early recovery objectives were exceeded long ago, yet delisting only occurred in Idaho and Montana in early 2009 and is currently being challenged in court. The position of the plaintiffs in that case is that the best available science supports minimum populations between 2,000 and 5,000 animals for delisting across the northern Rockies. This number is obviously very different from the original recovery objectives, and still exceeds the current population of 1,300-1,500 animals in the three-state region. The Plan and the DEIS should consider the scientific information supporting higher recovery objectives in the northern Rockies and determine whether it is applicable to wolf recovery in Washington.

WDFW seems to be unable to predict the amount of wolf habitat that is considered adequate for occupancy in Washington. On Page 40, lines 23-26 the four primary factors that the USFWS has determined as related to wolf occupancy and persistence were increased forest cover, lower population density, higher elk density, and lower sheep density (domestic). Subsequently, 4 different habitat models were provided that used these variables and others in different combinations with different predictions. The more conservative estimates of habitat availability eliminated significant portions of the State which are considered a part of recovery regions. Curiously, the Plan does not even refer to the Feasibility Study on the Reintroduction of Gray Wolves to the Olympic Peninsula (Ratti et al. 1999), which estimated a fairly conservative area (basically Olympic National Park) as suitable habitat. However, the feasibility study does a fairly good job of predicting suitable habitat similar to Larson and Ripple (2006) and Carroll (2007) in Figures 5 and 7 (Pages 42 and 43 in the Plan). This highlights the difficulty in determining actual suitable habitat in Washington and the dependence on the different variables considered important in each model. The Plan acknowledges this on Page 44 line 29-30 and states that it is not possible at this time to predict the eventual distribution of wolves in Washington or the carrying capacity of landscapes to support them. This conclusion and lack of analysis cast severe doubts upon the accuracy of setting minimum population or recovery objectives.

(2) Landscape Connectivity.

Landscape connectivity is another major issue for achieving a viable wolf population, including such factors as gene flow among populations, dispersal to unoccupied habitat and immigration into existing populations. The Plan's objective is to have a self sustaining population in Washington. This relies on influx of wolves from British Columbia and

neighboring states. Washington has some severe impediments or barriers that will likely restrict wolves from naturally re-colonizing the entire State, particularly the southern Cascades and western Washington (listed on page 45). These barriers are particularly problematic as they impede recolonization to the Southern Cascades and Northwest Coast Recovery Region, the region with the highest specific recovery requirements for total number of breeding pairs (5). The Plan indicates that efforts are needed to manage for landscape permeability to facilitate dispersal but doesn't provide any solid mechanisms to address this issue. The plan simply relies on translocation as the mechanism to address the bottlenecks that will limit dispersal and natural colonization. This only solves a part of the problem, and may create other issues. Translocating wolves to areas where natural dispersal is highly restricted or altogether impossible does nothing more than establish isolated populations. It does not connect the populations within Washington which is the core of WDFW's recovery objective. Genetic concerns resulting from such isolation will lead to a situation where additional translocations will, over time, be necessary to maintain genetic variability in an isolated sub-population and address inbreeding depression and founder effect, all of which can decrease the probability of population persistence.

The connectivity issue highlights the need to have separate population goals and recovery objectives in different portions of the State, rather than tie management of eastern Washington wolves to the development of isolated populations in western Washington. The purpose of the plan on (Page 37, citing WAC 232-12-297) is to "identify strategies to reestablish a naturally reproducing and viable population of gray wolves distributed in a significant portion of the species former range in Washington." Section 1.1 states that the purpose of this rule is to identify and classify native wildlife species that have need of protection and/or management to ensure their survival as free-ranging populations in Washington. As a result of the significant challenges posed by habitat connectivity as well as the legal issues related to federal and state listing in different regions of the State, the Makah Tribe recommends that gray wolves be managed as separate populations. Under this proposal, wolves in the Eastern Washington Region and a portion of the Northern Cascades Region of the State being would be defined as encompassing only the area where a free ranging population could be established. The bottlenecks that limit natural dispersal to most of Western Washington would then segregate the remainder of the State and place wolves in those areas under separate management objectives. This would allow for active management of eastern Washington wolves to occur at a much quicker pace (as significant portions are already delisted federally) and allow time to determine if natural colonization of the south Cascades and Olympic Peninsula is feasible.

(3) Prey Availability.

Prey availability to support populations of wolves is a major component to successful restoration, a topic which is mentioned many places in the document and focused on specifically in Chapter 5. Wolves need healthy ungulate populations to thrive. There is never any real effort in the Plan to analyze ungulate populations in the State to try and correlate wolf occupancy and prey availability. The loosest attempts were to use habitat as a surrogate for prey availability in the habitat models, but there is a real need for this information to be addressed directly. The Feasibility Study for Reintroduction of Wolves to the Olympic Peninsula (Ratti et al. 1999)

clearly addressed that this significant issue in the efforts to determine the number of wolves that could be expected to utilize that region. The authors of this study conceded they had a difficult time predicting carrying capacity of wolves or population responses of ungulates as poor data existed, particularly for deer. This plan never addresses carrying capacity based on prey abundance for wolves in Washington in the development of its recovery objectives. However, the Plan does indicate that it would be a significant factor in any proposed translocation. This seems to put the cart ahead of the horse as the Plan already assigns 5 reproductive pairs of wolves to the Southern Cascades/Northwest Coast Recovery Region. Even Chapter 5, which details the population status of ungulates throughout the State, never attempts to highlight areas where prey availability was deemed suitable or marginal. The Plan just seems to assume adequate prey exists to support the population objectives. A link between the availability of prey in Recovery Regions and proposed wolf numbers is never provided, and should be analyzed in the DEIS.

Lack of Federal Involvement in Proposed Plan.

The proposed plan appears to have received no federal participation in development. This is clearly articulated on Page 13 lines 22-33. This creates a serious deficiency in the Plan since wolves in the western two-thirds of the State remain listed under the federal Endangered Species Act and only the federal government, through the USFWS, has jurisdiction over wolf management in this area. This area encompasses the vast majority of the State and the entire Olympic Peninsula, the area of most concern to the Makah Tribe. The State's Plan is presented as having recovery objectives that will facilitate delisting under State law and enable management of wolves, including as "game" animals. This can only occur if the USFWS concurs with the Plan as developed. Therefore it is critical to involve the USFWS in the development of this Plan and its recovery objectives. The Plan, and the DEIS, should also include a discussion of the potentially different federal and state downlisting and delisting criteria and the ramifications for wolf management if these criteria differ significantly and wolves remain listed under only one set of laws. This is particularly important in western Washington, where the flipside of the current situation in eastern Washington could come to pass – federal listing and state delisting.

Translocation to the Southern Cascades and Northwest Coast Recovery Region.

(1) Triggers for Translocation Should be Higher.

Translocation is a major component of the Plan and is possible under all four of the alternatives analyzed in the DEIS. Some reliance on translocation seems inevitable given the significant barriers to natural dispersal throughout the State, and the October 5 draft was significantly improved over the August 3 draft in terms of describing the criteria and timeframes for the use of this recovery tool (pages 51-52). However, the Tribe believes the threshold for beginning to evaluate translocation is too low (exceedance of delisting objective by 1 breeding pair for at least 3 years while another recovery region is unoccupied). Theoretically, this may lead to three breeding pairs in a single region, e.g. the Eastern Washington region, triggering

translocation to the South Cascades, before recovery objectives in the Northern Cascades region are satisfied. This would potentially hinder natural dispersal between these two adjacent recovery regions, particularly because the recovery objective for the Eastern Washington and North Cascades regions is so low – two breeding pairs each. Before translocation is considered, at least some of the six “floating” breeding pairs necessary for complete delisting should be present in the State, over and above the region-specific targets. The Tribe recommends that the trigger for translocation should be increased to *two* regions exceeding their recovery objectives (for three year) and should include some of the six “floating” breeding pairs required for delisting.

(2) Negative Effects to Ungulate Populations.

Deer and elk populations are vitally important to the Makah Tribe for subsistence and ceremonial uses. Although the Tribe recognizes that the wolf holds cultural importance to Makahs, at this time, particularly in the face of large reductions in the scope of land available for hunting, the ungulate populations Makah hunters rely on for subsistence are of significantly higher priority. Introduction of another predator into an already diverse predator community would be detrimental to these ungulate populations.

The Plan does not address local concerns with ungulate populations that are important to the Tribe. The Plan simply states on Page 74 in the first paragraph that it is expected that wolves have little or no effect on elk or deer abundance or hunter harvest across large areas of the State as generally reported in other States with wolf populations. While this may be acceptable to the State as a whole, the Makah Tribe is dependent on local resources, particularly in light of the State's enforcement of its hunting laws against tribal members based on its narrow interpretation of the geographic scope of the treaty hunting right after the *Buchanan* decision. Local declines, while not important or significant on a statewide basis, can be devastating to the Tribal community. The Plan clearly provides evidence of localized declines in ungulate populations following wolf introduction (pages 74-77). These reductions are primarily through predation on young of the year and are frequently enhanced when occurring in combination with other predators.

The Tribe is already experiencing this situation with the black-tailed deer population on the northern Olympic Peninsula. Four years of fawn research and 7 years of adult deer research has indicated that predation in combination with hair loss from exotic biting lice has limited deer population growth due to poor fawn recruitment and resulted in deer density far less than historically observed. The introduction of another predator into an already diverse community of bobcat, coyote, mountain lion, and black bear is likely to exacerbate an already growing population problem. Furthermore, the Plan readily acknowledges that the introduction of wolves is unlikely to have significant impacts on other predators, rather all of the citations state that wolf predation is likely to be additive to other sources. Wolves have also been shown to indirectly affect ungulates, particularly elk. On page 76 (lines 4-8) changes in habitat use patterns lowered the productivity of elk, causing birthing rates to decline and subsequent population declines. Despite all the evidence that suggests prey populations can be negatively affected, the Plan

simply states on Page 77 (line 6-9) that it is beyond the scope of this plan to attempt to evaluate these studies in the context of wolf reestablishment in Washington. In essence, this dismisses any localized or regional effects of wolves on ungulate populations that are greatly important to the Tribe. The Feasibility Study on the Reintroduction of Gray Wolves to the Olympic Peninsula indicated that deer populations would decline by 13-16% and elk populations by 16-17%. To the Makah Tribe, declines at this level would be very significant. The DEIS should, at a minimum, analyze such game population effects in similar detail to the Olympic Peninsula reintroduction feasibility study.

The Feasibility Study on the Reintroduction of Gray Wolves to the Olympic Peninsula indicated that insufficient data existed on deer populations in particular to determine the number of wolves that could inhabit the Peninsula. In fact, the authors stated that at a minimum deer should be studied within the Park and adjacent GMUs prior to any reintroduction. Yet the Plan does not indicate that WDFW has in any way increased its ability to determine population size or trends for black-tailed deer in western Washington, much less conducted the studies call for. The Plan on page 87 indicates that no estimate of total population size exists, just that harvest data suggest densities are highest in some counties and are stable across their range. This is another example of generalized management which fails to note significant declines in portions of their range such as the northern Olympic Peninsula, as highlighted by Makah research. We have provided WDFW with a study report each year on the Tribe's fawn research that highlights the impacts of predation and hair loss disease on fawn recruitment and subsequently deer population growth. This information was not included in the report, and the Tribe is concerned about the Plan's statement that hair loss has merely had short-term and localized effects on abundance. Hair loss has been persistent for more than a decade locally and recruitment has not improved over that timeframe. Furthermore, predation is not indicated as a contributing mechanism to population decline, as only habitat and human development are mentioned. This lack of data further heightens the Tribe's concerns for the potential translocation of wolves to the Olympic Peninsula.

(3) Isolated Population in Western Washington.

The Plan relies on translocation as the mechanism to address the bottlenecks that will limit dispersal and natural colonization to the South Cascades and Olympic Peninsula. However, given the persistence of such barriers, this would seem to only establish a separate isolated population that would undermine the essence of the free-ranging population throughout the State that is called for by the Plan and state law. Concerns due to the lack of gene flow will lead to a situation where, over time, additional translocations will be necessary to maintain genetic variability in an isolated sub-population to address inbreeding depression and founder effect, which can decrease the probability of population persistence. The connectivity issue seems to highlight the need to have separate population goals and recovery objectives in different portions of the State, and avoid tying management of eastern Washington wolves to the development of isolated populations in western Washington.

(4) Experimental Population of Translocated Wolves.

The Plan as currently drafted would utilize translocation to establish populations of wolves in western Washington, including possibly the Olympic Peninsula, which would receive protection under the federal Endangered Species Act. This possibility is of significant concern to the Tribe. Not only does the DEIS, as noted above, fail to address the ramifications of continued federal protection in western Washington, but such protection would likely limit the Tribe's ability to address any impacts to ungulate populations from wolf predation.

The Tribe recommends an alternate means of achieving a statewide wolf population that would increase management flexibility and consider the wolves' protected status under federal law in western Washington. If under the Plan wolves are translocated to any location within the Southern Cascades and Northwest Coast Recovery Region, this population should be classified as a "non-essential experimental population" under Section 10(j) of ESA. This designation is possible when a population is isolated or "wholly separated from non-experimental populations of the same species." The Plan indicates that translocation would only be used if natural colonization was not feasible (Page 51 beginning line 31). Furthermore, the Olympic Peninsula Wolf Reintroduction Feasibility Study indicated that this designation could be supported on the Olympic Peninsula. The Tribe sees no reason why the same conclusion would not also apply to translocation to the South Cascades. Under the "experimental population" scenario the USFWS can selectively apply provisions of ESA Sections 7 and 9 to accomplish recovery goals. Section 7 imposed an affirmative duty upon all federal departments and agencies to restore populations of endangered and threatened species. Section 9 makes it unlawful to "take" (harm, harass, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct) an endangered species. However, an experimental population designation provides flexibility and discretionary power or management (e.g. control) tailored to specific, local conditions. This would provide the Tribe and other wildlife co-managers an opportunity to develop memoranda-of-understanding with the USFWS to address special management concerns such as impacts to local ungulate populations.

* * *

The Makah Tribe is deeply concerned about the potential ramifications of wolf translocation to western Washington, and the Olympic Peninsula in particular. The Tribe opposes the Plan's inclusion of translocation as a tool to achieve statewide recovery and believes that separate sub-population management would be preferable. Translocation would have negative effects on ungulate populations important to the Tribe, will only result in an isolated population of wolves with likely no connectivity to other populations in the State, and unless designated as a 10(j) experimental population, would establish an ESA-listed population, thereby minimizing the Tribe's ability to manage wolves that effect ungulates important to subsistence hunting.

Tribal Participation Development of Plan.

WDFW has made very little effort to include Tribal participation in directly developing this Plan. A Wolf Working Group comprised of 17 citizens provided extensive input into the formulation of this document. This group did not include any Tribal representation and none was solicited. The only mention of Tribal involvement was on Page 33, where the Plan states that WDFW established a Wolf Interagency Committee composed of WDFW, Tribes, Federal and State land managers, and the USFWS to foster coordination and collaboration on wolf management in the State. The Tribe understands through the involvement of its wildlife biologist on this Committee that there were only 2 meetings held over the past 2.5 years and that the Committee had little participation in the Plan development. While the Tribes were provided an early opportunity to review the Plan and comment on it, they were never provided a reasonable opportunity to participate in the development of objectives or scope of the Plan, as is appropriate given their co-manager role.

Public Opinion Regarding Alternative 3.

Many of the public meetings in western Washington had strong public support for establishing the Olympic Peninsula as a separate recovery region with separate objectives for reproducing pairs of wolves. This objective was reflected in Alternative 3 analyzed in the DEIS. Although the Tribe understands that public comments are not a "vote" on the alternatives, the Tribe nonetheless would like to make clear that it does not support Alternative 3, and although it has significant reservations regarding the Plan /Alternative 2, believes that the latter alternative reflects a more sound approach to wolf management in the State.

Sincerely yours,

MAKAH TRIBAL COUNCIL


Michael Lawrence, Chairman

✓

From: David Vales
To: SEPADesk2 (DFW);
Subject: Wolf plan comments
Date: Tuesday, January 05, 2010 12:12:46 PM
Attachments: Muckleshoot Wolf Plan Comments 5 Jan 2010.pdf

18

The attached pdf is a letter containing comments on the SEIS and proposed wolf plan from the Muckleshoot Indian Tribe Wildlife Program. Please acknowledge that you have received these comments by replying to this email.

Thank you.

Dave

David J. Vales
Wildlife Biologist
Muckleshoot Indian Tribe
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MUCKLESHOOT WILDLIFE PROGRAM

39015 172nd Ave. S.E. • Auburn, WA 98092
Phone: (253) 939-3311 • FAX: (253) 876-3312



Responsible Official: Teresa A. Eturaspe
SEPA/NEPA Coordinator
600 Capitol Way North
Olympia, WA 98501-1091

January 5, 2010

Dear WDFW:

The Muckleshoot Indian Tribe Wildlife Program has reviewed the **DEIS Wolf Conservation and Management Plan for Washington** and the **Preferred Alternative 2 Wolf Conservation and Management Plan for Washington** and would like to offer the following comments. These comments are from the Wildlife Program only and may not represent concerns of other Tribal Programs or individual Tribal members.

Our comments are based partly on our experiences with deer and elk herds in the local White, Green, and Cedar River watersheds. We have studied predator-prey dynamics since 1998 in these watersheds using radio-marked animals and feel that we have a thorough understanding of ungulate resources in these areas. Our major concern is that adding wolves to these small populations will have a negative impact on the already limited ungulate resources Tribal members rely on. Ungulates are an important cultural, spiritual, subsistence, and ceremonial resource that has been diminished and that we are actively trying to restore.

Elk herds throughout the Point Elliott Treaty area in northwest Washington are below herd objective. According to WDFW elk herd plans, in 2000 the Nooksack and North Rainier elk herds totaled about 2,300 elk out of a desired 4,800. Herds have increased since 2000, but are still below objective. Elk within the Point Elliott Treaty area do not supply the needs for members of nine treaty tribes as well as providing enough for state hunters and other predators. If wolves are added to the mix without flexible management options the results could have substantial negative impacts to all Tribal members.

We do recognize that restoring wolves is an important step toward restoring a natural functioning and healthy ecosystem. Management options need to be flexible, however, to respond to problems, and to maintain public confidence that wolf recovery will occur without significant impact to other resources and safety. We are concerned that once wolf numbers reach target levels management options will not be implemented due to court challenges over those numbers. Management options in other areas where wolves have reached target levels have been limited due to court challenges, delaying action, putting prey resources at further risk, and reducing public confidence in the recovery process. The WDFW must adhere to the objectives set forth in this plan and not allow interference that erodes public confidence.

The concepts we would like to comment on are habitat improvements, at-risk ungulate populations, ungulate research, and surveys.

P. 22 of DEIS “*Manage for healthy ungulate populations through habitat improvement...*”

While this is a desired technique to ensure habitat capacity for prey populations, opportunities for doing this in the areas wolves will likely take up residence are going to be limited. Wolves will find peaceful homes away from humans in protected areas, national parks, wilderness areas, and closed watersheds. Habitat improvement is limited by land management activities that can take place in those areas, and by opposition from stakeholders seeking a “natural” landscape that in many cases is already cut over second-growth forest. Ungulates thrive in a mix of young and older forests, but fire suppression and the desire to manage federal lands for old-growth dependent species has moved the landscape away from one that can produce abundant ungulates. Wolf recovery should be based on currently available habitat to support prey because those habitats should have already been managed for healthy ungulate populations for decades.

The only National Forest within the Point Elliott Treaty area is the Mount Baker-Snoqualmie National Forest. With the adoption of the Northwest Forest Plan this forest has substantially

limited within wilderness areas and on Late Successional Reserve designated lands. How would the WDFW propose that habitat improvements occur within the Mount Baker-Snoqualmie National Forest? **Be explicit**, just saying “...*managing for healthy ungulate populations through habitat improvement...*” is too general for such an important aspect of wolf recovery. Where would funding for habitat improvement come from? Proposing specific habitat projects and preparing environmental documents may cost as much as the improvements themselves, and take years to complete.

The assumption that ungulate herds can be increased through habitat improvements implies that herds are habitat-limited, the improvements will be used, and the improved areas will not become predator traps. With wolves present, however, the improved habitat may be little used because it will attract elk and deer, which will attract wolves, and in the end elk and deer will have to move into poorer habitats to avoid being killed thus negatively affecting their condition and survival. The generalization that habitat improvements will help ungulate herds is likely not true, especially if herds are not already habitat limited. The DEIS presents a too simplistic and too optimistic view of habitat management for ungulates.

Habitat change is a fairly slow variable that takes several years to become productive. Predation is a fast variable. A rapid decline in ungulates will take many, many more years to rebuild a depressed ungulate population than it will take to reduce it, and the depressor (predation) will have to be significantly reduced to allow recovery. Simply improving habitat will not help an ungulate herd that had been doing well, declined, and is being held low by the added predation by wolves. It will be essential to manage wolves where their prey are already below objective to minimize the impact on those prey, and resulting impact on wolves.

If wolves are restored, we recommend that fire also be restored to the landscape, especially in wilderness and on federal land where timber harvest is restricted.

P. 23 of DEIS, under the preferred alternative 2, wolf-ungulate conflict management could occur “*After wolves are delisted, if research determines that wolf predation is a limiting factor for at-*

risk ungulate populations, could consider moving of wolves, lethal control, or other control techniques in localized areas.”

What exactly is an at-risk ungulate population? The only attempt to define this is on page 48 “*at-risk ungulate populations (i.e., those severely depressed and in danger of eventual extirpation).*” The document must better define “severely depressed” and “danger of eventual extirpation”. Requiring that both criteria be met by using the word “*and*” in the description is basically stating that managing wolves to help ungulates will not occur. Extirpation means local extinction, and it could be argued that as long as there are one male and one female within a defined geographic area, then extirpation might not occur. We argue that severely depressed is an adequate criteria alone and any reference to extirpation be removed from the documents. The scale of the affected ungulate population is also critical to assessing the effects – is it at the watershed, Game Management Unit, Population Management Unit, or wolf territory level?

Regardless of other factors, which may already be static and keeping an elk herd stable, wolves exist before wolves drive herds too low and require an extended prey recovery period in the absence of the significant mortality factor.

How much research is needed before “*if research determines that wolf predation is a limiting factor*”? Is there an adequate commitment to fund the research? Will the research even be conducted? The Muckleshoot Tribe’s experience in dealing with WDFW on managing predators has been poor. Despite abundant data we collected that demonstrated cougar were having a depressing effect on elk in the White and Green River watersheds the WDFW did not accept the conclusions and fought with the Tribe on the need for cougar management. WDFW argued that tribal hunting, poaching, road kill, and habitat were having a greater effect and that those factors should be managed first. Tribal hunting was already limited to ungulate males only and the other factors were beyond the control of the Tribe, and practically speaking, even WDFW.

For example, elk in the Green River with well-regulated hunting declined from about 600 to 150, spring calf:cow ratios declined to 6:100. Elk hunting was closed in 1997 and the herd continued to decline. In 2001 The Muckleshoot Tribe liberalized their cougar season, removed cougar, and the elk population has responded dramatically. Elk now number about 400 and spring calf ratios have been as high as 45. The Muckleshoot Tribe led the effort to understand the dynamics and do something to restore the herd.

In the Green River we had to perturb the system to see the response and demonstrate that cougar were limiting elk. Had nothing been done cougars would have drove the herd well below 100. The same could happen with wolves. How much “proof” and how much research is necessary to take action? Anyone wanting to retain wolves will argue that other factors are manageable and have an effect and that they should be managed first. The Plan must have some set criteria for triggering an intervention, otherwise there may be no intervention because no one will agree if wolves are limiting.

We acknowledge that the effects will be different in each area based on predator and prey numbers and scale of the interaction. Ungulate problems will definitely crop up where prey

numbers are low. We suggest the WDFW propose some threshold predator-prey ratios or minimum elk numbers within watersheds like the White River GMU 653 where wolves and prey can coexist, and when intervention will be necessary.

Wolf effects on ungulates extend beyond direct mortality. Prey may suffer nutritional effects by constantly being tested by wolves, constantly running away, or using marginal habitats, especially in winter. This will lead to winterkill, lowered pregnancy or parturition rate, lowered calf survival if born lighter, lower calf ratios, and thus a less productive (and likely declining) herd. Where ungulates are confined to small winter range the effects will be significant. The ultimate effect on prey populations will thus be much greater than the direct mortality from killing presented in Table 18 on page 163.

We suggest that waiting until delisting is too restrictive to mitigate localized effects where intensive research and monitoring is already ongoing. The preferred alternative 2 must be modified to include the language in Alternative 1 wolf-ungulate conflict management that

(where there objectives), or at-risk herds where there is no population objective.

P. 118 of the Preferred Alternative 2 Plan:

5.1 “Monitor ungulate populations...” This objective indicates that surveys should be improved or increased. The WDFW has experienced budget cutbacks and lack of funds. District biologists complain about not having enough money to do surveys. The plan must make a commitment for funding such improved surveys to monitor prey. Without improved surveys, wolf effects will not be scientifically documented, and thus there will not be any research to show that wolves are limiting and in need of management. Lack of funding cannot be an excuse to allow wolves to substantially reduce their prey base without intervention. Where there are wolves there must be significant ongoing research of prey population mortality rates and causes so that the factors affecting herds be appropriately managed.

5.2.1 “Improve habitat for ungulate populations”

Implementation is far more difficult than the text implies. See the comments above.

5.2.2 “Manage recreational hunting...”

Tribes will not accept reducing their harvest. State recreational hunters must first reduce their harvest. Current tribal harvest is below needs. All mortality factors must be managed concurrently.

5.2.3 “Reduce illegal hunting”

Will there be a commitment to fund increased enforcement? It is easy to say that there will be increased patrols, but in reality, it will be difficult to do. Those who kill illegally are capable of avoiding enforcement patrols.

5.3.2 “Manage conflicts with ungulate populations”

See comments above. We strongly feel that Alternative 1 language be used here. The text in this section paints a too “rosy” picture of predator-prey dynamics and a lack of understanding of the

complex interactions, additive and compensatory, of all factors. Some of the effects on ungulates we suspect will occur:

- Directly kill, reduce herd size, some additive and some compensatory mortality
- Affect prey condition by constant testing,
 - o The common thought is that wolves kill only old, weak, and sick. With wolves in constant pursuit, animals that may normally do fine will be negatively affected and drop into the “weak” category and then may be killed. The presence of wolves will alter the condition of their prey similar to human disturbance such as winter skiing and snowmobiling affect animal condition.
- Affect condition by moving prey into marginal habitats where there is deeper snow and eating less nutritious forages
- Consequently increase mortality more than what kill rates alone would predict, lower pregnancy and calf survival rates
- Increase “urban” ungulate problems by elk and deer moving into “safe” areas near people

If wolves are delisted in Washington, will they be federally delisted as well? The document seems to imply this will be the case but it does not appear to be explicitly stated. If the state delists wolves but the federal government does not, can any of the (lethal) management actions occur? Can wolves be considered a game species if state delisted but not federally delisted?

We reiterate that the Alternative 1 language for wolf-ungulate conflict management be used for Alternative 2 wolf-ungulate conflict management rather than the proposed language for Alternative 2. Alternative 1 language allows action before the problem is nearly irreversible, and better defines criteria for action since “at-risk” is so poorly and so rigorously defined (basically requiring extinction). The Alternative 1 language we recommend is:

*“After wolves reach **Sensitive** status, if research determines that wolf predation is a limiting factor for ungulate populations that are below herd objectives, could consider moving, lethal control and other control techniques in localized areas.”*

Thank you for the opportunity to comment on the plan. I hope our comments are carefully considered and the plan is modified to reflect our concerns.

Sincerely,



Don Jerry, Chairman
Muckleshoot Wildlife Committee

✓
DOUG MATTOON

COMMISSIONER, FIRST DISTRICT
CLARKSTON, WASHINGTON

DON BROWN

COMMISSIONER, SECOND DISTRICT
CLARKSTON, WASHINGTON



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ASOTIN, WASHINGTON 99402-0250
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R. E. (BUCK) LANE

COMMISSIONER, THIRD DISTRICT
CLARKSTON, WASHINGTON

VIVIAN BLY

CLERK OF THE BOARD

December 28, 2009

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DEC 30 2009

HABITAT PROGRAM

JH

Washington Department of Fish & Wildlife SEPA Desk
600 Capitol Way North
Olympia WA 98501-1091

re: Public Comments on the WDFW Draft Wolf Management Plan

To Whom This May Concern:

The Asotin County Board of Commissioners would like to submit our comments in regards to the Proposed WDFW Wolf Management Plan. We believe that these proposed numbers are far too high and do not accurately represent the concerns that the livestock production community has with wolves. The livestock community has preferred zero wolves from the beginning however, due to ESA and WDFW requirements zero is not an option. The higher numbers the WWG Draft Plan includes will result in far more individual wolves than Washington has habitat to support thus causing a severe negative impact on private land owners and livestock producers. Livestock producers must be able to protect their property regardless of the wolf's status. The livestock producers are an important part of our local economy and lifestyle. It is important to us that the Board of County Commissioners take whatever steps are necessary in order to protect their investments. We do not support any of the WDFW's EIS alternatives. We support the Minority Opinion (MO) on pages 202-203 of the management plan. The MO calls for 3 Breeding Pairs (Bps) to go from Endangered to Threatened, 6 Bps to go from Threatened to Sensitive and 8 Bps to Delist the Wolf.

We are also concerned that the WDFW will not be able to fully fund the compensation portion of the WDFW Wolf Management Plan. Without complete funding of the compensation we believe it is unconscionable for the WDFW to even consider a plan that calls for more than 8 Bps.

We would propose an additional alternative to the WDFW if the MO (3, 6 and 8 Bps) is not accepted. We would like to recommend the WDFW support the proposal put forth by the Washington Cattlemen's Association (WCA) Alternative 1A "The Responsible Approach". Alternative 1A has a trigger 3 Bps to move to the Threatened Level and 6 Bps to move down to the Sensitive Level. At that time the WDFW would immediately convene a diverse group with the Ruckelshaus Center that would be charged with setting a final number of Bps for delisting the wolf.

Thanking you in advance for considering our comments.

Sincerely,

ASOTIN COUNTY BOARD OF COMMISSIONERS

Don Brown, Chairman

Doug Mattoon, Vice Chair

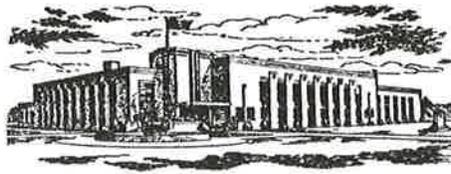
Absent

R.E. (Buck) Lane, Member

✓
Larry Guenther
District No. 1

Merrill J. Ott
District No. 2

Malcolm Friedman
District No. 3



Polly Coleman
Clerk of the Board

Nettie Winders
Assistant Clerk

Stevens County Commissioners

215 S. Oak Street, #214; Colville, WA 99114
Phone (509) 684-3751 Fax (509) 684-8310 TTY: 800-833-6388
E-mail: Commissioners@co.stevens.wa.us

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JAN 11 2010

HABITAT PROGRAM

January 8, 2010

Responsible Official: Teresa A Eturaspe
SEPA/NEPA Coordinator
600 Capitol Way North
Olympia, WA 98501-1091

Subject: Comment – Wolf Conservation and Management Plan DEIS

Wolves moving into the area from Canada and Idaho pose substantial concern for Stevens County's economic stability and must be managed to avoid eroding Northeast Washington economies further.

Our region already has an abundance of predators and we believe that the preferred alternative (Alternative 2) contains too much risk for our agricultural community, as well as the potential for decimating our \$4 million dollar annual revenue from hunting. By the time the preferred alternative numbers are reached, wolf populations will be out of control as they are in Idaho and Montana. With this in mind, the Wolf Working Group Minority Report provided more reasonable Breeding Pair numbers that would initiate an earlier, pro-active management strategy.

The proposed verification measures for losses suffered by ranchers and farmers are lengthy, cumbersome and bureaucratic. The state has no money for compensation and future management efforts could easily be abandoned due to state budget deficits. The fact that "no guarantees on future compensation" by a wolf proponent organization (Defenders of Wildlife) is being considered a viable exchange for people's livelihood is wrong.

Why are we considering management of a non-native (invasive) species as described in RCW 77.08.010 without a solid plan and insured funding? Why are we trying to introduce a predator species in a smaller habitat, with more human population than the

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Eturaspe/Comment
January 8, 2010
Page 2 of 2

criteria recommended by U.S. Fish and Wildlife? We understand this is a complex issue, but if you open the door to this species without proper planning and resources, the results could be devastating for our citizens. Please reconsider any plans to establish wolves in Northeast Washington.

Sincerely,
BOARD OF COUNTY COMMISSIONERS
OF STEVENS COUNTY, WASHINGTON



Chairman Larry Guenther



Commissioner Malcolm Friedman



Commissioner Merrill J. Ott

BOCC:lmw

Cc: Washington State Senator Ken Jacobsen
Washington State Senator Bob Morton
Chairman Miranda Wecker, Washington State Fish & Wildlife Commission
Director Phil Anderson, Washington Department of Fish & Wildlife



OKANOGAN COUNTY

Board of Commissioners

Andrew Lampe
Commissioner District 1
Don (Bud) Hover
Commissioner District 2
Mary Lou Peterson
Commissioner District 3
Brenda J Crowell
Clerk of the Board

January 6, 2010

WDFW SEPA Desk,
600 Capitol Way N.
Olympia, WA. 98501-1091

RECEIVED

JAN 11 2010

HABITAT PROGRAM

RE: Draft Environmental Impact Statement (DEIS) titled: *Wolf Conservation and Management Plan for Washington*

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) titled: *Wolf Conservation and Management Plan for Washington*. We have reviewed the proposal and have the following comments.

Okanogan County Code 18.04.050 requires that federal and state agencies coordinate and consult with Okanogan County in actions affecting land and natural resources use. This ordinance is consistent with similar requirements found in the United States Code. With the acceptance of U.S Fish and Wildlife dollars, WDFW is also obligated under federal statute to coordinate with local government (Endangered Species Act 16 USC 1533).

NEPA is required due to the involvement of the federal agencies in the establishment of the gray wolves and management plan. Under 42 USC 4321 National Environmental Policy Act the agencies have to coordinate with local government. It seems that following these rules has been missed by WDFW in compiling the Wolf Conservation and Management Plan.

The U.S. Fish and Wildlife Service have delisted Gray wolves in the Eastern 1/3 of Washington State. Their models indicate little suitable habitat in Washington (50 CFR Part 17), so why is WDFW preparing a plan to increase wolf numbers in an area where there is not suitable habitat. The USFWS states that gray wolves may migrate into other areas that are not their usual habitat areas. WDFW needs to manage for the possibility of migrating wolves and not to establish a new population.

Federal reports cite lack of public land as a reason suitable wolf habitat is lacking in the State of Washington. We find this assertion coincides with the aggressive program of land purchase WSDFW has embarked on using Federal funds. Both WSDFW and USFW have failed to conduct a NEPA review on this land acquisition program as required by federal law.

Testimony by Fish and Wildlife personnel put forth compensation for damage caused by wolves as the lynchpin on which mitigation for increased wolves population turn. In the same testimony there is a distressing lack of detail on what the process for damage verification will be as well as any identified funding. We already have instances of a Washington State Fish and Wildlife biologist intervening in a grazing lease in order to minimize impact to wolves. We fear this approach will be the fallback if not the preferred approach by WSDFW.

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123 Fifth Avenue N. * Room 150 * Okanogan * Washington * 98840
TTY/Voice use 800.833.6388

Fax
509.422.7106

The WDFW Wolf Conservation and Management Plan for Washington is a scientifically flawed document that we submit is fatally flawed. A new management plan that is coordinated with local government should be created. The new plan should manage the migrating wolves and should not attempt to establish new populations. The new plan should be compatible with the Federal plan that has delisted the wolves in the eastern 1/3 of Washington.

We again thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) titled: *Wolf Conservation and Management Plan for Washington*. We look forward to working with you to establish a more appropriate plan for the State of Washington.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Hover", with a long horizontal flourish extending to the right.

DON "BUD" HOVER
OKANOGAN COUNTY COMMISSIONER



OKANOGAN COUNTY

Board of Commissioners

Andrew Lampe
Commissioner District 1
Don (Bud) Hover
Commissioner District 2
Mary Lou Peterson
Commissioner District 3
Brenda J Crowell
Clerk of the Board

9
from
Duke
pub
mtg

November 3, 2009

US Fish and Wildlife

This letter is to inform you that the Okanogan County Board of County Commissioners has determined that your agency is in violation of 16 U.S.C. 1533 by failing to coordinate your ongoing efforts to support the reintroduction of wolves in Okanogan County. Whether the wolves migrated in naturally or were reintroduced, your efforts and the decisions the agency personnel have made demonstrate the characteristics of a management plan. As such, your actions have taken place without the necessary coordination with local government. We further believe you failed to perform the necessary level of review required by NEPA before embarking on such a program.

In addition, your agency has provided federal money directly to Washington State Department of Fish and Wildlife for acquisition of land for habitat. You failed to coordinate the planning and implementation of the acquisition program with local government and, as your agent, so did WSDFW. We ask that you cease all activities supporting or promoting the reintroduction of wolves in Okanogan County and the acquisition of habitat with federal money and rescind all decisions made as a result of your efforts to date. We also ask that you select one of the three dates proposed later in this letter to meet with our board and discuss an acceptable method to coordinate your efforts that assures effective involvement by Okanogan County.

The Okanogan County board of County Commissioners grows increasingly frustrated over the apparent disregard for our concerns displayed by the personnel of the United States Fish and Wildlife Agency and your agents Washington State Fish and Wildlife. We believe the public's interests cannot be properly served until you effectively coordinate your efforts with us. We have maintained an open door policy for personnel from Fish and Wildlife. We have repeatedly afforded the opportunity for your staff to engage in effective communication with us. It appears we have been unsuccessful in convincing Fish and Wildlife that the Okanogan County Board of County Commissioners is not a member of the commenting public and must be decisively involved in your processes long before the public review begins. It is for this reason we are requiring you to meet with us and are directing our Prosecuting Attorney to begin building a file in the unfortunate event that litigation is required to compel Fish and Wildlife to meet its statutory obligations.

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509.422.7106

Okanogan County is finishing an extensive review of a forty year old comprehensive land use plan. The decisions made by the agencies that manage vital public resources and over 73% of public owned land have a tremendous impact on our customs and culture, economic base, and recreational opportunities. It would seem that rather than embrace what is a golden opportunity to work together your actions force us to direct our efforts to claiming a status that is ours by statute.

The dates we propose are December 7th, 2009 @ 1:30 p.m. or December 14th, 2009 @ 1:30 p.m. The meetings will be in the Commissioners auditorium in the Grainger Building. We will provide support staff for the meeting.

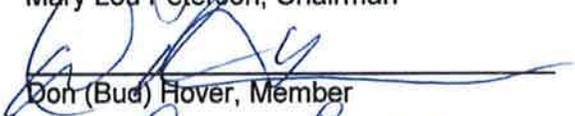
We look forward to your response by November 23, 2009.

Sincerely,

BOARD OF COUNTY COMMISSIONERS
OKANOGAN, WASHINGTON



Mary Lou Peterson, Chairman



Don (Bud) Hover, Member



Andrew Lampe, Member

President Barack Obama

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Washington, DC 20500

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Secretary of Labor Hilda L. Solis

US Department of Labor
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Rob McKenna, Attorney General

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James A. McDevitt, U.S. Attorney

United States Attorney's Office
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Senator Patty Murray

Washington, D.C. Office
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Washington, D.C. 20510

Spokane Office

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Suite 600 Spokane
Washington 99201

Senator Maria Cantwell

WASHINGTON, DC
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Washington, DC 20510

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Congressman Doc Hastings

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Rep. Joel Kretz

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Senator Linda Evans Parlette

Olympia Office:

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Olympia, WA 98504-0412

Senator Linda Evans Parlette

District Office:

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Senator Bob Morton

Olympia Office:

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Rep. Mike Armstrong

426A Legislative Building
PO Box 40600
Olympia, WA 98504-0600

Rep. Cary Condotta
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J



From: Mick Schlenker
To: SEPADesk2 (DFW);
Subject: RE: WDFW- DEIS Wolf Conservation and Management Plan for Washington
Date: Tuesday, October 13, 2009 1:20:13 PM

Note the City of McCleary has noted your request and have no comments at this time.

Thank you,

Mick Schlenker
Building Official
City of McCleary
1 360 495-3667 ext 5

From: SEPADesk2 (DFW) [mailto:SEPAdesk2@dfw.wa.gov]
Sent: Tuesday, October 13, 2009 11:37 AM
To: SEPADesk2 (DFW)
Subject: WDFW- DEIS Wolf Conservation and Management Plan for Washington

We have had some requests for the DEIS and not just the link, so this is being resent.

The Washington Department of Fish and Wildlife (WDFW) has published a Draft Environmental Impact Statement (DEIS) titled: Wolf Conservation and Management Plan for Washington. This is a non-project review proposal.

Agencies, affected tribes, and members of the public are invited to review and comment on this DEIS. We must receive your comments within 95 days of the date of issuing this DEIS. ***This means we must receive your comments no later than 5pm on January 8, 2010. Please see Fact Sheet for details on availability and other methods of commenting.***

Comments can be submitted electronically at: <http://www.wdfw.wa.gov/hab/sepa/sepa.htm>

Based on comments received from agencies and interested parties during public review of this draft document, WDFW will prepare and distribute a Final Environmental Impact Statement (FEIS). The FEIS will be released in 2010.

THIS IS INFORMATIONAL DO NOT RESPOND TO THIS EMAIL