Chapter	Comment Location in August 2008 Version of Plan	Comment by Peer Reviewer	WDFW Respose
gen	general remarks	I believe that the plan is adequate and appropriate for achieving a self-sustaining wolf population in Washington while at the same time addressing wolf-related impacts to livestock producers and hunters, and human safety. I believe the numbers and distributions of wolves proposed for downlisting and delisting are both scientifically defensible and socially reasonable. Furthermore, translocation and other conservation tools as well as management options and the compensation program for wolf depredations will be essential for the successful implementation of this plan. The plan's goals and objectives are highly creative, reasonable, and achievable providing that the proper level of resource support is gained for monitoring wolf numbers and distribution in the state. In this respect I cannot underemphasize the importance of establishing two statewide wolf specialist positions to take lead on the implementation of this plan.	No response was necessary.
gen	general remarks	The draft plan appears solidly grounded in conservation biology and contains a thorough summary of existing knowledge. I have nothing to add regarding the population status or biology of wolves, or the interactions of wolves with other species, either wild or domestic. The plan clearly describes its primary strategies of protecting and managing wolves while addressing wolf-human conflicts.	No response was necessary.
gen	general remarks	This plan represents an extensive collaborative effort in which a wide range of interests was represented. The Wolf Working Group and WDFW should be commended for their courageous efforts to provide solutions to very difficult issues. In general, the plan is well articulated, covers all of the major management issues, and provides a reasonable set of conservation and management strategies to improve conditions within Washington for wolf recovery to occur.	No response was necessary.
gen	general remarks	I would like to sincerely applaud the efforts of all involved in the plan. It is well written and fairly balanced on a variety of topics.	No response was necessary.
gen	general remarks	Overall, this draft is excellent. You've covered the necessary sections very well and the background information is thorough.	No response was necessary.

gen	general remarks	The Wolf Working Group has done a commendable job of producing a Draft Wolf Plan that contains all the elements needed to ensure wolves can thrive in Washington while addressing potential impacts related to wolves. From my perspective, the return of wolves to Washington could be viewed as a unique experiment. Development of the Wolf Conservation and Management Plan allows the experiment to occur in an orderly manner, while setting objectives for where and how many wolves will exist. WDFW and the Working Group have done a commendable job of setting up the experiment. Now it's up to the wolves and the citizens of Washington to allow the experiment to take shape, while recognizing the inherent uncertainty that lies ahead.	No response was necessary.
gen	general remarks	As a whole, I found the plan to be a very sound, well thought out and balanced document. I know how difficult planning efforts such as this can be, and I commend you for your efforts in pulling together diverse stakeholders and developing a plan that most could agree to, and which will lead to wolf recovery in the state.	No response was necessary.
gen	general remarks	I found all the background information in the various chapters to be very helpful in providing a balanced, comprehensive view of our knowledge of wolves and their interactions with other factors. I don't think any more is needed, other than promoting the effects of wolves on game hunting from other states. There is a lot of false or misleading info about wolves devastating game populations in those states.	No response was necessary.
gen	general remarks	My overall impression of draft: I like the general tone of the draft. The reviews of what is known about the management of wolves are certainly comprehensive. People who have been contacted for information are among the most knowledgeable of the issues. Efforts to restore wolves to various regions in the state seem reasonable.	No response was necessary.
gen	general remarks	In general the plan is complete, comprehensive, and well written.	No response was necessary.
gen	general remarks	The WDFW Plan is well researched and clearly written. I think your plan will be quite adequate in promoting wolf conservation and addressing wolf management issues in Washington.	No response was necessary.
gen	general remarks	I would like to commend WDFW, the Wolf Working Group, and RESOLVE for your dedicated efforts in crafting this plan. The plan is well reasoned, researched, and comprehensive.	No response was necessary.

gen	general remarks	The plan appears to closely follow the Northern Rocky Mtns model in management approach and predictions of wolf population dynamics and social impacts. I would caution that the Northern Rocky Mtns management approach is only one model and arguably leaves room for improvement. I believe it would serve Washington well to evolve beyond the Northern Rocky Mtns approach, adopting those appropriate aspects that have worked well, and improving on those that have worked less well. Additionally, although it is instructive to examine data collected in the Northern Rocky Mtns to project wolf population dynamics and impacts, I would caution drawing parallel inferences between the two regions as Washington differs in landscape configuration, land ownership and use, wolf prey composition and distribution, and other key influencing components.	The Washington wolf plan does follow many of the management methods used in the Northern Rocky Mountain states, which have contributed to the recovery of wolves in those states. This comment does not provide specific suggestions for improvements that could be made on the many management methods employed in the Northern Rocky Mountain states. The Washington plan does state that the future population dynamics of wolves in Washington are uncertain, but are unlikely to resemble those of Idaho, Montana, and Wyoming because of differences in landscape configuration, land ownership and use, prey, etc. A possible exception to this generality is that the population dynamics of Washington's wolves may resemble those of the wolf population that inhabited northwestern Montana during the 1980s and 1990s, as described in a new subsection added to chapter 3, section A.
gen	general remarks	I admire the specificity and objectivity of the plan. Goals and objectives are clearly identified and should serve this planning document well. I wonder, however, if the plan is not a bit ambitious. I would guard against placing WDFW in a position where it could not meet the public expectations as outlined in the plan. I believe a workable management strategy should be tempered with the realities of staffing, funding, and other available resources for implementation. WDFW credibility could suffer if it sets unrealistic public expectations. Perhaps a review would be warranted to insure commitments to the public identified in the plan can be reasonably addressed.	The plan is intended to list all actions considered useful in recovering and managing wolves in Washington, with two main topics (achieving conservation/recovery objectives and managing conflicts) receiving the greatest emphasis. Implementation of recovery plans for any listed species is always dependent on the availability of adequate funding and staffing. This is indicated in several parts of the wolf plan (e.g., chapter 4, section G; chapter 12, task 9.2), where the need for legislative funding and other sources of funding are mentioned. The plan also states the WDFW should work with other government agencies and non-governmental organizations to accomplish the plan's objectives, including securing funding.
gen	general remarks	The anticipated budget appears high for a single species management plan. Is this a common funding level for other species management plans? I believe one of the imperatives to gaining long-term tolerance and social acceptance of wolves is to nurture a public perception that wolves are a part of the natural landscape just as are other predators, and can be managed as we do other species. I believe it is important to recognize that anytime a state wildlife agency approaches wolf management differently than other predator species (level and intensity of monitoring, level of compensation, justification for disproportionate funding, level of media coverage, etc…), it perpetuates and enforces the mythology of the wolf and frustrates efforts to generate tolerance and acceptance.	The costs of recovering and managing wolves in Washington are expected to be lower early on when wolf numbers are smaller, but will increase as wolf abundance expands. After wolves are state delisted, they will be managed similarly to other large carnivores, which is expected to reduce costs considerably. Because wolves are a large carnivore, the costs of restoring and managing them will probably be higher than for many other listed species that do not cause conflicts with humans. Nevertheless, recovery budgets for many listed species are often large and are required for many years.

gen	general remarks	The very real prospect of re-colonization of wolves into Washington is an exciting challenge. Re-colonization has a lot of support from the majority of Washington citizens and hunters. I believe that successful recovery of wolves is achievable and that careful management of local population levels is necessary for recovery. Again, the level of social tolerance for wolves is the greatest issue.	No response was necessary.
gen	general remarks	I commend the Wolf Working Group (WWG) and WDFW for a thorough, professional effort! The draft plan is clearly based on a solid effort at incorporating diverse opinions and sound science, recognizing the opportunities and challenges of wolf restoration. Both WDFW and WWG are to be commended for their respective commitments to transparency and the inclusive approach to include the public through the scoping process. Having witnessed the deliberations of the WWG and WDFW's efforts, this is a job well done!	No response was necessary.
gen	general remarks	The plan addresses all the major elements of a wolf program in a comprehensive fashion. Broadly speaking, yes, the plan should result in a self-sustaining wolf population in Washington at some point, based on natural emigration into Washington and increases from within the state's own wolf population. The rate that recovery goals would be reached is debatable, however. It will likely depend on the wolf population status and management programs in Idaho to a significant degree and Montana / Wyoming to a lesser degree. The wolf population status and management programs in Oregon and British Columbia could also influence outcomes in Washington as well.	Remarks about Washington's wolf population depending on outcome of wolf management in Idaho and other nearby states and British Columbia was incorporated into chapter 3.

gen	general remarks	It is appropriate to consider the plan as a road map of the progression from a state/federal listed circumstance to a state/federal delisted circumstance. Thinking ahead is useful as it allows the WWG and WDFW to consider a range of management strategies and tools and how they might evolve as a wolf population establishes and increases in number and distribution. Crafting the range comprehensively should serve WDFW and the public well. The timeline and progress of recovery and the downlisting transitions, however, pose a great deal of uncertainty. The timeline could be accelerated or decelerated depending on how WDFW implement's the plan's management tools. Other than the sideboards (no reintroduction and 'no wolves' is not an option), the plan does not provide very clear guidance to WDFW as to how to guide / influence the pace at which to guide natural recolonization and what the tradeoffs are of accelerating the pace or decelerating the pace. See more thoughts on this in my comments on translocation.	The plan expects that natural dispersal will be the primary means for wolves to disperse across Washington and recolonize new areas of the state. The timelines associated with natural dispersal are unknown, but reliance on natural dispersal alone could result in a slower pace of recovery, higher costs over the long term, and a longer time to achieve more management flexibility. The plan calls for translocation of wolves to be conducted to accelerate the pace of recovery if wolves fail to disperse to one or more recovery regions, but reintroduction of wolves from out of state has been ruled out. Under task 2.2.3, the plan also calls for some constraints to be applied in the use of lethal control in conflict situations. Excessive levels of lethal removal can slow or prevent wolf recovery, as observed with the Mexican gray wolf in New Mexico and Arizona.
gen	general remarks	Clearly delineating criteria for a status review and reclassification must also be accompanied by the field resources to monitor the population adequately to document progress towards meeting the goals. It's important to establish realistic goals and have goals that can actually be measured and reached so that public confidence is maintained in the plan, state laws, the system of resource conservation and management, and WDFW. The plan outlines what appears to be a very intensive program, particularly with respect to relocations and translocations. In that regard, the US Fish and Wildlife Service Mexican Wolf Recovery Program may serve as a plausible comparison. WDFW may be challenged by the controversy and differing public expectations about wolf recovery and often come with this level of intensity. Similarly, WDFW may believe that this level of intensity is warranted, perhaps even unavoidable, given the legal framework. Either way, the budget may be not adequate based on Montana's experience, the fragmented nature of the Washington landscape as reflected by the wolf habitat suitability map, and public expectations.	The plan is intended to list all actions considered useful in recovering and managing wolves in Washington. Implementation of recovery plans for any listed species is always dependent on the availability of adequate funding and staffing. We're uncertain that the translocation program proposed in the plan is as intensive as suggested by this reviewer. Translocation is included as a conservation tool to help achieve recovery if natural dispersal proves insufficient. Relocation is identified as another tool in the plan, but intensive use of this technique is neither mentioned or anticipated.

gen	general remarks	Given that wolves will not be reintroduced into Washington, natural recolonization becomes the method of kick-starting wolf "recovery" under either a state or a federal framework. As such, you should consider the experiences of wolf recolonization in northwest Montana between the early 1980s and late 1990s as more a representative prediction of the rate at which a Washington wolf population would achieve whatever recovery goals are finalized. Wolf populations typically increase by formation of new packs, an increase in the number of packs on the landscape, and to a lesser extent an increase in the size of existing packs. Attaining recovery goals in Washington will likely occur very slowly due to the level of wolf-human interactions that can be reasonably predicted based on the habitat suitability map (page 38, figure 4). I also encourage you to consider the management experiences in Montana or Wyoming outside of Yellowstone National Park (particularly since 2000) to potentially be more representative for comparative purposes than experiences in central Idaho or inside Yellowstone. The reason for this also primarily has to do with the habitat suitability map.	Languagewas added to chapter 3, section A, indicating that progress in recovering wolves in Washington could proceed similarly (i.e., relatively slowly) to that which happened in northwestern Montana during the 1980s and 1990s.
gen	general remarks	To me, the important questions for Washington are: is there enough suitable habitat (space on the landscape) in each of the wolf recovery areas to achieve the plan's recovery goals based on breeding pairs? Are the conflict resolution strategies sufficient to resolve the conflict and facilitate public acceptance without significantly affecting the capacity of the population to meet the recovery goals in the other areas? Will WDFW have sufficient resources to document breeding pair status? Perhaps the goals should be based on a less stringent definition (e.g., packs of four or more wolves, or total wolf numbers) so that the population is more easily measured and likely to be achieved.	The three issues referenced here are each addressed in different chapters of the plan (i.e., chapters 3, 4, and 13). The plan's use of successful breeding pairs is consistent with their standard usage as a measure for recovery in other listed wolf populations in western North America. Use of successful breeding pairs necessarily includes documentation of successful reproduction, which is consistent with the recovery objectives set forth for other state-listed species in Washington. As noted in the plan, measuring recovery of wolves by the total numbers of animals present is less desirable because it does not account for reproduction in the population.
gen	general remarks	Overall, I thought the plan was an outstanding effort and WDFW is to be complimented. It properly incorporated a wise diversity of public opinion and relevant science to recognize the realities of wolf conservation and the public conflicts that always come with wolf restoration. Implementation of this plan will result in the conservation of a wolf population in Washington.	No response was necessary.
gen	general remarks	It should also be clarified these recommendations are only for state planning purposes and conform only to the requirements of state law. They have not been evaluated under any possible ESA or federal requirements.	This information was added to page 13, paragraph 2.

gen	general remarks	The Draft Wolf Conservation Plan for Washington seeks to set standards, thresholds, and management actions for downlisting wolves from endangered to game animal status. It is unlikely, however, that the numerical and distributional standards for downlisting to game animal status would constitute a “permanently viable” population that would occupy a “significant portion of the species’ historical range” as defined by the plan and by WAC. The state intends to manage for a cushion of wolves to prevent the need for relisting, and also to manage for a harvestable surplus of wolves that may make it reasonably possible that a permanently viable population would be maintained in Washington. But there is nothing binding in these intentions, and with the proposed plan there is an unacceptably high level of uncertainty associated with the future condition of a “recovered” wolf population in Washington.	A majority of peer reviewers thought the wolf plan's conservation/ recovery objectives were adequate or barely adequate, but a significant number believed they were inadequate. This indicates that the objectives for numbers presented in the plan border on being too low. Because of this, language has been added to chapter 3 stating that long-term viability of the state’s wolf population will depend in part on maintaining connectivity to the broader regional wolf metapopulation comprising Idaho, Montana, British Columbia, and Oregon. Management actions to improve connectivity for wolves have been added to chapter 12. Additionally, wording changes to the plan further emphasize that hunting of wolves in Washington should not occur until an adequate population exists to support this activity. Continued monitoring of the population after delisting will be important so that any declines in numbers can be detected and remedied.
gen	general remarks	This plan could be improved by: 1) expanding the role of translocations in the establishment and management of populations; 2) including in the plan the need and intent to reestablish substantial wolf populations in the Willapa Hills and the Olympic Peninsula; 3) including among the criteria for downlisting to game animal status that the overall wolf population in Washington have a genetically effective population size of 50 or more. These suggestions are expanded upon below. Incorporating these suggestions would allow much greater management flexibility to address wolf-livestock conflicts, to manage deer and elk populations, and in supporting legal harvests of wolves.	Responses to these points are given below where more in-depth comments on these same topics were provided by this reviewer.
gen	general remarks	The plan does a very good job of addressing existing knowledge about wolves in Western North America.	No response was necessary.
gen	general remarks	Many of the questions/comments I had when I started reading the document were answered in later chapters, which is good and attests to the comprehensiveness of the document. However, to make it easier for the reader, and to not distract them, it would be beneficial to make some references in earlier sections to later sections that address the issue in greater detail. I suggest inserting hotlinks to direct the reader to more in-depth information found in subsequent chapters. The Plan is very long and comprehensive, and as such, it will be necessary to assist readers to find relevant information. Otherwise I think some readers/critics will likely take issue with the Plan early on and not bother to seek out supporting information located in subsequent chapters.	Increased effort was made by the authors of the plan to cross reference related information within the plan, where appropriate.

WWG letter	page 1, lines 45-46	The livestock industry should not be able to exert undue influence over wolf management decisions.	The Wolf Working Group had balanced discussions on resolving wolf-livestock conflicts. WDFW does not believe that the livestock industry had undue influence in determining the management components set forth in the plan.
WWG letter	page 1, lines 46-47	Wolf Working Group members should consider developing a program promoting proactive deterrents before developing the compensation fund.	Promoting the use of proactive deterrents is already discussed in the plan (chapter 4, section F; chapter 12, tasks 4.2 and 4.4.6). Encouraging the use of proactive deterrents is considered an important part of the plan.
exec sum	page 10, line 2	It is unclear if the 18 breeding pairs referenced here can be located anywhere in the state. Each of the other bullets speaks to geographic distribution.	Information on geographic distribution was added here and to chapter 3, section B, to correct this problem.
exec sum	page 10, lines 11-12	What are the guidelines for when/where lethal control may be enacted?	This question is answered in chapter 4, section E.
exec sum	page 10, lines 18-20	What about paying compensation for unknown losses in areas with only rumors of wolves, where WDFW hasn't yet documented wolf/pack activity?	New language in the plan (Chapter 4, section G) says that compensation for unknown losses will occur only in areas where wolves are confirmed to be present, documented wolf depredation is occurring nearby, and differences exist between historic and current return rates of livestock that are not attributable to other causes.
exec sum	page 10, lines 42-43	I consider a public information and education program to be a priority for aiding reestablishment of wolves, but not a "high" priority as stated here.	A public information and education program is considered a high priority in the draft plan for recovering wolves because it will help build human tolerance for the species and assist in reducing wolf-human conflicts.
exec sum	page 11, line 4	A sentence should be added stating wolves may actually benefit timber production through the effects that their presence may have on ungulate foraging.	Benefits may occur in some situations, but there is insufficient evidence to suggest this will be a large-scale benefit while wolves remain a listed species. Although wolves may cause some redistribution of prey populations, wolves are not predicted to have major impacts on deer and elk abundance in the state (see Chapter 14).
exec sum	page 11, lines 6-7	How will funding to implement the plan be obtained?	Funding for the compensation portion of the plan must be approved by the Washington Legislature, as described in chapter 4, section G. Funding for monitoring and other parts of the plan will be through state non-game funding programs, federal grants, and partnership programs.
exec sum	page 9, line 14	I suggest replacing the text “and represents the first fully documented breeding by wolves in the state since the 1930s” with “and represents the first breeding by wolves in the state in which genetic testing was used for species validation”. This suggested change is made because others have documented breeding in the state but did not have the ability to use genetic testing at the time (Anonymous 1990, Fritts 1992, Thiel and Ream 1995, Gaines et al. 2000).	Clarification was made here and in chapter 2, section B. Further information was added to chapter 2, section B, based on the citations provided by this reviewer.

exec sum	page 9, line 32	Shouldn't the main focus of the plan also include improvement of habitat quality and prey resources for wolves rather than just focusing on delisting wolves?	Improvement of habitat quality and prey resources for wolves are considered part of the downlisting and delisting objectives (Chapter 12). Delisting wolves is necessarily the main goal of the plan. After delisting is achieved, wolf management in the state will be reevaluated and proceed from there.
exec sum	page 9, lines 37, 41, 46	Insert "a minimum of" before the number of successful breeding pairs needed.	This suggestion was not incorporated.
1	page 12, line 18-20	This paragraph should be updated with current information.	New information was added on this topic.
1	page 12, line 44-46	What was the historical population level for WA? Why can't that be achieved numerically, if not distributionally?.	Information on historical populations is provided in chapter 2.
1	page 14, line 28	Do we know they will become a "game animal"? Or should this be stated more as a possibility at this time?	No change was made in response to this comment. After further consideration, the plan no longer recommends in chapter 3, section C, that wolves be reclassified as a "game animal" after being delisted, pending approval by the Washington Fish and Wildlife Commission. Instead, the plan takes a more neutral position and simply says that wolves could be reclassified as a game species or remain a nongame species upon delisting. The plan continues to present information on the hunting of wolves and states that if hunting is proposed, conservative approaches would likely be followed early on to ensure that adequate population numbers are being maintained.
1	page 14, line 3	Woodland caribou is another species that has a recovery plan.	Woodland caribou were added to this sentence.
1	page 14, par 3	Is it possible to prevent politics from hijacking biology/management?	No changes were made in response to this comment.
2	page 15, section A	Shouldn't a critical section of their history deal with the evolution and ecology of wolves? When did they first arrive in this region, what prey/competitors did they co-evolve with that would have created the animals we see today? What effects does evolution have on gene pools, habitat, competitor behaviors. Much research may not exist, but there is a great deal of substantial theory to quote.	This information is not considered necessary for the plan.
2	page 15-34, chapter 2	This chapter gives adequate information on the population status, biology, and legal status of wolves. The plan does a good job of recognizing the uncertain status of wolves in eastern Washington and addresses different paths depending on the status of wolves in these areas.	No response was necessary.
2	page 15-34, chapter 2	Revised information will be needed to address the most current legal status of wolves in the Northern Rocky Mountain states.	Updated information on legal status in the Northern Rocky Mountain states has been added.
2	page 15-34, chapter 2	Overall, I think this chapter is very well organized and provides relevant and adequate amounts of information to the reader.	No response was necessary.

2	page 15-34, chapter 2	One minor comment regarding current status in WA…should this be updated to include a record from Pend Oreille County of two wolves photographed by a remote camera?	This information was added to page 20, par 2, as well as appendix D.
2	page 15-34, chapter 2	The plan does a good job of providing background information on population status, biology, and legal status of wolves.	No response was necessary.
2	page 18	Suggest adding a table to this section that summarizes recent wolf reports.	No change was made. Chapter 2, section B, subsection "Washington" already references readers to appendix D, which contains a 3-page table of wolf reports in the state since 2000.
2	page 18, line 23	Replace "myths" with "legends".	This change was made.
2	page 19, line 11	Information on wolf distribution in southern BC needs correction.	Corrected.
2	page 19, line 27-28	The responses reported in Gaines et al. (1995) occurred in the Lake-Chelan-Sawtooth wilderness where multiple individuals were heard including pups, and in the Alpine Lakes Wilderness where a lone individual was heard.	This information was added.
2	page 19, line 30	Please change to the following: “but this record could not be confirmed with genetic testing at the time (W.L. Gaines, pers. comm.)”.	This change was made.
2	page 19, par 2	Discussion is provided on the history of wolves as it relates to humans, but what about how wolves historically related to the ecology and evolution of prey species /fellow carnivore competitors/and habitat? I suspect these have changed dramatically with the disappearance of wolves.	This information is not considered necessary for the plan.
2	page 20, line 10-13	There is no definite proof that this animal was wild, especially since it was found within 30 miles of the home of a breeder that had released her hybrids and pet wolves near the time of this road-kill Therefore, it doesn't seem like this animal should be included in the discussion here.	The sentence was removed. However, the record for this animal continues to be listed in appendix D.
2	page 20, line 18	Suggest changing this to read that reports increased dramatically in 2007 and 2008.	This comment was rejected because WDFW doesn't have any reports for Okanogan Co. for 2007 (see appendix D). The second half of this sentence indicates that records for the county likely extend back to previous years, which would include 2007.
2	page 20, line 36	What about mentioning released/escaped pet wolves here?	This information was added.
2	page 20, line 4	Suggest deleting “and tracks” as these are never reliable.	The word "reliable" was removed from the sentence, but "and tracks" was retained.
2	page 20, line 5	Change “WDFW biologists” to “agency biologists” as this effort has been very much a multi-agency effort!	This change was made.
2	page 20, par 4	The following information could be added to the summary for "Current Status of Wolves": Public awareness through recent media news releases has increased reports of wolf observations in Washington. Wildlife management agencies will increase survey efforts in areas having numerous reports to confirm the establishment of wolves.	These statements are true, but do not directly apply to the content of this paragraph summarizing current wolf presence in the state. Therefore, these remarks were not included.

2	page 20-21, subsection "Neighboring States and B.C."	Suggest including a discussion of the landscape permeability modeling by Singleton et al. (2002). The discussion of cross-boundary issues is somewhat weak. While there is a good discussion of the animals past and present status in B.C. and to a lesser extent Idaho, there was little discussion of current wolf habitat and connectivity issues outside the state of Washington. Graphics similar to the one on pg. 38 should be added that show not only suitable wolf habitat, but also occupied wolf habitat, for those portions of Oregon, B.C., and Idaho that border Washington. Something similar to a GIS analysis of suitable wolf habitat for the Pacific Northwest that was published by Larsen and Ripple 2006, but at a scale that includes British Columbia, and Idaho. Since Washington and Oregon are basically being re-colonized by wolves dispersing from Idaho, B.C. and northwest Montana, it seems logical that the discussion on this issue must start where the wolves are originating from and the probable dispersal corridors that bring wolves into the state.	Additional information on this topic was added to several locations in Chapter 3, especially section A, instead of the location suggested by the reviewer.
2	page 20-21, subsection "Neighboring States and B.C."	A more detailed discussion on what is being done for wolf management in those states and provinces would be useful. Proposed hunting seasons in Idaho, for example, would have a profound effect on wolf management efforts in eastern Washington.	This information was added.
2	page 21, line 21 (and elsewhere in plan)	Use of the term "alpha" is outdated. See Packard 2003, page 53, column 1, and Mech 1999, Canadian Journal of Zoology 77:1196-1203. The new terms of "breeders" or "breeding male" or "breeding female."	This correction was made.
2	page 21, line 23	Suggest changing the words “breeding population” to “breeding pair” as this is unlikely a population at this time.	"Breeding population" was retained, but other parts of the sentence were changed.
2	page 21, line 31, 36	Information on wolf distribution in southern BC needs correction.	Corrected.
2	page 21, line 42	Information should be added about BC's policy to remove wolves threatening mountain caribou.	This information was added.
2	page 22-32, sections C and D	This material is well done.	No response was necessary.
2	page 23, line 42-43	This sentence would be more informative if changed to: Generally, if undisturbed, a wolf pack will continue using the same den year after year. However, human disturbance near an active den may cause wolves to move their pups from one den to another or abandon the den altogether.	This change was made.
2	page 23, par 1	The following information could be added: Some wolf–dog hybrids are not distinguishable in appearance from wild wolves.	This information was added.

2	page 24, par 5	Should indicate that moose are a major prey species in much of BC.	This information was added.
2	page 25, table	Clarify meaning of heading.	Corrected.
2	page 25, table	Cite Stotyn (2008) for extent of moose in diet in BC.	Citation added.
2	page 27, par 1	Clarify "fairly short period".	Corrected.
2	page 28, line 11	Does “sustainability” rely on whether or not the alpha male and female die versus subordinate members of pack or pups? Do packs recuperate quickly if alphas die? The plan should be more specific about the demographics included in the 32-50% sustainable mortality rate. Maybe higher pup/old wolf mortality would be better than prime age wolves dying.	Greater detail on demographics are beyond the scope of this plan. Readers should refer to the citations provided in the text for more information.
2	page 28, line 20	The sentence should state how this occurs, i.e., through dispersal, increased mortality due to starvation or disease, decreased births, etc.	Greater detail on population dynamics are beyond the scope of this plan. Readers should refer to the citations provided in the text for more information.
2	page 28, line 4	Where densities are dependant upon extrinsic factors such as disease, competition, weather, etc what are other limiting factors exist aside from prey, such as denning sites, sufficient intact habitat, dispersal corridors?	This sentence was changed slightly to indicate that other factors may affect wolf densities.
2	page 28, pars 1-6	The quote concerning potential wolf growth rates is highly misleading. While growth rates of up to 90% per year may have been documented in some circumstances or years, this level of annual growth is certainly not typical. It would be more illuminating to present a table with annual growth rates from Idaho, Montana, or other states that have been recently colonized for say the last 15 years. This would show the more typical growth rates when wolves are colonizing new areas, and could in some cases also show the populations react over time as carrying capacity is reached and density dependent factors begin to kick in.	The sentence with the growth rate information from Michigan was deleted. The more generalized language of this section was retained in preference to the creation of a table showing these numbers. It is unclear whether wolf populations in Idaho, Montana, and Wyoming have reached their biological carrying capacity, therefore discussion of how populations respond upon reaching this stage is premature.

2	page 28-29, subsection "Rates of Population Change"	I want to raise the point about naturally recolonizing wolves versus relocated/translocated. As with any time series related data, your result depends on the period of time you extract. If you look at total numbers over 25 years for all of Montana, the rate of increase is around 25%. However, if you examine only northwest Montana for 12 years prior to reintroduction, the rate of increase is considerably less (closer to 10%). Then if you look at the reintroduced populations from 1995 to now, the rate of increase is considerably higher (closer to 40%). I think more effort should be made to make this distinction clear. In other words, WDFW should examine more closely the potential rates of increase in northeast Washington because they may be much less than 25% considering this area is being naturally recolonized. Also, what are the effects of Idaho's management on northeast Washington? On the flip side if we translocate the potential rates of increase may be much higher than 25%. Will the feasibility proposals address this?	We consider the higher growth rates in Idaho and the greater Yellowstone area (both introduced populations) to be more of a reflection of the overall better habitat (i.e., fewer human conflicts, greater prey availability) in these regions compared to northwest Montana than whether the populations somehow differ because they were natural or introduced. Thus, no changes were made response to this comment and we would not necessarily expect a translocation feasibility assessment to highlight this difference. Some new information has been added to the text which shows that Montana's overall annual growth rate is lower (17% rather than 25%) than previously indicated. Existing text also indicates that population growth rates in Montana are variable among years and periods. Elsewhere in the plan, new information has been added comparing Washington with northwest Montana in terms of suitability for wolves. The effects of Idaho's management on northeast Washington is mentioned in chapter 3, section A, subsection "Landscape Connectivity and Dispersal."
2	page 29, line 19	The following could be added after the first sentence: The purpose of the ESA is to provide for the conservation of endangered and threatened species. The goal is the recovery of a listed species to levels where protection under the ESA is no longer necessary.	This information was added.
2	page 29, line 36	Smaller prey populations did indeed occur after the severe winter of 1996-97, but this was because wolf conflicts with livestock increased dramatically, resulting in greater agency lethal control (rather than decreased pup survival).	This correction was made.
2	page 29, line 5-8	These statements are unclear and potentially not supported by data and after considering the anticipated effects of state regulatory frameworks in MT/ID/WY post delisting. What is meant by core areas and at what scale? That needs to be made clear and reconsidered based on available data. Regardless, once outside national parks and national wildlife refuges, human-caused mortality (to include regulated harvest) can effectively check all wolf population increases (and the number of animals "available to disperse and start new packs to expand distribution) if liberal enough, which would then have implications for the availability of "founders" to arrive in areas beyond the borders of MT/ID/WY.	Further clarification was added and the last sentence of this paragraph was removed.

2	page 29, line 6-8	Will wolves increase rapidly if they are delisted and hunting/killing pressure is extreme, such as in Wyoming?	Given the uncertainties about future federal and state management of wolves, this sentence was changed to remove the statement that rapid increases are expected outside of core areas, which was replaced with a remark that population growth in new areas will depend on sustainable management programs.
2	page 29, line 9	Should insert a section into the background describing habitat use by wolves.	A subsection on habitat use was added to chapter 2, section C.
2	page 29, par 4	The USFWS's current recovery goal for the Northern Rocky Mtn wolf population is: 30 or more breeding pairs (an adult male and an adult female that raise at least 2 pups until December 31) comprising 300+ wolves in a metapopulation (a population that exists as partially isolated sets of subpopulations) with genetic exchange between subpopulations (USFWS 1994; Fritts and Carbyn 1995). Step-down recovery targets require Montana, Idaho, and Wyoming to each maintain at least 10 breeding pairs and 100 wolves by managing for a safety margin of 15 breeding pairs and 150 wolves in mid-winter. The Northern Rocky Mtn wolf population met the numeric recovery goal of at least 30 breeding pairs and at least 300 wolves in mid-winter for the first time in 2000. By the end of 2008, the Northern Rocky Mtn wolf population will have surpassed the numerical recovery goal for 9 consecutive years.	This information was incorporated into the plan. Clarification of the information appearing in the last two sentences of this comment was obtained from Ed Bangs of the USFWS, who indicated that the first year of having at least 30 breeding pairs and at least 300 wolves in mid-winter in this population occurred in 2000, but that the 3 successive year requirement wasn't met until 2002.
2	page 29-32, section D	U.S. Fish and Wildlife Service currently has legal management authority over wolves in Washington. How does this plan fit in with the current listing of wolves on the federal list? Will WDFW's final wolf plan be presented to the USWFS for approval in the hopes that Washington will then be given designated agent status?	The USFWS will continue to have lead management authority on wolves in areas of Washington where the species remains federally listed. WDFW has acted and will continue to act as a co-manager with the USFWS in these areas. Federal delisting in all or part of Washington will mean that WDFW will assume lead management authority in those areas; the Washington wolf plan will guide WDFW management of wolves in federally delisted area as well as management in the remainder of the state. Currently, the USFWS has not established any criteria for delisting wolves in the western 2/3s of Washington (i.e., outside of the Northern Rocky Mountain distinct population segment, which includes the eastern 1/3 of the state). It is possible in the future that the USFWS may consider Washington's wolf plan as suitable for allowing federal delisting outside of the Northern Rocky Mountain distinct population segment. Currently, there is no federal requirement for Washington to prepare a wolf plan as there was in Idaho, Montana, and Wyoming.
2	page 30, figure 3	The 2 towns shown along the boundary in Washington are a bit obscure in this figure and are 2 towns that I've never heard of. Possibly Omak and Moses Lake would be better geographic identifiers for people.	This map was was replaced with a newer version from USWFS (2009) and should be easier to read.

2	page 30, par 1	The following should be added after the last sentence: On September 29, 2008, the Service asked the U.S. District Judge that granted the preliminary injunction to vacate the Service's delisting rule for the Northern Rocky Mountain Distinct Population Segment of the gray wolf.	This information was added.
2	page 30-32, subsection "Tribal"	Although the southern Cascades may be the best place in Washington to establish and maintain a (relatively) large source population of wolves, this will inevitably result in wolves spilling onto the Yakama Indian Reservation. What is the Tribe's position on this? If they are intolerant of wolves, this could be a major population sink for the southern Cascades. Similarly where do other tribes stand on wolf recovery (e.g. the Colville and Quinault tribes)?	As described in this subsection of the plan, Washington's tribes can manage wolves as they wish and may choose to prepare their own wolf management plans. We are unaware of the position that most tribes currently have on wolf management. However, tribes in the state have expressed a range of values and concerns regarding wolves. WDFW intends to coordinate and share information with willing tribes regarding wolf management through the Wolf Interagency Committee and other government-to-government level communication.
2	page 32, par 4	The sentence could be revised to read as follows: Wolf-related tourism has become an economic benefit in some areas, especially at Yellowstone National Park where wolves are plentiful, easily located, and viewed from park roads.	This information was added.
2	page 32, section E	What about the value of wolves to the ecosystem? This should be a top priority, rather than strictly looking at the value of wildlife as it relates to humans.	This topic is covered in Chapter 6.
3	page 35, line 29	Define what is meant by "over time…". How long?	"Over time" was replaced with "in the long term."
3	page 35-38	A formal population viability analysis (PVA) would help to answer whether proposed numbers and distribution of wolves are sufficient to achieve downlisting and delisting, but as stated in the Plan, this would be difficult to do due to the number of unknowns concerning eventual wolf populations in WA and the results would likely be highly variable depending on the assumptions imposed on such a model. So, I think the 'rule of thumb' approach used in the plan is appropriate. Because most of the potential wolf habitat in WA is not well-connected to adjoining states and provinces and reductions in wolf populations may take place there (hence immigration may be limited), it seems best to consider WA in isolation. In that context, the delisting/downlisting criteria appear minimal, but probably adequate. Maybe you need to make a statement about revising these criteria if they prove untenable, or a PVA based on future data suggests other criteria.	A remark was added to chapter 3, section B, subsection "Numbers and Distribution," that a formal population viability analysis (PVA) could be employed in the future to refine and update the plan's conservation/recovery objectives. The PVA could use data collected from the Washington's recolonizing wolf population to make its projections.
3	page 35-38	The numbers to achieve downlisting appear small to me because they do not make up a wolf population, but I also realize these choices are largely driven by the structure of your Endangered Species Act of which I know little.	No response was necessary.

3	page 35-41, sections A and B	As in Oregon, development of wolf population and management objectives is the most difficult and controversial aspect of state planning for wolves. Some perceive suggested population objectives as scientifically too low or unacceptably high, while others insist that wolves be “equitably” distributed across the State. Unfortunately, wolf habitat and the human population are not evenly distributed. I suggest broadening your approach to the number and distribution of breeding pairs in recognition of the uncertainty of where wolves may become established. The wolf habitat map (page 38) is quite similar to the situation in Oregon. Most habitat is located in northeastern Washington, the Cascades, and west to the coastal region. Unfortunately, the majority of the habitat is at a great distance from wolf source populations in Idaho.	We consider the current conservation/recovery objectives appearing in the plan to be sufficiently broad because they 1) allow considerable flexibility in the location and number of breeding pairs needed to achieve recovery, especially for downlisting from threatened to sensitive and for delisting, and 2) attempt to achieve recovery over a significant portion of the species' original geographic range within the state.
3	page 35-41, sections A and B	I suggest combining the North Cascades and Eastern Washington regions into one wolf recovery region. Except for a small portion of the Blue Mountains in SE Washington, the majority of the wolf habitat on the eastside is along the state's northern tier. I'd suggest a recovery objective of 4-5 breeding pairs in this region, depending upon how one might credit wolves using the Blue Mountains in Washington. Potentially, a wolf pack in this area may use habitat in both states, but may produce pups in either state. Notwithstanding the legal and technical issues, if a breeding pair used both states and could be counted toward recovery objectives in both, I would suggest 5 breeding pairs for the combined North Cascades/Eastern Washington region. Under my scenario, I would suggest 5/8/12 breeding pairs as triggers for moving from one listing designation to another.	The WWG considered a number of options for recovery regions before recommending the 3-region approach used in the plan (see current appendix G). We are concerned that recovery under a 2-region approach could result in a reduced likelihood of reestablishing wolves over a significant portion of their historic range in Washington. Transboundary packs are countable only within one jurisdiction, based on den location or other criteria, as described in chapter 3, section B. The majority of peer reviewers believed the current breeding pair numbers of 6/12/15 proposed in the plan are barely adequate, thus the numbers of 5/8/12 breeding pairs suggested by this reviewer are probably too low.
3	page 35-41, sections A and B	I’ll mostly defer this one, as it’s mostly political. Biologically, I believe Washington’s wolf population is going to be heavily dependent on other states and I would expect more packs in the North Cascades and eastern zone than Southern Cascades and Northwest Coast. Dispersal from high-density areas should keep packs along the border of Washington more viable. If the overall goal is 15 known packs, I’d suggest 3 in each zone and 6 wild card packs instead of the 2-2-5-6.	Improved language has been added to the plan about the importance of dispersal from other states and British Columbia for reestablishing and helping maintain a wolf population in Washington. After some deliberation, WDFW decided to retain the delisting requirement of 2 successful breeding pairs of wolves in both the Eastern Washington and Northern Cascades Recovery Regions rather than increase it to 3 breeding pairs as suggested by this reviewer. This is because the smaller requirement will be easier to achieve and exceed, thereby allowing translocation to occur sooner.

3	page 35-41, sections A and B	I feel the plan should clearly state that with the number of packs decided on, this plan does not create a viable long-term recovery of wolves in Washington. Instead, it is an augmentation to an overall recovery in the West. With 15 packs, it seems the viability of Washington wolves will be dependant on neighboring states and provinces. Without those populations, our wolves will be vulnerable over the long-term. This seems supported by the plan's literature review. In light of this information, Washington wolves are really a subpopulation of the overall population in Idaho and British Columbia. This should be clearly stated.	Chapter 3, section A, has been rewritten to place substantially greater emphasis on population connectivity to promote wolf immigration into Washington from neighboring source populations in other states and British Columbia and to promote movement of individuals within Washington. This will 1) aid the initial reestablishment of a wolf population in Washington, 2) enhance continued long-term movement of wolves into and within the state, thereby helping supplement Washington's subpopulations with new individuals, and 3) maintain long-term genetic exchange between subpopulations in the state and those in neighboring jurisdictions. Additionally, this reviewer implies that Washington's wolf population may never achieve more than 15 breeding pairs. This number is used in the plan only as the target for delisting and carries no implications for overall population size to be expected in the state. Washington's wolf population will likely grow to some larger size, which will further enhance its overall viability.
3	page 35-43, section A, B	How much will the population of wolves within Washington rely on the immigration of wolves from other states and provinces to provide for a viable population? This should be discussed and coordination efforts with these states and provinces identified.	Chapter 3, section A, has been rewritten to place substantially greater emphasis on connectivity to promote wolf immigration into Washington from neighboring source populations in other states and British Columbia, to promote movement of individuals within Washington, and to promote genetic exchange. A new objective has been added to chapter 12 addressing the need to manage for connectivity (task 7). Language has also been added to task 10.1 to address the need for improved coordination between natural resource agencies, other government and non-government entities, and other states and provinces to enhance connectivity for wolves.

3	page 35-43, sections A and B	I was impressed with the thought process of this aspect of the plan. The levels of 6, 12, and 15 breeding pairs to downlist to threatened, sensitive, and game animal, respectively are adequate goals to ensure a self-sustaining population in Washington while balancing wolf related impacts to livestock producers. In addition, stipulations to immediately initiate a delisting process if wolves reach 18 breeding pairs is an important caveat to recognize concerns identified in the Minority Opinion (appendix G). The conservation concepts of resiliency, redundancy, and representation are well represented by the plan. In addition, the concept of significant portion of the range is addressed with the plan. Overall, these concepts suggest that the number of wolves and distribution are appropriate as described within the plan. The one question that could remain is the genetic viability of the population, if taken in isolation. However, dispersal from larger populations in Canada, Montana, and Idaho should adequately ameliorate these concerns.	No response was necessary except to say that information on genetic viability has been added to the plan.
3	page 35-43, sections A and B	There is no adequate biological answer about whether the report's number and distribution of wolves or the minority position's proposal is adequate for achieving a self-sustaining wolf population in the state. Obviously, the more wolves, the greater the chance of sustainability, but no absolute number can be given. Isle Royale has sustained a population of 12-50 totally inbred wolves for 50 years, as an example. The question of specific number is a political one, and can only be answered with the approach you have already used. As for carrying capacity of Washington for wolves, that is also political. The biological carrying capacity depends on the biomass of prey in the state. See the projections of Fuller et al. (2003: Fig. 6.2). Be wary of modeled projections of wolf range such as those of Carroll et al. (2003). In Wisconsin, Mladenoff et al. (1995) tried to predict areas where wolves would recolonize based on modeling. However, by 2004, 60% of wolf packs had recolonized areas with less than 50% probability of colonization, and 22% had recolonized areas of 0-9% suitability (Mech [2006] Wildlife Society Bulletin 34:874-877).	No response was necessary.

3	page 35-43, sections A, B	Although populations in eastern Washington and the northern Cascades will be important in maintaining connectivity with populations beyond the boundaries of Washington, wolf numbers in both areas may to a large extent be determined by immigration from outside Washington and / or from the southern Cascades rather than by their own internal dynamics. Consequently, these populations are likely to make only minor demographic contributions to other subpopulations in Washington (with possible exception of the northern Colockum area) and to the overall viability of the WA population. “Viability” of the Washington population will therefore be largely dependent on the sizes of populations in the southern Cascades, Willapa Hills and Olympic Peninsula, and the connectedness of these populations.	Two of the main remarks given in this comment seem overly speculative, specifically 1) that wolves in eastern Washington and the northern Cascades will contribute little to the long-term viability of the Washington's overall wolf population, and 2) that the state's population will depend largely on wolves forming robust subpopulations in the southern Cascades, Willapa Hills, and Olympic Peninsula, which are all located in the Southern Cascades/Northwest Coast recovery region. As stated in the plan, WDFW believes there are too many uncertainties at this time to predict where and how many wolves will settle in Washington.
3	page 35-43, sections A, B	Given its central location and high numbers of elk, establishing a robust and thriving source wolf population in the southern Cascades is likely to be critical to the viability of the Washington population. The need for a strong source population in the southern Cascades is likely to be increased, if once wolves are federally delisted in the northern Rocky Mountains the numbers of wolves dispersing to eastern Washington is decreased as a result of hunting in Idaho and Montana.	The draft plan recognizes the importance of the southern Cascades by requiring higher numbers of successful breeding pairs to be established in the Southern Cascades/Northwest Coast recovery regions to achieve downlisting from threatened to sensitive and delisting.

3	page 35-43, sections A, B	My primary comment is that the plan does not discuss on-the-ground management to maintain intrastate and interstate connectivity between major blocks of wolf habitat. This is important for the following interrelated reasons: 1) it maintains dispersal corridors, 2) it speeds colonization and progress towards recovery goals, 3) it reduces the need for costly relocation efforts, 4) it improves genetic mixing and long-term population viability, 5) corridors will be used by a variety of other wide-ranging species, 6) it addresses the Western Governor's Association proclamation stating the importance of landscape level connectivity and corridor maintenance, 7) it supports ongoing connectivity conservation efforts (e.g., Okanogan-Similkameen Project, I-90 Corridor Project). I believe the two intra-state corridors mentioned above are the most critical, since they connect the state's largest blocks of wolf habitat (North Cascades, South Cascades, and Kettle-Selkirks), currently still have enough open space to make connectivity feasible in their current condition. They are also at high risk from development, particularly the Okanogan-Similkameen. I would suggest the plan actively support proactive conservation efforts (conservation easements, strategic acquisitions, etc) to protect open space/habitat in at least these two critical linkages. You may also want to explore or pursue a link between the Cascades and Olympics. Fortunately, key interstate and international linkages are already fairly secure since we directly abut publicly owned occupied wolf habitat in Idaho, BC and Oregon.	A considerable amount of new information has been added to chapter 3, section A, on the importance of maintaining habitat connectivity and gene flow for wolves inhabiting the designated recovery regions in Washington. A new objective was also added to chapter 12 addressing the need to manage for connectivity (task 7).
3	page 35-43, sections A, B	It is worth mentioning the importance of long-term persistence of reproducing packs in adjacent jurisdictions (Idaho, BC, and Oregon) to the future of wolves in Washington.	This information was added to chapter 3, subsection "Landscape Connectivity and Dispersal."
3	page 35-43, sections A, B	The plan addresses well the number of wolves and distribution needed to achieve downlisting and delisting.	No response was necessary.

3	page 35-43, sections A, B	Establishing breeding pairs as delisting triggers also appears sound. The concept of a breeding pair, as established by the U.S. Fish and Wildlife Service (measure of reproductive success and recruitment), is important. The implementation of this concept, however, has proven difficult in the NRM. Actual documentation of the breeding pair status of a pack involves intensive efforts, and becomes increasingly difficult as wolf populations expand to include numerous packs. Documentation of breeding pair status is reasonable and more important during the early "restoration" or "recovery" phase of a population characterized by small numbers of packs and where more intensive data is required to determine progress toward recovery objectives. I believe it is reasonable to document breeding pair status for the small number of packs identified in the plan up to delisting (≤ 18 packs). I would emphasize, in the plan, the need for using an indirect estimator of breeding pairs or adopting an alternate measure once wolves are delisted, as it will become exceedingly difficult to continue to field validate breeding pair status with increasing numbers of packs. As a side note, the original definition of a breeding pair as authored by the U.S. Fish and Wildlife Service is contained in the 1992 FEIS. It states the minimum pack composition must be the alpha pair plus 2 pups of the year surviving through 31 December. This definition has since been "relaxed" (not sure how officially) to any two adults plus 2 pups.	This comment was addressed by adding a remark about using population estimators to chapter 12, task 1.4.

3	page 35-44, sections A, B, and C	Wolf survival is one of the most important population influences in the Northern Rockies and boils down to human access. 80% of wolf mortality in the Northern Rockies is human caused and it is only partly compensatory with natural mortality so there are big problems balancing these two things when it comes to livestock control and then eventual wolf harvest thru legal hunting. It is also clear that core protected areas are key to the healthy functioning of a wolf population. In other words, right now YNP and central Idaho act as wolf pumps, sending wolves out into surrounding areas where there is relatively lower survival and this maintains those marginal populations. Without those wolf pumps we predict trouble. What will be your wolf pump? Where is your area of low mortality that will be secure and good wolf habitat providing wolves to outside areas? For example, we found that Glacier Natl Park and the Bob Marshall Wilderness do not function as core secure wolf habitat in Montana because few wolves live there (too high and winters too hard for ungulates to overwinter, therefore few wolves relative to YNP and central Idaho). After hunting becomes legal, wolf survival will drop in central Idaho. It essentially is a source-sink dynamic and will require intensive mgmt to keep wolves OK and conflicts low.	WDFW recognizes these issues as major concerns for recovering wolves in Washington. The plan discusses the need to minimize the killing of wolves through lethal control to resolve wolf-livestock conflicts and to reduce other forms of human-related mortality (chapter 12, task 2). Wolves will also be hunted on a sustainable basis that does not threaten the population after legal hunting is adopted (chapter 3, section C). The plan acknowledges the potential of the southern Cascades to host a source population of wolves by calling for larger numbers of breeding pairs to become established there prior to downlisting to sensitive status and delisting. The southern Cascades was also an area favored by the Working Group for conducting a wolf translocation, if needed (current appendix G).
3	page 35-47, chapter 3	I think the conservation end of the plan makes sense.	No response was necessary.
3	page 35-47, chapter 3	I would caution against a priori assumptions about source populations. Wolf productivity and persistence is not just dependent on overall geographic area. Wolf management direction including harvest, habitat ownership and land use, habitat fragmentation, prey abundance, and many other factors in addition to habitat patch size play important roles in determining if wolves within identified core areas will function as source populations. I support the notion, identified in the plan, of customizing management approaches to encourage wolf persistence and productivity in areas identified as core habitats important to wolf recovery.	The draft plan notes that it will be important for management actions to be conservative in key recovery areas for wolves, especially during the endangered and threatened stages.

3	page 35-47, chapter 3	Montana's experience is that wolf population expansion (numbers and distribution) prior to the influence of dispersal after the pivotal Yellowstone/Idaho reintroductions was very slow despite the biological potential of the species. This biological potential was not realized to its fullest extent because of the high level of wolf-human interactions resulting in wolf-livestock conflicts in which wolves were lethally controlled, deaths from cars/trains, illegal human-caused mortality, ungulate density and distribution, disease, or even the apparently slow rate of emigration from Alberta/British Columbia. Montana's wolf population growth did not appear to be noticeably affected by emigration from Yellowstone National Park or central Idaho wolf populations until about 2002 or later -- all the while being "close" to source populations north of the Canadian border. Management in Canada appeared to be sufficiently aggressive enough that fewer wolves than expected dispersed into Montana. This scenario may also be predictive of dispersal rates from Idaho into Washington. Also, growth of the Montana population through new pack formation based on dispersal within Montana was slower than expected given the biological potential of the wolf. An important consideration for Washington should be the Idaho and British Columbia management frameworks because they will have a significant influence on the rate of wolf dispersal into Washington. If delisting in Idaho results in a significant decrease in the size of the Idaho population as a whole, the dispersal rate into Washington will decrease from the current status quo. In that scenario, WDFW may want to consider whether a reintroduction of wolves from outside the state would lead to achieving the recovery goals faster or whether the pace of natural recolonization is acceptable or whether/when translocation efforts are needed and at what level? The WWG and WDFW may want to discuss these different options more explicitly now as some hard decisions will apparently be delayed until a future	Parts of this comment have been incorporated into the plan, mostly in a new subsection in chapter 3, section A, that mentions the similarities (and several differences) for wolves that may exist between Washington and northwestern Montana. These similarities seem worth mentioning in terms of how wolf recovery and management may proceed in Washington. The plan already has language (chapter 12, tasks 3.1-3.8) describing the careful process that would be involved in planning and conducting a translocation. Reintroduction using "out-of-state" wolves will not be considered. The plan recognizes that management in Idaho and British Columbia may impede wolf dispersal into Washington and that it will be important to maintain habitat connectivity for wolves both within and outside Washington.

3	page 35-47, chapter 3	The habitat suitability map suggests that Washington does not have large backcountry areas like in central Idaho. As such, the day-to-day management arena would look more like that in Montana, Wyoming, New Mexico, or Arizona -- even where there are blocks of public land. In these landscapes, wolves and people are constantly interacting, even on public lands. In Montana's early years (which I suggest would be plausible analogues to Washington's path of natural recolonization), those interactions resulted in enough wolf mortality that the rate of increase was slow and punctuated by periods of decline. The northwest Montana federal recovery area did not attain 6 breeding pairs (the proposed number to downlist from state endangered to state threatened) until 1995, which was 16 years after the first two wolves were documented in 1979. The first official breeding pair was not documented until 1986. At the lower levels of the Washington recovery goals in the draft plan, success may seem easier to attain. However, wolf packs are very dynamic in and of themselves and even more so when sharing landscapes that include people, livestock, cars/trains, etc. The lower numbers present a hair trigger to change the listing status that could pose some challenges to WDFW.	A new subsection has been added to chapter 3, section A, mentioning the similarities (and several differences) for wolves that may exist between Washington and northwestern Montana. The conservation/recovery objectives in the draft plan must be met for 3 consecutive years across three recovery regions. These additional criteria should help produce a more resilient population over time.
3	page 35-47, chapter 3	I believe that either 1) the progressive recovery goals will take a long time to meet through natural dispersal and wolves may never in fact achieve one or more of the downlisting stages (which are themselves based on numeric and distributional requirements) or 2) the need for and level of translocation required to meet the recovery goals has been underestimated, possibly both. The WWG clearly recognized and agreed that translocation would be required as a "get there faster" tool to achieving recovery goals and downlisting/delisting. However, the technical aspects of translocating wolves sourced only from a small Washington population presents some definite speed bumps to success, as well as serious logistical and resource commitments for WDFW. Whereas success of translocated wolves into central Idaho and Yellowstone National Park may have appeared straightforward and rapid, 15-16 wolves were released at a time into high quality habitat with minimal potential for human conflicts in both areas. The translocation tool being contemplated in Washington may not lead to as rapid establishment of wolf packs as was the case in Idaho and Wyoming.	As noted in a subsection of chapter 3, section A, reestablishment and recovery of wolves in Washington could occur slowly, similar to what took place in northwestern Montana during the 1980s and 1990s. Regarding the technical aspects of translocation, language has been added to chapter 3, section B, subsection "Translocation," clarifying that translocation of wolves out of one of Washington's recovery regions should be implemented only after the region has exceeded the target population objectives for delisting and removal of wolves would not cause the region's population to fall below those objectives. This safeguard was added to prevent removals from being conducted prematurely, thereby possibly threatening an existing population.

3	page 35-47, chapter 3	The plan should add wolf numbers to the recovery goal and emphasize the occasional necessity for human-assisted migration management given the low amount and fragmented nature of suitable wolf habitat in Washington.	Estimates of the numbers of wolves equivalent to 6,12, and 15 successful breeding pairs have been added to chapter 3, section B, subsection "Numbers and Distribution," but have not been specifically incorporated into the conservation/recovery objectives. The objectives of translocation have been broadened to include facilitation of genetic exchange among populations if bottlenecks to dispersal exist. The maps of potential suitable habitat for wolves in Washington (chapter 3, section A) suggest that the state contains more potential wolf habitat and that it is less fragmented than this reviewer believes.
3	page 35-47, chapter 3	The restoration of wolves to Washington should be viewed more in the vain of the wolf recovery effort in northwestern Montana or perhaps the Service's Mexican wolf program in the southwest. Those areas support successful wolf breeding pairs but with proportionally far more conflicts with humans, higher levels of human-caused wolf mortality, more agency management intervention, and greater cost than wolf restoration efforts in the Great Lakes states or the Greater Yellowstone or Idaho recovery programs.	A new subsection comparing the potential similarities between Washington and northwestern Montana for wolves was added to chapter 3, section A.
3	page 35-47, chapter 3	The southern Cascades population would likely not be large enough over time to function as the single pedestal on which a permanently viable population of wolves could be supported in Washington. At best, this would be a risky strategy with substantial uncertainty in avoiding the need to relist wolves at some point in the future. Significant interchange with wolf populations in the Willapa Hills and the Olympic Peninsula, however, would provide substantial support to southern Cascades population and to the viability of the state-wide population of wolves in Washington. In the event of a major decline in the southern Cascades wolf population, populations in the Willapa Hills and Olympic Peninsula would provide redundancy and a ready source of immigrants by natural dispersal or human-assisted augmentation to restore the southern Cascades population. Establishment of wolf populations in the Willapa Hills and the Olympic Peninsula, however, seems uncertain under the plan. The plan notes that among the Working Group there have been no discussions of translocations to anyplace except the southern Cascades (page 47, lines 11-12). Even if these populations are established, it remains unclear how connected with the southern Cascades population these populations would be if connectivity is left only to natural dispersal. Large portions of the I-5 corridor from Olympia to Portland could pose a substantial barrier to wolf movement.	Additional information has been added to chapter 3, section A, showing that the Olympic Peninsula and Willapa Hills contain potential suitable habitat for wolves. Three of the four habitat models now included in this part of the plan suggest that the I-5 corridor could indeed represent a significant barrier to wolf movements. The subsection on translocation in chapter 3, section B, has been changed to state that natural dispersal and recolonization of wolves may be slow or difficult for both the southern Cascade Mountain range and the Olympic Peninsula/Willapa Hills, thus both regions may receive consideration as recipient sites for translocations. Inclusion of the Olympic Peninsula/Willapa Hills is based on commentary provided by peer reviewers.

3	page 35-47, chapter 3	The best outcome for reintroduction programs typically occurs when reintroduced populations, once established, are grown quickly to large size. This has a number of benefits, including minimizing the loss of genetic variation and the accumulation of inbreeding while the population is small. The passive and reactive nature of the proposed plan, in terms of how component populations will be reestablished, poses some risks. For example if reestablishment of a population of wolves in the southern Cascades is left largely to natural recolonization along with some limited translocations, the outcome may be a population established by a small handful of founders that has taken several generations to grow to a larger size (e.g. 10 – 15 breeding pairs). In this case, a likely result is a population that has accumulated some level of inbreeding, has a high degree of relatedness among individuals, and a low ratio of effective to census population sizes. If this process is repeated in the Willapa Hills and the Olympic Peninsula, the entire population of the Southern Cascades and Northwest Coast recovery region (most of the wolves in Washington) could consist of three local populations of wolves with high internal and between population relatedness among individuals. And these populations would be primed for future inbreeding accumulation.	The material added to chapter 3, section A, provides more background on this issue. The plan now mentions two methods that can alleviate the threat of inbreeding and increase genetic diversity in isolated wolf subpopulations in Washington. These are: 1) enhance habitat connectivity for wolves to encourage natural dispersal of individuals between subpopulations, and 2) if necessary, managers may intervene to occasionally move individual wolves into subpopulations characterized by low genetic diversity.

3	page 35-47, chapter 3	My translocation strategy may not be consistent with the goals, thresholds and guidelines proposed in the current plan. Consequently, I suggest revising the plan as needed to include: 1) the need and intent to establish wolf populations in the Willapa Hills and Olympic Peninsula to provide demographic and genetic support for the southern Cascades and therefore for the overall Washington population; 2) allowing translocations of wolves from the Eastern Washington and Northern Cascades recovery regions even if this results in a temporary reduction below two breeding pairs in each region; 3) allowing limited numbers of wolf translocations from Montana, Idaho, and/or Oregon for the sole purpose of reestablishing populations in the Southern Cascades and Northwest Coast recovery region; and 4) allowing translocations of wolves within Washington and/or from neighboring states to facilitate population reestablishment in the Willapa Hills and the Olympic Peninsula even if the statewide population has reached or exceeded 15 breeding pairs and/or if the population has been downlisted to game animal status. Finally, the use of translocations may be important in ensuring adequate levels of connectivity between subpopulations within Washington. This may be particularly important for maintaining two-way connectivity between the southern Cascades population and the Willapa Hills and Olympic Peninsula populations west of I-5. If monitoring indicates weak connectivity across the I-5 corridor over a period of one or two generations, translocation should be considered as a means to address this shortcoming.	WDFW does not intend to translocate wolves into Washington from outside the state (see chapter 1). If genetic evaluations indicate that low genetic diversity exists an isolated population, the plan has been revised (see chapter 3, section B, subsection "Translocation of Wolves"; chapter 12, task 3.6) to include occasional translocations of individual wolves to improve the genetic variability of the population. At present, WDFW does not believe it is appropriate to jeopardize wolf recovery in one recovery region to support translocation of wolves to another region. Translocation will be conducted only after the source region has exceeded its target population objectives for delisting and removal of wolves would not cause the region's populations to fall below those objectives. The subsection on translocation in chapter 3, section B, has been changed to state that natural dispersal and recolonization of wolves may be slow or difficult for both the southern Cascade Mountain range and the Olympic Peninsula/Willapa Hills, thus both regions may receive consideration as recipient sites for translocations. Three of the four habitat models now included in this part of the plan suggest that the I-5 corridor could indeed represent a significant barrier to wolf movements.
3	page 35-47, sections B, D	The obvious option for all vested interests is to encourage the agency to examine each situation involving wolves and deal with it on a case-by-case basis. This is the way that other major mammalian predators are managed and, realistically, how wolves are going to be dealt with as well.	The plan does call for WDFW to take an adaptive approach to wolf management in general, especially for management of conflict situations.
3	page 36, lines 31-33	Persistence of wolves will also depend on social tolerance by humans.	This information was added.
3	page 36, lines 37-39	Should note here that reduction in wolf number is definitely on the horizon (if not already present) in Idaho.	This sentence was changed in response to the comments of several reviewers.
3	page 37, line 22	Suggest deleting "including some that might be considered marginal". Not sure what is meant by marginal and the point is made that they can inhabit a wide range of ecosystems.	This remark was deleted.

3	page 37, lines 1-3	This paragraph discusses approaches used in other states to determine population objectives but does not present the approach that was used for the development of this plan. It should be stated clearly here how population objectives were derived, specifically, how the balance between socially acceptable objectives and biologically necessary objectives were reconciled.	Greater explanation of how the population objectives were reached for this plan now appears in chapter 3, section B. The objectives attempt to be both biologically and socially acceptable. Current appendix G also includes a summary of Working Group discussions on establishing recommendations for setting population objectives.
3	page 37, par 4	I realize at this time that elk constitute the major prey item for wolves as Oakleaf et al (2006) predict. But this is going to depend, in the long run, on which prey items are most vulnerable. We need to realize that the central Idaho and Yellowstone elk populations were high, unproductive, and highly vulnerable to predation when wolves were reintroduced to these areas. Some time in the future this will likely change and other species, probably one of the deer species, may be more vulnerable. So I suggest that the plan recognize that prey vulnerability will dictate what wolves will prey on and that this may change in the future.	A statement about "vulnerability over time" was added to chapter 4, section A, where predation factors are discussed more extensively.
3	page 37, par 4	Oakleaf et al. (2006)'s model variables do not necessarily apply to Washington, so should not be relied upon to be predictive for your state.	The results of several habitat modeling studies for Washington have been added to chapter 3, section A. The models are fairly consistent in their presentation of potential suitable habitat for wolves in Washington, hence, the study made by B. Maletzky using the Oakleaf et al. (2006) model is not considered inappropriate. Furthermore, as now stated in the text, none of the models should be considered absolute predictors of wolf habitat in Washington, but should instead be interpreted as general indicators of areas with appropriate habitat characteristics.

3	page 37-38, subsection "Distribution"	The larger question of habitat availability in Washington is of some concern, as identified in Appendix G. Carroll et al. (2006) identified a large proportion of the state as potentially “suitable” habitat and started with theoretical wolf packs in those areas (see Figure 2 of Carroll et al. 2006). Through time, Carroll et al. 2006 predicted that few areas would be consistently occupied by wolves, primarily in the Olympic Peninsula and South Central Washington. However, it is important to note, that the Carroll et al. 2006 model is based on “predicted” survival rate based on road densities as the surrogate for mortality threat in an area. Road densities do not reflect whether wolves will live or die. The level of human tolerance associated with the people that use roads dictates these aspects. Certainly wolves are capable of utilizing areas with high road densities levels provided that human tolerance is high. In addition, Carroll et al. 2006 did not model for source populations that likely occur across the International border. These source areas could allow for greater occupancy in the northern areas of the state than predicted in the model. The sum of all models is that they are hypothesis for what might occur in the future. The point is to test against the model and see how well it was at predicting the future. In the case of Carroll et al. 2006, the list of assumptions is large because it is a complex model. For example, there is a large proportion of Idaho that was identified in the model as not consistently occupied by wolves, but is currently occupied (See Figure 6 in Carroll et al. 2006 and compare with current distribution maps of wolves in Idaho).	The results of several habitat modeling studies for Washington have been added to chapter 3, section A, all of which are fairly consistent in their presentation of potential suitable habitat for wolves in Washington. As now stated in the text, none of the models should be considered absolute predictors of wolf habitat in Washington, but should instead be interpreted as general indicators of areas with appropriate habitat characteristics. The reviewer's comment that Carroll et al. (2006) did not model for source populations in adjoining jurisdictions was addressed by using Carroll (2007), who did consider neighboring populations in his analyses (see new figure 7).

3	page 37-38, subsection "Distribution"	I was disappointed in the lack of discussion of relevant literature in the plan as it relates to habitat availability in WA. Figure 4 on page 38 gives no description of how the Oakleaf et al. 2006 model was modified. Why the probability of occurrence was cut off at the 0.75 level? My guess is that the modification of the model left out significant components that caused much of the state to be "occupiable" at the 0.5 level. Perhaps a far better example in the literature that relates to the state is Larson and Ripple's (2006) figure 4. Combining the Larson and Ripple (2006) information with Oakleaf et al. 2006 shows that the two models largely define similar habitat as potentially suitable where they overlap. Both the Carroll et al. 2006 and the Larson and Ripple (2006) models indicate that there is potentially enough suitable habitat. The Carroll et al. 2006 model indicates that survival of wolves may be problematic in WA. Finally, number of elk and deer in WA suggest that there is ample prey to support the number of wolves identified in the plan. I suggest the state do an analysis similar to Mladenoff and Sickley (1998) by (1) contacting Larson or Ripple to determine the amount of habitat available in the state based on their modeling exercises and (2) combining the available habitat with the state's prey density information and using the model identified in Fuller et al. (2003) to predict the number of wolves that the prey and habitat could theoretically support. Then compare this number with the levels identified in the plan. The difference between the numbers identified by the methods of Mladenoff and Sickley (1998) and those identified in the plan represent the level of reduction based "social carrying capacity." My educated guess is that the plan has dropped a significant level to address social concerns of wolf presence already. These modeling exercises could help to address the concerns identified in Appendix G, particularly relative to human population densities and how they are distributed across	Substantially more information on potential habitat availability for wolves in Washington has been added to chapter 3, section A. Figure 4 has been revised to illustrate a probability of occurrence of 50% or more. This makes the figure comparable with the maps of Larsen and Ripple (2006) and Oakleaf et al. (2006), who also displayed a probability of occurrence of 50% or more. The revised figure shows that a larger amount of Washington is potentially suitable for wolves. The plan is concerned with establishing recovery objectives for the state, which are needed so that wolves eventually can be delisted. The plan makes no attempt to establish Washington's carrying capacity for the species, which is presumed to be higher than the recovery objectives presented in the plan. Eventually, it may be informative to measure carrying capacity, but this is not considered necessary for delisting the species.
3	page 37-38, subsection "Distribution"	I agree generally, if Washington is not interested in translocating wolves into the State from outside sources, maintaining opportunities for natural dispersal into the state is important. If it is the policy of the State to promote wolf recovery, it would be helpful to work with neighboring wolf states and provinces encouraging partnerships to manage for cross-border connectivity between wolf populations.	Statements about working with neighboring states and provinces to manage for cross-boundary connectivity were inserted into chapter 12 under a new task (task 7) regarding connectivity and an existing task (task 10.1) on coordination among agencies and jurisdictions.

3	page 38, fig 4	Deer surveys are incomplete in northeastern Okanogan County, thus actual deer numbers may be under-represented in the model used to create figure 4. Thus, deer abundance may be higher than indicated, making this part of the county more suitable for wolves than suggested by the map.	The model used to create figure 4 did not incorporate deer abundance data for any part of Washington, but instead relied only on elk density as its parameter for wild prey abundance. Thus, the reviewer's concern over incomplete data on deer distribution and abundance does not affect the results of this model. However, because figure 4 does not consider areas with moderate to high deer densities, it probably does not fully depict locations capable of supporting wolves for parts of the year.
3	page 38, figure 4	Caption should be changed to indicate that the map depicts suitable habitat as defined by those lands that exceed a 75% probability of occurrence predicted by Oakleaf et al.	The caption was changed.
3	page 38, line 25	The Isle Royale wolf population should be treated as an example of an extremely inbred population. This sentence should be revised to read "Lack of genetic health might hinder recovery over periods of more than 50 years, ….."	Reference has been added to chapter 3, section A, that several small isolated wolf populations (including the one of Isle Royale) display a lack of genetic variability.
3	page 38, lines 23-25	Two recent papers on Mexican wolves found strong inbreeding effects. Asa et al. (2007) examined sperm morphology and motility in 55 male Mexican wolves and found some individuals to functionally sterile. Fredrickson et al. (2007) found strong inbreeding effects on pup production in the captive and wild populations. For example, among the descendents of F_1 wolves, the odds of failing to produce live pups increased 9.9 times for pairs with mean inbreeding coefficient of 0.1 and 98.5 times for pairs with mean inbreeding coefficient of 0.2. Among those pairings that produced live pups, increases of 0.1 in the inbreeding coefficient of the dam and pups resulted in a mean decrease in litter size of 2.8 pups.	Information from both of these papers, plus several others, has been added to chapter 3, section A, to note the documented impacts of inbreeding.
3	page 38, par 1	Should indicate which other habitat features are missing in the Puget Sound Trough, based on the model parameters.	This information was added.

3	page 38, pars 3, 4	It sounds like your intention is that Washington's wolf population serves as part of a regional wolf population that is genetically viable and long term sustainable, as opposed to a genetically viable population included within Washington's borders. This should be clarified. Either way, we believe you need to at least mention the various viable population model estimates that have been conducted for wolves in the past. While most of these are based on models that include both population and habitat parameters (so they may be different in one state vs another), presenting that body of information as a range of possible viable population values is very appropriate, even while acknowledging that the science for Washington may not be definitive on this issue as of yet. Most analyses for North America vary between about 300 and 550 adult animals (winter count), but some models have suggested viable population numbers outside that range. Present the available science that is out there, while acknowledging that we need more data before attempting such an analysis for Washington. The viable population topic might appear to be optional for a purely management document, but if this document is also to serve as your recovery plan for the species, some level of discussion on viable populations is really mandatory.	Language was added to chapter 3, section A, to indicate that under this conservation and management plan, Washington's wolf population will be managed as part of the broader regional wolf metapopulation comprising Idaho, Montana, British Columbia, Oregon, and Wyoming rather than as a stand-alone population within Washington's borders. Plan now contains the modeling info that we are now aware of pertaining to viable pop size. Information was also added to this same section on viable population estimates for wolves.
3	page 38-39, subsection "Genetic Diversity and Population Viability"	Currently, genetic diversity throughout the Northern Rocky Mtns is very high (Forbes and Boyd 1996, p. 1084; Forbes and Boyd 1997, p. 226; vonHoldt et al. 2008, p. 19). Wolves in northwestern Montana and both the reintroduced populations are as genetically diverse as their source populations in Canada; thus, inadequate genetic diversity is not a wolf conservation issue in the Northern Rocky Mtns at this time (Forbes and Boyd 1997, p. 1089; vonHoldt et al. 2007, p. 19). As a result, there is currently no need for management activities designed to increase genetic diversity anywhere in the Northern Rocky Mtn DPS.	Expanded information on genetic diversity in wolf populations, including the topic covered in this comment, was added to chapter 3, section A.

3	page 38-39, subsection "Genetic Diversity and Population Viability"	While the USFWS questioned many of the assumptions which underpinned the vonHoldt et al. (2008) study's conservation conclusions it may be worthwhile for the WDFW to consider that study and independently determine if any of its conclusions need to be considered in Washington's wolf conservation strategy. Our conclusions were that, while the study found no evidence of genetic exchange into Yellowstone National Park (3,472 sq mi), the Park is only a small portion of the Greater Yellowstone Area (24,600 sq mi). Further limiting the study's ability to detect genetic exchange among subpopulations is the fact that most wolves that disperse to the Greater Yellowstone Area tend to avoid areas with existing resident packs or areas with high wolf densities, such as Yellowstone National Park. Moreover, even among the Yellowstone National Park wolves, the study was limited to a subsample of Park wolves from 1995-2004 (i.e., the radio collared wolves). It is important to consider that our ability to detect genetic exchange within the Northern Rocky Mtn population is further limited by the genetic similarity of the Northern Rocky Mtn subpopulations. Specifically, because both the central Idaho and Greater Yellowstone Area subpopulations originate from a common source, only first generation offspring of a dispersing wolf can be detected. Additional genetic analysis of wolves from throughout the Northern Rocky Mtn population, including a larger portion of the Greater Yellowstone Area than just Yellowstone National Park is ongoing and genetic exchange at the larger scale such exchange appears likely to have occurred.	Expanded information on genetic diversity in wolf populations was added to chapter 3, section A, with greater consideration given to the vonHoldt et al. (2008) paper.
3	page 38-39, subsection "Genetic Diversity and Population Viability"	The USFWS believes that the vonHoldt et al. (2007) prediction of eventual inbreeding in Yellowstone National Park relied upon several unrealistic assumptions. One such assumption limited the wolf population analysis to Yellowstone National Park's (3,472 sq mi) carrying capacity of 170 wolves, instead of the over 300 wolves likely to be managed for in the entire Greater Yellowstone Area (24,600 sq mi) by Montana, Idaho, and Wyoming. The vonHoldt et al. (2008) predictive model also capped the population at the Yellowstone National Park population's winter low point, rather than at higher springtime levels when pups are born. Springtime levels are sometimes double the winter low. I recommend Washington review the vonHoldt study [and their upcoming paper on the entire Northern Rocky Mtn wolf population] and reach its own conclusions as to its relevance to the potential situation in Washington, if any.	Expanded information on genetic diversity in wolf populations was added to chapter 3, section A, with greater consideration given to the vonHoldt et al. (2008) paper. Information from this paper was added to task 3.2 regarding recommendations for conducting translocations so that subsequent genetic problems can be avoided.

3	page 38-39, subsection "Genetic Diversity and Population Viability"	It is the USFWS's determination that even in the highly unlikely event that no new genes entered Yellowstone National Park or the Greater Yellowstone Area in the next 100 years, that the wolf population's current high genetic diversity would be slightly reduced, but not to the point the Greater Yellowstone Area wolf population would be threatened. Review of the scientific literature shows that, throughout the world, truly isolated wolf populations that are far smaller and far less genetically diverse than the Greater Yellowstone Area population have persisted for many decades and even centuries (Fritts and Carbyn 1995, p. 33; Boitani 2003, pp. 322-23, 330-335; Liberg 2005, pp.5-6; 73 FR 10514, February 27, 2008). Additionally, in mate selection, wolves have a strong tendency to avoid inbreeding by selecting breeders based on genetic difference; the vonHoldt et al. (2007) study proved this in Yellowstone National Park. Thus, the predictions by the Vortex model used by vonHoldt et al. (2007) were overly pessimistic regarding the potential effect of theoretical future inbreeding because it ignored the strong outbreeding selection by wolves. Natural wolf mate selection tendencies show that future dispersers into a system experiencing some level of inbreeding would be much more likely to be selected for breeding and have their genes incorporated into the inbred population (Bensch et al. 2006, p. 72; vonHoldt et al. 2007, p. 1; 73 FR 10514, February 27, 2008). Introduction of just one or two new genetic lines can save a severely inbred small wolf population (Vila et al. 2003, p. 9; Liberg et al. 2004; Liberg 2005, pp. 5-6; Mills 2007, pp. 195-196; Fredrickson et al. 2007, p. 2365; 73 FR 10514, February 27, 2008).	Much of this material was incorporated into a revised chapter 3, section A.
3	page 38-39, subsection "Genetic Diversity and Population Viability"	In terms of natural migration, the northwestern Montana and central Idaho core recovery areas are well connected to each other, and to wolf populations in Canada, through regular dispersals. These subpopulations have established genetic and demographic linkages. The Greater Yellowstone Area is the most isolated core recovery area within the NRM DPS (Oakleaf et al. 2006, p. 554; vonHoldt et al. 2007, p. 19). Radio telemetry data indicate that about one wolf per year disperses into the Greater Yellowstone Area from the other recovery areas. However, natural connectivity, solely, is not and has never been required to achieve our recovery goal but recognition of the possible role of migration management in wolf conservation efforts in the Northern Rocky Mtns has been clearly recognized.	Expanded information on connectivity and genetic variability has been added to chapter 3, section A. Although genetic connectivity is not required in the plan's recovery objectives, it is recognized as an important conservation concern for long-term persistence of wolves. Actions associated with this issue have been identified in chapter 12, task 7.

3	page 38-39, subsection "Genetic Diversity and Population Viability"	Human intervention in maintaining recovered populations is necessary for many species and migration management is a well accepted practice (Scott et al. 2005). The 1994 wolf reintroduction environmental impact statement indicated that intensive genetic management might become necessary if any of the sub-populations developed genetic demographic problems (USFWS 1994). The 1994 EIS went on to say that other wolf programs rely upon such agency-managed genetic exchange and that the approach should not be viewed negatively (USFWS 1994). An example of successfully managed genetic exchange in the Northern Rocky Mtn population was the release of 10 wolf pups/yearlings translocated from northwestern Montana to Yellowstone National Park in the spring of 1997 or the relocation of depredating wolves between recovery areas [Bradley et al. 2005]. Future managed genetic exchange could include relocating other wolf age and sex classes, cross-fostering young pups, artificial insemination, or other means of introducing novel wolves or wolf DNA into a recovery area if it were ever to be needed.	This type of management to facilitate broader genetic diversity among any isolated wolf populations demonstrated to occur in the state has been added to chapter 3, section B, subsection "Translocation." This activity would not be expected to be necessary until well into the future when two or more wolf populations exist in the state and one can be shown to be isolated and genetically impoverished.
3	page 38-39, subsection "Genetic Diversity and Population Viability"	Multiple approaches may be taken to facilitate genetic exchange between subpopulations including natural migration or, if necessary, genetic management (moving individual wolves or their genes into the affected population segment). The USWS has never suggested, nor does the Northern Rocky Mtn recovery goal require, that natural migration is the only approach to address this potential issue (USFWS 1994, appendix 9; Bangs 2002). Furthermore, detection of such natural genetic exchange is not required by the recovery goal and would not be practical to require in routine monitoring protocols.	A new task (task 3.6) was added to chapter 12 to cover the translocation of wolves to facilitate genetic exchange, if this activity is found to be desirable for enhancing population viability.

3	page 38-39, subsection "Genetic Diversity and Population Viability"	Applying specific management practices in targeted geographic areas may further encourage successful natural wolf dispersal and natural genetic exchange. Some possible management practices to consider include: reducing the rate of population turnover and fostering persistent wolf packs in all or select core recovery segments or all or select areas of suitable habitat (Oakleaf et al. 2006; 72 FR 106106, Feb 8, 2007); having occasional disruptions of wolf pack structure or some areas of lower wolf density in select areas of suitable habitat to create social vacancies or space for dispersing wolves to fill; maintaining higher rather than lower overall wolf numbers in all or select recovery areas; maintaining more contiguous and broader wolf distribution instead of disjunction and limited breeding pair distribution; minimizing or precluding human-caused wolf mortality between and around core recovery segments during critical wolf dispersal and breeding periods (December to April); and reducing the rates of or eliminating human-caused mortality in core recovery segments during denning and pup rearing periods (April to September).	The last two management recommendations given in this comment were incorporated into chapter 12, task 2.2.1. The other management suggestions given here are probably good ideas, but are beyond the scope of this initial plan, largely because of the lack of knowledge on where wolves will settle in Washington, where core areas will exist, how much connectivity will exist between subpopulations, and how severe and where conflicts will occur. The plan already calls for actions to resolve conflicts, such as lethal control, to be considered on a case-by-case basis and to take into consideration the conservation needs of wolves before the actions are implemented.
3	page 39, figure 5	Work by Oregon State University (Larsen and Ripple 2006) as well as that done by Oakleaf et al (2006) suggests that there is a break in suitable wolf habitat between the South Cascades area and the Northwest Coast area. These two areas are divided by the I-5 corridor that has many roads and high human densities. While wolves have the capability to disperse long distances through unfavorable habitat, mortality is often high, and when wolf densities are low, dispersal alone will likely not be adequate to ensure that the Northwest Coast area is eventually populated (assuming that is your goal). Conducting a GIS analysis of this issue in terms of landscape permeability, somewhat similar to the work done by the U.S. Forest Service for the Cascades and Okanogan region (Singleton et al. 2002) may be informative. If analysis suggests that a low level of permeability exists between these two areas, you might consider separating the South Cascades and the Northwest Coast and making them separate wolf recovery regions. You could still keep the 5 pair goal requirement for the South Cascades, with anything you eventually find in the Northwest counting against the statewide goal.	Three of the four models of potential suitable habitat for wolves now shown in chapter 3, section A, depict a gap in occupiable area between the Southern Cascades and Northwest Coast regions. However, presence of this gap depends in part on the assumptions used in the models. Several of the models considered private lands in general to be less suitable than public lands for wolves, meaning that the private forest lands of southwestern Washington are portrayed as being poorer for wolves than public forest lands. The I-5 corridor and neighboring lands could represent an area of low permeability for wolves. Several peer reveiwers mentioned separating the Southern Cascades and Northwest Coast region into two recovery regions. This option is one of the alternatives presented in the draft environmental impact statement.
3	page 39, par 3	Why are areas of non-habitat (like the Columbia Basin and Puget Trough) included in the recovery regions?	Areas of non-habitat were originally excluded, but the Wolf Working Group asked that they be included to simplify recovery area maps and to count any successful wolf breeding pairs present in them toward the delisting objectives.

3	page 39-40, section, B, numbers and distribution subsection.	While I can understand why the working group wishes to use specific numbers for delisting, and there is precedent from the other wolf management plans around, this will not prove to be useful, any more than it has in any of the other plans.	WDFW originally proposed that specific numbers of wolves or breeding pairs not be included in the conservation/recovery objectives until better data on wolf requirements became available for Washington (see current appendix G). However, this approach was strongly rejected by the Wolf Working Group, who believed that failure to include numbers would hurt public understanding of the wolf plan and leave unresolved the need for having measureable objectives for downlisting and delisting.
3	page 39-40, section, B, numbers and distribution subsection.	The conservation/recovery objectives for wolves to transition from one designation to the next toward delisting needs a scientific carrying capacity analysis to justify the breeding pair recovery objectives numbers relative to the available wolf habitat and migratory/translocation patterns in each recovery area. The status of wolf down-listing to de-listing will be particularly contentious as evidenced by the July 2008 USFWS decision to delist wolves. Moving the plan forward without this analysis will likely introduce a lengthy litigious process at an unacceptably high cost to the state and the WDFW. Without a wolf carrying capacity analysis, the state could adopt a plan that is biologically infeasible, and the state could face an indefinite budget cost of funding the wolf compensation program if wolves can not meet the specified recovery objectives. It will be harder to obtain state funding for the compensation program without a definitive carrying capacity study and timeline to achieve recovery objectives.	The plan is concerned with establishing recovery objectives for Washington, which are needed so that wolves eventually can be delisted. It makes no attempt to establish the state's carrying capacity for wolves, which is presumed to be higher than the recovery objectives presented in the plan based on the amount of potential suitable habitat as illustrated by the four models now shown in chapter 3, section A. Furthermore, no reviewer during peer review suggested that 15 successful breeding pairs was not achievable. Additionally, no data is currently available for determining wolf carrying capacity in Washington. Eventually, it may be informative to measure carrying capacity, but this is not considered necessary for delisting the species. The 15 successful breeding pairs identified in the plan is just a target for delisting where wolves will no longer need intensive conservation management as a listed species. Litigation over the plan is not expected because of the range of values addressed within. Compensation is not related to carrying capacity. As in Idaho, Montana, and Wyoming, compensation will continue to be paid even after delisting occurs.
3	page 39-41, section B, subsection "Numbers and Distribution"	WDFW's initial recommendation about not including specific numbers of wolves in the plan (page 44, lines 15-16) should be reconsidered.	Use of successful breeding pairs is preferred over other units of measurement, such as numbers of wolves or packs, because the term provides a higher level of certainty in assessing reproduction than other measures.

3	page 39-41, section B, subsection "Numbers and Distribution"	You are barely acceptable regarding population structure and size, and on the low end of what is biologically viable. Your plan will then hinge on connectivity to other areas and as written this is not emphasized, just referred to. This has been a huge battle in the Northern Rocky Mountain states and it has been suggested that what was proposed and is here is not enough. This will be one of you main points of controversy. A self-sustaining population is going to be around 500 (no population viability assessment has been done on this, but this is a ballpark). Your population sizes for your various levels of management and listing are way below that, thus everything will hinge on are your wolves connected to other wolf populations.	Chapter 3, section A, has been rewritten to place substantially greater emphasis on connectivity to promote wolf immigration into Washington from neighboring source populations in other states and British Columbia, to promote movement of individuals within Washington, and to promote genetic exchange. A new objective has been added to chapter 12 addressing the need to manage for connectivity (task 7). Language has also been added to task 10.1 to address the need for improved coordination between natural resource agencies, other government and non-government entities, and other states and British Columbia to enhance connectivity for wolves.
3	page 39-41, section B, subsection "Numbers and Distribution"	My main concern stems from the decision to lump the state into three large recovery regions (Figure 5). I agree that the original nine ecoregions were too divided, but by reducing to three, I think you have lumped too much. My main concern stems from combining the Northwest Coast with Southern Cascades. Not only are these areas different ecotypes, there is a lot of habitat in the coast, including within Olympic National Park, which is not specifically addressed. Although wolves are capable of dispersing large distances, there is very little habitat connecting the coast with the southern Cascades. This lack of connection will most likely create a bottleneck: it would be very difficult for a pair of wolves to disperse simultaneously cross the I-5 corridor and through all the development in that region. Consequently, some population recovery objectives (5 wolf pairs in Southern Cascades and Coast region) could be met without any wolves occurring in a significant and still suitable portion of their former range. I suggest that the state be divided into 4 regions: Eastern Washington, Northern Cascades, Southern Cascades, and Northwest Coast, and that the recovery objective be adjusted as follows: 1) Downlisting from state endangered to threatened, 6 successful breeding pairs with no more than 2 in each recovery region; 2) Downlisting from threatened to sensitive, at least 2 successful pairs in each region and 4 anywhere in the state; and 3) Downlisting from sensitive to game animal, at least 2 successful pairs in Northern Cascades, 2 in Eastern Washington, 3 in Southern Cascades and 3 in the Northwest Coast, with 5 anywhere in the state.	Several peer reveiwers mentioned separating the Southern Cascades and Northwest Coast region into two recovery regions. This change was not made, but this is one of the alternatives presented in the draft environmental impact statement. Regarding the issue of wolf dispersal across the I-5 corridor, three of the four habitat models now shown in chapter 3, section A, support the concern that the I-5 corridor could pose a barrier to dispersal.

3	page 39-41, section B, subsection "Numbers and Distribution"	While the tribe generally supports the target numbers listed in the plan for downlisting wolves from state endangered to threatened, it does not support grouping the Southern Cascades and Northwest Coast Regions into a single recovery zone.	Several peer reveiwers mentioned separating the Southern Cascades and Northwest Coast region into two recovery regions. This change was not made, but this is one of the alternatives presented in the draft environmental impact statement.
3	page 39-41, section B, subsection "Numbers and Distribution"	The breeding pair numbers and distribution and criteria for downlisting appear to be the minimum needed to prevent their extinction in the state. The criteria to downlist from endangered to sensitive are tolerable, but the criteria for game status seem just too low. Based upon the average pack size provided in this document (5-10 animals/pack), and minimum of 15-18 packs equals a population range of 75-150 to 90-180 wolves. A hunted-statewide population of just 180 animals is unheard of, even with just a couple permits being offered. I realize the opposition is strong to higher pack numbers and the current numbers are a compromise, but biologically, I feel they are too low. The conservation measures are appropriate to protect them from over-hunting, but hunting a small population will increase the likelihood of relisting. However, the sooner the public feels they have some kind of control over the wolves (hunting), the faster there might be long-term acceptance for their presence in this state.	New information (see new table 3) inserted into chapter 3 suggests that a population with 15 successful breeding pairs could indeed contain as few as 90-180 wolves, although it could range up to as many as 360 wolves. Secondly, as discussed in chapter 3, section C, reclassification to a game animal does not mean that wolves will be immediately hunted. Hunting could be delayed until the population reaches a larger size. Furthermore, like other game species, wolves would be hunted in a sustainable manner that would presumably not threaten the overall population.

3	page 39-41, section B, subsection "Numbers and Distribution"	My opinion is that the number of breeding pairs required for wolves to be downlisted from state endangered to threatened status is insufficient. As defined in this plan, a successful breeding pair may represent minimally a group of only 4 wolves; therefore the downlisting target would reduce the level of protection statewide when the total known wolf population was 24 animals. While the bare minimum number of wolves presented in this scenario might be unrealistically low, when managing endangered species it would be best to allow for such a probability and provide a "buffer." Early in recovery, it would be easy to lose successful breeding pairs through mortality (loss of 1 adult in the first year of a founding pack's tenure would eliminate them from becoming a breeding pair for that year and at least the next year). Because other parts of this plan (chapter 14) use 50/100/200/300 wolves for analyses, I'd suggest equating the 50 wolf population size with successful breeding pairs (4 wolves) in order to determine numbers of successful breeding pairs for downlisting: i.e. 50/4 = 12.5 =12. Distribution of successful breeding pairs, given my recommendation of twelve, should be as follows: five in Northern Cascades; four in Eastern Washington; and three in Southern Cascades and Northwest Coast.	No changes were made in response to the comment. In response to comments by other reviewers, a new table 3 was added to this subsection showing the estimated numbers of wolves that might be present in the Washington population when 6, 12, and 15 successful breeding pairs are achieved. These estimates indicate that somewhat larger numbers of wolves will likely occur in the state at the time of downlisting to threatened status than the estimate provided by this reviewer, although the number may still not be large.
3	page 39-41, section B, subsection "Numbers and Distribution"	My opinion is that the number of breeding pairs required for wolves to be downlisted from state threatened to state sensitive status is insufficient. As defined in this plan, a successful breeding pair may represent minimally a group of only 4 wolves; therefore the downlisting target of 12 breeding pairs could reduce the level of protection statewide when only 48 animals were present. While the bare minimum number of wolves presented in this scenario might be unrealistically low, when managing threatened species it is best to allow for such a probability and provide a "buffer." Early in recovery it would be very easy to lose successful breeding pairs through mortality (loss of 1 adult in the first year of a founding pack's tenure would eliminate them from becoming a breeding pair for that year and at least the next year). I'd suggest increasing my proposed downlisting level to threatened (12 breeding pairs) by 25% in order to achieve downlisting to sensitive: i.e. 12 * 1.25 = 15. Distribution of these pairs, given my recommendation of fifteen, should be as follows: six in Northern Cascades; five in Eastern Washington; and four in Southern Cascades and Northwest Coast.	No changes were made in response to the comment. In response to comments by other reviewers, a new table 3 was added to this subsection showing the estimated numbers of wolves that might be present in the Washington population when 6, 12, and 15 successful breeding pairs are achieved. These estimates indicate that somewhat larger numbers of wolves will likely occur in the state at the time of downlisting to threatened status than the estimate provided by this reviewer, although the number may still not be large.

3	page 39-41, section B, subsection "Numbers and Distribution"	The recommended breeding pair numbers of 6/12/15 are below those generally accepted as necessary for recovery. However, the numbers proposed by the 6 members of the Wolf Working Group are even lower and would undoubtedly have a much higher risk of never achieving long-term viability. Even though the numbers recommended by the report are below typical viability objectives, the distribution requirements significantly add to the likelihood of a recovered population. Of course it all depends on what the management actions are once the listing/delisting objectives are met. If the population does not undergo excessive human caused mortality, the population will continue to grow, even after the low number objectives are met.	The recovery objectives in the draft plan remain 6/12/15.
3	page 39-41, section B, subsection "Numbers and Distribution"	The identified numbers of successful breeding pairs in each wolf recovery area for 3 consecutive years may be difficult to achieve without significant translocation efforts. This is due to the habitat suitability map which suggests a low probability of success for individual dispersing wolves to survive long enough to be found by another disperser of the opposite sex in a new location and the pair surviving long enough to successfully produce pups. The level of management intensity (and possibly a sustained one at that) likely to be needed is closer to the Mexican Wolf Recovery Program and WDFW may want to consult with those colleagues. Otherwise, the wolf population will likely remain as a state endangered/threatened species for an extended period. While that may not be problematic in the big picture, management strategies to address wolf-livestock conflicts, wolf-ungulate interactions, human safety, etc, will need to be flexible and adequate to sustain local public acceptance in areas having wolves while wolves “recover” in the other areas. Some lethal control will likely be necessary, as relocation of depredating wolves would not occur. Careful management of agency-related mortality will be required. Alternatively, WDFW may consider not requiring certain numbers of breeding pairs to be in each of the three recovery areas prior to a downlisting (i.e., relax the distributional requirement that specific numbers of breeding pairs need to be present in all three prior to a status review). Or WDFW may consider not requiring the minimums be achieved for 3 consecutive years (i.e., relax the requirement to 2 out of 3 years).	The new maps showing potential suitable habitat for wolves in Washington (added to chapter 3, section A) suggest that wolves may be able to disperse more easily through parts of Washington than indicated in the previous draft of the plan. Nevertheless, the option for conducting translocation is an important part of the plan if wolves fail to reestablish on their own in one or more recovery regions. Relaxation of conservation/recovery objectives will not be considered while this version of the plan remains in effect, but could occur under a future version of the plan if wolf managers believe this will benefit the species.

3	page 39-41, subsection "Numbers and Distribution"	I suggest running a population viability analysis (PVA) to explore whether the proposed numbers of breeding pairs is defensible rather than relying completely on negotiations between the conservation and livestock/hunting communities. A PVA can be initiated using the computer program VORTEX to explore the question. I've used this program before and it is pretty user friendly. Alternatively, the plan could rely on the prior analysis by the USFW prior to wolf reintroduction in Idaho and Wyoming. They stated that 10 breeding pairs maintained for 3 years in each state was sufficient when the population is integrated into a larger metapopulation with neighboring states.	A remark was added to chapter 3, section B, subsection "Numbers and Distribution," that a formal population viability analysis (PVA) could be employed in the future to refine and update the plan's conservation/recovery objectives. The PVA could use data collected from the Washington's recolonizing wolf population to make its projections.
3	page 39-41, subsection "Numbers and Distribution"	A population of 15 breeding pairs in Washington will likely still be dependant on immigration from outside the state for long-term genetic viability. If WDFW follows the original USFWS guidelines, then at least 10 breeding pairs for 3 years, with connectivity to neighboring populations, are needed for recovery in Washington. A population of 15 breeding pairs will likely still be dependant on immigration from outside the state for long-term genetic viability. If one follows the original USFWS guidelines, then it looks like at least 10 breeding pairs for 3 years with, connectivity to neighboring populations. This quote from the federal register as cited by the minority report states " The EIS indicated that the 1987 recovery goal was, at best, a minimum recovery goal, and that modifications were warranted on the basis of more recent information about wolf distribution, connectivity, and numbers. This review concluded that, at a minimum, the recovery goal should be, ``Thirty or more breeding pairs comprising some 300+ wolves in a metapopulation (a population that exists as partially isolated sets of subpopulations) with genetic exchange between subpopulations should have a high probability of long-term persistence" (USFWS 1994, pp. 6:75). There would have to be documented genetic exchange between the Cascades and eastern WA before a lower number of breeding pairs than 15 could be deemed viable, unless a recent PVA proved otherwise.	The plan now calls for Washington's wolf population to be managed as part of the broader regional wolf metapopulation comprising Idaho, Montana, British Columbia, Oregon, and Wyoming rather than as a stand-alone population within Washington's borders. To accomplish this, Chapter 3, section A, has been rewritten to place substantially greater emphasis on connectivity to promote wolf immigration into Washington from neighboring source populations in other states and British Columbia, to promote movement of individuals within Washington, and to promote genetic exchange. A new objective has been added to chapter 12 addressing the need to manage for connectivity (task 7). Language has also been added to task 10.1 to address the need for improved coordination between natural resource agencies, other government and non-government entities, and other states and provinces to enhance connectivity for wolves.

3	page 39-41, subsection "Numbers and Distribution"	It is great that you include a definition for viable, but I wonder as written if it will be difficult to uphold in court when WDFW tries to delist. As you are aware, the USFWS was sued over their ability to show gene flow among the recovered population in Idaho, Montana, and Wyoming. It is one thing to monitor size and distribution over time, but how much thought has been given to "genetic variation over time" (pg. 60…lines 28-30)? Can we accurately track heterozygosity over time? Also, what is long-term viability? Is it 50 years, 100 years, 200 years? Has someone run a population viability analysis for wolves somewhere else? And, if so what are the assumptions of the model? Are they relevant to Washington? I think WDFW is walking on thin ice if it uses terms like viability and genetic variation unless they are explicitly defined as they relate to the management of wolves in Washington.	Genetic variation within wolf populations has been tracked at several locations (Yellowstone, Scandinavia) and could be done in Washington in the future. Task 11.2 in chapter 12 calls for genetic relationships and variation within the Washington population to be monitored Population viability analyses (PVA) have been done for several wolf populations. However, because of the many differences in habitat quality, prey availability, human densities, and perhaps other important factors among populations and the lack of specific wolf data for Washington, a PVA is unlikely to provide meaningful results for Washington at this time.
3	page 39-41, subsection "Numbers and Distribution"	Does this mean a viable population in just WA, or does this include packs or pairs in neighboring states or provinces? If you are considering viability at the state level, then the numbers you propose for downlisting and delisting are considerably off. Based on what is written on page 36…lines 11-29, at least 30 breeding pairs are needed to ensure long-term viability. I think this point should be made clearer.	The plan now more clearly calls for Washington's wolf population to be managed as part of the broader regional wolf metapopulation comprising Idaho, Montana, British Columbia, Oregon, and Wyoming rather than as a stand-alone population within Washington's borders. As such, it would not be necessary for Washington to have 30 successful breeding pairs of wolves to achieve long-term viability.
3	page 39-41, subsection "Numbers and Distribution"	A big issue is how to determine when specific numbers of packs are present. This will be highly controversial, and likely will be minimum estimates at best, and the uncertainty is always an issue. The figures will always be questioned and are subject to litigation.	The monitoring level called for in the plan should be adequate for counting the number of successful breeding pairs in Washington and for determining when downlisting and delisting thresholds have been met. Wolf population sizes determined through similar levels of monitoring in Idaho, Montana, and Wyoming have not been subject to litigation.
3	page 39-41, subsection "Numbers and Distribution"	It is difficult for me to comment on the adequacy of population objectives and recovery triggers identified in the plan as I am not familiar with wolf habitats in Washington. From a pure population standpoint, my perception is a population consisting of 15 breeding pairs existing in a relatively managed landscape would be a bare minimum for viability and would probably require intensive management to insure continued persistence. Whether Washington could support a population above the 15 breeding pair level is another question, but certainly maintaining a population above the 15 breeding pair level would afford more management flexibility and would be more cost-effective.	The plan now more clearly calls for Washington's wolf population to be managed as part of the broader regional wolf metapopulation comprising Idaho, Montana, British Columbia, Oregon, and Wyoming rather than as a stand-alone population within Washington's borders. This should help ensure the long-term viability of a wolf population in Washington after delisting occurs at 15 successful breeding pairs.

3	page 39-41, subsection "Numbers and Distribution"	I support the concept a few larger rather than many smaller wolf management zones. Delineation of the 3 wolf recovery regions as outlined in the plan appears appropriate. Ideally, management zones should be delineated based on similarities in habitat, land use, land ownership, prey base, and levels and type(s) of anticipated conflicts.	Several peer reveiwers suggested separating the Southern Cascades and Northwest Coast region into two recovery regions. This change was not made, but this is one of the alternatives presented in the draft environmental impact statement.
3	page 39-41, subsection "Numbers and Distribution"	The state definition of recovering a species in a significant portion of its range can be relatively subjective. In my opinion, maintaining a viable wolf population in Washington that is not threatened with extirpation within the foreseeable future does not require the presence of breeding wolf pairs in all three-recovery zones. This is certainly desirable from a long-term wildlife management perspective, but is not necessary to meet the definition for “recovery”. The eastern zone alone is probably biologically “significant” and the establishment of a viable population there is enough to result in a long term, sustainable wolf population into the future, largely because of the direct interconnection with Idaho and British Columbia populations. I recommend the presence of breeding pairs in two zones, which should be relatively easy to achieve given the current status of a breeding pair in the northern Cascade zone and that the eastern zone is likely to support the most significant recolonization levels as they come in from Idaho.	WDFW believes that wolves must be present in certain minimum numbers (expressed in successful breeding pairs) in at least three recovery regions for a specified length of time to meet the legal requirement for recovery across a significant portion of the species' original range in the state. No single recovery region likely holds enough habitat to support a viable wolf population and would not constitute a significant portion of the range within the state.

3	page 39-41, subsection "Numbers and Distribution"	Legal protection for wolves whether they are listed as endangered or in the protected categories (threatened and sensitive) or classified as a game species revolves around how they may be killed and by whom. All of these categories provide protection, are based on population management objectives, and are subject to Fish and Wildlife Commission consideration, public process, and final approval. I recommend going directly from threatened to game status because: a) of the overlapping protections and consistent penalties for killing protected species or killing game species out of season (they are all a gross misdemeanor), and how quickly wolf populations increase once the endangered threshold has been crossed (minimum of 16% increase per year increase), b) the length of time required (minimum of 1-2 years) for the public process to make the classification change from threatened to game should easily result in surpassing population objectives for down listing from threatened to sensitive and then to reclassification as game, c) it will reduce the number of status reports (staff time and expense) and public reviews required to make a change, and 4) reclassifying to game status does not mean that wolves are not subject to careful consideration of management needs to preserve, protect, and perpetuate the population. The Sensitive classification only means that the population level is vulnerable and needs cooperative management or removal of threats. Classification as a game animal means that wildlife may only be hunted by rule of the Commission, which addresses (removes) the main threat for wolves.	Standard procedure for delisting a state endangered species in Washington is to downlist it first to threatened and then to sensitive as its population recovers. However, if population recovery occurs rapidly, then it may be appropriate to skip one or more of the intermediate classifications. The recommendation here to go directly from threatened to delisted status would likely not withstand public scrutiny, unless wolf numbers were large enough to justifiably support the process (see statement in chapter 3, section B, subsection "Numbers and Distribution," which addresses this situation). Additionally, it should be noted that legal protection and management of state listed species revolves around achieving certain levels of recovery and addressing threats; decisions to manage a species on the basis of reducing the amount of staff time and reports prepared by natural resource agencies are not a consideration.
3	page 39-41, subsection "Numbers and Distribution"	The recovery goals to move from state endangered to threatened to sensitive to delisted are modest given wolf biology. However, in light of permanent habitat modifications imposed by human settlement, human population density, and the current land ownership/and use patterns, they are reasonable and pragmatic. Given an adequate food supply, which will likely include some livestock depredation, and adequate regulation of human-caused mortality, these goals should result in a self-sustaining population. Despite the level of genetic heterozygosity that seems to be inherent in the species, I encourage WDFW to consider all relevant principles of conservation biology (e.g., patch size, founder effects, etc) since wolf subpopulations in each of the three Washington recovery zones will likely be small.	Chapter 3, section A, has been rewritten and now includes considerably more information conservation principles such as connectivity, genetic viability, and potential habitat suitability. Increased emphasis on connectivity will promote wolf immigration into Washington from neighboring source populations in other states and British Columbia, promote movement of individuals within Washington, and promote genetic exchange. Several new tasks have been added to chapter 12 addressing the need to manage for connectivity (task 7) and the possible need to use translocation as a genetic management tool (task 3.6). Activities associated with these and other tasks should help ensure the long-term viability of a wolf population in Washington after delisting occurs.

3	page 39-41, subsection "Numbers and Distribution"	It is important to be realistic that not all packs of four or more wolves will meet the criteria of a “breeding pair” as defined in the Washington Plan. As such, more packs will be required to achieve recovery goals that based on breeding pairs. That packs of four or more do not meet the breeding pair standard can be the result of unpredictable stochastic or environmental events (e.g. vehicle strike kills a breeding adult, disease outbreak results in poor pup survival, the pack didn’t den despite the presence of two adults of opposite sex) or the result of an intentional human act (illegal killing or lethal control to resolve a conflict with livestock). Furthermore, the Montana experience is that even well-established packs (i.e. those that have been around for a few years) do not meet the breeding pair criteria consistently year after year. In some years, about 40% of Montana’s packs of 4 or more do not qualify as a breeding pair. In and of itself, the disparity should not be an issue. But it can mean that additional “packs” are required to meet the recovery goals for three consecutive areas in any one of the wolf recovery regions. And additional packs can result in more frequent conflicts. It could also mean that additional packs could harbor additional dispersers that could lead to new packs forming either within an existing recovery area or in a different recovery area.	Examination of data from Idaho, Montana, and Wyoming shows that more packs than breeding pairs are often present in wolf populations, especially as population size increases. A new paragraph has been added to chapter 3, section B, that estimates the number of wolves that may be present in Washington at the time that 6, 12, and 15 successful breeding pairs of wolves are present. These estimates take into consideration that some packs will be present that do not meet the definition of successful breeding pairs.
3	page 39-41, subsection "Numbers and Distribution"	The current WDFW target numbers and distribution for reclassification in Washington appear adequate. They are largely consistent with the minimum state wolf management goals [at least 15 breeding pairs and 150 wolves per state] for Montana, Idaho, and Wyoming. In addition, no wolf population in recent history in the world has gone extinct at such levels unless it was deliberately extirpated by people. The combination of successful wolf breeding pairs, state-wide distribution, human-assisted migration management, not capping the wolf population at artificially low levels, and initiating relocations to assist in early genetic and demographic diversity are consistent with sound scientific biological and conservation principles.	No response was necessary.

3	page 39-41, subsection "Numbers and Distribution"	I recommend adding an estimation of the numbers of wolves expected to be present in the population for each level of successful breeding pairs. The Northern Rocky Mtns region uses 10 animals per breeding pair, but wolf packs that live largely on deer tend to have fewer members on average. In theory a successful breeding pair could represent only 4 wolves, while in the Northern Rocky Mtns a successful breeding pair has typically contains about 14 wolves. Clarifying the numbers of wolves will help the public know exactly what numbers of wolves are being managed for. Uncertainly almost always invites unnecessary controversy and speculation about management intent.	This information was added to this subsection.
3	page 39-41, subsection "Numbers and Distribution"	The goal of only two successful breeding pairs each in the Northern Cascades and Eastern Washington recovery regions appears modest, but might be difficult to maintain given the limited and highly fragmented nature of suitable wolf habitat in those areas. At only two breeding pairs per region and because neither region appears to have any large unfragmented areas of suitable habitat to provide core refugia, careful attention should be paid to allowable levels of human-caused mortality to avoid constantly delisting and relisting these population segments under Washington law. All wildlife populations have natural fluctuations and a wolf population segment with only two breeding pairs could be quite susceptible to going to zero in a short period of time. This might be part of the reality of having wolf packs in those areas of Washington [especially given the relatively low levels of and highly fragmented natural of suitable wolf habitat in those areas] and would not threaten the overall viability of Washington's wolf population. However, the wolf plan should be clear that occasional migration management is a likely result of its modest recovery objectives and distribution of suitable habitat in the state, and that natural dispersal is unlikely to solely fulfill the long-term maintenance of Washington's wolf population. Although unlikely, I would suggest more discussion of the biological issues relating to the wolf recovery goals and clearly explain that migration management will be used if and when any concerns relating to wolf population demographics or genetics arise.	Although the Northern Cascades and Eastern Washington recovery regions contain more fragmented habitat than Idaho, Montana, and Wyoming, they nevertheless hold substantial amounts of potentially suitable habitat for wolves, as shown in the four habitat modeling maps that now appear in chapter 3, section A. Based on these maps, both regions should be able to support more than 2 pairs. This should reduce concerns about populations in these regions hovering at or near the objectives for downlisting and delisting, thereby possibly causing a need to delist and relist the species multiple times as numbers fluctuate. More information was added to task 2.2.1 regarding steps that can be taken to avoid excessive lethal control. Considerably more information has been added to chapter 3, section A, regarding the science behind conservation planning, and the plan includes a new task (3.6) in chapter 12 for conducting, if necessary, occasional translocations of individual wolves for genetic management of wolf populations in the state.

3	page 39-41, subsection "Numbers and Distribution"	The numbers of breeding pairs proposed for downlisting wolves in Washington to game animal status (15) would be marginally acceptable, dependent on management, if this represented a panmictic population or at least a subdivided, but well-connected population. But given that these 15 breeding pairs are to be split among three recovery regions with potentially weak connectivity among and within regions, it is likely that the numbers for the Southern Cascades and Northwest Coast recovery region would be insufficient for the statewide population to be deemed “permanently viable” as defined by the plan. It should be noted that Judge Molloy recently upheld that for the Northern Rocky Mountain Region a metapopulation formed by three populations each having at least 15 breeding pairs and genetic interchange among all populations would need to be met for federal delisting. In this case, each of the three subpopulations is panmictic or nearly so.	The presence of multiple isolated wolf populations in Washington would present a challenge in managing the species. To overcome this potential problem, the revised version of the wolf plan places greater emphasis on managing habitat connectivity to benefit genetic exchange among wolf populations within Washington as well as with those outside the state. Also, the plan now includes a new task (3.6) in chapter 12 for conducting, if necessary, occasional translocations of individual wolves within the state to improve the genetic diversity of isolated populations.

3	page 39-41, subsection "Numbers and Distribution"	I suggest that WDFW include among its criteria for delisting to game animal status that the statewide wolf population be maintained at a genetically effective population size (N_e) of at least 50 that also meets the distributional minimums presented in the plan. An effective population size of 50 would limit the loss of heterozygosity at neutral loci and the rate of increase of inbreeding to 1% per generation in the absence of genetically effective immigration from outside the state. This would also be roughly equivalent to the minimum demographic requirements for delisting in the each of the three states in the Northern Rocky Mountains region (NRM), but without the condition of genetic interchange with adjacent core populations. VonHoldt et al. (2007) estimated the ratio of effective to census population size (N_e / N) to be about 0.30 for the wolves in Yellowstone National Park using pedigree data. Aspi et al. (2006) estimated an N_e / N of 0.42 based on microsatellite data and coalescent models for Finnish wolves. Although the conditions for wolves in Washington likely will not mirror either of these situations exactly, the estimate by VonHoldt et al. (2007) is more likely to reflect conditions in Washington, at least for individual subpopulations. For a single panmictic population, this would suggest a census population size of about 167 wolves, or very roughly 17 breeding pairs, may be sufficient to provide an N_e of around 50. If one used the estimate by Aspi et al. (2006) this would suggest a census population size of around 119. When a population is subdivided, however, the effective size of the overall population is likely to be less than that for a non-subdivided population of similar census size (Wang and Caballero 1999). If there is poor connectivity between the component subpopulations, the effective size of a subdivided population may be much less than that for a similar sized (N) population that is not subdivided, or one that has substantial levels of genetic interchange among subpopulations	Brief mention of effective population size as it relates to wolves has been added to chapter 3, section A. The current delisting criteria of 15 successful breeding pairs used in the plan is close to the 17 breeding pairs needed for an isolated population as suggested by this reviewer. The plan includes much additional discussion on the importance of maintaining connectivity among subpopulations of wolves in Washington and includes a new task in chapter 12 (task 7) for enhancing habitat connectivity within the state and with neighboring jurisdictions to benefit wolves. The plan also states now that the long-term viability of the Washington's wolf population will, in part, be dependent on maintaining adequate connectivity to the broader regional wolf metapopulation comprising Idaho, Montana, British Columbia, and Oregon.
3	page 39-41, subsection "Numbers and Distribution"	Although the southern Cascades plus the northern portion of the Colockum area may be able to support 17 breeding pairs, maintaining substantial populations in the Willapa Hills and the Olympic Peninsula would allow a much greater level of certainty that an effective size of 50 would be maintained over time. It would also allow much greater management flexibility to address wolf-livestock conflicts, manage deer and elk populations, and in supporting legal harvests of wolves.	The presence of additional successful breeding pairs of wolves in areas little discussed in the plan (e.g., the Olympic Peninsula and Willapa Hills) would provide a higher likelihood of maintaining an effective population size in Washington over time.

3	page 39-41, subsection "Numbers and Distribution"	In short, I think it is unlikely that a population of 15 breeding pairs, distributed as stated in the plan would be permanently viable as defined in the plan. In addition, a “significant portion of the species’ historical range” may lack wolves. But given the state’s intent to manage for a cushion of wolves to prevent the need for relisting, and the state’s intent to manage for a harvestable surplus of wolves it is reasonably possible that a viable population of wolves would be maintained in Washington, including maintaining an effective population size of 50 or more. Actions that would increase the likelihood of establishing and maintaining a viable population in Washington include: 1) establishing substantial populations of wolves in the Willapa Hills and the Olympic Peninsula as well as the southern Cascades; and 2) facilitating bidirectional movement of wolves between the southern Cascades and the two coastal populations.	As stated in chapter 3, section B, the 15 successful breeding pairs required for delisting the wolf population is not a cap at which the population will be managed. WDFW does not anticipate that the population will remain at this size and that it will grow to some larger undetermined size that would improve long-term viability.
3	page 39-41, subsection "Numbers and Distribution"; page 44, lines 27-32	I understand the reasoning behind this proposal, but it is biologically nonsensical and will become a source of expensive litigation. Washington could learn a bit from what has happened in the three states where wolves were reintroduced. The Idaho Fish and Game Commission over-rode recommendations of the biologists and decided to harvest more wolves when delisted than were recommended. Wyoming insisted on designating the wolf a predator and having unlimited killing over most of the state. Problems about connectivity between recovery areas persisted. The New York Times and other news outlets took due notice of these actions and a federal judge decided that the management of wolves by these states was inadequate to delist. And the criteria for delisting wolves based on numbers of packs has been far exceeded and is now irrelevant. While an in-state working group naturally pays attention to the in-state constituencies it represents, this draft plan will be reviewed by an international audience. Designating numbers of packs for different stages of classification as this plan does will continue the pattern that the other states used, most probably with the same consequences. Far better to use the original recommendation of WDFW biologists.	As stated in the revised plan (chapter 3, section B, paragraph 1), reestablishment of a large predator that will likely cause conflicts with segments of the public requires the use of conservation/recovery objectives that are both biologically and socially acceptable. For this reason, WDFW convened the Wolf Working Group to provide recommendations on recovering and managing wolves in Washington. The many conservation and management recommendations appearing in the plan come not just from the WWG, but also from a combination of other sources including current scientific knowledge about wolves in other locations, general wildlife conservation principles, and input from scientific peer review. As wolves resettle in Washington and more information becomes available on their biology, distribution, interactions with humans, and other appropriate topics reflecting population viability, this information will be available to refine and update the conservation/recovery objectives appearing in the plan (chapter 3, section B).
3	page 39-44, sections B, C	In general, the incremental, 4-step approach to delisting wolves in Washington, accounting for minimum numbers and distribution, appears sound.	No response was necessary.

3	page 40	The USFWS believes that population trend and distribution within suitable habitat are the most important factors in assessing the welfare of wolves in Washington over time. At this time we agree that it is difficult to identify the numbers to use for state reclassification for downlisting the gray wolf from endangered to threatened, from threatened to sensitive, and delisting from sensitive to game animal status. We are still in the process of evaluating what numbers may be appropriate and are not prepared to take a position at this time.	No response was necessary.
3	page 40	One thing not clear and should probably be spelled out in the recovery objectives section is how many wolves do the delisting and delisting objectives represent in terms of overall numbers of animals. I think readers will be left wondering how many total wolves are being managing for under the various trigger points for delisting.	This information was added to section B.
3	page 40, last paragraph	Move paragraph forward in this section.	This change was made.
3	page 40, line 19, 28	It's unclear to me how this works. Are these "wildcards" to be counted toward any of the three zones? These "anywhere" breeding pairs need to be better explained.	The language about "wildcard" successful breeding pairs was clarified to specifically state that they can be distributed in any of the three recovery regions.
3	page 40, line 19, 28	Are these successful breeding pairs in addition to those called for in each recovery region? Could all of these breeding pairs be located in one recovery region?	No changes were made in response to this comment. We consider the statements to be sufficiently self-explanatory. All of these additional breeding pairs could be located in one recovery region and still meet the downlisting or delisting goals called for here.
3	page 40, line 30	It is unclear if the 18 breeding pairs can be located anywhere in the state. Also, I think this would be clearer if the “18 without a 3-year requirement” were placed in a fifth bullet under condition 3. It could read, “ Or, when 18 successful breeding pairs are documented anywhere in the state in any given year”.	Information about the distribution requirements of the 18 breeding pairs was added. Although 18 breeding pairs would most likely be recorded after 15 pairs had been reached first, it is conceivable that numbers could jump from a smaller number to 18 in a single year. Thus, the 18 breeding pair remark should stand alone and was not placed under heading 3 on this page.

3	page 40, line 4-28	It is evident that much thought and discussion went toward these recovery objectives. At face value, the 6-12-15 breeding pair formula for downlisting and delisting seems simple. However, the application of specific and relatively small numbers (e.g., 2) of breeding pairs for each zone adds significant management complication. Page 38, L9-10, states that future distribution cannot be predicted, and I agree. To an extent, wolves will determine suitable habitats which allow them to persist. Therefore, does the plan acknowledge that 6 breeding pairs might occur and persist in a particular zone before the minimum number is reached in the other two zones? If so, would this meet the distribution criteria for delisting (page 37, L9-10)? To add flexibility, it might be wise to separate recovery objectives from management objectives (e.g., WDFW would still pursue translocation to other zones as a population management practice, but if 6 BP's are in a particular zone(s) and doing well, consider downlisting). I understand that this concept depends on agreements made by the WWG as well as Washington ESA law.	For downlisting from endangered to threatened to occur, the plan requires that 2 successful breeding pairs of wolves must be present in both the Eastern Washington and Northern Cascades recovery regions as well as 2 successful breeding pairs in the Southern Cascades/Northwest Coast recovery region, for a total of 6 pairs. If all 6 pairs were located in a single region, this would not meet the downlisting requirements set forth in the plan. This means that in reality more than 6 breeding pairs may be present in the state before downlisting to threatened can occur. This situation similarly exists with the numbers needed for downlisting to sensitive and to delisted status. The distributional requirements included in the plan are necessary so that the legal requirements for recovering listed species to a significant portion of their historical distributions (under WAC 232-12-297) can be met.
3	page 40, line 4-28	This part of the plan should mention connectivity with British Columbia as a way for overcoming the low numbers of successful breeding pairs called for in this section.	Greater emphasis on maintaining population connectivity with neighboring states and British Columbia has been added to this chapter.
3	page 40, numbered sentences 1, 2, and 3	The word "documented" should be inserted in front of "successful breeding pair" in each bullet to indicate that breeding success will be determined by specific protocols.	This information was added instead to a paragraph inserted in front of these sentences.
3	page 40, numbered sentences 2, 3	I read this to mean that for this criteria to be met there would be 6 breeding pairs that would have existed for 6 consecutive years. In other words you can't skip from endangered to sensitive in three years if 12 pairs existed for three years. Similarly you could not go from endangered to delisted game animal status in three years if 15 pairs were successful for 3 consecutive years.	The current wording does not prevent skipping one or more listed stages (e.g., going directly from endangered to sensitive), if all the recovery criteria are met.
3	page 40-41	It would be helpful to present an estimate, probably a range of numbers, of the total number of wolves that would be expected when we have 6, 12, and 15 successful breeding pairs of wolves. This could be extrapolated from work done in other states and would help to display that the number of breeding pairs usually only represents a smaller part of the total wolf population.	This information has been added to chapter 3, section B, subsection "Numbers and Distribution."

3	page 40-41	The numbers presented as conservation/recovery objectives should be explicitly presented as numbers derived through a collaborative process and are not biological estimates of a viable or sustainable population for wolves. Biological models of population viability/sustainability would likely result in much higher numbers of wolves, especially considering the level of human caused mortality that may occur. The plan should include a section that discusses how the conservation/recovery objectives meet the overall objective of a “viable wolf population”. It may be prudent to discuss how a set of “socially acceptable” conservation/recovery objectives is important at this stage in the recovery process in order to promote “social tolerance” of wolves in Washington.	A new opening paragraph in chapter 3, section B, subsection "Numbers and Distribution," better describes how the plan's conservation/recovery objectives were derived and states that the objectives represent an effort to be both biologically and socially acceptable. Additional information on the Wolf Working Group discussions held on this subject appear in current appendix G. This clearly shows that the objectives were identified mainly through a collaborative process and do not represent strict biological estimates of a viable or sustainable population for wolves for the state.
3	page 40-41	There seems to be a disconnect in the "Numbers" discussion on page 36 concerning the U.S. Fish and Wildlife Service (FWS) assessment of what a self-sustaining population of wolves would be (30 or more breeding pairs comprising some 300+ wolves in a metapopulation) and the numbers that were identified in the draft Washington plan. In the "Numbers" section, the document discusses that conclusion, then the paragraph ends with a quote from the FWS saying that experts strongly supported the 30 pair/300 wolves metapopulation approach, AND also concluded that viability was enhanced by higher (500 or more wolves) rather than lower population levels (300). What we didn't see was any tie back to that conclusion in the rationale for why the pair numbers were selected for the WA plan. What is the assumed metapopulation that the WA wolves will be part of, and what is the Washington contribution? There is reference to wolves dispersing into WA from Idaho and Montana, but no specifics on assumed numbers that ties the plan into the 30 pair/300 wolves metapopulation for viability. There needs to be stronger rationale on how the recovery objectives were identified given what the FWS concluded was needed for viability.	The USFWS and Wisconsin recovery goals have been included in the plan to give readers background information on the number of wolves thought to be needed in a self-sustaining isolated population. WDFW acknowledges that its recovery objectives with the associated time and distribution requirements are lower than those presented for these other populations, but the wolf plan now recognizes Washington's wolf population must be connected to adjacent populations in Idaho, British Columbia, and Oregon to be self-sustaining. The plan has been edited to more clearly indicate that its conservation/recovery objectives are based on negotiations within the Wolf Working Group and other factors, but we believe these are acceptable because of the distribution and reproductive requirements that have been included.

3	page 41, par 2	I believe this provision significantly increases the risk of having to relist because populations were managed/controlled too soon, before they can really establish on the landscape. By requiring the population to step through the different status stages, the ability of a population to exist on a landscape over time is strengthened. If you wanted a system that would allow a species to skip a step (or two), then you might have to go to 6 years of success. Three years seems too short to establish a footing on the landscape.	The intent of the conservation/recovery objectives presented in chapter 3, section B, is to achieve a stepwise downlisting and delisting process (i.e., from endangered to threatened to sensitive to delisted status). However, the plan contains a provision that allows one or more steps to be skipped in the event of rapid recovery, as long as all other recovery conservation/recovery criteria have been met. Skipping recovery stages could present a short-term risk for maintaining the wolf population. However, the growth of the population is anticipated to be slow, especially in reaching the distribution goals set forth, which will give wolves ample time to establish on the landscape.
3	page 41, subsection "Conservation Tools"	More management tools than listed here must exist in addition to translocation, relocation, and relisting. For example, what about dealing with problem animals, mistaken identity with coyote hunters, research, prey and habitat distribution, etc. You should refer to subsequent sections about other tools and simply mention that they are important tools while wolves remain listed.	Additional conservation tools have been listed in the introductory paragraph of this subsection, with reference given to the chapters in which each is discussed.
3	page 41, subsection "Conservation Tools"	It seems that acquisition or protection of corridor habitat should be the primary conservation tool to allow for wolf dispersal and re-establishment.	This recommendation has been included in the revised introductory paragraph of this subsection.
3	page 41, subsection "Conservation Tools"	This section appears incomplete. It addresses only translocation, relocation, and relisting, but fails to mention the tools at the heart of the recovery effort, i.e. protecting wolves from mortality and disturbance, monitoring, and providing a prey base. This section should either be expanded or referenced to the complete discussion of conservation actions described in chapter 12.	Additional conservation tools have been listed in the introductory paragraph of this subsection, with reference given to the chapters in which each is discussed.

3	page 41-42, subsection "Translocation of Wolves"	I feel that translocation can be an excellent tool and appears well supported as a conservation tool, but it will be difficult to implement. I feel the plan doesn't go far enough in describing the process. For example, when will translocation be initiated and what process will occur prior to translocation? How much agreement must there be in local regions prior to translocation? It sounds likes the working group negotiated a variety of topics on a give-and-take basis, but I feel that translocation may not be a functional tool. There should be threshold levels. If the Northern Cascades Recovery Region builds to 8 packs, will translocation be initiated? How is the decision to initiate translocation determined? Once WDFW starts the translocation process, what hoops will have to be gone through? If local interests block the process, will it be seen as translocation being removed as a management tool? Will the Working Group be reconvened, or will we simply say we tried? Since there is already consensus amongst the Working Group for translocation, then the group should go further in defining when this will be initiated and what the process will be to ensure translocation is a functional tool.	Additional information has been added to this subsection regarding the planning process for conducting translocation. Cross reference to chapter 12, task 3, is given to alert readers that greater detail on the process is provided there. Improved information on the threshold level for conducting the translocation has been added. This indicates that wolves will not be captured and removed from a recovery region until the region has exceeded the target population objectives for delisting and that removal of wolves would not cause the region's population to fall below those objectives. Translocation for establishing a new wolf population will go through a public review process under SEPA or NEPA. Under this process, important public issues and concerns would be identified and used to help with decision making.
3	page 41-42, subsection "Translocation of Wolves"	We applaud the plan for including the management option of translocation of wolves. This management tool can be used to reduce wolf-livestock conflicts and to meet the recovery/ conservation objectives. Wolf populations in eastern Washington to a large extent are and in the near future will continue to be dependent on dispersal from Idaho and British Columbia. If Washington is to have a long term sustainable population of its own, it is critical that populations become established to some extent in the North and particularly the South Cascades. As mentioned, the South Cascades has large blocks of public land and a large percentage of the state's elk population. For the South Cascades, in particular, having translocation as an available tool is critical. We do offer some suggestions however for improving the effectiveness of a translocation program. First, this section needs to provide a stronger emphasis on coordination with the land management agencies (especially the Forest Service) that manage the lands that wolves would be translocated to. The plan should provide criteria for when translocation would be considered, the characteristics of the sites, identify sites ahead of time, and coordination with the appropriate land management agency.	Additional information has been added to this subsection regarding the planning process for conducting translocation. Cross reference to chapter 12, task 3, is given to alert readers that greater detail on the process is presented there. In both locations of the plan, close coordination with other appropriate agencies, tribes, non-governmental groups, and landowners is now mentioned. Improved information on the threshold level for conducting a translocation has been added. This indicates that wolves will not be captured and removed from a recovery region until the region has exceeded the target population objectives for delisting and that removal of wolves would not cause the region's population to fall below those objectives. Information on the identity and characteristics of translocation sites cannot be provided until they have been determined during the feasibility and implementation planning process.

3	page 41-42, subsection "Translocation of Wolves"	I do not think translocation is necessary. You have examples in Alberta, BC, Montana, and Idaho showing that wolves recolonize areas where they were extirpated fairly rapidly. Washington is now the front line of this expansion and we can expect fairly rapid expansion over the next decade. I see no reason to hurry the process. A slow recovery may make it easier for your department and the agricultural community to change their methods in response to wolves.	Translocation is presented mainly as a tool for helping reestablish wolves if natural dispersal proves inadequate in Washington. Because of questions about habitat connectivity, it is difficult to predict whether natural dispersal alone will lead to the recovery of wolves in the state. Translocation received broad support by the Wolf Working Group for several reasons, as noted in this subsection.
3	page 41-42, subsection "Translocation of Wolves"	If translocations prove necessary, would WDFW translocate individual animals or siblings, or pre-selected unrelated individuals from different packs? Translocating animals from a small population within the state poses some significant technical issues (e.g., site suitability; identification, selection, and survival of translocated animals; genetic founder effects; hard vs. soft release) that may be underestimated.	Details on translocation, such as those asked by this reviewer, will be determined at a later time and described in the implementation plan identified in chapter 12, task 3.2. It is not necessary to include this level of detail in the conservation and management plan.
3	page 41-42, subsection "Translocation of Wolves"	The draft plan's provision for translocating wolves appears to be biologically sound, but the procedural and logistical details need to be better described.	Additional information has been added to this subsection regarding the processes involved in conducting translocation. Cross reference to chapter 12, task 3, is given to alert readers that greater detail appears there. However, detailed information on techniques, logistics, and identity of translocation sites is beyond the scope of this plan. This type of information will be provided in the feasibility and implementation plans to be prepared in the future.
3	page 41-42, subsection "Translocation of Wolves"	Translocation of wolves to enhance recovery in other recovery areas is a good idea. However, what are the triggers for this? Currently the plan does not say under what conditions this tool would be implemented.	Improved information on when translocation will be conducted has been added. This indicates that translocation will not be implemented unless wolves fail to successfully disperse into one or more recovery regions, but exceed their delisting objectives in at least one recovery region. Captures and removals from the source region must not cause the region's population to fall below delisting objectives.

3	page 41-42, subsection "Translocation of Wolves"	Is social carrying capacity a consideration when deciding when translocations are appropriate. With 35–45% of the ungulate winter range on public land in the Blue Mtns, we may approach a social carrying capacity prior to an actual biological carrying capacity. Identifying the trigger points of when translocations occur might be useful, although I understand why a general statement like this could be valuable. Also, can a translocation be triggered by changing distributions of ungulate populations from public land onto private lands, where damage claims can cost the agency large sums of money? Many of the public land winter ranges for elk are directly adjacent to private lands, which is where elk could potentially move to with an increasing wolf predation risk. I am just thinking of “tools” to have if something occurs down the road. Relocation would work as long as habitat is available on public lands.	Translocation will only be conducted to accomplish the plan's conservation/recovery objectives, which call for translocation to be used for establishing new populations in recovery regions that wolves have failed to reach through natural dispersal, for augmenting small wolf populations, or for increasing the genetic diversity of isolated wolf populations.
3	page 41-42, subsection "Translocation of Wolves"	The draft plan states “Translocation…to unoccupied areas will be initiated in a timely manner.” However, “a timely manner” is not defined and no timeline is provided for deciding whether translocation is warranted.	As previously described, the decision on whether or not to conduct translocation will depend on whether monitoring results show that wolves are successfully expanding into at least three of the recovery regions. If translocation is needed, the plan now states that it cannot be conducted until wolves have exceeded the target population objectives for delisting in at least one recovery region, which will then be used as the source region(s) for the translocation. Wolf removals from the source region(s) must not jeopardize its own wolf population (i.e., cause it to fall below delisting objectives).
3	page 41-42, subsection "Translocation of Wolves"	Reducing the number of recovery regions could simplify decisions regarding wolf translocation efforts should they be necessary. Under the proposed strategy, managers could be faced with a scenario of deciding which of two remaining recovery regions would receive translocated wolves first. With only two recovery regions in the state, such a translocation decision would not be necessary.	If faced with this scenario, the feasibility assessment/implementation plan (see chapter 12, task 3.2) will provide mangers with the science-based information needed for deciding which of the recovery regions would be best for receiving wolves during the translocation.

3	page 41-42, subsection "Translocation of Wolves"	Translocation, as described, is expected to play an important role in achieving recovery objectives. Page 94, line 25-27, states the Wolf Working Group considers translocation a “key tool” for meeting plan objectives. The plan does a good job of describing the theory behind initiating translocation. However, the need for further planning efforts before translocation can occur is troubling. If the required planning effort is delayed or cannot be resolved, wolf recovery objectives related to distribution may be difficult to achieve. Planning for translocation while wolves are increasing and expanding their range in the state could be very challenging. Public perceptions of wolves may be very different than they are today. It would be helpful if more specific translocation areas could be identified. This subject needs further work, with some discussion of what happens if further planning hampers translocation efforts.	Additional information has been added to this subsection regarding the processes involved in planning and conducting translocation. Cross reference to chapter 12, task 3, is given to alert readers that greater detail appears there. However, detailed information on techniques, logistics, and identity of translocation sites is beyond the scope of this plan. This type of information will be provided in the feasibility and implementation plans to be prepared in the future. Planning for translocation will start only after it is apparent that natural dispersal into one or more of the recovery regions has failed and numbers of breeding pairs in the remaining region have exceeded the target population objectives for delisting so that removal of wolves does not cause the region’s population to fall below those objectives. Because of changing natural and anthropogenic conditions, it is premature to plan for translocation until a proven need exists. Under the scenario given by this reviewer (i.e., that wolves are increasing and expanding their range in the state), translocation would not be necessary.
3	page 41-42, subsection "Translocation of Wolves"	Our agency's experience with translocations has been mixed. In the early days, we moved wolves in Montana when they first killed livestock. When released, they took off like rockets in all directions and usually got into trouble again. Translocations are very expensive and very labor intensive. Our results were not that encouraging. Having said that, we also established wolves in central Idaho by translocating wolves from Canada. That reintroduction worked quite well. I would consider translocating wolves, but I would seriously consider release sites, age of the wolf, prey availability, proximity to people and livestock, etc. You might want to consider soft releases in more remote areas, rather than just hard releases.	The types of detailed considerations for planning a translocation mentioned by this reviewer will be carefully examined in the feasibility assesssment/implementation plan mentioned in both chapter 12, task 3.2, and in a new paragraph added to chapter 3, section B, subsection "Translocation of Wolves."
3	page 41-42, subsection "Translocation of Wolves"	Once healthy populations are established in a zone or geographic area, dispersal has not been an issue in the Northern Rocky Mountain recovery area and is not expected to be an issue in Washington. The only reason translocation was such a significant issue for many members of the Working Group was to more quickly achieve delisting criteria and increase flexibility in management of problem wolves. Wolf advocates like the objective because it results in expanded distribution of wolves.	No response was necessary.

3	page 41-42, subsection "Translocation of Wolves"	I believe that occasional migration management [human-assisted as in relocations] is likely to be necessary to maintain genetic diversity and population demographics in the Northern Cascades and the Southern Cascades and Northwest Coast recovery regions if the wolf numbers in those can only be maintained at minimal levels because of conflicts with humans and fragmented suitable habitat. The distribution of suitable wolf habitat in Washington suggests that the Eastern Washington recovery region will be routinely visited by dispersing wolves from Idaho and Montana and future migration management into that area will almost certainly not be necessary. However, the large block of unsuitable habitat in central Washington will likely preclude significant natural dispersal into the western parts of Washington and migration management will be required. Because any population arising in that area will likely naturally start from a very limited number of naturally dispersing migrants, it is probably advantageous to initiate migration management into those areas, as was done in central Idaho, Yellowstone National Park, and northwestern Montana (Bangs and Fritts 1996; Bradley et al 2005). This should be done as soon as practical to start the population with high genetic diversity initially.	Occasional translocation of individual wolves to increase the genetic diversity of isolated wolf populations (referred to as human-assisted migration management by this reviewer) has been added to the plan (see chapter 3, section B, subsection "Translocation of Wolves"; chapter 12, task 3.6).
3	page 41-42, subsection "Translocation of Wolves"	Once natural recolonization has led to pair formation in eastern Washington and the northern Cascades, wolves or wolf pairs should be translocated to the southern Cascades. This should occur expeditiously, even if this means reducing the populations in the source regions below two breeding pairs. In addition, serious consideration should be given to translocating a limited number of wolves or wolf pairs from populations in Montana, Idaho, and/or Oregon at this time. The goal would be to establish a diverse founding population of unrelated wolves and facilitate a rapid increase in population numbers. This process could be repeated for the Willapa Hills and the Olympic Peninsula regions once the southern Cascades population has increased to 10-15 breeding pairs and natural recolonization leading to pair formation occurs in these areas.	The subsection on translocation in chapter 3, section B, has been changed to state that natural dispersal and recolonization of wolves may be slow or difficult for both the southern Cascade Mountain range and the Olympic Peninsula/Willapa Hills, thus both regions may receive consideration as recipient sites for translocations. Inclusion of the Olympic Peninsula/Willapa Hills is based on commentary provided by peer reviewers. As stated in chapter 1,reintroduction of wolves from other states into Washington will not be considered. Under current circumstances, Washington's founding wolf population is expected to have a high level of genetic diversity (see chapter 3, section A).

3	page 41-42, subsection "Translocation of Wolves"	Impacts to livestock producers, as noted in the plan, can be significant for individual producers. I suggest that the livestock producers concerns could be alleviated (and the 15 pairs maintained) if more emphasis was placed on locating the majority of breeding pairs to the Olympic coast (Clallam, Jefferson, Grays Harbor and Mason counties) where significant amounts of suitable habitat exist while total numbers of cattle are very low (=21,000 – Table 10) and national forestlands do not contain grazing allotments (Table 12). Furthermore, as the recent Beschta and Ripple publication reports, the extended period of time without wolf predation in the Olympics could have had negative impacts to riparian areas and salmon survival.	The subsection on translocation in chapter 3, section B, has been changed to state that natural dispersal and recolonization of wolves may be slow or difficult for the Olympic Peninsula/Willapa Hills, implying that the region could receive consideration as a recipient site for translocations. This addition is based on commentary provided by peer reviewers. Although Beschta and Ripple (2008) reported that the absence of wolves has had negative ecological impacts on parts of the Olympia Peninsula, further commentary from the National Park Service during peer review suggests that additional research is needed to confirm these impacts.
3	page 41-42, subsection "Translocation of Wolves"	Wolves play an important historical role for our tribe, and we would like to see them reestablished on the Olympic Peninsula before they are stripped of state protection, even if recovery goals are met elsewhere in the state. We understand that natural recolonization of wolves to the Olympic Peninsula is unlikely, and that translocation, while currently not under consideration, might be the only viable means for restoring them to the Northwest Coast. We strongly support translocation to this area should the option ever arise. We believe that ecosystems are complete only when they contain a full compliment of native species. Reestablishment of wolves throughout Washington, including the Olympic Peninsula, will help restore ecosystem functioning by reestablishing an important carnivore and restoring historical predator-prey relationships.	The subsection on translocation in chapter 3, section B, has been changed to state that natural dispersal and recolonization of wolves may be slow or difficult for the Olympic Peninsula/Willapa Hills, implying that the region could receive consideration as a recipient site for translocations. This addition is based on commentary provided by peer reviewers. Although Beschta and Ripple (2008) reported that the absence of wolves has had negative ecological impacts on parts of the Olympia Peninsula, further commentary from the National Park Service during peer review suggests that additional research is needed to confirm these impacts.
3	page 41-42, subsection "Translocation of Wolves"	I agree with the ability to translocate wolves within the state to meet distribution criteria and lessen wolves impact in E. Washington, but I think any attempt will meet strong local opposition. I hope that if translocation does indeed occur, that both anti-wolf and pro-wolf groups will stand beside WDFW to make it work. I hope translocation can be avoided, for the simple fact that it becomes the government putting wolves in peoples' backyards, rather than the current situation of wolves coming in on their own, where no one can be blamed.	All aspects of translocation, including site selection, will be evaluated in the feasibility assessment/implementation plan (chapter 12, task 3.2) and will be strongly science-based. Human and livestock densities, which affect wolf survival, will be part of the analyses conducted to select a translocation site. The translocation proposal will go through public review under either SEPA or NEPA, where important public issues and concerns will be identified and used to help with decision making.

3	page 41-42, subsection "Translocation of Wolves"	Translocation is a useful tool but fraught with political complications. Once you translocate or relocate wolves, much of the public will believe that is the way wolves originally got into the state. Michigan still suffers from such rumors because of a translocation of 4 wolves in 1974. I see no major impediments to wolf dispersal in Washington. Wolves from Minnesota, Wisconsin, and Michigan have dispersed to Missouri, Illinois, and Indiana, and possibly New York State. Translocation should be used sparingly if at all.	All aspects of translocation, including site selection, will be evaluated in the feasibility assessment/implementation plan (chapter 12, task 3.2) and will be strongly science-based. Human and livestock densities, which affect wolf survival, will be part of the analyses conducted to select a translocation site. The translocation proposal will go through public review under either SEPA or NEPA, where important public issues and concerns will be identified and used to help with decision making.
3	page 41-42, subsection "Translocation of Wolves"	Any translocation of wolves will take place in the face of local opposition. Does WDFW feel it will be able to move forward with translocations in the face of this opposition?	All aspects of translocation, including site selection, will be evaluated in the feasibility assessment/implementation plan (chapter 12, task 3.2) and will be strongly science-based. Human and livestock densities, which affect wolf survival, will be part of the analyses conducted to select a translocation site. The translocation proposal will go through public review under either SEPA or NEPA, where important public issues and concerns will be identified and used to help with decision making.
3	page 41-42, subsection "Translocation of Wolves"	While the Working Group likes the idea of translocation, I'm not sure how well this will go with the local general public, cattlemen, or sheep ranchers. There seem to be conflicts within the plan. The South Cascades were identified for potential translocation, yet there are statements about avoiding areas with domestic grazing. The majority of land identified in the plan in the Yakima area as potential wolf habitat has sheep or cattle grazing. The process outlined seems fair and I assume there would be public meetings involved. If there is a public meeting and strong local opposition, do we still translocate?	All aspects of translocation, including site selection, will be evaluated in the feasibility assessment/implementation plan (chapter 12, task 3.2) and will be strongly science-based. Human and livestock densities, which affect wolf survival, will be part of the analyses conducted to select a translocation site. The translocation proposal will go through public review under either SEPA or NEPA, where important public issues and concerns will be identified and used to help with decision making.
3	page 41-42, subsection "Translocation of Wolves", pages 46-47, subsection "Translocation"	Description of the translocation effort presented on pages 41-42 is clouded by the discussion of the Wolf Working Group's deliberations regarding translocation on pages 46-47.	The Wolf Working Group's discussion on conservation/recovery objectives (chapter 3, section D) has been moved to current appendix G, in part to reduce confusion among some readers over how some of the group's discussions fit into the final version of the plan.

3	page 41-42, subsection "Translocation of Wolves"; pages 46-47, subsection "Translocation"	There is contradictory language in the plan regarding the role(s) of translocation. On page 42, lines 3-4 it states "…[translocation] will be implemented only for areas that wolves have failed to reach through natural dispersal." But on pages 46-47, it is stated "Translocation was proposed as a tool if wolves were not naturally dispersing into regions needed for recovery, or if it was desired to move wolves from regions that had already achieved conservation / recovery objectives to other regions that had not yet met their objectives" (page 46, lines 20-22). This suggests the working group proposed using translocation not just for initial recolonization but also to facilitate the growth of populations in areas that had already been colonized by natural dispersal. If the second statement is simply reporting on the discussions of the Working Group, and the previous statement represents the intent of the plan, then the document needs to be restructured throughout to make clear the distinctions between the plan and the discussions of the Working Group. In any case, the potential role(s) of translocations, the circumstances under which it will be used, and perhaps the triggers for translocation need to be made clear. But under either scenario, it appears that the role(s) for translocation currently envisioned are inadequate and need to be expanded (see below).	The role of translocation in the plan has been expanded somewhat to read as follows: "the objectives of translocation under this plan are to establish new populations in recovery regions that wolves have failed to reach through natural dispersal, augment small populations, or increase the genetic diversity of isolated populations" (see chapter 3, section B, subsection "Translocation of Wolves"). This broader explanation of the circumstances under which translocation can be used should address the concerns stated by this reviewer.

3	page 41-42, subsection "Translocation of Wolves"; pages 94-95, task 3	I believe that the translocation section is adequate. However, the determination that wolves can not be translocated if they have depredated is problematic. Many packs of wolves in Montana, Idaho, and Wyoming are initially discovered due to a depredation. This immediately places these packs in the “can not translocate” category. Available habitat is the key to successful translocation and the primary reason that translocations in Idaho were more successful than Montana or Wyoming (Bangs et al. 1998). In an establishing population, it is easy to envision a case where wolves following a depredation can be translocated to areas less prone to conflict and succeed despite their previous transgressions. The Mexican wolf project noted that on average wolves translocated with some depredation history, depredated less and were more likely to breed and reproduce in the wild relative to other animals (AMOC and IFT 2005; TC-15, TC-21). Translocation of wolves may be an appropriate management technique to reduce depredations in an area, while still meeting the recovery criteria outlined in the plan. In addition, these animals can be successful in areas with reduced levels of cattle or sheep. Translocation of wolves should be evaluated similar to lethal control aspects of the plan (on a case by case basis).	This comment appears to mix the intentions of translocation and relocation, as defined under the Washington plan. Relocation is one of the tools available for resolving wolf-livestock conflicts, especially depredation, or other problem situations. Relocation will involve only one or a few wolves, which will be released in "suitable remote habitat on public land, generally within the same recovery region." By contrast, translocation will be used for initiating a new wolf population in a new recovery area, augmenting small populations, or increasing the genetic diversity of isolated populations. Translocation for establishing a new wolf population will involve a larger number of wolves. Based on this reviewer's comment and further consideration, the requirement that depredating wolves can not be translocated was removed from the plan so that individuals with a sporadic history of depredation might be considered. Selection of individual wolves to be moved during a translocation will be done on a case-specific basis.
3	page 41-42, subsection "Translocation of Wolves"; pages 94-95, task 3	One aspect of the translocation plan not addressed is the potential translocation of wolves from an area that is delisted (per Fish and Wildlife Service) to an area that is listed as endangered. Pending the rules that are established on a national level, this may or may not be appropriate for Washington. A significant component of the public may not want these translocations to occur unless wolves can be managed in the endangered area in a similar fashion to the delisted area in Washington based on federal permits. Thus, some caveat within the plan should suggest translocations will not occur unless the Service has authorized take in these areas to occur in the fashion outlined within the plan.	WDFW does not have primary management authority over wolves in areas where the species remains federally listed (i.e., this wolf plan would not be in effect), thus wolves translocated to a federally listed area of the state will be managed by the USFWS. An effort to translocate wolves from a federally delisted location to a federally listed location would necessarily require close coordination among WDFW, USFWS, and any appropriate land management agencies, as already indicated in the plan (chapter 3, section B, subsection "Translocation of Wolves"; chapter 12, task 3). Any translocation proposal will go through public review under either SEPA or NEPA, where important public issues and concerns will be identified and used to help with decision making. Because wolves would be moved to a location where the species was still federally listed, federal wolf managers ultimately would be responsible for determining the best responses for addressing conflicts involving translocated wolves. It is unknown whether they would follow the same management options described in the Washington wolf plan.

3	page 42, bullet 1	If there are natural impediments to dispersal, how will genetic integrity be maintained over time. Will translocations be necessary every few years? Or is it thought that there will be enough dispersal across these impediments once the population objectives are met to meet gene flow needs?	Connectivity of potential translocation sites to other locations with wolves will be one of the factors considered in the translocation feasibility assessment called for in chapter 12, task 3.2. If a translocated wolf population proves to be isolated, then occasional subsequent translocation of individual wolves may be necessary to increase the genetic diversity of the population (chapter 3, section B, subsection "Translocation of Wolves"; chapter 12, task 3.6).
3	page 42, line 17	I don't understand how wolves could reach carrying capacity, whatever that might be, and not produce dispersers that could eventually find suitable areas. This statement seems problematical to me and should be left out.	Reasons for not expanding into new areas might include mortality from illegal hunting in those areas or poor habitat connectivity between recovery areas. This statement was not removed.
3	page 42, lines 3-4	Rather than saying "If translocation is determined necessary…", I suggest the plan identify when translocation would occur, assuming completion of the NEPA or SEPA process. My suggestion is that once the Northern Cascades or Eastern Washington regions arrive at 4 breeding pairs (double the minimum cited for delisting) then packs in excess of those 4 will be targeted for translocation.	Additional information was added to this subsection regarding the processes involved in planning and conducting translocation (also see chapter 12, task 3, for greater detail), with the phrase "If translocation is determined necessary…" removed. Determining if translocation should occur will start only after it is apparent that natural dispersal into one or more of the recovery regions has failed and numbers of breeding pairs in the remaining region have exceeded the target population objectives for delisting so that removal of wolves does not cause the region's population to fall below those objectives. Because of changing natural and anthropogenic conditions over time, it is premature to plan for translocation until a proven need exists. New language added to the plan resembles the recommendation given by this reviewer, but does not specify the numbers of breeding pairs needed in a recovery region to allow removals for translocation to occur. However, the recommendation to have more than twice the number of successful breeding pairs in a recovery region before translocation begins merits further discussion. As suggested in this comment, the presence of a sizable buffer in breeding pairs above the plan's objectives is needed. This type of planning will be addressed in the feasibility assessment mentioned in chapter 12, task 3.
3	page 42, par 1	If natural dispersal fails to occur due to a lack of corridors, translocating wolves to unoccupied areas could create a dispersal problem for that group of animals – and potentially wolf/human conflict.	As described in chapter 12, task 3.2, a feasibility assessment will be made before any translocation is conducted. Such a study would identify areas best suited for receiving wolves and would consider many factors, including habitat availability and configuration at potential recipient sites. Sites with poor connectivity may be given lower priority for translocation. However, the ability to occasionally translocate individual wolves to promote genetic exchange may alleviate some of the concern over reestablishing a population in an isolated but otherwise well-suited location.

3	page 42, subsection "Relocation of Wolves"	Do you mean proactively relocate a wolf in a pre-emptive way to an area farther away from livestock before livestock are killed where it was initially captured? You may also be suggesting that relocation could serve as some type of aversive conditioning tool? As a "proactive" tool, relocation does not seem to be that helpful given the travel capability of the animal, that the wolf would only be moved to the nearest suitable remote habitat and Washington does not have much large, remote habitat to begin with and especially given wolf biology, wolves are social carnivores and defend space against other wolves (should have pre-determined whether there are any resident wolves at the release site?), they have shown a tendency to go back to where they came from when relocated in the earlier years of Northern Rocky Mtn recovery efforts, and there is always the potential for conflict at the release site (whether real and perceived, the result is the same for the managing agency). Hard release vs. soft release experience in the northern Rockies recovery program may help the Department gauge potential outcomes. Relocation, if not used for the purpose of facilitating dispersal, would seem a tool of least likelihood of success. May want to keep it in the box, but it should be given low marks for potential efficacy and high marks for the intensive level of management it requires and the potential controversy.	Additional information on relocation was placed in the plan, both in this subsection and in chapter 4, section B. As pointed out in this comment, relocation has a number of drawbacks (see Bradley et al. 2005) that should be considered before it is used. These concerns have been added to the plan, along with information stating that relocations are probably most suitable as a management tool during the early stages of wolf recovery.
3	page 42, subsection "Relocation of Wolves"	Relocating wolves is also useful but carries the same type of political risk as translocation. In addition, if relocated wolves depredate in the release area, the state can be blamed for causing the depredations. Relocation should be used sparingly if at all.	Relocation would be used in situations where success would be most likely, based on the experiences of relocating wolves in other states (e.g., see Bradley et al. 2005).
3	page 42, subsection "Relocation of Wolves"	The final plan should better describe how "relocation" would be done. The draft notes the difference between relocation and translocation (page 42). However, it is not clear whether relocation will be restricted to those areas where wolves are already established, or if wolves may be relocated to areas currently unoccupied.	Relocation is not a tool for establishing new populations of wolves, although some wolves could be released in unoccupied areas. The emphasis will be to relocate a wolf in suitable habitat on public land nearby, generally within the same recovery region. This clarification was added to the text.
3	page 42, subsection "Relocation of Wolves"	Relocation is a very problematic issue in Oregon and as written in the Oregon plan. I think the more flexible language (i.e., "suitable habitat...") in this draft is excellent and I recommend not changing it.	No response was necessary.

3	page 42, subsection "Relocation of Wolves"	I like the idea of relocating wolves as opposed to removal. However, I am concerned with the costs/benefits of relocating. The amount of time and effort required to trap a wolf can be extensive. Is WDFW willing to dedicate that time, especially if the duty falls upon officers or district biologists, who already have a full plate? The other issue is will the animal be released into occupied versus unoccupied habitat (i.e., what are its chances of survival if released where a pack already exists)?	As called for in the plan, relocations would be done mainly by a wolf specialist rather than district biologists or law enforcement officers. Relocation is not a tool for establishing new populations of wolves, although some wolves could be released in unoccupied areas. The emphasis will be to relocate a wolf in suitable habitat on public land nearby, generally within the same recovery region. These clarifications were added to the text.
3	page 42, subsection "Relocation of Wolves"	Relocation is a good tool for aiding wolf recovery. Because relocation “is not used to facilitate dispersal,” does this mean that wolves would only be relocated within the recovery area where they pose a potential threat? Would depredating wolves be candidates for relocation in order to “immediately resolve a localized conflict?” Finally, it might not be a good idea to relocate “a wolf caught in a trap set for another species,” as this could separate a potential breeding pair or otherwise disrupt wolf sociality, therefore hindering recovery.	Relocation is not a tool for establishing new populations of wolves, although some wolves could be released in unoccupied areas. The emphasis will be to relocate a wolf in suitable habitat on public land nearby, generally within the same recovery region. These clarifications were added to the text. Although it is illegal to use body-gripping traps in Washington, if a wolf was accidentally trapped this way, it would likely be released on-site or as close as possible.
3	page 42, subsection "Relocation of Wolves"	Relocation to the “nearest suitable remote habitat” probably is not the best place to move a wolf to if it is a concern to human safety/pets. Also, the “nearest suitable remote habitat” might already be occupied by other wolves (your subsequent qualifiers provide some clarification).	Clarifications on relocation have been added to this subsection. Wolves will not be relocated to a site within an existing pack's territory. The term "nearest suitable remote habitat" was replaced with "suitable remote habitat." By definition, the "suitable remote habitat" for relocated wolves would rarely, if ever, include locations where human safety might regularly be threatened.
3	page 43, line 26-27	Define intensive monitoring. How is this different from normal monitoring?	The paragraph was substantially revised, with the sentence referring to "intensive monitoring" removed.
3	page 43, line 37	"Healthy" should be defined as including having long-term stability.	This information was added.
3	page 43, subsection "Relisting"	Relisting is obviously warranted as a management option should the wolf population undergo “a rapid decline below the minimum population objective” for whatever reason(s). However, at what point does WDFW determine to increase monitoring efforts for a gradual decline; 10% above the minimum objective, 20%?	This subsection has been revised, with much of the language regarding monitoring removed. Monitoring strategies after delisting will need to be designed for detecting changes in wolf abundance, including both slow and rapid declines. Such strategies will also determine when monitoring should begin.
3	page 43, subsection "Relisting"	I would suggest stronger, more proactive language regarding relisting triggers than is currently in the plan, especially realizing how long it has taken to establish the fist wolf pack in the State since extirpation.	This subsection has been revised.
3	page 43, subsection "Relisting"	This subsection should be deleted.	This subsection has been revised. However, relisting is an important protective measure in WDFW's management of a declining species that once again qualifies as endangered, threatened, or sensitive under state law.

3	page 43-44, section C	Wolf harvest focused in areas of highest wolf-livestock conflict may also be those with poor connectivity with other populations in Washington (e.g. northeastern Washington and the Okanagan). Although focusing wolf harvest in these areas makes sense on several levels, it may also reduce immigration from Montana, Idaho, and British Columbia. This is one more reason for ensuring that genetically diverse and demographically robust populations are established and maintained in the southern Cascades, Willapa Hills, and the Olympic Peninsula.	This is one of a number of issues that will need to be considered in any future proposals to hunt wolves in Washington.
3	page 43-44, section C	The USFWS supports WDFW's approach to transition wolf harvest management to a general hunting season. A more aggressive approach to wolf harvest, as proposed by Idaho, Montana, and Wyoming in 2007-2008, was challenged by wolf protection groups.	After further consideration, the plan no longer recommends in chapter 3, section C, that wolves be reclassified as a "game animal" after being delisted, pending approval by the Washington Fish and Wildlife Commission. Instead, the plan takes a more neutral position and simply says that wolves could be reclassified as a game species or remain a nongame species upon delisting.
3	page 43-44, section C	Again this is a political decision. A well-established large population of wolves can sustain a high rate of harvest; animal rights groups will constantly protest. Small wolf populations can be overharvested, so harvest rates would have to be carefully regulated.	No response was necessary.
3	page 43-44, section C	I agree with game animal status after delisting occurs. However, the draft is very vague as to possible harvest strategies, and the triggers that might be used to determine if and where harvest is used. Recognizing that the Game Management Plan would have to be revised to include wolf management, it still seems wise to include some more specific parameters and strategies that could be used in the future. One premise of any plan is that it gives people an idea of what to expect in the future, and this might be easier if some harvest/management strategy agreements could be reached with the Wolf Working Group.	The purpose of the plan is to recover and manage wolves while they are a listed species in Washington. The plan is vague on hunting and other post-delisting management of wolves because this will be determined in the future through other public processes. After further consideration, the plan no longer recommends in chapter 3, section C, that wolves be reclassified as a "game animal" after being delisted, pending approval by the Washington Fish and Wildlife Commission. Instead, the plan takes a more neutral position and simply says that wolves could be reclassified as a game species or remain a nongame species upon delisting. The plan continues to present information on the hunting of wolves and states that if hunting is proposed, conservative approaches would likely be followed early on to ensure that adequate population numbers are being maintained.
3	page 43-44, section C	Classification of wolves as a game species after delisting is a good idea and consistent with other states.	After further consideration, the plan no longer recommends in chapter 3, section C, that wolves be reclassified as a "game animal" after being delisted, pending approval by the Washington Fish and Wildlife Commission. Instead, the plan takes a more neutral position and simply says that wolves could be reclassified as a game species or remain a nongame species upon delisting.

3	page 43-44, section C	A statewide population with just a few hundred animals is too small to be hunted, as might occur after wolves are delisted and become a game animal, even if just a couple permits are offered. I agree that someday a wolf permit will be highly prized among the trophy hunters and this will lead to a level of wolf acceptance from that group. Hunting timing and application can take many forms. Permit numbers should be variable to account for wolf numbers and existing level of legal control and poaching.	After further consideration, the plan no longer recommends in chapter 3, section C, that wolves be reclassified as a "game animal" after being delisted, pending approval by the Washington Fish and Wildlife Commission. Instead, the plan takes a more neutral position and simply says that wolves could be reclassified as a game species or remain a nongame species upon delisting. The plan continues to present information on the hunting of wolves and states that if hunting is proposed, conservative approaches would likely be followed to ensure that adequate population numbers are maintained. As discussed, reclassification as a game animal does not imply that wolves will be immediately hunted. Hunting could be delayed until the population reaches a larger size and might never occur if the population fails to reaches an appropriate size.
3	page 43-44, section C	Classification of wolves as a game species following delisting, given the provisions currently outlined in the plan, specifically the notion that any proposed harvest would not be intended as a wolf population “cap,” and that no harvest, statewide or in select areas, remains an option.	After further consideration, the plan no longer recommends in chapter 3, section C, that wolves be reclassified as a "game animal" after being delisted, pending approval by the Washington Fish and Wildlife Commission. Instead, the plan takes a more neutral position and simply says that wolves could be reclassified as a game species or remain a nongame species upon delisting.
3	page 43-44, section C	Game animal status potentially could be achieved at a minimum of just 60 wolves (15 breeding pairs if each has only 4 members). This is insufficient to even consider hunting.	After further consideration, the plan no longer recommends in chapter 3, section C, that wolves be reclassified as a "game animal" after being delisted, pending approval by the Washington Fish and Wildlife Commission. Instead, the plan takes a more neutral position and simply says that wolves could be reclassified as a game species or remain a nongame species upon delisting. The plan continues to present information on the hunting of wolves and states that if hunting is proposed, conservative approaches would likely be followed to ensure that adequate population numbers are maintained. As discussed, reclassification as a game animal does not imply that wolves will be immediately hunted. Hunting could be delayed until the population reaches a larger size and might never occur if the population fails to reaches an appropriate size. Also, a population with 15 successful breeding pairs will very likely hold more wolves than suggested by this reviewer, as projected in the new table 3.
3	page 43-44, section C	Any harvest should keep in mind numbers of successful breeding pairs, genetic flow (connectivity), the 75% of general public in favor of wolf recovery, wolf-livestock concerns, wolf-ungulate concerns in that order.	These types of issues would indeed be considered in the review process conducted under the agency's Game Management Plan, which would evaluate whether wolves should be hunted given the population size at that time, and if so, where, when, and at what level hunting would occur.

3	page 43-44, section C	The concept of hunting wolves after delisting should be encouraged from the beginning of your program. Hunting is a legitimate management tool and will be very useful to control wolf populations (as well as minimizing livestock depredations) and will gain credibility with the hunting community. Wolves will benefit in the long run from this approach.	After further consideration, the plan no longer recommends in chapter 3, section C, that wolves be reclassified as a "game animal" after being delisted, pending approval by the Washington Fish and Wildlife Commission. Instead, the plan takes a more neutral position and simply says that wolves could be reclassified as a game species or remain a nongame species upon delisting. The plan continues to present information on the hunting of wolves and states that if hunting is proposed, conservative approaches would likely be followed to ensure that adequate population numbers are maintained.
3	page 43-44, section C	I agree, at least initially, that conservative controlled hunt or limited entry permit harvest strategies should be employed until wolf response to human harvest can be evaluated.	After further consideration, the plan no longer recommends in chapter 3, section C, that wolves be reclassified as a "game animal" after being delisted, pending approval by the Washington Fish and Wildlife Commission. Instead, the plan takes a more neutral position and simply says that wolves could be reclassified as a game species or remain a nongame species upon delisting. The plan continues to present information on the hunting of wolves and states that if hunting is proposed, conservative approaches would likely be followed to ensure that adequate population numbers are maintained.
3	page 43-44, section C, lines 46-47	Conflict (livestock depredation) typically occurs during spring/summer/fall when wolf pelts are not prime. That means that hunting of wolves to reduce conflicts is temporally out-of-step with providing a hunter with a “keepsake” pelt from a successful hunt.	No changes were made in response to this comment.
3	page 44, line 17	Another important factor would have been numbers of animals needed to sustain diverse gene pool.	This information was added.
3	page 44, section D	The Working Group should not be allowed to make scientific judgments concerning population viability when they do not possess advanced education and experience dealing with wildlife management. Their numbers are arbitrary and based on compromise – not on science. Only wildlife biologists should be establishing criteria for promoting a sustainable population.	Although the conservation/recovery objectives presented in the plan are the result of compromise, they were also subjected to scientific peer review. If the conservation/recovery objectives are determined to be adequate and appropriate for recovery by the peer reviewers, they will be retained in the plan. However, if they are deemed insufficient, they will have to be reevaluated.
3	page 44, section D	WDFW should not be negotiating final population levels, but instead use numbers of breeding pairs needed to maintain a viable wolf population. Downlisting and delisting objectives should be strictly science-based and determined by experienced wildlife biologists.	Although the conservation/recovery objectives presented in the plan are the result of compromise, they were also subjected to scientific peer review. If the conservation/recovery objectives are determined to be adequate and appropriate for recovery by the peer reviewers, they will be retained in the plan. However, if they are deemed insufficient, they will have to be reevaluated.
3	page 44, section D	I'm not sure that the Wolf Working Group discussions belong in the main body of the plan. Placing them in an appendix or cover letter would be a better location.	The summary of Wolf Working Group discussions has been moved to current appendix G.

3	page 44-47, section D	All of section D describing Working Group discussions should be moved to an appendix or cover letter.	The summary of Wolf Working Group discussions has been moved to current appendix G.
3	page 44-47, section D	Section D should be moved to an appendix at the end of the plan.	The summary of Wolf Working Group discussions has been moved to current appendix G.
3	page 45, line 8-11	I don't like the sentence that basically says that any changes in the draft will be a deal breaker. There is great uncertainty in what constitutes recovery and how wolves will relate to human activities and how humans will relate to wolves. I suggest that the verbiage on pages 44, line 7 through page 47 line 28, be omitted from the next draft. And it would be extremely gratifying to see this plan adhere to biological reality rather than political compromises. Otherwise, be prepared for litigation and continued controversy.	No changes were made in response to this comment. However, the entire section containing this material has been moved to current appendix G.
3	page 45, par 2	The Stillaguamish Tribe does not support the 3/6/8 breeding pair numbers mentioned here. The tribe supports the numbers of 6/12/15 or more for breeding pairs.	No response was necessary.
3	page 45-46, subsection "Recovery Regions"	WDFW initially suggested that Washington's nine "ecoregions" be considered for wolf recovery regions for the state. Some members of the Wolf Working Group felt that nine ecoregions were too many and too complex for addressing wolf distribution in the state. The USFWS supports the nine ecoregions approach because it would likely improve wolf distribution in the state.	WDFW originally proposed the use of the state's nine ecoregions in the plan's conservation/recovery objectives, but most Wolf Working Group members considered their use to be too complicated and strongly recommended a simpler geographic arrangement. While the ecoregional approach could result in greater wolf distribution in the state, the proposed recovery regions will result in sufficient distribution because of their full coverage of the state.
3	page 46, par 4	Should clarify here whether wolves would be moved into Washington from outside the state.	Clarification was made that no wolves will be translocated into Washington from outside the state.
3	page 46-47, subsection "Translocation"	The USFWS supports translocation of wolves in the state of Washington because it would facilitate the establishment of wolves at an earlier time. The Service would be available for technical assistance and to ensure compliance with federal law.	WDFW appreciates the USFWS's support on this issue and looks forward to working with the agency.
3	page 46-47, subsection "Translocation"	The discussion here states that emphasis will be on translocating wolves to the "southern Cascade Mountains" or "southern Cascades" because that is the place most likely to support wolves that may not be recolonized naturally. The document does not make clear, however, the extent of the region referred to as the "southern Cascades." Is this term synonymous with the "Southern Cascades and Northwest Coast" wolf recovery region? If so, the terminology should be made consistent. If not, the document should define "southern Cascades."	Language in the translocation subsection in chapter 3, section B, has been changed to state that natural dispersal and recolonization of wolves may be slow or difficult for both the southern Cascade Mountains and the Olympic Peninsula/Willapa Hills, thus both areas geographic areas may receive consideration as recipient sites for translocations. Clarification was also added to current appendix G to indicate that the Wolf Working Group considered the southern Cascades as a preferred translocation site rather than the Northwest Coast portion of the recovery region.

3	page 46-47, subsection "Translocation"	If the term “southern Cascades” does not include the entire Southern Cascades and Northwest Coast wolf recovery region, then the plan should also describe the likelihood of translocating wolves elsewhere within this recovery region. Specifically, the final plan should inform the reader of the Department’s intent for translocating wolves to the Olympic Mountains. At the least, the plan should describe the current status of WDFW's or the Wolf Working Group’s discussions regarding this issue. The Olympics contain one of the largest and most contiguous blocks of estimated suitable wolf habitat in the state (see Figure 4, page 38), yet the translocation discussion in the draft does not even mention the Olympics. This seems like a major oversight.	Additional information has been added to chapter 3, section A, showing that the Olympic Peninsula and Willapa Hills contain potential suitable habitat for wolves. The subsection on translocation in chapter 3, section B, has been changed to state that natural dispersal and recolonization of wolves may be slow or difficult for the Southern Cascades/Northwest Coast region, thus both areas may receive consideration as recipient sites for translocations. Inclusion of the Olympic Peninsula/Willapa Hills is based on commentary provided by peer reviewers. Clarification was also added to current appendix G to indicate that the Wolf Working Group considered the southern Cascades as a preferred translocation site rather than the Northwest Coast portion of the recovery region.
3	page 46-47, subsection "Translocation"	Why is there no discussion or consideration of translocation to the Northwest Coast? This makes little biological sense. The coast is the greatest distance from possible sources of natural recolonization from British Columbia or Idaho, isolated on several sides by salt water, and has limited dispersal potential from recovering populations in the Southern Cascades. However, it does contain large blocks of contiguous habitat, much of which is on public land (both state and federal) with a more than adequate prey base (especially when population estimates for ungulates within Olympic National Park are added to prey base estimates). The Olympic Peninsula is over 50% federal and 60% state and federal lands combined. Within the park, there would no conflict with either livestock owners or hunters, and the park alone was estimated to be capable of supporting 56 wolves (Ratti et al. 1999). Getting wolves to the Olympic Peninsula sooner rather than later would enable the state to reach its recovery goals quicker, accelerating the timeline to delisting and more flexible management.	Additional information has been added to chapter 3, section A, showing that the Olympic Peninsula and Willapa Hills contain potential suitable habitat for wolves. The subsection on translocation in chapter 3, section B, has been changed to state that natural dispersal and recolonization of wolves may be slow or difficult for the Southern Cascades/Northwest Coast region, thus both areas may receive consideration as recipient sites for translocations. Inclusion of the Olympic Peninsula/Willapa Hills is based on commentary provided by peer reviewers.
3	page 46-47, subsection "Translocation"	This does a very good job of discussing the tenets and agreements behind translocation. However, this method, which is so integral to the whole plan, becomes a very manipulative approach. This is fine, except that on Page 94-95 (Goal 3), it is apparent that much needs to be done and planned before translocation is achieved. Determining if... (P94, L19), and preparing a feasibility study...(P94, L39), and developing an implementation plan (P95, L5), all indicate that this critical aspect of the plan is yet to be determined. I am always cautious of any plan that depends on subsequent planning processes before implementation.	The plan identifies the planning steps needed to be taken in the future if a proposal is made to translocate wolves. Adequate planning will be required because of the anticipated extreme interest in the project by the public.

4	page 48-54, chapter 4, sections A, B, and C	This material is well done.	No response was necessary.
4	page 48-54, sections A, B, and C	I believe the plan gives adequate background information on wolf-livestock interactions, proactive and other management tools, and compensation programs.	No response was necessary.
4	page 48-60	The Wolf-Livestock Conflicts section is my expertise and I think you have covered the topics. Words only go so far, but actions are what count. Honesty and fairness are critical to executing a wolf plan, with a whole lot of common sense. What I have learned over the years managing wolf problems really can't be written into a plan. Essentially I have one concern, that wolf problem issues are examined closely and resolved fairly. Is the wolf really the problem or is politics the problem? Wolf managers have a bumpy road ahead and I don't think the road is going to ever get smoother. Actions speak louder than all of the words people put on paper. Politics will be the most deadly enemy of wolf recovery in Washington state. The "[nonsense] factor" is the most dangerous form of wolf management - when the truth gets distorted by dishonest people. It will take a strong, steady, passionate, and honest person to guide decisions about wolf management.	WDFW has attempted to develop a fair and balanced conservation and management plan for wolves in Washington. The plan emphasizes dealing with conflicts and management responses on a case-by-case basis.
4	page 48-60, chapter 4	Predictions of the expected numbers of livestock that will be killed annually by wolves in Washington should be added to the chapter.	This information already exists in chapter 14. A note was added in chapter 4 (see new section B) directing readers to chapter 14, section B.
4	page 48-60, chapter 4	Management options to address wolf depredation are fair and reasonable, though I would urge that non-lethal tools/methods retain an important role even after wolves are delisted.	Non-lethal management techniques will be encouraged in Washington as a way of reducing wolf-livestock conflicts. A statement was added to the text indicating that proactive management should continue after delisting.

4	page 48-60, chapter 4	I worry about the control and compensation portion of the plan. I know parts of the plan were tightly negotiated, so I'm not sure how much room there is to modify. I do think the wolf control and compensation program could be much more effective by taking a different approach.	WDFW has made some modifications to chapter 4 in response to the comments received during peer review. These changes were made without consulting the working group. They include 1) removal of chronic depredation as a consideration for lethal control, 2) including relocation as a tool for dealing with conflicts, 3) restricting the use of non-lethal injurious harassment to state/federal agents during the endangered phase, 4) allowing livestock owners with a permit to use lethal take for resolving repeated depredation only during the sensitive and delisted phases, 5) removing the provision allowing lethal take in the act of attacking within 150 yards of a residence and replacing it with a broader provision allowing it to occur under certain circumstances, and 6) redefining confirmed and probable wolf depredation.
4	page 48-60, chapter 4	Working closely with affected livestock producers is important for generating tolerance for wolves among that segment of the public. Fostering face-to-face and on-the-ground relationships is the most effective approach.	No response was necessary.
4	page 48-60, chapter 4	The plan appears to adopt the Northern Rocky Mtns model for incremental lethal control. Unfortunately this model has not proven to be effective in generating tolerance or reducing wolf depredations. In Idaho, for the past 13 years, wolf depredations continue to occur at or above previous levels in the same geographic areas affecting the same producers year after year. Even when entire packs are removed, in many instances, the same producer suffers similar levels of wolf depredations the very next year. The Northern Rocky Mtns model is costly in terms of agency effort and resources, compensation paid for lost livestock and impacts to producers, with no to minimal benefits in terms of increased tolerance or reduced losses. Additionally, this model is a zero tolerance model which does not promote tolerance, but intolerance for wolves. Finally, this model is a passive approach and coupled with a compensation package creates a disincentive-style program that perpetuates the status quo at best and aggravates depredation trends at worse. Implementing the Northern Rocky Mtns model will insure perpetual management actions and drains on agency personnel and funding, perpetual livestock losses and impacts to producers, and perpetual drains on compensation funds.	Follow-up communication with this peer reviewer provided clarification on this comment. The reviewer defined "incentive-based" control programs for wolves as those that rely much more heavily on requiring livestock operators to use agency-provided proactive measures in exchange for paying them compensation and using lethal control of wolves on their grazing properties. This type of program offers an alternative to the compensation and lethal control approach currently being used to resolve wolf-livestock conflicts in the northern Rocky Mountains states. Language in the wolf plan has been revised to more clearly state that producers will be responsible for following best management practices in order to receive compensation. Substitute House Bill 1778 also indicates that livestock owners must use self-help preventative measures (including non-lethal methods and department-provided materials) prior to the depredation to be eligible for compensation. Although not specifically mentioned, development of incentive-based conflict reduction programs would fall under a new task (4.2.8) that was added to the plan. This task calls for exploring opportunities to develop new approaches for reducing wolf-livestock conflicts.

4	page 48-60, chapter 4	An effective wolf control program should strive to make progress toward increased tolerance and decreased wolf depredations. The Northern Rocky Mtns model accomplishes neither. I would suggest establishing an incentive-based, rather than a disincentive-based, control program. Such a program would include case-specific agreements (Allotment Plans or Wolf-Livestock Interaction Plans) with individual livestock producers that would provide incentives (lethal control, compensation, materials and supplies) for wolf tolerant actions on the part of the producer (implementation of proactive approaches, wolf depredation easements, etc…). Developing positive working relationships with producers and generating tolerance for wolves depends on mutual respect and understanding and most importantly reciprocal responsibilities. A responsibility-free or hand-out style program will be less than effective.	Follow-up communication with this peer reviewer provided clarification on this comment. The reviewer defined "incentive-based" control programs for wolves as those that rely much more heavily on requiring livestock operators to use agency-provided proactive measures in exchange for paying them compensation and using lethal control of wolves on their grazing properties. This type of program offers an alternative to the compensation and lethal control approach currently being used to resolve wolf-livestock conflicts in the northern Rocky Mountains states. Language in the wolf plan has been revised to more clearly state that producers will be responsible for following best management practices in order to receive compensation. Substitute House Bill 1778 also indicates that livestock owners must use self-help preventative measures (including non-lethal methods and department-provided materials) prior to the depredation to be eligible for compensation. Although not specifically mentioned, development of incentive-based conflict reduction programs would fall under a new task (4.2.8) that was added to the plan. This task calls for exploring opportunities to develop new approaches for reducing wolf-livestock conflicts.
4	page 48-60, chapter 4	Recent deliberations by another citizen stakeholders' group to resolve wildlife/human interaction issues have resulted in recommended changes to Washington's wildlife damage laws. One of the more significant recommendations of that stakeholders group is to allow the Fish and Wildlife Commission to establish criteria for compensation and other measures to mitigate wildlife/human conflicts (a significant part of the mitigation requires demonstration of non-lethal, proactive measures).	This comment refers to Substitute House Bill 1778, which was passed in the 2009 legislative session and covers payment of compensation for wildlife-caused crop damage and livestock depredation. It offers compensation of up to $200 per sheep, $1,500 per head of cattle, and $1,500 per horse for any animal killed or injured by cougars, bears, or wolves. However, payment of compensation is dependent on a legislative appropriation each biennium. Other stipulations include that livestock owners must have used self-help preventative measures (including non-lethal methods and department-provided materials; a few exceptions apply) and have exhausted other compensation options from non-profit organizations before becoming eligible to receive payment. The compensation portion of SHB 1778 goes into effect July 1, 2010.
4	page 48-60, chapter 4 (and chapter 12, task 4)	This chapter provides standard information on this topic and is well thought out.	No response was necessary.
4	page 48-60, chapter 4; page 95-99, task 4	The compensation program is a well balanced view of wolf predation and recognition of the entire scope of potential costs to landowners. This aspect is clearly one of the strengths of this plan.	No response was necessary.

4	page 48-60, chapter 4; page 95-99, task 4	Management options to address wolf depredation seem standard for most other states/USFWS/USDA. I don't see any reason to change.	No response was necessary.
4	page 48-60, chapter 4; page 95-99, task 4	The compensation program is obviously designed to appease ranchers. However, damage should not be paid on public lands. Grazing on public lands is already well subsidized. I'd suggest only paying for losses on private lands and only fair market value. The funding source needs to be formalized, preferably a dedicated fund from the legislature. I'm fearful that the legislative process could cut or eliminate general fund money and ask WDFW to pick up the tab for damage. I'm also weary of the legislature cutting funding from one wildlife program to pay for another (in this case, wolf damage).	Compensation for wolf-caused livestock losses, including losses occurring on public lands, has facilitated wolf recovery in other states. Compensation is supported by a wide range of stakeholders who do not believe that livestock operators should solely bear the burden of wolf recovery. The conservation group Defenders of Wildlife pays compensation for wolf kills in the Northern Rocky Mountain states while wolves remain listed. The draft Washington wolf plan advocates payment of compensation on public lands to help bring greater public tolerance for wolves, but also emphasizes the importance of livestock operators taking preventative measures to avoid losses. A state-sponsored compensation program will need to be developed and approved by the Washington Legislature. The need for continued compensation will be evaluated after delisting, but the program perhaps could be phased out at that time.
4	page 48-60, chapter 4; page 95-99, task 4	All options to reduce wolf depredation are appropriate and I hope WDFW will strongly promote preventative measures. One thought on the eventual lethal control that has not gotten much attention: Timothy Kaminski (Craighead Envy Research Inst) gave a talk on the results of lethal wolf control and the resulting geographical distribution of livestock kills. The results suggested that as we kill depredating wolves, we are likely killing one or both breeding adults, which then destabilizes the pack's structure. This results in a wolf pack less able to hunt natural prey and possibly increases livestock hunting through the breakup of the pack and lack of proper hunting/prey education from the deceased adults to pups. I am not sure if there was a citation for this. This same phenomenon occurs in Washington's cougar population where more hunting and increased harvest resulted in more conflict as dominant older animals were killed and replaced them with dispersing juveniles that are more likely to cause problems. I am sure some of the public will want immediate lethal control, but I think it could have long-term negative consequences that we poorly understand. I hope we will only use lethal control when all other methods have been exhausted.	Information on this topic was published by Brainerd et al (2008) and has been added to the plan under chapter 12, task 2.2.3.

4	page 48-60, chapter 4; page 95-99, task 4	The compensation program seems well thought out and appropriate. I hope there are good data on normal livestock losses from predators and other sources before wolves arrive to compare the number of “potential losses” they have. I imagine that many ranchers might jump to conclusions with missing livestock and insist it was from wolves.	The potential problem identified in this comment is one of the main concerns with compensation for unknown losses. As indicated in chapter 4, section G, and chapter 12, task 4.4.1, this program will be developed in the future and will need to address this issue. Abuses could threaten the program. If serious abuse occurs, the plan states that WDFW will need to "work with a balanced advisory group to determine the need for an alternative compensation program."
4	page 49, line 9	Should note here that far more livestock die from causes unrelated to predation. This is discussed later in Chapter 14, but it would be good to include a remark on this here.	This information was added.
4	page 49-53, subsection "Proactive Measures"	I hope that proactive measures will be implemented to a greater degree in Washington than in the Northern Rocky Mountain states.	No changes were made in response to this comment.
4	page 49-54, section B	Establishing an effective wolf control program can be an effective tool for generating tolerance among livestock producers and reducing wolf depredations.	No response was necessary.
4	page 49-54, section B	The plan identifies only 2 management tools for reducing wolf depredations: proactive measures and lethal control. I suggest identifying the various methods discussed under proactive measures as separate tools: e.g. Husbandry Practices, Non-Lethal Deterrents, Relocation, etc… In addition, I would include other proactive measures including promoting predator friendly market approaches, depredation compensation, and purchasing wolf depredation easements.	This section was redone, as recommended in this comment.
4	page 50, table 3	In a footnote to this table or in discussion added to the report, it needs to be noted that the confirmed number of livestock losses likely understate the actual number of losses because some ranchers do not go through the verification process to confirm wolf depredations.	This information already exists in the text (chapter 4, section A). A footnote was added to the table to help clarify this matter for readers.
4	page 51, bullet 8	Will the locations of dens, rendezvous sites, and wolf territory core areas be made available to ranchers?	As described in chapter 4, section E and table 7, wolf location information will be given to livestock producers using private or public lands in all phases of wolf management.
4	page 51, bullet 8	This should be easy to do with cooperation from the land management agencies.	No changes were made in response to this comment.
4	page 51, line 15	I'm concerned about using range riders on public lands, where they may use ATVs off-road, thereby tearing up native landscapes.	This concern is beyond the scope of the plan.
4	page 51, line 16	I've heard that donkeys and llamas make good guardian animals, but I'm not sure how effective they would be against wolves.	Llamas and donkeys are generally used to protect against coyotes, dogs, and smaller predators, but not wolves.

4	page 51, lines 29-31	It is important to recognize that non-lethal deterrents are generally only successful in small areas and for limited time periods.	A remark was added that non-lethal deterrents are generally successful in small areas. The following paragraph already states that non-lethal deterrents are typically considered temporary solutions to depredation.
4	page 51, par 1	Will there be outreach activities to disseminate information about modified husbandry practices to ranchers and farmers?	This remark is addressed in chapter 12, task 9.2.
4	page 53, line 11-15	This remark no longer holds true in Idaho anymore. Lethal removal is no longer considered on a case-by-case basis there.	No changes were made in response to this comment.
4	page 53, line 12	Once wolves were delisted, Wyoming allowed wolves to be shot-at-will. This was not case-by-case, but I think you are just referring to removal while listed in this section.	This paragraph applies strictly to lethal removal as a tool for reducing wolf depredation, rather than the broader issue of wolf hunting and large-scale wolf control. Thus, no changes to the text were made in response to this comment.
4	page 53, line 15-16	With incremental control efforts, it is problematic to identify the "offender". Nowadays any wolf in the area, and specifically any radio collared, is labeled as guilty.	No changes were made in response to this comment.
4	page 53, par 2	Lethal removal of one or two wolves from a pack that is depredating livestock seems to be a good first step response. However, some research in other states has suggested that removing one or two wolves (particularly if they are members of the alpha pair), can cause a pack to break up and splinter, with wolves moving to new packs or establishing a new one, thus spreading the depredation behavior to new packs and locations. If the pack in question is a chronic offender (as opposed to a one or two-time offender), it makes more sense to remove the pack as a whole where possible, either through relocation or lethal removal, depending on your listing status and associated procedures at the time. Otherwise you may be just spreading the depredation behavior to new packs.	The information noted in this comment was published in Brainerd et al. (2008) and was incorporated into the plan in chapter 12, task 2.2.1.
4	page 54, line 12-15	This paragraph should be updated with the material provided.	This section was updated with the material provided.
4	page 54, line 22	What about mentioning translocation and relocation as a management tool in this section.	Translocation will not be used as a tool for dealing with livestock-depredating wolves. However, a paragraph on using relocation to do so has been inserted into this section and table 7.
4	page 54, line 24-25	Do "more flexible approaches" equal lethal control? If non-lethal management is implemented, and working, during recovery phases these techniques should still be carried forward.	This sentence was revised to make it clear that both non-lethal and lethal control measures will be used as wolf numbers increase toward delisting.

4	page 54, line 25-26	This is where having an appropriate definition of “chronic depredation” becomes important.	Based on internal WDFW review and consideration of peer review comments, the plan no longer uses a strict definition of chronic depredation for determining when various response options to depredations will be conducted. Response options will be evaluated on a case-specific basis and based on consideration of pack history and size, pattern of depredations, number of livestock killed, state listed status of wolves, extent of proactive management practices being used on the property, etc.
4	page 54, par 2	Clarify who operates the Idaho Wolf Depredation Compensation Fund.	Clarification was made.
4	page 54, par 2	The Idaho program, as currently administered, is subject to high degrees of fraudulent claims and under-compensates claimants with valid losses while paying some claimants for invalid “losses.”	Chapter 4, section G, of the Washington wolf plan acknowledges the need for accountability in the proposed compensation program in order to avoid the kinds of problems that have happened in Idaho. This will be especially important when compensating for unknown losses. If a high degree of accountability cannot be accomplished, the plan states that WDFW will work with a balanced advisory group "to determine the need for an alternative compensation program."
4	page 54, par 2	It might behoove Washington to begin some data collection on cattle in areas wolves are likely to occupy to try to document “stress” levels currently through blood/fecal hormone tests.	As stated in the plan, compensation for unknown losses will only cover the loss of livestock where there is no direct evidence of wolf depredation. Lower than expected weight gains in livestock, which might be indicated by increases in hormonal stress levels, will not be compensated.
4	page 54, par 3	Here is some corrected and updated information. Montana has recently created its own Livestock Loss Reduction and Mitigation Board. The Board (and the program) was created by the 2007 Montana Legislature and was appointed by the governor in the fall of 2007. The Montana-based compensation program replaced a program offered by Defenders of Wildlife irrespective of whether wolves were delisted and consistent with the Montana wolf plan. The Montana Legislature appropriated $30,000 and Defenders of Wildlife “gifted” Montana $50,000 for a total of $80,000 for each of the first two years. The Board prioritized payments of direct livestock losses first, but hopes to expand into other program elements called for in the legislation as funding becomes available.	This new information was incorporated into the paragraph.
4	page 54, par 6	Does wolf location information include den and rendezvous sites? Release of this type of specific information at a time of year when wolf packs are concentrated and more vulnerable to mortality, such as denning season and immediately after, could result in unwanted mortality.	WDFW considers the locations of wolf dens and rendezvous sites to be sensitive information that would not be released to the public.

4	page 54, par 6	Depending upon the rate of collection of home range data by WDFW, location information might be of little help to a producer. What about radio tracking receiver loans (although this becomes a slippery slope)?	Loans of this type have been made in other states (see Bangs et al. 2006) and have proven helpful in some wolf-livestock conflict situations. This action would be considered on a case-by-case basis in Washington in the future.
4	page 54, subsection "Wolf location information"	I would be cautious setting an expectation that WDFW will provide wolf location data to producers. This will lead to a public expectation that WDFW knows where all wolves are at all times and will warn producers of wolf presence prior to any depredation. This expectation will be very difficult for WDFW to satisfy and could damage the department's credibility and control program and reduce tolerance for wolves. I would strongly qualify this statement.	This paragraph has been revised to indicate that WDFW will notify livestock producers when wolves are known to be living nearby. However, the reference about providing producers with the locations of radio-collared wolves was removed.
4	page 54, subsection "Wolf location information"	Constantly providing livestock producers with wolf locations is not productive. We have tried it in all 3 northern Rocky Mtn states. You end up creating a monster with an insatiable appetite. My guess is that WDFW doesn't do this with bears, coyotes, or lions. By treating wolves different from other predators, you constantly re-enforce the notion that unless you always know where wolves are and what they are up to, wolves will be problematic. This is a very unrealistic way to manage wolves. If you work with ranchers and resolve conflicts quickly, everyone will calm down and adjust to having wolves in the area. You want to manage wolves just like any other predator, even though other interest groups will continually try to make a big deal about them. WDFW needs to be the voice of calm in the midst of the storm.	This paragraph has been revised to indicate that WDFW will notify livestock producers when wolves are known to be living nearby. However, the reference about providing producers with the locations of radio-collared wolves was removed.
4	page 54-55, table 6	Relocation of wolves should be considered as a management tool for dealing with wolves involved in livestock depredation.	This tool was added to the text and table, but would only be implemented on a case-by-case basis.
4	page 54-56, section D	What if a particular tribe's management options addressing wolf/livestock depredation varies from those in Table 6 (page 55). Would compensation be allowed if a tribal member took a wolf while it was state endangered (and assuming wolves were delisted federally)?	Tribes may choose to manage wolves differently than WDFW, but the agency nevertheless would be willing to work with any tribe if this aided the overall recovery of wolves. Tribal members with livestock depredations occurring off-reservation will likely be eligible for compensation, but it is unclear under state law whether tribal members and non-tribal members with depredations on reservation lands would be eligible. Based on these considerations, it was decided not to include specific language on this issue in the plan and to assume that individual incidents will be settled on a case-by-case basis.

4	page 54-56, section D	In my opinion, because compensation programs will be in place, no lethal take of any kind should be allowed on public land while wolves are endangered. In fact, I would not be in favor of lethal take on public land in general as long as the wolf is not a game animal. The priority given to livestock production over other values promotes the imbalance of public loss for private gain, which should not be the basis of public land management.	Under the current strategies described in table 7, only one situation exists for lethal take of wolves on public land during the endangered and threatened phases. This involves take by state or federal agents, but a decision to use this action would occur only after other management options have been exhausted and discussion has occurred among appropriate agencies. During the endangered, threatened, and sensitive phases, the provision to allow lethal take by "landowners, family members, or authorized employees" if a wolf is in the act of attacking (biting, wounding, or killing) livestock applies only to private land, not public land.
4	page 54-56, section D	Beanbag munitions are ineffective. I would stick to rubber bullets.	Follow-up inquiries regarding the effectiveness of beanbag munitions were made with a wolf specialist formerly at USDS Wildlife Services. He reported that beanbags have been rarely put to use in the field in the Northern Rocky Mountain states, but believed this tool should remain in the plan. Thus, WDFW did not remove references about beanbags from the plan.
4	page 54-60, sections D, E, F	In the early stages of your program, always attempt nonlethal techniques to minimize wolf-livestock problems, but be realistic. If you have chronically depredating wolves, your program will be disproportionately dragged down by a few problem wolves. The success of your program will be determined by how well you balance wolf recovery with establishing your credibility among the livestock community by resolving conflicts. Establish a clear set of criteria for confirming livestock depredations. Make sure your reporting forms are user-friendly and easy to fill out. Trust your field people because they have the best perspective to make the correct call. Will you use preponderance of evidence or more likely than not? Depredation calls should be simple and not complicated. Use categories such as “confirmed”; “probable”; or “unknown”.	The specifics on the many points raised in this comment are included in chapter 4, sections E, F, and G, and in chapter 12, task 4.
4	page 54-64, section D	Some questions may need to be clarified. Would lethal control by state/federal agents be incremental or would it be elimination of an entire pack? What guidance would be provided to state/federal agents for how/where to carry out lethal control work? What is the duration of lethal control authorization or the permits issued to livestock owners? While perhaps too much detail to include in a plan, they are truly legitimate details that may influence the effectiveness of the response and public acceptance. Regarding “lethal take in the act of attacking," does this require physical contact or simply chasing with apparent intent to attack? Is guidance already provided in Washington statutes?	Responses to wolf depredation on livestock, including use of lethal control, will be evaluated on a case-by-case basis, thus it is not appropriate to provide detailed clarification or guidance in the plan on how or when a certain management response might be applied. During the recovery phases, the emphasis will be on conservative and incremental approaches. Use of lethal control would be sanctioned only after other management options have been exhausted and discussion has occurred among all appropriate agencies. The plan defines "in the act of attacking" as "actively biting, wounding, or killing" (see chapter 4, section E, and glossary). No guidance is provided on this matter in Washington statutes.

4	page 54-64, section D	The 150-yard requirement seems to suggest that a livestock owner can kill a wolf attacking a cow only if the attack is occurring within 150 yards of a primary residence – correct? At 160 yards, the take would be unlawful? The take would be lawful if the wolf were chasing the cow with the intent to kill the cow within 150 yards of a residence? That distance requirement within the context of defense of property/livestock seems onerous, unrealistic, and unnecessary for many reasons. Furthermore, if the desired outcome is to lethally remove wolves known to be depredating livestock, does it matter whether a private citizen kills the wolf (and within 150 yards of a residence) or a government agent kills the wolf (if it can actually be identified) someplace else at a later date? In my experience, livestock owners have not abused the flexibility afforded by the federal regulations in the experimental area of Montana. The opportunity to “catch” a wolf actually attacking livestock is rare and if a wolf is caught in the act of attacking livestock, it is more efficient that the “right” wolf is killed in the act than if a government agent has to take up the situation after the fact.	The lethal take of a wolf at 160 yards while in the act of attacking (actively biting, wounding, or killing) would be unlawful. Because the 150-yard requirement could be problematic to enforce, it has been repaced by "caught in the act" in the plan.
4	page 54-64, section D	It is appropriate to have a graduated increase in the amount of flexibility to take a wolf that would be commensurate with increases in the wolf population. I suggest no take in the act for state endangered anywhere (only harassment) but to allow take in the act for state threatened on private lands (delete the 150 yard requirement). No change to sensitive and delisted. Montana has recently adopted administrative rules, including definitions, which will guide decisions about wolf-livestock conflict resolution that are consistent with though provide greater detail than outlined in the Montana plan.	WDFW shares this concern over potential abuse of the provision allowing lethal take "in the act of attacking" during both the endangered and threatened phases. However, under these phases, a safeguard exists requiring that the provision be "rescinded if used inappropriately or more than 2 incidents occur annually statewide."

4	page 55, table 6	I suggest that lethal take of wolves in the act of attacking livestock on private land is allowed by landowners, livestock owners, family members and authorized employees on private land during endangered and threatened phases, and that it is allowed by landowners, livestock owners, family members, and authorized employees anywhere during sensitive and game animal phases. This is for several reasons: (a) it will be difficult to regulate within 150 yards of residence, (b) the provisions are presumably in place to allow individuals to protect private property on private land, not only within 150 yards of their house, (c) it creates unnecessary confusion, a person would have to see that a wolf is in the act of attacking livestock and then determine the distance from the house and judge the appropriateness of the action, and (d) rarely do people see wolves attacking livestock during the day so I believe that it is unnecessarily regulate this aspect. Furthermore, I think allowing take of wolves in the act of attacking a dog on private land is important at all phases. The point is if a wolf comes to private land and starts causing problems then a person should protect their animals from harm, and pets are at least as valued as livestock.	For these types of reasons, the 150-yard provision was removed from the text and replaced with a simpler "in the act of attacking" (biting, wounding, or killing) provision.
4	page 55, table 6	I have concerns about the step-down approach for lethal take of wolves when they are listed as endangered or threatened. Under lethal take of wolves involved in chronic depredation (2 or more incidents in 12 months): Endangered - “Allowed anywhere by state/federal agents,” I think there should be more specific criteria developed for lethal take. How would Forest Service lands be defined using the criteria of one or more properties? Would it be 2 incidents on one entire forest, would it be a grazing allotment? Under Endangered, I think WDFW should consider not allowing lethal take on public lands. On private lands, it could be used by state and federal agents if non-lethal did not work. While Threatened, I think WDFW should consider no lethal take on public lands also unless under extreme conditions. I'd consider allowing lethal take on private lands by livestock owners with a permit. I am OK with the Sensitive and Game Animal criteria.	Under the current strategies described in this table, only one situation exists for lethal take of wolves on public land during the endangered and threatened phases. This involves take by state or federal managers, but a decision to use this tool would occur only after other management options have been exhausted and discussion has occurred among all appropriate agencies (e.g., the Forest Service when the depredation occurred on its land). During the endangered, threatened, and sensitive phases, the provision to allow lethal take by "landowners, family members, or authorized employees" if a wolf is in the act of attacking (biting, wounding, or killing) livestock applies only to private land, not public land. A strict definition of chronic depredation is no longer used in the plan, removing concerns over its application on Forest Service and other agency lands.
4	page 55, table 6	What is the basis for issuing a lethal take permit to livestock owners?	Under the plan, WDFW can issue a permit for lethal take of wolves to a livestock owner. However, the permit will be issued only after a case-by-case evaluation of all relevant circumstances has been made.

4	page 55, table 6; page 56, line 12	What is the basis for a 2-strikes rule for lethal removal? For Mexican wolves, the standard is 3 strikes before permanent removal (usually non-lethal). It is also 3 strikes before lethal removal in the Northern Rocky Mtn region. Management removals in small populations of wolves, such as those which are likely to occupy Washington before and after downlisting to game animal status can readily have large demographic effects when it comes on top of other sources of natural and human-caused mortality. Reducing the threshold for lethal removal from 3 to 2 strikes may result in significant decreases in population growth rates in affected populations. If a 2-strikes policy is to be pursued, WDFW should provide a quantitative analysis demonstrating a need for this change in policy and exploring the demographic costs to wolf populations. Such an analysis could be based on data from the Northern Rocky Mtn wolf populations. How often do wolves with 2 strikes go on to get 3 or more strikes? Under what circumstances do wolves with 2 strikes accumulate a third? What are the costs (e.g. numbers of livestock lost) associated with a third strike? What would be the wolf demographic costs to removal at 2 strikes?	A strict definition of chronic depredation has been removed from the plan. As described in the text, the need to conduct lethal removal to resolve a depredation problem will be considered on a case-specific basis using pack history and size, pattern of depredations, number of livestock killed, state listed status of wolves, extent of proactive management practices being used on the property, and other factors.
4	page 56, bullet 1	I like that this limits removal of wolves to ground-based methods.	Current language in the plan does not preclude aerial shooting as a lethal control measure. However, WDFW will not engage in this form of control.
4	page 56, line 12	The remark about depredations occurring on one or more properties is unnecessary. Either a pack has 2 depredations on any property or not.	Based on internal WDFW review and consideration of peer review comments, the plan no longer uses a strict definition of chronic depredation for determining when various response options to depredations will be conducted. Thus, the remark referring to depredation taking place on two or more occasions on one or more properties was removed from the text.
4	page 56, line 29-32	Does wounding include a situation where wolves might run livestock through a fence, thereby injuring it?	As stated in the plan, lethal take in the act of attacking can only be used when a wolf is seen "biting, wounding, or killing" livestock. Chasing or pursuing livestock does not justify the use of lethal take. Therefore, livestock injured from colliding with a fence while being chased by a wolf, but having no wounds resulting from direct contact with a wolf, is not a sufficient reason for using lethal take in the act of attacking. In contrast to this situation, a livestock owner with livestock injured from colliding with a fence while being chased a wolf would qualify for compensation under certain circumstances (see chapter 4, section G, subsection "Compensation"), provided that there is strong supporting evidence that wolves were involved in causing the injury.

4	page 56, line 29-36	Since when is anybody who is confronted with a wolf attacking a pet or livestock over 150 yards from a residence not going to respond? Why make a person who kills a wolf in the act of attacking a pet 151 yards from a residence subject to arrest? I suggest that the distance from a residence be omitted.	The provision requiring that lethal take occur within 150 yards of a residence has been changed. Lethal take in the act of attacking (biting, wounding, or killing) by landowners, family members, and authorized employees can now occur anywhere on private land while wolves are state listed as endangered, threatened, or sensitive, and anywhere on private and public land after state delisting. The distance requirement for being within 150 yards of the residence was removed because of doubts over whether it could be enforced.
4	page 56, line 38-39	Does "anywhere" here mean beyond the 150 yards?	The provision requiring that lethal take occur within 150 yards of a residence has been changed. Lethal take in the act of attacking (biting, wounding, or killing) by landowners, family members, and authorized employees can now occur anywhere on private land while wolves are state listed as endangered, threatened, or sensitive, and anywhere on private and public land after state delisting. The distance requirement for being within 150 yards of the residence was removed because of doubts over whether it could be enforced.
4	page 56, line 39-41	Does this mean that a motorist driving by could kill a wolf attacking John Doe's horse on John Doe's property?	This would not be allowed. This provision of the plan has been edited. The plan states in chapter 4, section E, that only livestock owners, family members, and authorized employees are allowed to use lethal take in the act of attacking livestock on private land they own or lease while wolves are state listed as endangered, threatened, or sensitive. During the endangered and threatened phases, this provision will be rescinded if used inappropriately or if more than 2 incidents occur annually statewide. After wolves are delisted, lethal take in the act of attacking livestock will continue to be restricted to livestock owners, family members, and authorized employees, but will be allowed on both private and public land they own or lease.
4	page 56, line 40-41	The plan states that "…wolves could be killed in the act of attacking livestock or pets by a person anywhere". This seems like a sure why to result in relisting. Some level of regulation will need to be enforced, otherwise livestock or pet owners using poor husbandry practices could be killing wolves legally.	This statement was changed to clarify that after delisting occurs, lethal take in the act of attacking by a livestock owner can is allowable only on private or public land that the person owns or leases.
4	page 56, line 4-6	Should insert "provided that the harassment occurs on their legally designated allotment" here.	This material was added.
4	page 56, par 2	Clarify why a permit and training in the use of rubber bullets is needed before using any type of non-lethal injurious harassment.	Sentence was reworded.

4	page 56, par 3	The USFWS agrees that lethal take of depredating wolves should be evaluated on a case-by-case basis. In some cases, trapping, radio-collaring, and monitoring depredating wolf(s) instead of lethal removal would provide locations of wolf(s) and facilitate non-lethal efforts. This approach would also provide important information, including seasonal movement patterns, behavior, and rendezvous and den locations.	No response was necessary.
4	page 56, par 3	The plan should state that lethal control will likely be necessary even at small population levels. In addition, the plan should state plainly that whatever method is most appropriate for quick resolution of the problem will be utilized, including aerial control.	A remark was inserted into the plan stating that lethal take of wolves could be implemented even at small population levels. A second statement was also added indicating that, when necessary, the most appropriate method of lethal take will be used for quickly resolving a conflict. Aerial shooting was not specifically named as a control method that could be employed. WDFW will not engage in this form of control.
4	page 56, par 6	How will the provision for allowing lethal take in the act of attacking within 150 yards from a residence be enforced?	The provision requiring that lethal take occur within 150 yards of a residence has been changed. Lethal take in the act of attacking (biting, wounding, or killing) by landowners, family members, and authorized employees can now occur anywhere on private land while wolves are state listed as endangered, threatened, or sensitive, and anywhere on private and public land after state delisting. The distance requirement for being within 150 yards of the residence was removed because of doubts over whether it could be enforced.
4	page 56, subsection "Lethal take for chronic depredation"	I don't like the definition of "chronic" used in this plan, i.e., 2 or more occurrences in a 12-month period. I consulted 5 on-line dictionaries and found the following 2 definitions that seem to fit this scenario: 1) "marked by long duration or frequent occurrence" and 2) "subject to a habit or pattern of behavior for a long time." While there is subjectivity in determining what might constitute "frequent occurrence" and/or "for a long time," my own opinion is that 2 events within 12 months hardly qualify. If a pack depredated on 1/2/09, 1/3/10, and 12/31/10 they would be deemed chronic despite having 3 depredations in the span of 2 years, because the latter 2 occurred within 12 months. In my opinion, this example could hardly be called chronic, yet this pack would then be labeled as such. The ever-running 12-month timeframe doesn't allow time off for good behavior. I think the scorecard should operate during a calendar, biological, or grazing year, and the pack gets a new start each year. If a pack is truly a chronic problem, it will repeat offend more than twice per period.	The plan no longer uses the term, "chronic" depredation. Response options will be evaluated on a case-specific basis and based on consideration of pack history and size, pattern of depredations, number of livestock killed, state listed status of wolves, extent of proactive management practices being used on the property, etc.

4	page 56, subsection "Lethal take for chronic depredation"	There is a double standard for wolves and livestock in the Southwest and the Northern Rocky Mtn regions. Low losses of livestock often lead to lethal removals of wolves, whereas far larger losses of livestock to coyotes, bears, and cougars go relatively “unpunished.” Loss of a calf or two to wolves can seem intolerable, whereas loss of several calves to other predators is just the cost of doing business. Perhaps WDFW in its management can seek to minimize this double standard by working to reduce livestock losses to non-wolf predators in wolf country.	The plan notes that livestock producers lose far more livestock to other predators and causes than to wolves.
4	page 56, subsection "Lethal take in the act of attacking"	I do not believe a provision for take on public land for wolves attacking dogs should be in place at any phase because these provisions would leave open the possibility of people utilizing decoy dogs on wolves, similar to what is done with coyote hunting.	The plan has been edited to include a provision for lethal take of wolves seen in the act of attacking of domestic dogs, which will be allowed by anyone on private or public land after wolves are downlisted to state sensitive status. The plan states that "wolves taken under this provision shall be reported to WDFW within 24 hours" (with one exception) and that "preservation of physical evidence from the attack scene for inspection by WDFW is required. Wolves killed in the act of attacking cannot be intentionally baited, fed, or deliberately attracted."
4	page 56, subsections for lethal take	Regarding lethal take, sometimes it is difficult to tell which pack(s) is involved. I would define “chronic depredation” in terms of affected producer(s) rather than pack. Definition of a chronic depredating pack seems liberal. Two depredations could occur over a two-day period, labeling the pack a chronic depredator, even if they have not depredated for the entire previous year. Using this definition and knowing what we do about depredation patterns of wolves, the majority of wolf packs in Washington will be labeled as chronic depredators. This is a zero tolerance approach to depredation which promotes intolerance for wolves. I think it is important to include history (multi-year) and proper context (pack size/status, year-long depredations vs. seasonal vs. incidental, etc.., loss numbers, etc…) in this definition.	The plan no longer uses the term, "chronic" depredation. Response options will be evaluated on a case-specific basis and based on consideration of pack history and size, pattern of depredations, number of livestock killed, state listed status of wolves, extent of proactive management practices being used on the property, etc.
4	page 56, subsections for lethal take	Regarding lethal take, what are the incentives to the producers to reduce depredations in return for lethal control of depredating wolves? What is the reciprocal responsibility that generates positive working relationships, mutual respect, and tolerance?	Livestock owners have a responsibility to reduce wolf-livestock conflicts through improved husbandry practices and other proactive measures, or they risk being ineligible to receive compensation for subsequent depredations (see chapter 4, section G).

4	page 57, line 36	In the discussion of contributions that WDFW "already provides", its unclear just what this means. I think that it refers to monies currently used to address deer and elk damage to agricultural ventures. If this is the money that the Plan is referencing, I believe that it would be appropriate to state that this funding is not secure and demand regularly outstrips the availability of these funds.	This information was added.
4	page 57, par 1	The USFWS believes that compensation for wolf-related livestock depredations will increase support by livestock producers for the establishment of wolves in Washington. There currently is no federal program to compensate livestock producers for wolf-related losses.	Compensation for wolf-related livestock losses has never been provided by the federal government, but has instead been paid by Defenders of Wildlife or various state programs in some states. Defenders of Wildlife will continue to pay compensation for losses in Washington, including delisted areas of the state. The plan calls for development of a state-sponsored compensation program to be established for state-managed areas after approval of the plan.
4	page 57-58	The compensation section should indicate whether tribal livestock producers will be eligible for compensation. Similarly, will non-tribal members grazing their livestock on tribal lands be eligible?	Tribal members with livestock depredations occurring off-reservation will likely be eligible for compensation, but it is unclear under state law whether tribal members and non-tribal members with depredations on reservation lands would be eligible. Based on these considerations, it was decided not to include specific language on this issue in the plan and to assume that individual incidents will be settled on a case-by-case basis.
4	page 57-60, section F	WDFW currently does not pay for livestock losses from any other predator in Washington. Why are wolves different, especially considering the number of losses associated with common predators?	A new law (Substitute House Bill 1778) passed in 2009 will allow some compensation for losses caused by other predators in Washington. In the past, compensation was not provided for non-listed predators in part because livestock owners have greater freedom to deal with these species, especially coyotes. In the case of wolves, which were formerly endangered, compensation has been an important tool for promoting recovery in neighboring states. Compensation is to benefit wolf recovery in Washington as well.
4	page 57-60, section F	I do not think that the approach to pay 1.5-2 times what an animal is worth is fair to the taxpayers of Washington or the sportsmen, whoever will be funding the compensation fund. The value of a cow or sheep is what it is worth, it is government waste to spend money beyond the value of an object to replace it. This will also result in WDFW spending additional time on depredations that are known not to be wolf related as livestock owners attempt to collect compensation.	The proposal to compensate at 2 and 1.5 times for confirmed and probable livestock losses on grazing sites of 100 or more acres has been changed to payment of 2 times the value of confirmed cattle kills and full value for probable cattle kills on grazing sites of 100 or more acres. As described in the plan, this is intended to cover additional undocumented wolf-caused losses of cattle on larger grazing sites to build greater tolerance for wolves among producers. Livestock owners with other species of livestock or using smaller parcels are unlikely to experience losses of this type and therefore do not qualify for this higher level of payment. Accountability is an important part of the compensation program and abuses could threaten the program.

4	page 57-60, section F	The plan appears heavily skewed towards the livestock industry and potentially will over-compensate that industry. It appears that 2x and 1.5x compensation is in place when wolves depredate one animal and there are potentially others depredated livestock, which the owner didn't find. This overvalues an individual animal making it beneficial to the livestock owner when depredation occurs. It seems that this is a conflict of interest for the landowner. I would love it if something of mine was stolen or destroyed and I was able to gain double value for it. The plan also allows compensation when there is no direct evidence of depredation. This again seems like a point that can be taken advantage of. Is this consistent with other states or Defenders of Wildlife? I believe that compensation on WDFW land is a conflict of interest for WDFW. The agency purchased those lands for wildlife and wildlife should have priority. Depredation while grazing on WDFW lands should be considered part of the cost of the livestock owner when doing business on those lands. Payment for depredation on other public lands should be excluded as well since those lands are typically under multiple use management, which includes habitat for wildlife.	The proposal to compensate at 2 and 1.5 times for confirmed and probable livestock losses on grazing sites of 100 or more acres has been changed to payment of 2 times the value of confirmed cattle kills and full value for probable cattle kills on grazing sites of 100 or more acres. As described in the plan, this is intended to cover additional undocumented wolf-caused losses of cattle on larger grazing sites to build greater tolerance for wolves among producers. Livestock owners with other species of livestock or using smaller parcels are unlikely to experience losses of this type and therefore do not qualify for this higher level of payment. Development of a compensation program for unknown losses will also be done to increase tolerance for wolves among producers. Accountability is an important part of the overall compensation program and abuses could threaten the program. If abuses occur in the program to compensate for unknown losses, then WDFW will work with a balanced advisory group to determine the need for an alternative compensation program for this type of loss. Defenders of Wildlife's compensation program in the northern Rocky Mountain states has always paid for losses on both private and public lands in order to build broader support for wolves among ranching communities. WDFW currently has no policy in place allowing the control of predators in response to livestock depredations on WDFW lands. Depredations rarely if ever occur on WDFW lands under current circumstances. The wolf plan recommends that compensation be paid for confirmed and probable wolf depredations occurring on public lands, which would include WDFW lands. The compensation program for unknown losses will be developed at a later date, when it would be decided whether or not to include WDFW lands.
4	page 57-60, section F	I think it is difficult to justify compensating for unknown losses regardless of the formula used. Ranchers I have spoken with in the past, including Rod Dennis (his family owns the allotment in the Le Clerc Creek Drainage in Pend Oreille County), understand that there are several ways to lose livestock in the woods other than depredation, especially wolf depredation. I understand that this is a social juggling act, but I believe WDFW will lose a lot of support if it appears that the plan is considered to be too friendly to the livestock industry.	The potential for abuse is one of the main concerns with compensation for unknown losses. As indicated in chapter 4, section G, and chapter 12, task 4.4.3, the program for compensating for unknown losses will be developed in the future and will need to address the issue of abuse. Abuses could threaten the program. If serious abuse occurs, the plan states that WDFW will need to "work with a balanced advisory group to determine the need for an alternative compensation program."
4	page 57-60, section F	What happens if WDFW cannot secure funding for this level of compensation?	Compensation is contingent upon receiving funding. There would be no compensation program without funding.

4	page 57-60, section F	Compensation, and accountability from the producer and the confirming agency, is important, but should not be interpreted as a means of appeasing the livestock industry. In the Northern Rocky Mountain states, it has often been difficult to get well-documented evidence on some of the more questionable cases, and until that is provided no claims should be paid. I think the state should be much more vigilant and demanding of top-quality evidence by the confirming agency before paying out for wolf damages. Also, without strictly enforcing that "livestock owners must demonstrate reasonable use of non-lethal control methods and animal husbandry practices that do not unnecessarily attract wolves," no compensation should be allowed; the state should seek to have the land management agency incorporate language of this nature into the annual operating plan for allotments. Enforcement of best management practices is very appropriate for private landowners, but more difficult for cattle grazing public land allotments. Public land allotees, in my opinion, often get the best of both worlds; their livestock losses are reimbursed if determined to be confirmed/probable wolf-kills, and if those wolves become classed as chronic depredators they will ultimately be eliminated- what incentive would the allotee have to improve his/her husbandry practices with possibly as few as 2 calf losses (chronic depredation)?	High quality determinations of depredation are critical to the success of any compensation program. Adequate training will be important in making correct determinations. It is anticipated that WDFW wolf specialists will make the majority of determinations. Use of preventative measures and good husbandry methods by livestock operators will be important to prevent situations leading to depredation.
4	page 57-60, section F	I'm not in favor of compensating producers of 100-acre+ parcels, especially private landowners, at 2x and 1.5x value for confirmed and probable losses, respectively. Producers know what they turn out at the beginning of the grazing season, what they collect at the end of the grazing season, and what historic levels of loss are (not necessarily due to predators), therefore: (turned out – collected) – historic loss = expected return. Any losses above and beyond expected return would be compensated at a one-to-one rate, which will still overcompensate because not all livestock not returning can be assigned as wolf-caused losses.	This comment confuses payment for known and probable losses on 100+ acre parcels with compensation for unknown losses. Most of this comment pertains to compensation for unknown losses, which will be developed after approval of this plan. It should be noted that the plan states that compensation for unknown losses shall not be redundant with payment for known and probable losses.

4	page 57-60, section F	Unknown losses should not be compensated. This gives the impression that wolves may be more damaging than is actually the case. If significant numbers of livestock are “missing,” the livestock producer should be able to document that through increased on-the-ground monitoring, if not in the first year of excessive losses, certainly in the succeeding year(s).	Livestock losses caused by wolves represent just a small percentage of overall predator losses in Idaho, Montana, and Wyoming. The Washington wolf plan recommends paying compensation for unknown losses to foster tolerance for wolf recovery among livestock producers in the state. Details of the program will be developed after approval of the plan. The plan acknowledges the need for accountability in paying compensation for unknown losses to avoid the kinds of problems that have happened in a similar program in Idaho. If a high degree of accountability cannot be accomplished, the plan states that WDFW will work with a balanced advisory group "to determine the need for an alternative compensation program."
4	page 57-60, section F	Compensation should be established under state statute and paid by the state to avoid political conflicts of interests that inevitably come with pro-wolf conservation groups. Wyoming has a history of negative feelings from ranchers about compensation from private groups. Many livestock producers felt that they were being blackmailed by pro-wolf groups. Numerous ranchers preferred to not accept payment rather than deal with private groups. Your plan mentions ranchers being paid twice the value of lost livestock. That value seems arbitrary. If you choose to compensate ranchers for more than the actual value of the livestock, I would base payment on historical losses. Based on limited research data and ranchers' records, Wyoming compensates ranchers for wolf losses on a ratio of confirmed kills to the number of missing livestock. If wolves kill calves or sheep, the rancher is paid for up to 7 additional missing calf or sheep for every confirmed depredation. If wolves kill adult cattle, then the rancher is paid on a 1:1 ratio.	Details of a state compensation program will be developed after approval of the plan. While some ranchers may not accept payments from Defenders of Wildlife, ranchers in Idaho, Montana, and Wyoming have accepted more than a million dollars in compensation from the group since 1987.
4	page 57-60, section F	Establishing a compensation program for wolf-caused livestock losses can be an effective tolerance building tool while mitigating some of the impacts to livestock producers.	No response was necessary.
4	page 57-60, section F	The structure of a compensation program is all important to insure its purposes, which are to generate tolerance for wolves and mitigate impacts. An effective compensation program is built on mutual respect, accountability, fairness in application, and reciprocal responsibilities.	No response was necessary.

4	page 57-60, section F	The compensation program outlined in the plan appears to follow the Northern Rocky Mtns model, which, unfortunately, is probably not the best model to follow. Although this model has provided some monetary compensation for livestock losses, there is no evidence that it has increased tolerance for wolves. I would instead suggest an incentive-based wolf control program based on a reciprocal responsibility approach implemented through formal producer agreements (Allotment Plans or Wolf/Livestock Interaction Plans) that would use compensation as one incentive to promote tolerance and reduce depredations.	Follow-up communication with this peer reviewer provided clarification on this comment. The reviewer defined "incentive-based" control programs for wolves as those that rely much more heavily on requiring livestock operators to use agency-provided proactive measures in exchange for paying them compensation and using lethal control of wolves on their grazing properties. This type of program offers an alternative to the compensation and lethal control approach currently being used to resolve wolf-livestock conflicts in the northern Rocky Mountains states. Language in the wolf plan has been revised to more clearly state that producers will be responsible for following best management practices in order to receive compensation. Substitute House Bill 1778 also indicates that livestock owners must use self-help preventative measures (including non-lethal methods and department-provided materials) prior to the depredation to be eligible for compensation. Although not specifically mentioned, development of incentive-based conflict reduction programs would fall under a new task (4.2.8) that was added to the plan. This task calls for exploring opportunities to develop new approaches for reducing wolf-livestock conflicts.
4	page 57-60, section F	I feel the compensation program as established in the plan will not effectively achieve the intended goal of fostering tolerance. I fear the compensation program is too liberal, particularly the unknown and unverified loss element of the program. I believe this program will miss the mark and will not be successful in generating tolerance for wolves. Because this program places no responsibilities or burden on producers to adjust to wolves and help reduce depredations, provides compensation for factors that can not be documented or verified, and has little oversight, it will surely invite misuse and fraud. The program will be perceived as a government entitlement shifting the focus to how best to take advantage of its benefits (monetary return) and neglecting its purpose (generate tolerance and reduce deprecations). An effective compensation program must have accountability and be part of incentive-based agreements outlining clear reciprocal responsibilities. As in any business arrangement, WDFW must benefit somehow for providing compensation. What are WDFW benefits for providing compensation to producers as the program is currently structured in the plan?	Follow-up communication with this peer reviewer provided clarification on this comment. The reviewer defined "incentive-based" control programs for wolves as those that rely much more heavily on requiring livestock operators to use agency-provided proactive measures in exchange for paying them compensation and using lethal control of wolves on their grazing properties. This type of program offers an alternative to the compensation and lethal control approach currently being used to resolve wolf-livestock conflicts in the northern Rocky Mountains states. Language in the wolf plan has been revised to more clearly state that producers will be responsible for following best management practices in order to receive compensation. Substitute House Bill 1778 also indicates that livestock owners must use self-help preventative measures (including non-lethal methods and department-provided materials) prior to the depredation to be eligible for compensation. Although not specifically mentioned, development of incentive-based conflict reduction programs would fall under a new task (4.2.8) that was added to the plan. This task calls for exploring opportunities to develop new approaches for reducing wolf-livestock conflicts.

4	page 57-60, section F	I would be reluctant to establish an arbitrary compensation ratio until you have Washington specific data. The 2:1 ratio is not appropriate for private lands larger than 100 acres. This minimum acreage is too small. A producer should know exactly what his losses are on acreages this small. It is important to remember that size of ranches or allotments is only a minor determinant of detection probability. Much more important are factors such as access, remoteness, forest cover, terrain, animal husbandry practices, type and number of livestock. Basing compensation ratios on geographic area alone is too simplistic and not appropriate. This plan element will invite misuse and fraudulent claims.	The selection of 100 acres as the size for which a producer should be able to detect all losses was made by the Wolf Working Group. Factors such as access, remoteness, forest cover, terrain, animal husbandry practices, type and number of livestock are probably more important than parcel size in detection probability. Parcel size was used in the plan as a simple proxy for these other factors because of the difficulty in incorporating them into a two-tier compensation program.
4	page 57-60, section F	Compensation ratios for probable losses are high and will also invite misuse of the program. To be consistent with confirmed losses, this figure should be 1:1. Why are probable losses compensated for a higher relative rate than confirmed losses, when probable losses, be definition, have a lower probability of actually being killed by wolves?	The compensation rate for probable losses on large grazing areas was changed to provide payment for two animals at half the current market value, as recommended by this reviewer, for cattle only. Previously, the plan had recommended that compensation be paid for three animals at half the current market value and covered all types of livestock.
4	page 57-60, section F	Compensation ratios should be specific to type of livestock. For example, compensation ratios should be 1:1 for domestic sheep losses. Compensation ratios should only be applied until after fall roundup. What happens if a producer is compensated for the loss of 10 calves, when he is only missing 5 total after round-up? Compensation ratios should not be applied beyond actual documented missing livestock accounting for normal non-wolf death loss. How will WDFW validate numbers on, numbers off, numbers missing through the grazing season? If WDFW will be compensating for missing livestock, there must be a way to validate the claims.	This comment confuses payment for known and probable losses with compensation for unknown losses. Most of this comment pertains to compensation for unknown losses, which will be developed after approval of this plan. It should be noted that the plan states that compensation for unknown losses shall not be redundant with payment for known and probable losses.
4	page 57-60, section F	Accountability for veterinary costs and other indirect costs (weight loss, nervousness, additional staff time, etc…) will be a nightmare. It will be extremely difficult to document and validate claims for veterinary and other indirect costs, again opening the door to abuse of this program. How will WDFW administer this program? The compensation program should be administered much like an insurance business. You must be able to validate claims to apply the program fairly across clients. Otherwise, the program has a high probability of entertaining fraudulent claims (wasting funds and taking funds away from valid claims) and could be criticized by its clients as being unfairly administered. Such a program will not generate tolerance for wolves, only intolerance for wolves, WDFW, and the compensation program.	Veterinary costs for livestock injured by wolves are covered by Defenders of Wildlife and have not been an administrative problem in managing their compensation program to our knowledge, thus this is not expected to be a problem in Washington. The other concerns listed in this comment (weight loss, nervousness, additional staff time, etc) are not covered under the compensation program described in the plan. Accountability is identified in the plan as being critical to the success of the compensation program, with establishment of a review board being proposed to ensure a high degree of accountability.

4	page 57-60, section F	Regarding eligibility for compensation, at a minimum, 1) the producer must have a history of verified (by WDFW) past wolf presence and confirmed wolf depredation on his livestock, as well as verified presence and confirmed wolf depredation the year of the claim, 2) criteria for confirmed and probable wolf kills are too liberal (Idaho Wildlife Services has guidelines/definitions that may help), 3) I would not include tooth punctures, broken bones, or wolf-like feeding patterns as these criteria are not or minimally diagnostic, 4) I would include a) photo documentation of all evidence (chase scene, attack sites, kill site, drag marks) used to make a determination, b) use of a standardized depredation report form, and c) most importantly a full necropsy to determine hemorrhaging patterns. An absence of hemorrhaging should trigger a non-wolf call.	We've adjusted and clarified language in the plan regarding the criteria for assigning confirmed and probable wolf depredation. This new language is taken from the definitions used by USDA Wildlife Services in Idaho, Montana, and Wyoming. Use of a standardized reporting form, photos, and necropsies will be required during depredation investigations in Washington.
4	page 57-60, section F	I am confused about compensation for unknown losses. The plan indicates producers will be eligible for unknown losses in areas with at least 2 depredations. Will producers that are compensated for confirmed and/or probable losses also be compensated for unknown losses? This seems like double counting to me.	As stated in the plan, no redundancy is allowed between the two types of compensation.
4	page 57-60, section F	Basing unknown losses on a 5-year running average is problematic as the historic non-wolf loss rate will remain the same forever once the first wolf depredation claim is authorized. That is, all losses above historic levels will be attributed to wolves, so the non-wolf loss rate will always remain the same; there will be no running 5 year average after the first wolf claim. How are you going to account for non-wolf related losses and annual fluctuations in these losses for missing livestock?	The plan states that the design of the compensation program for unknown losses will need to be developed. Because of this reviewer's concern, the statement in the plan regarding the use of data from the "most recent five years" was changed to "perhaps the most recent five years." This reflects that the program details have not yet been developed.

4	page 57-60, section F	The Washington Compensation Review Board must be composed of WDFW staff. Balanced conservation and livestock interests should be welcomed as ad hoc members to provide program transparency. The two WDFW specialists and possible WS field agents (if they are involved in depredation investigations) must be voting members of the Review Board. I can not emphasize this latter point enough. These are the folks that work with affected producers day in and day out. These are the folks that will be able to validate claims. It is important to remember, the wolf specialists will know all affected producers. They will know which producers are having wolf problems and which are not. They must be voting members on the Review Board. This is a WDFW program spending WDFW funds. It must be administered by WDFW to protect its interests, insure accountability, and assure fairness of application.	Mention of a Washington Compensation Review Board has been removed from the plan except to say that some sort of multi-interest review board may be needed to assess the validity of claims seeking compensation for unknown losses. A review board would not be involved in matters concerning payment of compensation for confirmed and probable kills, which will be paid automatically. Whether or not a review board contains WDFW staff will be determined at a later time.
4	page 58, compensation	Tribal lands should be included in the text for parts 1a and 1b.	State law provides no direct legal authority for paying or not paying compensation for depredation losses on tribal lands, thus it is unclear whether such payments can be made. WDFW does not provide compensation for other wildlife-related conflicts on tribal lands, and there is no requirement to do so under the new wildlife compensation legislation (Substitute House Bill 1778) that was passed in 2009.
4	page 58, lines 19-20	I don't like use of the word "suspected" here.	"Suspected" was changed to "probable."
4	page 58, lines 6-8	This is written in a way that makes it sounds like livestock producers are giving their permission to allow wolves to recover. Also, who wouldn't want to get paid by the government?	The wording of this sentence was changed in response to this comment.

4	page 58-59, subsection "Compensation"	A compensation program that is fair, affordable, and effective will go along way in developing social tolerance for wolves in Washington. The program outlined in the plan is well thought out by the group. The only concern is how to pay for such a program. It seems like a more detailed assessment of how this compensation package can be paid for and sustained over time is needed. A compensation program full of empty promises would do more harm in developing social tolerance than one that is less expensive but more sustainable and reliable. While the 2 times value and 1.5 times value compensation proposed for confirmed and probable livestock kills may make sense based on Oakleaf's research (Oakleaf et al. 2006) and suggestions concerning ratios of confirmed to unconfirmed livestock kills, payment for unrecovered or unknown losses (i.e. missing cattle) in addition to the proposed payment for confirmed and probable losses seems excessive, and will likely be seen as such by many people. The survey question that you quote on public support for livestock compensation has a pretty narrow approval margin (56%); it would seem wise not to be seen by the general public as overdoing the livestock compensation issue. Other states that pay wolf livestock damage compensation pay for confirmed kills and in some cases probable kills. I am unaware of other states that pay for unrecovered or unknown livestock losses.	It is unknown whether a program paying compensation for unknown losses can be successful. a program of this type in Idaho has encountered problems with lack of adequate funding and abuse.
4	page 58-60, subsection "Compensation"	I disagree with 100 acres defined as large and suggest using 640 acres, equivalent to a full section.	The selection of 100 acres as the size for which a producer should be able to detect all losses was made by the Wolf Working Group. Factors such as access, remoteness, forest cover, terrain, animal husbandry practices, type and number of livestock are probably more important than parcel size in detection probability. Parcel size was used in the plan as a simple proxy for these other factors because of the difficulty in incorporating them into a two-tier compensation program.

4	page 58-60, subsection "Compensation"	WDFW convened a stakeholder group to develop recommendations for resolving wildlife conflicts with agriculture. A draft RCW proposed caps for compensation on cattle and other livestock. I suggest the wolf plan defer to the caps proposed in the draft RCW. Federal crop insurance programs typically pay 85-90% of the value for lost/damaged crops. Intent of these crop insurance programs is to maintain cash flow, not ensure profit. Paying more than market value creates incentives to make claims or manipulate the system, such as directing your sick/old cattle to areas of wolf activity. Large numbers of claims could require significant amounts of time from agency personnel and, the agency is paying the cost for investigations. I'm sure the insurance industry could clearly describe the effect that paying more than market value for losses would impact their business.	The initial portion of this comment refers to Substitute House Bill 1778, which was passed in the 2009 legislative session and covers payment of compensation for wildlife-caused crop damage and livestock depredation. It offers compensation of up to $200 per sheep, $1,500 per head of cattle, and $1,500 per horse for any animal killed or injured by cougars, bears, or wolves. However, payment of compensation is dependent on a legislative appropriation each biennium. Other stipulations include that livestock owners must have used self-help preventative measures (including non-lethal methods and department-provided materials; a few exceptions apply) and have exhausted other compensation options from non-profit organizations before becoming eligible to receive payment. The compensation portion of SHB 1778 goes into effect July 1, 2010. The second part of this comment refers to the wolf plan's intent to pay more than the value of confirmed and probable livestock losses related to wolf predation on land parcels 100 or more acres in size. This part of the wolf plan has been changed to cover cattle losses only on larger land parcels and now states that payment for each confirmed loss will be made for two animals at the current market value and for each probable loss payment will be made for two animals at half the current market value. The intention of this part of the compensation program is twofold. First, unlike producers of sheep and other livestock, cattle producers are more likely to experience unverifiable losses on larger parcels, where finding all depredations becomes difficult. Second, it is hoped that this level of payment will build greater tolerance for wolves among livestock producers in general in Washington.
4	page 58-60, subsection "Compensation"	As an example of an alternative compensation program that might be more effective in Washington, Israel (Nemtzov in Carnivore Damage Prevention news No. 6, 2003) and other countries found that funding preventative programs was more effective than offering compensation. Israel also required a deductible before providing compensation. For herds less than 200 animals in size, the first animal was not compensated for. Larger operations required a higher deductible.	Information from Nemtzov (2003) was not added to the plan because evidence from the Northern Rocky Mountain states suggests that proactive deterrents and compensation work best when used together. However, in one small area of Israel, Nemtzov (2003) reported that the farming cooperative paying most of the costs related to wolf management concluded that paying for expanded use of proactive deterrents was more effective in dealing with the problem of wolf depredation than paying compensation.
4	page 58-60, subsection "Compensation"	I suggest that livestock producers who illegally kill wolves or allow wildlife violations to occur on their private/leased lands should thereafter be prohibited from receiving compensation.	WDFW does not place this type of prohibition on other forms of wildlife compensation, thus it would not be applied to those receiving compensation for wolf-caused losses.

4	page 58-60, subsection "Compensation"	I suggest that compensation should not be paid on public lands where grazing has not occurred prior approval of this plan. Thus, if a new grazing allotment is opened up afterwards, the bidders should factor in the expense of dealing with wolves into their business plan.	The plan recommends that compensation be paid on public land, regardless of the circumstances, including whether wolves were present prior to the opening of a new allotment. When new allotments are opened in areas with wolves, it will be important that the responsible land management agency, WDFW, and others work with the permittees to incorporate best management practices for avoiding conflicts with wolves.
4	page 58-60, subsection "Compensation"	I suggest that unused compensation funds should be directed to preventative (proactive) measures.	New legislation that covers compensation for all types of wildlife damage is capped at $150,000 (including $120,000 from the state wildlife fund and $30,000 from the general fund). This level of funding is probably not sufficient to cover all wildlife damage, thus it is not anticipated that there will be unused funds from this source. In addition to this funding, the plan recommends that additional funding sources be developed for verified and unknown losses and for implementing proactive measures. These sources of funding may or may not be separate from each other.
4	page 58-60, subsection "Compensation"	I suggest that reduced compensation be given to larger operators (e.g., those earning more than $250,000 in yearly gross sales as defined by USDA).	This stipulation would add another layer of complexity to development and implementation of a workable compensation program, thus it was not added to the plan.
4	page 59, line 12	It would seem appropriate to include a reduction in payment for any financial gain that the owner received from the sale of a salvageable carcass or other products. For example, if a cow is injured in a wolf attack and the meat or hide can be recovered, then the entire value of the livestock should not be paid by the compensation fund.	This information was added.
4	page 59, line 24	Develop a standard that the hotline is checked at least once every 24 hours.	This information was added to chapter 12, task 4.3.2.
4	page 59, line 33	What category would include an instance where evidence indicated that wolves had fed on/scavenged a carcass, but the cause of the animal's death was uncertain.	Instances where the cause of death was uncertain would fall under the new category of "unconfirmed cause of death." Depending on the evidence present, clear examples of wolf scavenging on a carcass could fall under any of four categories: confirmed non-wolf depredation, unconfirmed depredation, non-depredation, or unconfirmed cause of death.
4	page 59, line 39	These criteria seem extremely vulnerable to abuse.	We've adjusted and clarified language in the plan regarding the criteria for assigning confirmed and probable wolf depredation. This new language is taken from the definitions used by USDA Wildlife Services in Idaho, Montana, and Wyoming. Use of a standardized reporting form, photos, and necropsies will be required during depredation investigations in Washington. Depredation investigations will be made by trained personnel from WDFW or USDA Wildlife Services, thus determinations of probable wolf depredation should not be vulnerable to abuse.

4	page 59, line 7	I suggest covering compensation here up to the market value of the injured animal.	This information was added.
4	page 59, lines 7-9	Shouldn't the loss of herding and guarding dogs be compensated for as well?	Guarding/herding animals are included under the definition of livestock (see glossary) in this plan, thus compensation will be paid for their losses. Additional wording was added chapter 4, section G, to clarify this.
4	page 59, par 4	The USFWS has been monitoring the Washington Wolf Hotline since February 2007. It has been used primarily for wolf observation reports. If it is going to be used in the future to report suspected wolf depredations, agency personnel would have to monitor it on a regular basis including weekends and holidays. We recommend that phone contact number(s) be included on the hotline recorder for making suspected wolf depredation reports. This process should be similar to the way other wildlife emergencies and violations are reported.	Chapter 12, task 4.3.2, refers readers interested in the hotline to the response guidelines in appendix I and the WDFW wolf website for current hotline telephone numbers, reporting guidelines, and associated information.
4	page 59, subsection "Eligibility"	A fifth category should be added to cover non-depredation events.	This new category was added, as was a sixth category for unconfirmed cause of death.
4	page 60, lines 37-39	I have the concern that down the road the ranching lobby will want compensation for other predator losses, which obviously far outweigh anything wolves can do. Once the compensation door is opened, what will stop it at wolves?	A new law (Substitute House Bill 1778) passed in 2009 will provide compensation for some of the losses caused by other predators in Washington.
4	page 60, par 1	The set of recommended management practices for continued compensation needs to be defined or referred to in this section.	Language was inserted indicating that best management practices include removal of dead and dying livestock and other proactive measures.
4	page 60, par 1	It needs to be defined who determines reasonable, i.e., the Washington Compensation Review Board.	The phrase "reasonable attempt" was removed from the text.
4	page 60, par 1	Somewhere in the report it needs to be specified how the Review Board is appointed.	Mention of a Washington Compensation Review Board has been removed from the plan. Language was added indicating that a multi-interest review board could be established to improve accountability, etc.
4	page 60, par 2	This seems extremely likely to be abused. Herd health may be minimal due to disease, etc and loss of animals may be due to factors other than wolves.	A compensation program for unknown losses must have a high degree of verifiability or else the program will fail. If a program can not be developed that minimizes abuse, then WDFW and an advisory group will look at alternatives. No changes to the text were made in response to this comment.

4	page 60, par 4	Why are citizens unfamiliar with wolf predation techniques/signs/behavior being allowed to determine what the signs are? These criteria should be established by wildlife biologists who specialize in wolves.	Mention of a Washington Compensation Review Board has been removed from the plan except to say that some sort of multi-interest review board may be needed to assess the validity of claims seeking compensation for unknown losses. Members of such a review board would not conduct field investigation themselves, which will instead by performed by trained personnel from WDFW or USDA Wildlife Services. No changes to the text were made in response to this comment.
4	page 60, subsection 2	What is the data source for historic losses? Hopefully some formal documentation exists beyond handwritten notes provided by an operator. These documents are easily generated to show lower historic losses than the first year wolves show up.	The plan has been changed to recommend that WDFW work with a multi-interest stakeholder group to establish the compensation program for unknown losses. They will work together to develop the program, including development of a method to validate historic losses as a baseline, demonstration of current year losses, criteria for excluding payment for unusual levels of death losses from non-wolf-related sources (e.g., other predators, weather, disease), and determining the best method for reviewing and validating claims.
5	page 61, par 2	Should indicate that moose are a major prey species in much of BC.	This information was added.
5	page 61, par 2	Should note that wolf predation can affect small populations of bighorn sheep (and other species).	This information was added to page 63.
5	page 61-64, sections A and B	This material is well done.	No response was necessary.
5	page 61-64, sections A and B	Predator & prey relationships. You did a great job here and you are right that it's a mess when you want to make conclusions, but one bottom line that you did not mention; interpreting the differences between studies probably comes from where to prey sit relative to carrying capacity (K). If prey are at or close to K, then wolf predation doesn't mean much, or is compensatory; if prey are below K, then wolf predation means a lot and is additive. That will be the thread thru all those studies you mentioned and why they came up with different results. Where are prey relative to K? Most of the time no one knows, that's a hard thing to determine. The Clearwater to which you refer in the plan is a classic example, elk prob at K so killing predators won't do much.	This information was added to section A.
5	page 61-75, chapter 5	I believe the plan gives adequate background information on wolf-prey interactions and the status of Washington's ungulate species.	No response was necessary.
5	page 61-75, chapter 5	Predictions of the expected numbers of elk and deer that will be killed annually by wolves in Washington should be added to the chapter.	This information already exists in chapter 14. A note was added in chapter 5 (see new section C) directing readers to chapter 14, section C.

5	page 61-75, chapter 5; page 99-101, task 5	You might want to develop strategies that describe how you will address the impacts of wolves on specific ungulate herds or herd segments. This would apply to listed and delisted wolves.	Language was added to chapter 12, task 5.4, stating that development of site-specific strategies may be necessary if research determines that wolf predation is causing excessive harm to specific ungulate populations.
5	page 62, line 35	Human disturbance/development should be added as another factor influencing prey populations.	This information was added.
5	page 62, line 35	Disease, loss of habitat due to human development, and vehicle collisions remove large numbers of prey species annually as well, especially deer.	These factors were added to the sentence.
5	page 62, pars 2, 3	These two paragraphs touch on improving the gene pool of prey species by removing weak animals. Should this be highlighted as a huge bonus for bringing wolves back into the ecosystem? Is there more to say and reference in regards to this issue?	The plan mentions (chapter 6, section D) that removal of "weak" prey by wolves can to lead to increased herd productivity, but we unaware of scientific evidence that it can "improve" the gene pools of prey populations. No changes to the text were made in response to this comment.
5	page 63, lines 29-31	Sentence is confusing or should be deleted.	Sentence was reworded.
5	page 63, lines 41-42	I think it would be important to indicate that there are elk populations in decline where there are no wolves. I believe one area is the Elkhorn Mountains.	This information was added to this paragraph.
5	page 63, par 3	A key issue in regards to disease/genetic inferiority would be: animals that have inferior genes/immune systems would be likely to be killed first, thereby improving/strengthening the gene pool (in theory, not sure what research has been done to support this). Genetically inferior ungulates have not been discussed in this section.	The plan mentions (chapter 6, section D) that removal of "weak" prey by wolves can to lead to increased herd productivity, but we unaware of scientific evidence that it can "improve" the gene pools of prey populations. No changes to the text were made in response to this comment.
5	page 64, line 42-43	This section discusses a post-hunting-season population of elk in the state. At least for the Mt. St. Helens elk herd, estimations of population are calculated using the Sex-Age-Kill modeling method, which estimates a pre-season population. This model essentially reconstructs the population based on the number of males killed by human hunters annually and various age and sex ratios. This method generates a hypothetical population that might be thought of as a September 1 estimate of the elk population.	The text was edited to remove the term "post-hunting season." Further inquiries with WDFW staff revealed that some herds are surveyed before the hunting season, while others are surveyed afterwards. Thus, reference to time of survey period was eliminated here.
5	page 64, line 43	The text refers to an estimate of the statewide elk population but fails to recognize elk that may reside nearly entirely on tribal reservations or within national parks. This is mentioned later in figure 7 and Table 7. It would be appropriate to mention these elk in the text as well.	This information was added.

5	page 64, par 1	Is it possible elk numbers inflated artificially since the extirpation of wolves during the past 100 years? Elk have likely moved into areas they did not historically exist in large numbers due to vulnerabilities to predation. Now that wolves are present again, might elk/ungulate populations be contracting to historic levels (pre-Europeans).	A remark about elk numbers being artificially high in the northern portion of Yellowstone National Park was added. WDFW is not familiar with any information describing elk numbers in Yellowstone or other areas before European settlement. Similarly, we do not know of any evidence suggesting that recent elk numbers in Yellowstone or other areas are declining to levels consistent with pre-European settlement population sizes.
5	page 65, figure 7	The Mt. St. Helens elk herd area should be shown to include about the western two-thirds of Klickitat county (essentially GMUs 578 and 388) Also, the figure incorrectly shows the Yakima Indian Reservation extending southward into nearly the northern half of Klickitat County. The reservation only covers a very narrow slice of the northern central portion of the county, perhaps 5% of the total area of the county.	The figure was corrected.
5	page 65, lines 5-7	It is important to distinguish the differences between eastside and westside habitat conditions. On the eastside, fire exclusion over the past several decades has reduced forage availability in some areas. However, large high severity fires are creating significant areas of early successional forest, offsetting reductions in timber harvest. This is not the case on the westside.	This information was added.
5	page 65, par 2	There are potential concerns about wolf predation on mountain caribou.	This is addressed in chapter 6, section C.
5	page 66, table 7	Olympic National Park has estimated 3,060 living year-round inside park boundaries.	This information was added.
5	page 66, table 7	The current *post-season* population of elk *on the surveyed winter range* is about 4000 and 9500 for the Colockum herd and main Yakima herds respectively. I'm not sure what the population estimate is for Hanford (I'd guess 700-800). The actual and pre-season populations are higher.	Numbers for these herds were updated.
5	page 66, table 8	It would be valuable to include data from the recent 2003-2006 Blue Mountains study.	Additional information was incorporated from an older study of calf mortality in the Blue Mountains. Information from the 2003-2006 study will be added if it is summarized and made available before the completion of the wolf plan.
5	page 66, tables 7 and 8	Suggest moving these tables to before individual herd summaries.	This change was made so that the text for all 10 elk herds was linked together.
5	page 67, par 4	There are also an estimated 5,000 elk on the Yakama Reservation.	This estimate for the reservation was confirmed and was added to the text.
5	page 67, par 4	WDFW now feeds about 70% of the Yakima herd annually. The number is expected to continue to increase to perhaps 75-80% in the next 8 years.	The information referenced here was added to Section D of this chapter.
5	page 68, line 26	This is a pre-season estimate.	No change was made

5	page 68, line 29	Northern Clark County should be removed from the list of areas with lots of elk. Very few elk are there and this is in an area not managed for elk.	This correction was made.
5	page 68, line 35	The three bullets under this heading are too simplified. Several GMUs are managed with general seasons for "any elk" for all user groups (including modern firearms), three GMUs are managed under a permit-only basis for all user groups, archery hunters are allowed to take antlerless animals with general season tags in many GMUs, etc.	These corrections were made. Based on this comment, revisions were made to remarks on harvest management for the other nine elk herds.
5	page 68, line 42	Olympic National Park has estimated 3,060 living year-round inside park boundaries.	This information was added.
5	page 69, line 18	It's not really correct to say that Washington has four subspecies of deer. Mule deer and white-tailed deer are classified as distinct species with blacktails usually considered a subspecies of mule deer and Columbian whitetails considered a subspecies of whitetails in general. Specifically, mule deer are *Odocoileus hemionus,* with blacktails called *Odocoileus hemionus columbianus* and whitetails are called *Odocoileus virginianus* with Columbian white-tailed deer called *Odocoileus virginianus leucurus*. It might also be worth mentioning that mule deer and blacktails readily cross-breed with each other along the eastern slope of the Cascades (especially in the SE Cascades – Klickitat Co.). Hybrid individuals that are essentially impossible to classify as one or the other are common.	The four subspecies are: mule deer (*Odocoileus hemionus hemionus*), black-tailed deer (*O. h. columbianus*), white-tailed deer (*O. virginianus ochrourus*), and Columbian white-tailed deer (*O. v. leucurus*). A statement about mule deer and black-tailed deer hybridizing with one another was added to the subsection on black-tailed deer.
5	page 69, line 26	This generalized statement about reduced emphasis on clearcutting in misleading. On the east-side fires are creating plenty of early-successional forest conditions.	This information was added.
5	page 69, line 8	"This is Washington's least known elk herd". I'm not sure what this statement means. In size it ranks 4th out of 10 according to Table 7 and it's certainly known to lots of people in southwestern Washington. Maybe what is meant here is that there isn't a current management plan for the herd.	This statement was removed and replaced with some additional text.
5	page 70, line 15	It would be appropriate to list pronghorn as having reproductive capacity equal to whitetails, i.e. when nutrition is good, females can ovulate and become pregnant as fawns and twinning is common among females of at least 1½ years of age.	The sentence noting this in the plan was changed to say that white-tailed deer have "one of the highest" reproductive capacities among North American ungulates.
5	page 71, lines 23, 25, 28	Text should be corrected to read "at least three antler points on one side".	This correction was made at these locations and elsewhere regarding elk.

5	page 72, figure 9	The map of moose distribution should be updated to match that shown in the Game Mgmt Plan, 2009-2015.	The moose range map in the Game Management Plan, 2009-2015, depicts projected distribution of moose in the state based on habitat considerations rather than actual occurrence. Thus, it too is potentially flawed. Upon further discussion with staff of the WDFW Game Division, a new map of moose distribution was generated. This has been added to the plan.
5	page 72, figure 9	The map should show that the Blue Mtns has a new and expanding moose population.	This information was added.
5	page 72, figure 9, par 4	Figure should show that moose are present in Okanogan County. Text should indicate that moose are occasionally present in Chelan Co.	Figure caption has been corrected to state that the figure depicts the primary range of moose in Washington. Chelan County was added to the text.
5	page 72, line 11	It's not correct to say general muzzleloader seasons are either sex. In fact most are restricted to bucks only. Those in which antlerless harvest is allowed are primarily those GMUs associated with urban and suburban areas (near Puget Sound and the I-5 Corridor).	This correction was made.
5	page 72, line 11	Also, this table fails to list the 4-day general modern firearm late buck season held each November in essentially all of Western Washington.	This correction was made.
5	page 72, line 11	The muzzleloader season for black-tailed deer should be clarified to indicate that it is mostly for bucks only, not either-sex.	This correction was made.
5	page 72, line 9	Its not correct to say that all archery seasons are either sex, roughly half of the open blacktail archery hunts are restricted to bucks only.	This correction was made.
5	page 72, par 2	It is hard to imagine that the low targets set for downlisting and delisting wolves in the plan will have any negative impacts on elk or deer herds.	This same conclusion appears in chapter 12, section C.
5	page 72, par 4	Should note presence of increased moose numbers in Blue Mtns.	This information was added.
5	page 73, line 4	Not sure whether any far-reaching judgments on habitat condition are appropriate considering that climate change may affect the landscape dramatically over the next few decades.	The extent of near-term climate change impacts to habitat are often difficult to predict. Because of this, this sentence was not changed significantly, but the wording was altered slightly to include some minor uncertainty.
5	page 73, par 2	Is genetic isolation of bighorn sheep herds also a problem?	Inbreeding associated with genetic isolation has not been identified to date as a problem for herds in the state (D. Ware, pers. comm.).

5	page 73, par 2	Bighorn sheep data should be updated. In my district, there are over 800 bighorns (900 if you include Yakama Res.). The largest herd is 275 animals (173 stated maximum in wolf plan). The 2006 reports indicate another 700-800 bighorns in the state (~1600 total). I doubt other states have our situation. Two of the herds are partially surrounded by elk fences. On Clemans, 150-200 bighorns are fed during the winter on a flat next to a corner in the elk fence. Wolves are opportunistic and might use the fences to take bighorns. Hopefully the sheep will avoid the area and stay in better escape terrain. This would increase the cost of managing the herds. Clemans Mountain bighorns are counted at the feed site. We also frequently trap and remove animals via feeding. We've taken out ~100 animals in recent years for translocation and research. No feeding means lots of helicopter flying.	Numbers of bighorn sheep in the state and individual herds were updated.
5	page 74, figure	Map needs to be updated.	An improved map was inserted.
5	page 74, figure 11	Cliff Rice has a better figure for Mtn. Goat distribution. For example, it includes goats that live on Mt. Adams (~200) and Mt. St. Helens (~30).	A new figure was inserted to depict distribution.
5	page 74, figure 11	The figure should show that mountain goats occur in Olympic National Park	The figure already shows some of the park as being occupied, but has been further updated.
5	page 74, figure 11	The map should show that the Blue Mtns has a new mountain goat population in the Wenaha-Tucannon Wilderness in southeastern Columbia and southern Garfield counties over the last 3 years.	This information was added.
5	page 74, figure legend	Legend needs to reflect that distribution is approximate.	Corrected.
5	page 74, line 19	This title doesn't make sense for the text that follows. The section goes into a detailed discussion of fencing and winter-feeding of elk. I think it would be better to either change the title or expand the discussion to include relevant aspects of WDFW's requirement to respond to agricultural damage, how wolves could impact this, how deer and elk damage is currently dealt with, etc.	The title of this section was changed. The section was also somewhat reorganized and given additional information to provide better discussion of the topic.
5	page 74, line 22	Fencing and supplemental feeding of elk have not been WDFW's only methods of dealing with deer and elk damage. Another very important tool is the establishment of hunting seasons designed to either kill individual local problem animals or suppress the deer or elk population over a broad geographic area to preclude damage. Compensation to landowners is also given, special hunting opportunities are given to landowners, and private lands hunting areas are established, hazing is sometimes used, etc.	This information is correct, but was considered unnecessary for this discussion and therefore was not added.
5	page 74, lines 1-2	Should indicate that mountain goats are also increasing in Olympic National Park	This information was added.

5	page 74, par 1	Are domestic sheep and goats a problem because of disease-related issues?	There is currently little overlap in Washington between domestic goats and sheep and mountain goats, and disease problems of this type are not known to exist (C. Rice, pers. comm.). However, this may have been more of a concern in the past when more overlap occurred between these species.
5	page 74, par 3	Although very hard to predict, the plan should give further discussion on the damage and management costs that WDFW will likely incur in response to wolf-elk interactions at winter feeding stations. For example, increased manpower and trucking costs will result as elk feeders chase elk with hay. If elk go through the fences; damage, complaints and harvest will increase. There will also be increased costs with surveying elk and meeting the objective of measuring elk populations. To maintain high confidence in estimates, flight time will need to increase (pre-survey stratifying and numbers of units flown).	Information on these concerns was added to this section after it was reorganized.
5	page 74-75, section D	The Yakima elk herd's winter distribution is intentionally controlled through use of feeding stations to reduce elk/crop damage issues. If the wolves find the feeding stations, the elk will possibly scatter and disperse into agricultural lands. This issue should be more fully discussed and fleshed out in the plan.	A new task (task 5.3) was created in chapter 12 to address this problem.
5	page 74-75, section D	I am concerned that wolves have a high likelihood of displacing elk off of public winter range in the Blue Mountains and onto private lands. This would likely result in a significant increase in agricultural damage and potentially increase the likelihood of wolves encountering livestock. Would this be a situation that would qualify for relocation of the wolves outside of the immediate region if suitable nearby habitat was not available. For example, might wolves from the Blues being relocated in the Cascades?	Concerns related to the first portion of this comment were added to section D and to chapter 12, task 5.3. Language has been added to chapter 3, section B, indicating that relocation of wolves will generally occur within the same recovery region. Thus, if necessary, wolves from the Blue Mountains would probably be relocated into other areas of the Eastern Washington recovery region (i.e., northeastern Washington) rather than into the Cascades.
5	page 74-75, section D	I expect increased agricultural damage from elk after wolves become established. The cost of fixing the broken elk fence is minimal compared to what could happen outside the fence. This includes broken stock fence and irrigation equipment.	The plan identifies agricultural damage as a possible outcome of wolf presence in certain areas, but notes that this and increased fence breaching by ungulates has not been noted in Wyoming. Furthermore, no damage reports of this type have been published for Idaho or Montana. A task (5.3) has been added to chapter 12 indicating that damage situations of this type in Washington will be evaluated on a case-specific basis to determine if management responses are needed and, if so, what the responses should be. In some cases, it may be desirable to develop a response plan in advance to address an anticipated conflict.
5	page 75, line 21	An increased potential for disease transmission seems like a minimal concern given that elk are already congregated at the feeding site.	The remark about increased potential for disease transmission was deleted.

6	page 76-78, section A	I believe the fragmented nature of suitable wolf habitat and likely overall sporadic distribution of wolf packs over most of Washington make it highly unlikely that wolves will have a significant effect on numbers of coyotes.	A sentence was added to the end of paragraph 1, chapter 6, indicating that wolf benefits to ecosystems are likely density dependent and that smaller wolf populations will probably create fewer benefits than larger populations. This would also apply to reductions in coyote abundance.
6	page 76-80, chapter 6	I believe the plan gives adequate background information on wolf interactions with non-prey, listed species, and ecosystems.	No response was necessary.
6	page 76-80, chapter 6	This material is well done.	No response was necessary.
6	page 76-80, chapter 6	Despite the Plan's prediction that wolves are not expected to prey on mountain caribou extensively, there should be some mechanisms in place to deal with this prospect. As probably is currently done, radio-collared caribou emitting a mortality signal should be examined for cause of death as soon as practicable. If wolf predation is determined to be cause of death, efforts to relocate wolves should be undertaken.	More background information on wolf interactions with mountain caribou was added to chapter 6. Also, in chapter 12, task 7, mountain caribou were highlighted as a species for which it may be desirable to develop a response plan in advance to address an anticipated conflict. As noted there, potential response options might include relocation of wolves.
6	page 77, par 4	Explain why protected areas may be different in regards to wolf-coyote interactions.	Clarification was made.
6	page 78, line 44-46	Localized reductions of specific wolf packs were attempted successfully elsewhere in British Columbia in the late 1980s. Wildlife managers have been and are currently using similar management techniques for cougars within the caribou recovery area.	Several minor changes to the text were made to address this comment.
6	page 78, par 4	Wouldn't turkey vultures benefit as well from scavenging on wolf carcasses?	Vultures were added to the species list here, although they typically are not among the species described in relevant studies from the northern Rockies.
6	page 78, par 5	Because wolves are an important predator of mountain caribou in parts of British Columbia, the USFWS recommends that the state develop, in coordination with the USFWS, a contingency plan should wolves become an issue for mountain caribou recovery.	A note was added to chapter 12, task 7, identifying mountain caribou as a species for which a response plan may be needed.
6	page 78, par 6	Despite the low wolf recovery targets in the Eastern Washington recovery region, wolf relocation may be necessary if predation on mountain caribou is documented.	In chapter 12, task 7, mountain caribou are highlighted as a species for which it may be desirable to develop a response plan in advance to address an anticipated conflict. As noted there, potential response options might include relocation of wolves.

6	page 79-80, section D	I would suggest not overplaying the cascading effects of wolves on Washington's ecosystems because (1) such effects require high populations of wolves and (2) such effects are usually important only in pristine areas such as national parks and wildernesses. They would have few consequences in monocultures, livestock grazing areas, and most other degraded ecosystems, even though can and thrive in such places. In other words, these effects would only be important in a tiny part of the state.	Two additions were made to Section D to reflect these comments, although the addition reflecting the second comment was made more equivocal than the reviewer's statement.
6	page 79-80, section D	I believe the fragmented nature of suitable wolf habitat and likely overall sporadic distribution of wolf packs over most of Washington make it highly unlikely that wolves will produce noticeable ecosystem effects.	A sentence was added to the end of paragraph 1, chapter 6, indicating that wolf benefits to ecosystems are likely density dependent and that smaller wolf populations will probably create fewer benefits than larger populations.
6	page 80, par 2	Caution should be exercised in using the conclusions of the Beschta and Ripple (2008) paper without collaborating research and more in depth analysis of historical elk populations, and of the interactions between cervid herbivory, floodplain tree regeneration, and fluvial dynamics.	The information in this paragraph was made more tentative, with a caveat added that additional research is needed to confirm the results of Beschta and Ripple (2008).
7	page 81-85, chapter 7	I believe the plan gives adequate background information on human safety, interactions with domestic dogs, and hybrid/pet wolf issues.	No response was necessary.
7	page 81-85, chapter 7	This material is well done.	No response was necessary.
7	page 81-85, chapter 7	One would think that wolves attacking or chasing livestock within 150 yards of a primary residence (see chapter 4, section E) would trigger a strident concern for human safety more so than the welfare of the wolf. As a large carnivore, wolves can and do habituate to people. Wolves also have the capacity to become food conditioned. Generally, wolves seem to tolerate very close proximity to people and dwellings and that tolerance is much higher for the wolf than for people. It is incumbent upon people and agency managers to not allow wolves to become comfortable in close proximity to people.	Habituation is addressed in chapter 12, task 6.
7	page 81-85, chapter 7; page 101-103, task 6	The education/outreach section of the plan that deals with wolf-human conflicts is good. However, any wolf that becomes habituated to people or shows any aggression toward humans should be lethally removed immediately. This does not apply to people with dogs that may encounter wolves. Tolerating habituated wolves will be a serious detraction to your program.	Task 6.1.3 in chapter 12 was updated to include that immediate lethal control will be used in judged necessary.
7	page 83, line 21	Natural resource workers should be added as another group that may encounter wolves in the wild.	This information was added.
7	page 83, par 5	Sentence about feeding wolves from cars, etc is redundant.	Sentence was removed.

8	page 86, chapter 8	To me, it seems inappropriate to declare in the plan that no land use restrictions or land management changes might result from re-establishment of wolves in Washington. In fact, section 5.2.1 discusses a desire for habitat improvements for wolf prey. Such improvements could include restrictions on such things as road densities, herbicide use, grazing (AUM) appropriations, size of clearcuts, etc. Furthermore, intensive land uses such as mining, ski-resort development, road or rock-pit establishment, reservoir establishment (dam building), etc., could all negatively affect wolf and prey habitat directly. Presumably, WDFW would argue against such land uses within occupied wolf habitat. Various landscape plans, rules, laws, regulations, management plans, forest management plans, etc. could all be initiated or modified in ways that either improve or are detrimental to wolf or wolf prey habitat. Presumably, WDFW would argue for pro-wildlife decision-making in the development of such plans, etc.	As stated in chapter 8, wolves are habitat generalists with large territories. Because of these traits, restrictions on human development and other land use practices have not been needed to achieve wolf recovery in Idaho, Montana, and Wyoming. This is expected to be the case in Washington too. WDFW uses sound science and conservation principles when evaluating and making recommendations on development proposals that will impact wildlife in the state. Proposals of this type would be evaluated on the basis of their impacts to a variety of species rather than just wolves. Actions to recover wolves typically focus on reducing sources of mortality (both legal and illegal) and maintaining an adequate prey base, rather than loss of habitat.
8	page 86, chapter 8	The plan implies that private lands will be of little importance for wolf recovery in Washington. It is likely that private lands (especially private forestlands) will be important habitat for wolves in Washington. Prey densities are often higher in the relatively lower elevation private forests than on areas of higher elevation public lands. This situation is made more relevant due to Washington's relatively small amount of land (smallest of the western wolf states) to begin with. The maintenance of viable forestry and agricultural industries located primarily at the fringe of the public lands will be an important aspect of maintaining wolf habitat into the future. In contrast, the conversion of such lands into uses such as residential housing or industrial areas would come at the detriment of wolves and their prey.	It is expected that wolves will primarily occupy public lands in Washington. This is further indicated by some of the habitat modeling presented in chapter 3, section A. However, private lands undoubtedly will be used by wolves in Washington, as noted in nearby states, where wolves commonly occur on lands of mixed ownerships (i.e., public, private, and corporate-owned lands). Private forest and agricultural lands located at the fringe of the public lands can provide important habitat for wildlife. Human activities on these lands are not expected to be affected by the presence of wolves.
8	page 86, par 2 and 6	These are conflicting statements and should be revised accordingly. Statement 1: *"Thus, there have been no restrictions on grazing practices, road use, timber management and logging, mining, public access, or other activities due to the presence of wolves, with the exception of some temporary area closures near den sites in national parks only." Statement 2: "The only exception would have been potential take involving a den site. For example, if an agency planned a controlled burn in April, the U.S. Fish and Wildlife Service would have asked the agency to wait until the wolves were out of the affected den later that summer."*	WDFW believes the statements being compared in this comment do not conflict with one another, but has made a wording change to improve clarity. The statements are based on management responses to wolves made in Idaho, Montana, and Wyoming.

8	page 86, par 3	Should consider adding a paragraph explaining that wolves will follow prey to lower elevations in the winter. Unfortunately, more human habitation occurs in valleys and lowlands, so wolf-human interactions may increase in the winter months. Also, it may be wise to retain undeveloped land in some of these lowlands to provide habitat for wildlife in winter months.	Language was changed to clarify that wolves will use a variety of land ownerships in Washington. Information was also added here and in Chapters 2 and 3 that wolves in some locations may travel to lower elevations during the winter in response to the seasonal movements of their prey.
8	page 86-87, chapter 8	I believe the plan gives adequate background information on federal, state, and private land management issues.	No response was necessary.
8	page 86-87, chapter 8	This material is well done.	No response was necessary.
8	page 86-87, chapter 8	Requiring minimal (if any) land-use restrictions will reduce conflicts with other agencies and land users. The only restriction might be some protection near active den sites.	No response was necessary.
8	page 86-87, sections A and B	Probably the key issue that will need to be dealt with on state and federal lands is the administration of grazing permits. This is an important land management issue that will require coordination between state and federal agencies yet it is not discussed in this section. Suggest adding this to the section.	Language about the administration of grazing permits was added to section A.
8	page 87, par 2, 3, 4	The USWFS agrees that rules applying to timber harvest on state and private lands should be reviewed and revised accordingly.	No response was necessary.
8	page 87, par 2, 3, 4	The USWFS agrees that when appropriate, private landowners should be asked to temporarily delay an activity near a den during the denning period, especially when wolves remain state listed.	No response was necessary.
8	page 87, par 3	Does WDFW require permits to perform various land altering activities (drain wetland, alter riparian areas, etc)? Is USFWS responsible for halting activities that interfere with endangered species on private land?	The sentence stating that WDFW has no legal authority over private lands was corrected to include issuance of hydraulic permits, which are required for any construction activity that will use, divert, obstruct, or change the bed or flow of state waters (excluding artificial watercourses). USFWS administers the federal Endangered Species Act, which contains provisions to prevent activities damaging to endangered species on private lands, but the agency has never put any wolf-related restrictions on private landowners in Idaho, Montana, and Wyoming.
8	page 87, pars 1 and 2	This seems like an appropriate place to mention the lands that WDFW does own and have full management authority over.	This information was added.

9	page 88, chapter 9; page 103-108, task 8	As part of your outreach program, I would strongly suggest that it be a two-way effort. As WDFW personnel go out into different communities and talk about wolves, they should also spend considerable time listening to local residents to better understand real and perceived concerns of having wolves in their neighborhood. Train your people well before your begin any public education effort. Misinformation and perceived bias (i.e., pro- or anti-wolf sentiments) from your personnel will not benefit your outreach efforts. Always provide factual information and have your program be absolutely transparent, even when you make mistakes.	These comments were incorporated by adding new sentences to chapter 9, paragraphs 3 and 4.
9	page 88, line 14	From the tribal perspective, other rationale for wolf recovery include ethical and cultural reasons.	These rationale are recognized or have now been added to earlier chapters of the plan. However, for this particular sentence, ethical and cultural rationale have not been a significant component of outreach efforts before and during wolf recovery in Montana, Idaho, and Wyoming to our knowledge.
9	page 88, line 27-28	The USWFS agrees that an strong outreach campaign is likely to increase support by livestock producers and hunters. The USWFS and WDFW are currently coordinating future efforts for outreach activities in northeast Washington.	No response was necessary.
9	page 88, line 37	Does information dissemination include data sharing with other agencies?	This comment is addressed in chapter 12, task 10, which calls for coordination and communication among agencies and other parties involved in wolf conservation and management. This would include data sharing, where appropriate.
12a	page 91, line 19	Should state that ungulate populations should be managed so as to continue to provide current statewide levels of harvest for hunters and adequate prey for wolves.	This addition was made.
12a	page 91-110, chapter 12	I recommend re-ordering the objectives and strategies in this chapter to establish priorities for funding and to ensure that the most important strategies are implemented first. This may also mean re-prioritizing current staff activities.	The objectives and strategies presented in chapter 12 are listed by chapter order rather than by priority. Prioritization of the strategies and tasks appears in the implementation schedule, which has been added to chapter 13.
12a	page 91-110, chapter 12	I have been very deliberate in my recommended edits for the priority of objectives and priorities of strategies within objectives. This is critical, regardless of bringing in new funds to achieve recovery objectives for wolves. I think several strategies currently identified in the plan may not be considered critical to achieve recovery.	Prioritization of the plan's different strategies and tasks appears in the implementation schedule, which has been added to chapter 13. Strategies and tasks of greatest priority (referred to as Priority 1) are defined in chapter 13 as actions needed to monitor the population and prevent the extinction of wolves in Washington. Priority 2 actions are those needed to prevent a significant decline in population size or habitat quality, or some other significant negative impact short of extirpation. Priority 3 actions are all other actions necessary to meet recovery objectives.

12a	page 91-93, task 1	There is much debate on how much radio collaring should be done. Monitoring of wolf survival rates is the best thing to use collars for, but no one does this, instead they use collars to follow wolves around. I commend you for embracing this technology. But one more thing on collars and survival: know what kind of wolf you are putting a collar onto. If the wolf is involved with livestock, it will have lower survival and you should expect that. If a wolf is collared for monitoring purposes, it should have a higher survival (>80% annual survival rate) as theoretically it should have fewer conflicts with humans. If wolves collared for monitoring have low survival you will have problems sustaining the wolf population. This is the story in the N Rockies, where wolves in northwest Montana collared for monitoring have lower survival and that population is always in trouble and probably now maintained thru dispersal from wolves in Idaho so it alone is not self-sustaining. Your population dynamics are going to be like this as well.	Because wolves are still in the very early stages of reestablishment in Washington, we believe that baseline data on movements, home ranges, etc gathered through radio-collaring will still have great value because this type of information doesn't currently exist for the state. Survival rates of collared wolves will also be assessed during these studies.
12a	page 91-93, task 1	Both federal agencies and WDFW should be responsible for some level of monitoring as well as depredation evaluation. I think that with current staffing levels in WDFW, only a minimal monitoring plan could be put in place. I suggest the plan makes it clear that additional funding will be needed for WDFW to achieve monitoring goals.	The plan already indicates that all aspects of the plan are dependent on sufficient levels of funding. The plan states that additional staff will be needed to address conservation and management of wolves in Washington.
12a	page 91-93, task 1	The plan should perhaps also discuss less intrusive and less costly methods of monitoring breeding pair numbers as a metric to assess recovery progress. Trying to capture and radio-monitor 15 packs will be extremely resource intensive, probably more so than in the Rockies, give the rough topography of the Cascades and the propensity of our animals to spend significant time in the back country. It might be possible to find rendezvous sites and collect scat for DNA analysis, and/or deploy cameras to document pup production. If you know how many reproduction attempts there are and how many pups exist in early summer, you can probably estimate pup survival and pack persistence the following Dec 31 based on data from other areas. While I agree that seeing the pack around the first of the year gives the best information, this may be quite expensive and time consuming to achieve, and may not be biologically necessary. Just because they did something in the Rockies doesn't mean that Washington is stuck with that methodology and can't explore other options. However, I also understand that it may be an unavoidable requirement politically, particularly in the early going.	Greater use of techniques other than radio telemetry, where appropriate, has been added to several parts of this task.

12a	page 92, task 1.1.2	The USFWS recommends the following revision: "The U.S. Fish and Wildlife Service, in cooperation with WDFW, maintains a telephone hotline (1-888-584-9038) for the public to report wolf activity and sightings in Washington (see Appendix H)." This hotline will be maintained by WDFW when the wolf is federally delisted.	The information regarding hotlines under this task (now task 1.2.2) and task 4.3.2 was edited to make it more general. Specific phone numbers were not included because these may change in the future. Readers are now referred to the response guidelines in appendix I and the WDFW wolf website for more information on reporting suspected depredations.
12a	page 92, task 1.2.1	Genetic testing and pit tags can also be used to identify individuals (as wolves often lose both radio-collars and ear tags).	This information was added.
12a	page 92, task 1.2.1	Ear tagging has been discontinued on most wolf projects and does not provide additional information. Rarely do people actually see the tag and it has caused some infections in the ears of wolves.	Reference to ear tagging was removed from the text.
12a	page 92, task 1.2.1	Two or three radio collars per pack is feasible without exerting undue effort and overburdening the pack.	No response was necessary.
12a	page 92, task 1.2.1, and page 107, task 10.1	These two objectives are somewhat in conflict with each other. Task 1.2.1 indicates that "An attempt will be made to track at least one member of each pack via radio collars using satellite technology to record large-scale movements." My assumption is that this relates to juvenile wolves and recording dispersal events. Packs rarely demonstrate large scale dispersal movement. Task 10.1 states "Transmitters with satellite capability will be used whenever possible to obtain continuous monitoring of individuals and packs." I guess there is some uncertainty and simply stating that transmitters with satellite capability will be used for monitoring protocols through time to determine when their use is most effective given the research priorities in an area.	A minor wording change was made to the first task (now task 1.3.1) to address this comment.
12a	page 92, task 1.2.3	Will we have research in mind to maximize the biological benefits of documenting home ranges, mortality, reproductive success, habitat selection, locations of den sites and rendezvous sites, etc.?	No change was made to the plan. All research conducted or sponsored by WDFW will provide important biological data that can be used for managing wolves in Washington.
12a	page 93, task 1.2.5	Upon delisting, the federal ESA requires annual monitoring and reporting for a five year period. WDFW should coordinate with the USFWS when developing a monitoring plan.	A remark on this was added to the second paragraph under task 1.
12a	page 93, task 1.3	After delisting, monitoring will switch from counting breeding pairs to packs. What will be our population objectives for the number of packs?	No change was made to the plan. The plan does not address population objectives after delisting other than to say (chapter 3, section C) that if the species is reclassified as a game animal, then statewide management goals will be established to preserve, protect, perpetuate, and manage wolves and their habitats to ensure a healthy, productive population with long-term stability.

12a	page 93, task 1.3	Recently, Mitchell et al. (2008) provided an alternative technique to determine the number of breeding pairs based on pack size and number of packs as determined from aerial surveys. I have incorporated this more cost effective technique for monitoring and subsequent delisting recommendations into my edits of the plan.	Use of an indirect population estimator, such as that in Mitchell et al. (2008), has been incorporated into task 1.4 as an alternative method for determining population size after delisting.
12a	page 93, task 2.2.1	The issue is not so much enforcement, but prosecution.	No response was necessary.
12a	page 93, task 2.2.2	Will WDFW be exempt from the restriction against foot-hold traps in Washington, so that they can conduct trapping efforts for wolves? If not, how will they go about capture of wolves?	The restriction (WAC 232-12-141) on the use of body-gripping traps, including foot-hold traps, in Washington allows several types of these traps to be used by WDFW with a permit from the WDFW director. Leg-hold traps can be used 1) to conduct wildlife research, 2) to protect threatened and endangered species, and 3) to "abate damages caused to private property, domestic animals, livestock or timber, that cannot be reasonably abated by nonlethal control tools."
12a	page 94, task 2.2.3	Need to add that federal land managers who administer the grazing permits would be very important in terms of providing information to livestock permit tees.	A new task (4.2.4) was added to address this comment.
12a	page 94, task 2.3	Whether or not to implement protective measures around wolf den sites would likely be situational.	This information was added.
12a	page 94, task 3	The USFWS agrees with the translocation strategy.	No response was necessary.
12a	page 94, task 3.2	The state and federal land managers that are responsible for the management of the land the wolves could be translocated to should be an upfront participant in this study.	This information was added.
12a	page 94-95, task 3	Is it a feasibility study or proposal, to me they imply two totally different things? (pg 94 line 39, page 95 line17) Along these lines how much thought will be put into the growth rates of introduced wolves versus natural recolonizing wolves? If you look at data from MT, ID, and WY, you can look at the natural recolonization of northwest MT and observe a slow and steady growth rate (1986-1997); however, about two years after the reintroductions in ID and WY (which would be similar to a translocation in WA) the population growth rate increases dramatically. My point is how much thought will be put into these translocations? Are robust population models available that can predict population growth into the future? Are we prepared to handle the potentially high growth rates displayed after an introduction? When and at how many individuals will the population stabilize?	Terminology was changed throughout the plan so that "feasibility assessment" is consistently used. It is difficult to predict how rapidly a translocated wolf population would grow in Washington. However, because of differences in prey abundance, extent of suitable habitat, and extent of human and livestock presence, potential translocation areas for wolves in Washington should not be expected to display the same strong growth rates observed in wolf populations translocated to central Idaho and Yellowstone National Park during the mid-1990s. The translocation feasibility study for Washington will provide a detailed assessment and comparison of potential translocation sites, including evaluations of prey, habitat, and potential for conflicts. If sufficient data exist from elsewhere in Washington, the feasibility assessment may attempt to predict the estimated carrying capacity for wolves of candidate translocation areas and possibly make inferences about potential growth rates.
12a	page 94-95, task 3.2, par 2	The USFWS will coordinate with WDFW to ensure that proposals to translocate wolves within the state are in compliance with the federal ESA.	No response was necessary.

12a	page 95, task 3.4	If wolves are still federally listed in Washington, the NEPA process would include section 7 consultation with the USFWS.	This information was added.
12a	page 95, task 3.6	An exception should perhaps be allowed for translocating wolves involved in depredation to the Olympic Peninsula where few livestock exist.	This suggestion was rejected.
12a	page 95, task 3.6	What if a portion of a pack's home range overlaps with another state or province? Will we still be able to translocate members of the pack as long as the den is in Washington?	Decisions of this kind would be made in consultation with the appropriate wildlife/natural resource agency(ies) managing wolves in the neighboring jurisdictions.
12a	page 95, task 3.7	USFWS thinks that all translocated wolves should be radio-collared and permanently marked for future identification.	This information was added.
12a	page 95, task 3.7	Seems like translocated wolves should be radio-collared as part of the post-release monitoring. This should be clearly stated.	This information was added to task 3.5.
12a	page 96, task 4.1	Are two wolf management specialist positions needed immediately even if just a few packs are present? Why not hire one first, then hire the second as pack numbers increase?	WDFW would likely hire one wolf management specialist first, followed by a second specialist.
12a	page 96, task 4.2.1	Non-lethal approaches should be continued even after the wolf population grows beyond the recolonizing phase.	Non-lethal approaches will be encouraged even after wolves are delisted in Washington. Tasks 4.2.2 and 4.2.3 target use of non-lethal approaches and do not suggest any reduced emphasis after delisting of this activity. As stated in chapter 4, section F, implementation of non-lethal measures will be an important way of reducing compensation for depredation over the long-term.
12a	page 96, task 4.2.1, lines 20-21	I understand that livestock producers and the public need to be actively informed, but what does equipping both with tools mean? As written, it sounds as though WDFW will be providing them with the tools.	This sentence was made more specific about the types of assistance that will be given to livestock owners and the public.
12a	page 96, task 4.2.3	The plan indicates here that only livestock owners (and not the public) will receive assistance for non-injurious wolf control techniques.	No change was made. All of Task 4.2 deals with wolf-livestock conflicts, thus livestock owners are the main audience targeted here. However, other members of the public with legitimate needs would receive assistance with these types of techniques if requested.
12a	page 96, tasks 4.2, 4.3	Task 4.3 should precede task 4.2.	This change was considered, but it was left in the same order.
12a	page 97, line 6	Should add a remark that immediate notification of the agencies by livestock owners is critical to assessing cases of suspected depredation.	This information was added.
12a	page 97, task 4.3.1	Adequate training will be needed for anyone with depredation confirmation duties.	This is acknowledged in the first sentence of the text for this task.
12a	page 98, task 4.3.4	Should add state and federal livestock permit administrators to this section.	This information was added.

12a	page 98, task 4.4.1	Are these types of programs in place for other carnivore species in Washington? If not, why are wolves singled out in this way?	New legislation (Substitute House Bill 1778) passed in May 2009 will allow some compensation for losses (excludes unknown losses) caused by other predators in Washington. In the past, compensation was not provided for non-listed predators in part because livestock owners have greater freedom to deal with these species, especially coyotes. In the case of wolves, compensation has been a useful tool for promoting recovery in neighboring states and is expected to benefit wolf recovery in Washington as well. It is included in the wolf plan as a way for helping livestock owners and some other members of the public cope with the return of wolves to the state. No changes were made to the plan in response to this comment.
12a	page 99, line 21	Should include "providing harvest opportunities for hunters" in this statement.	This addition was made.
12a	page 99, task 5	Wolves, prey, and habitat need to be managed in balance. Once we have a “healthy” wolf population, it should be managed towards established population goals like other big game species in Washington. This statement is not very balanced towards the ungulate management, which is funded by sportsmen.	Some additional wording was added to this sentence to indicate that maintaining harvest opportunity for hunters is also the goal of WDFW.
12a	page 99, task 5.1	The staff at Olympic and Mount Rainier National Parks, in conjunction with state and tribal partners in Mount Rainier, have committed to long term monitoring of elk populations, and are currently working, in conjunction with USGS, on refining and improving our elk population monitoring methods.	No correction was required.
12a	page 99-101, chapter 12, task 5	This provides standard information on this topic and is well thought out.	No response was necessary.
12a	page 99-101, task 5	The plan relays the options and correctly identifies the management of the cow elk herd as most likely to be affected. In addition, the plan identifies ways to increase ungulate populations. However, I do not specifically recall an aspect of the plan that calls for potential reduction in wolf numbers (I would suggest through translocations) in areas where the impact to prey populations is deemed too high. This component would be controversial, but it is better to address controversial aspects at the outset rather than after wolves are on the ground.	Language has been added to chapter 12, task 5.4, stating that development of site-specific strategies may be necessary if research determines that wolf predation is causing excessive harm to specific ungulate populations. Additionally, clarification about the use of relocation has been added to chapter 3, section B, indicating that it is an available option for resolving conflict situations.
12a	page 99-101, task 5	I think WDFW has good enough population and harvest data for ungulates to assess impacts from wolves. However, I don’t know how much more we can do to offset existing game losses other than reducing hunter harvest. We already devote lots of resources to preserving open space, restoring habitat, reducing poaching, and preventing vehicle collisions.	Adequate population data to assess wolf impacts may be lacking for a number of ungulate populations in Washington. As noted in this comment, WDFW is already devoting considerable resources to preserving open space, restoring habitat, reducing poaching, and preventing vehicle collisions, thus reducing hunter harvest may be needed to offset declines in some game populations.

12a	page 99-101, task 5	The fact that wolves can inhabit Washington speaks to an already adequate prey base. Wolf and deer/elk distribution/density is a system that has managed itself for eons and will continue to do so. Alteration of human harvest seasons is probably the most likely strategy to be effective in support of wolf recovery should some sort of ungulate management be required (which I can't foresee).	No response was necessary.
12b	page 100, line 14	In the list of things that have caused habitat loss, consider inserting, "development" and "intensification of reforestation methods".	This information was added.
12b	page 100, line 16	It is unclear who within WDFW would do such work. Currently, Habitat Program staff spend little time on efforts to improve or manage habitat for terrestrial species. Other portions of the document speak to the roles of anticipated wolf specialists, a wolf education lead, enforcement personnel and their response to predation and illegal killing events, etc. It seems implied within the document that regional wildlife biologists would participate at least to some extent in the monitoring and translocation efforts related to wolves though this isn't spelled out clearly. However, nobody seems to be assigned or funded for the very important role of negotiating WDFW's position in favor of large amounts of high quality habitat for wolves and their prey.	Within WDFW, habitat improvement projects for ungulates are largely conducted by district wildlife biologists, regional wildlife program managers, and wildlife area managers. Many of these projects are done through partnerships with the US Forest Service, private landowners and timber companies, BLM, Washington Department of Natural Resources, nongovernmental organizations, and tribes. Under the plan, no one person within WDFW would be tasked with the development of habitat improvement projects to benefit wolves and their prey.
12b	page 100, line 19	Include the possibility of acquiring additional lands in the list of things that could (will) be done to improve habitat for the prey species of wolves.	This information was added.
12b	page 100, line 24	Should note that increased use of herbicides on public and private timberlands after timber harvests has greatly reduced the amount of lush vegetation regrowth available for ungulates.	While true, this remark was not incorporated because it was considered too detailed of concern for the broad statements made in this paragraph.
12b	page 100, line 26	Should include "maintaining current levels of ungulate harvest" in this statement.	"while maintaining hunting opportunities for hunters" was added.
12b	page 100, task 5.2.1	Improving habitat for deer and elk may be a problem within and adjacent to the caribou recovery area specifically if the overstory canopy is reduced. WDFW should consider the habitat needs for caribou and consult the Service if habitat improvement projects are proposed within and adjacent to the caribou recovery area.	As stated in chapter 1, wolves must be managed in concert with other species and their resource plans. Thus, habitat improvements for deer and elk to benefit wolves and public hunting would presumably not be made at the expense of mountain caribou.
12b	page 100, task 5.2.1	Again, timber harvest is not the issue on the east side. Fire, both natural and prescribed, can improve habitat conditions for ungulates.	Fire exclusion was added to the list of factors involved in habitat declines for ungulate populations. Use of prescribed burns to improve habitat quality was not specifically added because it falls under the broader phrasing of "use of appropriate management practices" that is already mentioned.

12b	page 101, line 11	A new task, similar to Task 7, should be added with regard to managing conflicts between wolves and management of elk winter feeding operations.	A task (now task 5.3) was added to chapter 12 regarding the need to manage wolf-ungulate conflicts at winterfeeding stations, as well as locations with game fencing.
12b	page 101, line 18	Natural resource workers should be added as another group that may encounter wolves in the wild.	This information was added.
12b	page 101, task 6.2	I suggest adding: Work with land management agencies to install wildlife resistant food and garbage storage structures at all recreation sites to reduce the potential for habituation.	This information was added to a new task 6.2.2.
12b	page 101-103, task 6	This provides standard information on this topic and is well thought out.	No response was necessary.
12b	page 101-103, task 6	I believe the plan's recommendations for managing wolf-human interactions are acceptable.	No response was necessary.
12b	page 101-103, task 6	Your plan on habituated wolves is aggressive as I think it should be, but you move to kill them swiftly struck me as too slow. Some of this will depend on how many wolves you have but getting rid of bad apples quickly will increase public tolerance and reduce the chance that the behavior will spread. Yellowstone NP has a management plan for habituated wolves that may be useful to you.	Mention of immediate removal of a habituated wolf was added to the text in task 6.1.2, along with a citation for the Park Service's management plan at Yellowstone.
12b	page 101-106, tasks 6, 8	These will be fairly challenging in Washington. The average human population density in Montana, Idaho and Wyoming is ~9 people per sq mi. Human density in Washington is closer to 90 people per sq mi. People with pets will encounter wolves if wolves become fairly abundant. In WDFW Region 3, >70% of elk use feed sites that are closed to the public until May 1. A high number of elk stay in the closed area until the gates open on May 1. Large numbers of people, some with pet dogs, arrive to look for dropped elk antlers. If wolves do den within a closed feed area, keeping the area closed may be needed to avoid conflicts.	Smaller wolf numbers are expected in Washington than in other states, which should help reduce the number of interactions occurring between wolves and humans. This will be particularly true during the early stages of recovery, when wolf numbers are low.
12b	page 101-106, tasks 6, 8	There really is no way to manage wolf-human interactions until some sort of interaction has already occurred. A wide-ranging outreach/education program, one that uses multiple media formats, can certainly be effective in this regard, but the information must be accepted and utilized by the general public.	No response was necessary.

12b	page 102, task 6.3.3	The recommended practice of relocating wolves that come into conflict with landowners to “nearest suitable remote habitat” is questionable. Wolves are capable of moving large distances and will most likely return to their former home range. It would be preferable (higher success) to move wolves as far away as possible to suitable remote habitat.	The term "nearest suitable remote habitat" was replaced with "suitable remote habitat" to give mangers more options for where relocated wolves can be moved. Information about the challenges associated with relocation of wolves has been added to chapter 3, section B. These include lower survival rates among relocated wolves; the failure of many to join or form packs; the tendency of relocated wolves to depart their release site, with some returning to their original capture location; and that a few relocated wolves resume depredation of livestock near their release site. Based on the recommendations of Bradley et al. (2005), it is likely most wolf relocations in Washington will occur during the early stages of population recovery, when vacant habitat is more available. As indicated in chapter 3, section B, the purpose of relocation is to address conflict situations, not to facilitate dispersal of wolves into new regions. Thus, the plan does not advocate relocating wolves to new far-off locations.
12b	page 102, task 6.3.3	Does it matter if the nearest suitable remote habitat is already occupied by wolves? How are wolf social dynamics considered in relocation? Is it cost effective?	As now stated in the plan (chapter 3, section B; chapter 12, task 6.1.4), relocated individuals will be released near but not within the territories of existing wolf packs, or in unoccupied areas. Also, the term "nearest suitable remote habitat" was replaced with "suitable remote habitat" to give mangers more options for where relocated wolves can be moved.
12b	page 102, task 6.5.3	The USFWS has no authority under ESA to regulate wolf hybrids and pet wolves in Washington.	Parts of this task were moved to task 6.4.1, with the rest of the task removed from the plan.
12b	page 102-103, task 6.5.4	What about having veterinarians notify authorities about pet wolves or wolf-dog hybrids that they treat?	Veterinarians should be made aware of the laws pertaining to wolves and hybrids, as well as the dangers associated with these animals. It is now illegal to own pet wolves in Washington and several local jurisdictions also prohibit ownership of wolf-dog hybrids. However, ownership of hybrids is legal in most of the state, meaning that there should be no requirement to report the animals to WDFW.
12b	page 103, task 7	The USFWS recommends developing a response plan soon to address issues with mountain caribou.	Specific reference to mountain caribou was added to this task.
12b	page 103, task 8.2.3	What about creating a data sharing system for other agencies and tribes?	A data sharing system could be set up in the future if it was deemed beneficial to wolf conservation and management. This activity falls under the existing strategies for maintaining and improving coordination and communication among agencies and other partners, as described in chapter 12, task 10.
12b	page 103, task 8.2.4	Should eliminate chatrooms from this task. Experience with the Master Hunter blog as well as the online newspaper articles indicates that allowing free reign for comments can quickly spiral out of hand and into very negative and unconstructive commentary. This is especially true if commentators do not need to identify themselves.	This material was deleted.

12b	page 103-106, chapter 12, task 8	This provides standard information on this topic and is well thought out.	No response was necessary.
12b	page 103-106, task 8	I believe the plan's strategies for developing and implementing a wolf-related outreach and education program are acceptable.	No response was necessary.
12b	page 103-106, task 8	The outreach and education program seems appropriate to reduce human conflict. Public education must include schools and youth. WDFW staff going into schools in rural communities in wolf territory would have a beneficial impact. It is easier to educate young minds than old stubborn ones. Developing a partnership with opposition groups (some sort of Citizen Science project) to learn more about wolves and local conflicts would have many benefits. Examples: have local communities collect wolf scat and identify the contents with WDFW staff to learn about prey, or have sportsmen set up game cameras near grazing allotments to warn ranchers when wolves are in the area. Some kind of project that allows WDFW and locals in wolf territory to work toward a common goal will ease tensions and form a trust that will benefit both parties, and ultimately the wolves.	No response was necessary.
12b	page 104, task 8.3.3	The following information should be added to this paragraph: Provide livestock producers and landowners with information on actions that they may take to protect their livestock, guard animals, and pets. Provide updates on these actions as the wolf designations change.	This information was placed in a new task now labeled as task 9.2.2.
12b	page 104, task 8.5	Will wildlife rehabilitation groups be contacted for outreach assistance and will they know to report wolf or wolf hybrids to WDFW?	Wildlife rehabilitators should be made aware of the laws pertaining to wolves and hybrids, as well as the dangers associated with these animals. It is now illegal to own pet wolves in Washington. Several local jurisdictions also prohibit ownership of wolf-dog hybrids. However, ownership of hybrids is legal in most of the state, meaning that there should be no requirement to report the animals to WDFW.
12b	page 105, line 25	Should add tribes to the list of target groups receiving presentations about wolves.	This information was added.
12b	page 106, line 26	Should add tribal organizations to the list of groups assisting in providing public outreach and education about wolves.	This information was added.
12b	page 106, task 8.8	Suggest replacing the existing paragraph with the following: WDFW will work with agencies and a variety of NGOs to conduct effective information and education programs about living, recreating, and working with wolves in Washington. These entities will assist in the development and presentation of wolf education materials to the public.	This change was made.

12b	page 106-107, task 9	The draft plan calls for WDFW to "coordinate and cooperate" with tribal governments. It does not provide any specific details about how this will be done. Can this discussion be expanded in the final draft?	This task (now task 10) and its associated tasks provide general guidance on coordination with tribes, other agencies, and other entities regarding wolf conservation and management in Washington. WDFW routinely works with tribes as co-managers on wildlife-related issues. Coordination on wolves would be similarly conducted. Specific details on how this might be done with each tribe extend beyond the scope of this plan.
12b	page 106-107, task 9	Cultivating good working relationships with personnel in other agencies (federal, state, tribal) and large land-holding companies (e.g., Plum Creek, Weyerhaeuser, etc.) should be undertaken prior to plan implementation to get all involved "on the same page" regarding WDFW's goals/objectives pertaining to wolves and how these other entities will play a part in wolf recovery. Along this line, having 1-2 key contact people with decision-making authority, preferably those that would be nearest to wolf habitat, will assist in reducing confusion. Knowing who to contact will immeasurably aid biologists in the field when specific situations arise; e.g. recent reports of wolf activity worthy of capture effort on timber company land. It is very beneficial to have a predetermined "chain of command" to facilitate rapid response.	Information on the importance having a few key contact people was added to what is now task 10.1.1.
12b	page 106-107, task 9	It is important to establish that WDFW is the lead agency and that other agencies (e.g., USDA Wildlife Services) work for the WDFW. Collaboration with other state and federal agencies will always be very crucial in developing your program. Keep them informed of wolves and wolf management issues.	No response was necessary.
12b	page 107, task 10.1	There is a trade-off between gathering data for research quality and monitoring/management purposes. Traditional VHF collars can be expected to last about 4 years, whereas satellite collars, depending upon fix rate schedule, will have considerably less life. Until recovery goals for downlisting to threatened are achieved, I'd recommend much greater deployment of VHF.	No response was necessary.
12b	page 107-109, task 10	I hate to discourage wolf research, but most of what you need to know has already been learned in other states. Because wolf research is expensive, it will be important to limit it to what you need to know to manage the populations.	No response was necessary.
12b	page 108, task 10.3.1	Should WDFW begin collecting scat samples for analysis? Can diet analyses be done internally? Will DNA analyses still be sent to an outside lab?	WDFW and other agencies are already collecting wolf scat samples for genetic analyses, which are being performed by a lab in California that specializes in canid genetics. Dietary analyses could perhaps be done by WDFW or by outside experts.
12b	page 110, task 11.4	The USFWS supports use of a Wolf Interagency Committee to help oversee implementation and monitoring of the wolf plan, and would be available to participate.	No response was necessary.

12b	page 110, task 11.4	There was also no mention of non-Washington representatives on the Wolf Interagency Committee. It may be wise to include at least one representative from Idaho, British Columbia, and Oregon, if those agencies are willing to participate, to provide that agency or state's perspective on local and regional issues and management of what is essentially a regional wolf population.	The primary purpose of the committee is to coordinate wolf management in Washington, but it would be beneficial to have representation from Idaho, British Columbia, and Oregon on the committee if managers from those jurisdictions are willing to participate. Possible benefits include management of 1) habitat connectivity, 2) transboundary packs, and 3) packs living near the Washington border. Language has been added to task 12.4 stating that participation on the committee from these jurisdictions should be sought.
12b	page 110, task 11.5	Continued guidance from the Wolf Working Group, and later by a Citizens Stakeholders Group, can be a huge can of worms. Their input into this plan could be considered sufficient now to allow your professionals to manage the wolves on their own.	The plan states in task 12.5 that a citizen stakeholders group should be formed to provide feedback to WDFW on implementation of the plan.
13	page 111, line 33	The term "memorandum of understanding" should be replaced with "agreement" to match USDA Wildlife Services' definitions.	This correction was made.
13	page 111, line 37	USFWS should be identified as the lead mgmt agency with assistance from USDA Wildlife Services	This correction was made.
13	page 111-112, chapter 13	Do we really need a full-time staffer to conduct public outreach during the implementation of this plan? Maybe half-time would be more appropriate.	It is likely that wolf specialists and existing wildlife and enforcement staff would initially conduct public outreach as part of their normally assigned duties. Table 9 (now table 10) has been replaced with an implementation schedule, where costs are now listed for a number of tasks.
13	page 111-112, chapter 13	Does monitoring cost include funds for seasonal volunteers/technicians to assist with monitoring?	Monitoring costs should include the costs associated with seasonal technicians and volunteers. Table 9 (now table 10) has been replaced with an implementation schedule, where costs are now listed for a number of tasks.
13	page 111-112, chapter 13	Where is funding to support the Citizen Stakeholders Group, Wolf Interagency Committee, and the Compensation Review Board (pg 98)?	Table 9 (now table 10) has been replaced with an implementation schedule, where costs are now listed for a number of tasks. Costs associated with the Citizen Stakeholders Group and Wolf Interagency Committee are provided. Reference to a Compensation Review Board has been deleted from the plan. The plan now states that "some sort of multi-interest review board" could be formed to determine valid compensation claims for unknown losses.

13	page 112, table 9	This table provides estimated cost per year for compensation funding to range from $6,000 to $40,000. The upper end range may be underestimated. Roughly substituting a cattle value of $650 per head as discussed above in Table 14, and looking at the upper range of confirmed depredation losses results in a total value of confirmed losses of $31,845. Then according to the compensation plan, that value would be multiplied by 2.0 for total confirmed depredation losses of $63,690. On top of this value, the compensation fund needs to also support probable losses, unknown losses, and funding to provide compensation for implementing proactive non-lethal deterrents to reduce livestock losses (page 98 line 42), which will likely include hay purchases to manage grazing allotments as discussed above. I suggest reviewing the estimated compensation funding amount in Table 9 to ensure that all compensation programs as discussed above are included in the estimate.	Corrections relating to the upper end range of estimated annual values have been made to what is now Table 15. Table 9 (now table 10) has been replaced with an implementation schedule, where annual compensation costs have been re-evaluated.
13	page 112, table 9	Monitoring costs are underestimated. Need a fulltime person and seasonal crew in the field, howling, capturing, tracking to den sites, monitoring and working in the field ($150k/year). Satellite collars for 2 animals for 15 packs would cost $150k (includes data download costs). Pro-rate this by number of expected animals captured. While species is listed, these activities should be run as research project. Once delisted, it could turn into more of a monitoring scheme and turned over to management.	Table 9 (now table 10) has been replaced with an implementation schedule, where costs are now listed for a number of tasks. Monitoring costs have been re-evaluated and are presented in the implementation schedule.
13	page 112, table 9	Estimated enforcement costs in the table seem too high.	Table 9 (now table 10) has been replaced with an implementation schedule, where costs are now listed for a number of tasks. Enforcement costs have been re-evaluated and are presented in the implementation schedule.
14	page 113-146, chapter 14	I focused my attention on this chapter. I thought it was comprehensive, well-written, and well documented. I thought the findings and summary were appropriate, given the state of knowledge for the various types of economic impacts.	No response was necessary.
14	page 113-146, chapter 14	The economic impact section does a good job of reporting both benefits and costs of wolves.	No response was necessary.

14	page 113-146, chapter 14	My main comment is that there are several different accounting frameworks that might be appropriate for evaluating the economics of a natural resource policy issue, such as wolf conservation in Washington. This chapter implicitly focuses on a regional economic accounting framework that examines potential changes in actual expenditures, for example by hunters, or in compensation as for livestock damages. Another accounting framework that could have been considered is a benefit-cost framework that would have looked at net benefits and costs for the society as a whole. Here one would be looking at not only market prices (for example to value cattle losses) but also values for nonmarket uses. For example, hunter expenditures are the cost of going hunting, but hunters hunt because they receive net benefits (often referred to as willingness-to-pay or consumer surplus) from the experience over and above their costs. If hunters are displaced by wolves, the cost is really their foregone net benefits. The benefit-cost framework also includes passive use values or nonuse values, for example the value individuals may place on knowing that wolves have been restored to some of their historic range in Washington. One could add a benefit-cost perspective to this chapter. That would be a substantial undertaking. At a minimum, you might want to acknowledge at the beginning of this chapter that you are using a regional economic accounting framework (focus on expenditures and market transactions) and not presenting a full benefit-cost perspective from the standpoint of the whole society.	Further explanatory material regarding both accounting frameworks was added to the introduction of this chapter.
14	page 113-146, chapter 14	As stated in the discussion of the trend in hunter expenditures and revenues for Washington state (for example, including page 134), you have not corrected for inflation (using the Consumer Price Index, for example). This is fine except that in the summary (second to last para p. 139), it is concluded that revenues and expenditures are going up, so there is some room to accommodate wolves. For this purpose, you might want to actually know if revenues are up in real (constant dollar) terms.	Based on this comment and one from another reviewer, references to corrections for inflation were removed from the text.
14	page 113-146, chapter 14	Will making wolves a game animal increase funds to WDFW and provide local citizens/economy with money?	Potential revenue for WDFW generated by wolf hunting is already addressed in this chapter (section C, subsection "Summary").

14	page 113-146, chapter 14	The economic analysis addresses only impacts on livestock production and on the statewide recreation (sport hunting and tourism) and forest products industries. This analysis should be expanded to also address the impacts on the subsistence economies of certain Indian tribes. The economic analysis acknowledges that increased predation on ungulates “could impart noticeable localized effects on deer and elk abundance.” Such localized impacts would weigh more heavily on Tribal economies, because most Tribes are restricted to hunting within their usual and accustomed areas. Unlike non-tribal hunters, they can’t compensate for reduced hunting opportunities at the local scale by simply relocating their hunting activities to another part of the state.	Because of the lack of data or difficulty in finding data on tribal economies and game harvest, summarizing the economic impacts of wolves on Washington's many tribes would be difficult to perform. Thus, this information was not included in the plan.
14	page 113-146, chapter 14	Maybe emphasize the fact that wildlife watching pulls in more money than hunting/fishing combined and could ultimately benefit those communities in wolf territory, although most ranchers are not going to want to host a B&B for wolf tourists.	Information was added comparing total spending by wildlife watchers versus hunters and anglers combined. Data show that spending as a whole is similar between the two groups, with wildlife watchers spending somewhat (5%) more.
14	page 113-146, chapter 14	What about also including other potential wolf impacts, such as habitat improvement through reduced foraging by wild ungulates, reduced vehicle collisions with wild ungulates which can save millions of dollars and lives, reduced crop damage, reduced expenditures for feeding ungulates at winter feed stations due to population reductions and improved foraging habitat. Also, what about potential savings associated with reduced coyote abundance (i.e., fewer killings of domestic animal and potential benefits to some endangered species eaten by coyotes, such as Olympic marmots)?	Savings associated with reduced coyote abundance is already addressed in this chapter (section B, subsection "Positive Impacts from Wolf Reestablishment"). The other points are too speculative and are not yet supported by studies from other locations with wolves, and therefore are not included in this chapter.
14	page 113-146, chapter 14	There is no impact (or lack thereof) stated for forestry.	Discussion of forestry impacts appears in section E.
14	page 114, line 35-40	Because of the large proportion of extra small cattle operations in Washington, a remark should be inserted indicating that potential wolf depredation may be especially impactful on these producers.	A statement reflecting this comment was inserted later in section B, subsection "Economic Concerns of Washington's Ranching Industry over Wolves."
14	page 114, par 5	Should note that there is a very small free-ranging livestock industry in western Washington.	This information was added.

14	page 114-126, section B	The impact (both socially and financially) that recolonizing wolves will have on livestock will be a function of where you allow them to re-establish. If you allow wolves to recolonize and remain in areas heavily grazed by sheep, you will continuously have serious depredation problems that will constantly detract from your recovery program. If wolves become established in cattle country, you will still have serious depredation problems, but you will have more management options. You may have to decide that some heavily grazed areas are simply unsuitable for wolf recovery. The other option is to restrict livestock grazing in areas where wolves recolonize.	No response was necessary.
14	page 115, par 1	These extra small operations seem like they should be easier to protect via non-lethal techniques, as it's doubtful these sheep are grazing on public allotments. But the potential for damage, if depredations occur, on these producers will be more impactful due to their small size.	A statement reflecting this comment was inserted later in section B, subsection "Economic Concerns of Washington's Ranching Industry over Wolves."
14	page 119, lines 15-16	Were these confirmed kills, or also suspected kills?	These data are based on mail, telephone, and interview surveys of livestock producers by NASS (2005, 2006). Field confirmation of death losses is not performed to verify the accuracy of producer responses.
14	page 119, par 1	Permanent retirement of grazing rights on public grazing allotments should be added as another method for reducing wolf-livestock conflicts.	This concept was added by inserting a new task, 4.2.7, to chapter 12.
14	page 119, par 2	Are non-predator losses, specifically disease/weather, figured into "above-normal mortality" on pg. 54? For example, compensation for indirect losses should subtract a percentage for non-predation losses prior to assigning anything above and beyond "normal" to predation, and possibly a further reduction for non-wolf predator losses.	Reference to non-predator losses was added to chapter 4, section F, subsection "Development of a Compensation Program for Unknown Losses."
14	page 119, subsection "Economic Concerns of Washington's Ranching Industry over Wolves", concern 2	Research should be started now to determine baseline "stress" levels through fecal/blood hormone tests.	The compensation program proposed in the plan does not cover physiological impacts. Lower than expected weight gains in livestock, which might be indicated by increases in hormonal stress levels, would not be compensated.

14	page 121, subsection "Predicted Losses…."	Wolves could conceivably repopulate most of the state and cause higher livestock losses than estimated here.	This chapter of the plan only attempts to predict losses of ranch animals up to a population of 300 wolves. The plan does not attempt to predict the ultimate population size and distribution of wolves in the state (and associated levels of conflicts) because of the many uncertainties involved.
14	page 123, par 1	Also there is a much smaller if non-existent free ranging livestock industry for western Cascades, SW Washington, and the Olympics.	This information was added to section B, subsection "Overview of Livestock Production in Washington."
14	page 123, table 14	I suggest recalculating Table 14 using calf values for cattle losses, and adding a line at the bottom of the Table, multiplying the loss by 2.0 to calculate the compensation funding level needed to support the Washington Wolf Conservation and Management Plan compensation formula.	Corrections relating to the estimated annual value of confirmed wolf depredations in Washington have been made to what is now Table 15.
14	page 124, lines 30-38	If physiological impacts have not yet been proven, then why is compensation being given for them?	The compensation program proposed in the plan does not cover physiological impacts.
14	page 124, par 2	The value used for cattle, $1,120, is the 2007 USDA NASS average value overall all cattle classes: beef cows, milk cows, beef heifer replacements, milk cow heifer replacements, other heifers (feedlot), steers 500 lbs and over, bulls 500 lbs and over, and calves under 500 lbs. However, calves are most commonly depredated and should be used as the standard value for this calculation. Average calf value from 2004-2007 ranged from $643.65 to $705.66.	Tthe dollar values were revised in what is now Table 15.
14	page 125, lines 30-32	Most of this type of equipment has been supplied by Defenders of Wildlife or a state agency.	References to helping livestock operators implement proactive measures are included in the plan, as well as tasks to seek funding assistance for these measures.
14	page 126, par 2	Should comment on how the number of visitor days at Yellowstone National Park compare pre-wolf vs post-wolf.	This information exists later in the chapter (section D, subsection "Wolf-Related Ecotourism in North America."
14	page 126, par 2	Does Yellowstone National Park have an estimate of how visitor days (economics) have changed pre- vs post-wolf release?	This information already exists later in the chapter (section D, subsection "Wolf-Related Ecotourism in North America."

14	page 127-140, section C	Your summary of impacts on ungulates and hunting is good, for example, it is “debated by both the general public and the scientific community”. However, on p. 137, you might note that the scientific community is divided over interpreting the impacts of wolves on the northern Yellowstone herd. Two papers might be cited here (in addition to Eberhardt et al 2007 which you do cite): Vucetich et al 2005 and White and Garrott 2005 (both are already in your bibliography). Based on my reading, there are two generally opposing views regarding the impact of Yellowstone wolves on big game (in this analysis, primarily elk) numbers. The first is that wolf predation is primarily compensatory. That is, wolves mainly take elk that would normally succumb to winter kill, disease, or old-age (Vucetich et al. 2005). Under this view, wolves have had little impact on Northern Yellowstone elk beyond that which would have occurred under no-wolf conditions. The second view is that wolf predation of Northern Yellowstone elk is largely additive (White and Garrott, 2005). That is, wolves have preyed on elk that by and large would not have died of other causes, and thus substantially	This discussion in chapter 5, section A, is now cross-referenced in this section of chapter 14. Reference to the Varley and Boyce (2006) paper now appears in chapter 5, section A.
14	page 128, par 1	With a “recovered” population of 300 wolves (each consuming about 30 ungulates/year [liberal estimate], there should be little problem accommodating both hunters and wolves. The question becomes how willing is WDFW to forego license revenue by “sharing” ungulates with wolves.	Information on WDFW license revenue and wolf-related impacts appears in other parts of chapter 14, section C. WDFW will treat wolves as part of the natural predator community in Washington. WDFW already accomodates the presence of other predators such as cougars, black bears, and raptors when it considers the collection of license revenue. The agency would not treat wolves any differently than these species.
14	page 134, line 13; page 135, lines 8, 14	Remove remarks about adjustments for inflation and values being presented in current dollars.	This change was made.
14	page 136, par 4	The possibility for hunting clients to view wolves and wolf sign on trips may be an added value for outfitting companies.	This possibility would likely be true for some hunters. However, as indicated in the "Outfitted Hunting" and "Summary" subsections of this section, outfitted hunting is a relatively small industry in Washington, thus the number of hunting clients who would enjoy the presence of wolves in their hunting areas would also be small. Because of this and the difficulties in determining the amount of any economic benefit to outfitters, a statement about this topic was not added after further consideration.
14	page 138, table 16	In light of the difficulty of modeling predator effects on ungulates, I thought the specific approach used in this table of looking at consumption rates was appropriate for the purposes of this document.	No response was necessary.

14	page 138, table 16	Estimates of kills should be presented as range of estimates based on range of numbers of wolves and range of kill rates associated with wolf numbers. According to Vales and Peek (1995), a range would be 12 – 28 ungulates killed per wolf per year.	This table was changed to include a range of numbers reflecting estimated ungulate take by wolves in Washington. Instead of using the reference by Vales and Peek (1995), newer information from Mech and Peterson (2003) was used.
14	page 139, line 11	Reductions in coyote and cougar (maybe bobcat too) could also result in an increase in populations of small game species such as grouse, upland birds, rabbits, etc.	This information was added.
14	page 139, par 1	Should add that even a population of 300 wolves could have minimal impact on statewide game harvest. For comparison, the Idaho has about 120,000 elk and had a minimum wolf population (after 10 years) of 673 animals with no obvious impacts to the overall elk herd or statewide hunter harvest. Washington has about half the elk population and a population of 300 wolves would still be a smaller ratio of wolves/elk than has existed for the past few years in Idaho. Impacts of wolves to big game harvest is dampened because, although a population of 300 wolves could remove around 3,000 elk per year from the population, the predilection for wolves to remove more vulnerable and less fit prey means they are selecting for animals that would have a high probability of dying from otherwise natural causes or, who contribute the least to herd fitness and the production of calves/fawns.	No change was made in response to this comment, even though the reviewer could be correct that a population of 300 wolves might have little impact on statewide elk harvest. Because of the difficulty in knowing where wolves will settle in Washington and at what numbers, it was thought best to continue saying that hunting-related impacts from wolves become increasingly difficult to predict as wolf numbers expand to 200-300 wolves.
14	page 139-140	Somewhere here, it would be worth noting that the presence of wolves might enhance the hunting experience for some people. For example (as listed in Wildlife Tourism), the possibility of seeing a wolf, hearing a wolf, seeing a wolf track, finding a wolf kill, watching wolves hunt, hunting among wolves, etc. could add a great deal of enjoyment to the overall hunting experience for some hunters.	This information was added.
14	page 140-144, section D	I believe the fragmented nature of suitable wolf habitat and likely overall sporadic distribution of wolf packs over most of Washington make it highly unlikely that wolves will generate potential for ecotourism such as those in Yellowstone National Park.	Additional language was added to this section suggesting that modest numbers of visitors could be attracted to areas of known pack activity in Washington in hopes of possibly seeing or hearing a wolf or finding wolf sign. This level of visitation would undoubtedly be lower than the numbers of visitors attracted to Yellowstone to see wolves, but the plan never suggests that the two would be similar.

14	page 140-144, section D	The discussion on ecotourism benefits of wolves to Washington is well done. It references studies on Yellowstone National Park, Ely, Minnesota, Idaho, and other areas. It recognizes Washington's unique conditions and concludes that Washington appears to have potential for receiving at least modest economic benefits from wolf watching and that it will be difficult to quantify. This is an issue of analyzing eco-tourism attributable to a specific animal, as found for wolves by Unsworth et al. (2005) in their review of socioeconomic impact of the Mexican Wolf Blue Range reintroduction project.	No response was necessary.
14	page 141, par 1-2	Regarding the availability of Yellowstone National Park wolves for ecotourism, it should be noted that the main reason the wolves there are seen by so many people is because 30-50% of them are radioed, and park service staff locate them 365 days/year and spread the word where they are.	The intense monitoring of the wolves certainly contributes to viewing opportunities at Yellowstone; however, based on recent literature, wolves are visible in the Park to many visitors without the benefit of telemetry.
14	page 141-142, subsection "Wolf-Related Ecotourism in North America"	With respect to your discussion of the regional economic impact experience in Yellowstone from tourism, a new paper (Duffield et al. 2008) summarizes this issue and could be included here. However, it would not change the conclusions or interpretation of this section of the plan.	This paper was already cited in this section of the plan.
14	page 142, bullet 5	It's too bad more companies in Idaho don't capitalize on this.	No changes were made in response to this comment.
14	page 143, lines 37-39	Without a completely secure setting and open landscape, such as a national park, it seems unlikely that wolves are going to be regularly visible enough to draw reliable wolf-based tourism.	Although these conditions may be necessary for the strong wolf-based tourism at Yellowstone, other situations (such as perhaps some national forests) where wolves are regularly present but infrequently seen and remain safe from most harassment might draw modest numbers of visitors, who come in hopes of possibly seeing or hearing a wolf or finding wolf sign, but do not have the high expectations of visitors at Yellowstone.
14	page 144, par 4	Of these two locales, Mt. St. Helens would offer better possibilities of wolf viewing.	No response was necessary.
14	page 145, lines 24-25	It is important to emphasize relative to economic costs that the Washington Wolf Management plan does not expect to impose any land use restrictions. In the protection of other endangered species, for example the spotted owl, where land use restrictions were enforced, it resulted in significant economic costs. If land use restrictions become a factor, the economic costs would be significantly changed.	Some additional wording was added to this sentence to help emphasize that land use restrictions will not be imposed through the implementation of the wolf plan, with the possible exception of occasional temporary closures that may be needed near denning sites.
14	page 145, lines 24-27	The USFWS believes that it may also be necessary to protect den sites from disturbance during reestablishment of wolves in Washington.	No response was necessary.

14	page 146, line 4	Suggest adding, “However, as mentioned in section 5.2.1, implementation of management strategies that improve habitat conditions for prey species will be desirable”.	Because the the two topics are unrelated, no changes were made to the text.
def	page 166, lines 28, 43-45	Definitions for "in the act of attacking" and "native" should be changed.	The wolf plan follows the U.S. Fish and Wildlife Service definition of "in the act of attacking," where chasing, pursuing, and stalking livestock are specifically excluded from the definition. In many cases, the intent of a wolf cannot be determined. An erroneous interpretation by an observer could result in the killing of a wolf that was simply passing by livestock, when in fact no chasing or stalking was occurring. Livestock operators have other options for dealing with wolves seen near livestock, such as shooting above the wolf or using scare devices such as cracker shells or other non-lethal munitions. The wolf plan uses the same definition of "native" as appears in Washington law (WAC 232-12-297).
minor rept	page 194, appendix G, par 3	I'm sure Washington has far more suitable wolf habitat in the eastern part of the state than the 297 square miles cited here.	
minor rept	page 194-195, appendix G	It is very unlikely that the numbers presented in the minority report (appendix G) would meet the objective of a “viable” population. These numbers are so low that any human-caused mortality would have very detrimental consequences to the sustainability of the population and would result in very little management flexibility to deal with wolf-livestock conflicts.	
minor rept	page 194-195, appendix G	The numbers of breeding pairs suggested in the minority are alarmingly low.	
minor rept	page 194-195, appendix G	The number of wolves identified in appendix G does not represent a level sufficient to achieve the goal of the plan “a self-sustaining wolf population in Washington.” However, the plan could choose lower numbers of 5, 10, and 15 breeding pairs to address concerns of management flexibility. In addition, the plan should use the language 3 successive years, rather than 3 consecutive years. Three consecutive years is onerous as one could imagine a population that fluctuated around 15 breeding pairs. This would result in resetting the consecutive year clock.	
minor rept	page 194-195, appendix G	It seems untenable that lethal take should be allowed by private land owners with only 3 breeding pairs in the state or on public land by leasees with only 6 breeding pairs, or hunting with only 8.	

minor rept	page 194-195, appendix G	I disagree with the minority opinion on several fronts. Their arguments to validate their position of fewer wolves are contradictory. They argue that there should be fewer wolves because there are not enough ungulates and suitable habitat to support them, but then claim the wolf population will increase dramatically each year. I agree that more wolves will equal more livestock loss/economic impact, but their argument appears to not account for possible compensation to them for their confirmed losses.	
minor rept	page 194-195, appendix G	I'm concerned that the minority report sets the stage for failure since they state unequivocally that they are unable to live with population objectives other than their own. The minority report has some inconsistencies. Paragraph 3 cites 297 sq mi of suitable wolf habitat in eastern WA while the habitat model employed in the plan shows much more area, with what looks like more than 300 sq mi of habitat in Pend Oreille County alone. It is inappropriate to presume that lawsuits will delay delisting for another 18 months since this is based on an opinion of actions taken by groups outside of the plan. The processes currently ongoing through ID, MT, WY could set the stage for simplifying the delisting within neighboring states. Does this imply that 15 breeding pairs would be OK if no lawsuits were forthcoming? The argument regarding higher human density in WA ignores the experiences Wisconsin where equivalent densities of people cohabitate with a larger population of wolves. The fundamental question is whether the 3 breeding pairs of wolves recommended in appendix G can be considered enough animals to remove from endangered status as defined by WAC 232-12-297. I suggest running a PVA (population viability analysis), which would likely show that 3 breeding pairs will not allow wolves to be downlisted since illegal killings, disease, and other random events could readily eliminate such a small population. It's also hard to accept the assertion that 15 breeding pairs will cause "severe negative impact on private landowners and livestock producers" given the comparative number of annual livestock losses incurred in ID, WY and MT by wolves and the fact that this plan calls for compensation of those losses. If 300 wolves would equate to the high end estimates of 67 cattle and 92 sheep lost annually, those losses represent a drop in the bucket compared to the other losses incurred by producers in Washington (Table 13).	

minor rept	page 194-195, appendix G	The minority opinion in Appendix G is without merit and should be given no consideration based on its dubious conclusions that: 1) Washington “has only 297 square miles of suitable wolf habitat,” 2) that the state’s overall human population size and density preclude larger numbers of successful breeding pairs by implied conflicts with livestock/ungulates, and 3) wolves will necessarily pose a management problem prior to state delisting.	
minor rept	page 194-195, appendix G	It is noted in the plan that a minority of working group members proposed that the numerical thresholds for downlisting from endangered to game animal status be set at 3 / 6 / 8 breeding pairs with no distributional requirements. Although these numbers may reflect comfort levels of some working group members, they do not reflect the biology of the wolf or conservation science. These criteria would not result in “recovery” as defined by the plan and WAC nor would they result in a “recovered” population in any sense of the word as it is applied to biodiversity conservation.	No response was necessary.
minor rept	page 194-195, appendix G	Although changes in the official status of wolves may be delayed by legal challenges, this cannot be the grounds for modifying biological objectives for recovery.	
minor rept	page 194-195, appendix G	The arguments based on population density are unsupportable, in that the population density in actual wolf habitat may not significantly differ from the population density in other states' wolf habitat. Just because there are many people in the Puget Trough is no reason the rest of the state cannot support many wolves.	

minor rept	page 194-195, appendix G	I understand that most wolf plan recovery objectives are a negotiated number. However, because the minority report raises questions about habitat availability, human population, and recovery numbers in other states, it would be wise to thoroughly discuss how Washington decided that minimum recovery numbers are higher than all three of the principle Northern Rocky Mountain "wolf states". Why was Oakleaf habitat model apparently chosen over Carroll? What are the limitations of each model as applied to Washington?	
minor rept	page 194-195, appendix G	While the Wolf Working Group came to consensus on many conceptual areas of agreement and recommendations within the plan, over one-third (six of seventeen) ended up disagreeing with the population objectives. This is one of the most important tenants of the plan. The reasons given for their objection to the population objectives were 1) how quickly stockmen and rural landowners would be allowed to use more tools (lethal removal) to deal with problem wolves, and 2) that delisting results in greater population management options and collection of funds (license fees). They also expressed concern that livestock producers should be able to deal with protection of property regardless of wolf status, and that there is currently no funding identified for wolf management and without funding they couldn't support the plan.	

minor rept	page 194-195, appendix G	The minority report is a fairly well written opinion and I think the points made about the higher recovery objectives are valid and should be addressed.