



May 15, 2016

Janice Schneider
Assistant Secretary
Land and Minerals Management
U.S. Department of the Interior
Washington, D.C. 20540

Neil Kornze
BLM Director (210)
Attention: Protest Coordinator
P.O. Box 71383
Washington, D.C. 20024-1383

RE: Administrative Protest of the Final Environmental Impact Statement and Proposed Resource Management Plan for the Revision of the Resource Management Plans of the Western Oregon Bureau of Land Management Districts of Salem, Eugene, Roseburg, Coos Bay, and Medford, and the Klamath Falls Resource Area of the Lakeview District

Dear Assistant Secretary Schneider and Director Kornze,

Please accept this protest of the Final Environmental Impact Statement ("FEIS") for the Revision of the Resource Management Plans of the Western Oregon Bureau of Land Management ("BLM") Districts of Salem, Eugene, Roseburg, Coos Bay, and Medford, and the Klamath Falls Resource Area of the Lakeview District, and the Proposed Resource Management Plan ("PRMP") contained therein, on behalf of American Bird Conservancy.

Statement of American Bird Conservancy's Interest

American Bird Conservancy (ABC) is a non-profit conservation organization dedicated to conserving birds and their habitats thru out the Americas and conserving endangered bird species is our highest mission priority. ABC has participated in the BLM's Western Oregon planning process since 2007, and relevant comment letters are included in the addendum.

The FEIS fails to comply with the National Environmental Policy Act and the Endangered Species Act, and as a result, several threatened bird species of particular concern and interest to ABC, the Marbled Murrelet and Northern Spotted Owl, are at greater risk of population declines and possible extinction.

As a replacement of President Clinton's landmark Northwest Forest Plan, ABC views this decision as a great disappointment and step backwards for wildlife conservation, forest restoration and science-based land management planning. In most regards, the 21-year old Northwest Forest Plan, and the agency's adaptive management in the years since, is a superior plan and management framework than what is being proposed in the BLM's FEIS.

Specific impacts to forests and wildlife in western Oregon, and how the RMP changes the Northwest Forest Plan's regional restoration framework are not adequately disclosed or analyzed. The RMP weakens existing protections for wide-ranging listed species including the Northern Spotted Owl and Marbled Murrelet at a time when best-science indicates additional habitat should be conserved and restored.

Key principles we now reiterate are that the regional conservation framework of the Northwest Forest Plan needs to be retained and that the BLM and Forest Service need to work together to ensure forest plans comply with the best available science and legal obligations to protect endangered species, and to provide the public a fair and complete understanding of the changes being proposed to the Northwest Forest Plan. These fundamental principles appear to have been ignored by BLM.

In our comment on the DEIS, ABC raised concerns that the draft alternatives reflect 1) an abandonment of the Northwest Forest Plan and the consistent regional management and restoration framework that it provides, 2) a significant weakening of protections for listed species, and water quality, by reducing riparian reserves and promoting clearcutting of mature forests including in Northern Spotted Owl critical habitat, and Marbled Murrelet nesting areas, and 3) an incomplete economic analysis that fails to recognize that recreation, clean water, carbon storage, and other amenities provided by these federal forests are worth more in terms of jobs and overall economic contribution to society than an emphasis on increased timber production in endangered species habitat.

Many of these same concerns were raised in a January 22, 2015 letter to BLM Oregon State Director Jerome Perez. We are disappointed that the substantial concerns raised about the plan revision appear to have been largely disregarded.

Flawed Need for Action

The long-term departure from predicted timber outcomes (p.5) is not a legitimate need for action because this amount was the end result of citizen engagement in public lands management, application of national environmental laws, and adaptive management on the part of the agency. Laws such as the ESA and the Clean Water Act, and citizen engagement at the project level, including public protests, and a series of court decisions have affirmed that sustainable timber production, while called for, does not have primacy on the Oregon & California railroad revested lands managed under the 1937 O & C Act.

At the root of the current conflict was the inclusion of high quality, late-successional forest in the matrix, and the proposed ramp down of old growth logging under Option 9 of the Northwest Forest Plan. The public and the law did not support, and ultimately did not allow for, the continued clearcutting of old growth and endangered species habitat, and instead embraced saving the ancient forests. To its credit, the agency applied adaptive management, and began to focus on thinning projects in younger forests that did not so often run afoul of the law or public opposition.

BLM's effort to gloss over this history and revisit the same failed policy of clearcutting mature forests makes no sense. The FEIS fails to fully and accurately assess the likely negative impacts from increased logging levels, clearcutting and excessive thinning. When water, recreation and carbon values are considered, increasing high-intensity logging makes even less sense.

Another key point of history ignored in the FEIS is that the federal land management agencies bear responsibility for the Marbled Murrelet and Northern Spotted Owl being endangered species as a result of habitat loss on federal lands. [According to federal judge William Dwyer](#), Northern Spotted Owl population decline resulted in large part from "a deliberate and systematic" failure of administration officials and federal agencies to maintain a viable population and to ensure that logging on federal lands was at sustainable levels.

Northern Spotted Owl Habitat at Risk

Over the long-term, the FEIS may prove harmful to Northern Spotted Owl when the proposed moratorium on owl take comes to an end. We agree some amount of Barred Owl control is warranted to prevent the owl's extinction, as outlined in FEIS, though FWS policy proposes widespread Barred Owl removal on federal forests which may not be supported by all interests. In return for participation in the removal program, FWS states it will resume issuing take permits associated with the logging of owl critical habitat.

However it is unclear how effective Barred Owl control will prove to be. On page 961 BLM predicts that with Barred Owl control, Spotted Owl declines can be reduced from 53 percent to 28 percent in the Oregon Western Cascades Physiographic Province. While significant, this does not reverse the Spotted Owl's decline, and should not be viewed as a greenlight for additional habitat loss in the PRMP.

The owl take moratorium is proposed for five years, with a possible extension to eight years until ESA consultation would have to be reinitiated if the removal program had not been initiated by that time as anticipated.

A more prudent take moratorium would continue until owl decline has been halted, and significant amounts of new suitable owl nesting habitat has developed which will be in approximately 30 years. On page 966, BLM notes that there is a 50% extinction risk in the Coast Range-portion of the planning area within 20 years and a 95% risk if extinction within 50 years. Therefore, BLM is in error by limiting a no take policy to 5-8 years and only until Barred Owl control begins; a longer no-take moratorium is definitely warranted.

One argument for active management in Spotted Owl habitat is the need to protect owls from fire. But the FEIS does not predict significant losses of reserve land use allocation to high and moderate severity fires. Table 3-277 and Table 3-278 indicate predicted losses average only 5,600 acres per decade. In addition, there is evidence owls will continue to nest in moderate severity burn areas, and forage in high severity areas.

Recent studies show that Spotted Owls are well-adapted to fire, and that post-fire logging, and mechanical thinning in owl habitat pose significant threats and are contributing to population declines. A key piece of new information, the 20-year monitoring reports of the Northwest Forest Plan, is now available and should have been considered, but it appears to have been completely ignored by BLM.

The reports indicate that the plan is working as intended, creating additional habitat for listed species, improving water quality, guiding needed restoration, and providing a stable supply of timber.

We agree that there is new information regarding Northern Spotted Owl to be addressed, but we believe that could have been accomplished within the regional inter-agency framework of the Northwest Forest Plan. Matrix lands with high quality owl habitat could be designated late-successional reserve for example.

While the agency is continuing the Northwest Forest Plan's goal of conserving and restoring the late-successional ecosystem, the proposed increase in logging quantity and intensity, combined with reduced management requirements and protections for listed wildlife, mark a significant overall step backwards and slow the recovery of the late-successional ecosystem and listed species.

Moreover, statements that the FEIS are replacing the Northwest Forest Plan (p. 21) are disappointing, in part, because that plan, written 21 years ago combined with the agency's adaptive management in the ensuing years, is considerably better from a wildlife protection and recovery standpoint than what BLM is now proposing.

Recovery Action 12 is being ignored in the Harvest Land Base where timber salvage is allowed in Northern Spotted Owl critical habitat. Retention standards for salvage in the low intensity timber area are insufficient to maintain adequate owl foraging habitat. The replanting requirements on p. 982 pose an unnecessary fire risk on the landscape by creating fire-prone tree plantations and should be dropped in the Record of Decision. Forests will naturally regenerate and benefit from a longer early-seral period and additional snags and large down wood.

On page 928, BLM points out that BLM-administered lands are indispensable to Northern Spotted Owl for survival in the Coast Range and Klamath Basin, as connectivity between the Coast Range and western Cascades (p. 56). The "low intensity" prescription within the Harvest Land Base for Northern Spotted Owl critical habitat will result in the loss of nesting, roosting and foraging habitat at the 15-30 percent retention level proposed. Given future blowdown and ice damage, actual retention is likely to be even less. This means that most of these units will effectively be reset, and cannot be expected to provide suitable owl habitat for as much as 80 years. For the "moderate" intensity areas where retention is only 5-15 percent this problem can be expected to be even worse.

Given the recent investigation of BLM sales which found overcutting in most units of Northern Spotted Owl habitat this excessive logging standard needs to be reconsidered. The discrepancy between the amount of NSO habitat USFWS believes to exist and the much smaller amount of habitat that still actually exists after thinning invalidates the current habitat baselines.

Extensive monitoring will be necessary to ascertain the true extent of damaged, destroyed, and still existing NSO habitat in thinned stands. Without an updated baseline, BLM's PRMP cannot be considered accurate in predicting the trade-offs between increased logging and adequate retention of NSO habitat.

The FEIS also fails to compensate for the ongoing loss of habitat on non-federal lands. Since 1996, suitable owl habitat on non-federal lands continues to be lost to logging at a rapid pace resulting in declines of 10%, 17%, and 4% in Washington, Oregon and California respectively.

On page 990, BLM indicates that it will manage Northern Spotted Owl habitat in accordance with the “special management considerations or protections” mandated by the final Northern Spotted Owl critical habitat rule. This is of great concern due to serious flaws in this final rule. Please see ABC’s comment letter regarding the draft rule, and analysis of the final rule in the addendum.

A total of 172,629 acres of critical habitat, 14.2% of the total, are included in the Harvest Land Base. Moreover, an estimated 175 known owl sites are in the Harvest Land Base as are portions of the 500 acre core-use areas of another 660 known sites in other land allocations, as are 250 sites in home range areas. Thus, 44 percent of known sites would be affected by management actions in the Harvest Land Base.

Marbled Murrelet Habitat Protection Reduced by 98%

This plan provides less management protections for the Marbled Murrelet. The plan provides for surveys in murrelet Zone 1 and in reserves in Zone 2. It also provides a 300 foot protected buffer around newly occupied discovered sites and adds these areas to reserves. Under the Northwest Forest Plan the agency surveys for murrelets in both zones and provides a ½ mile buffer. Approximately 7 percent of murrelet nesting habitat, 34,362 acres is in the harvest base, including 3,425 acres of high-quality habitat. There is also 39,718 acres of the murrelet’s designated critical habitat in the harvest base.

Alt. D provided the most acreage of existing and predicted murrelet habitat in late-successional reserve with approximately 124,000 acres. However, the RMP proposes only about 73,000 acres, and reduces the current ½ mile protected buffer to only 300 feet. A ½ mile buffer provides for 503 acres of protected habitat based on a circular radius from the nest site. A 300 foot buffer provides for 6.5 acres of protected habitat, a 98% reduction from the current standard.

The 1997 Marbled Murrelet Recovery Plan (p. 140) States:

Maintaining buffers around occupied habitat will mediate the effects of edge by helping to reduce environmental changes within the stand, reduce loss of habitat from wind throw and fire, reduce fragmentation levels, increase the amount of interior forest habitat available, and potentially help reduce predation at the nest. To have the greatest benefits, buffer widths should be a minimum of 300-600 feet and should consist of whatever age stand is present, including existing plantations (which should be managed to provide replacement habitat).

The 2009 Marbled Murrelet Status Review raises doubt that a 300 foot buffer is adequate:

Current forest protection rules protect occupied (as defined by State) habitat and a 300-foot managed buffer around occupied habitat. However, there are no reasonable assurances that the maximum site size and managed buffers are adequate to protect and maintain complex-structured forest isolated from human development such that the risk of predation, windthrow, and changes in microclimate are reduced. (p. 9)

WA State Plan is proposing a ½ mile buffer:

“lands within ½ mile of these occupied sites to be maintained as LTFC-- this is intended to provide habitat or “security forest” conditions that function to reduce the effects of fragmentation” http://file.dnr.wa.gov/publications/em_bc_bnr_altsum.pdf p.4 Alt. C

1996 Critical Habitat Rule

Within the range of the marbled murrelet, the Northwest Forest Plan designates a system of Late-Successional Reserves, which provides large areas expected to eventually develop into contiguous, unfragmented forest. In addition to Late-Successional Reserves, the Northwest Forest Plan designates a system of Adaptive Management Areas, where efforts focus on answering management questions, and matrix areas, where most forest production occurs. Administratively withdrawn lands, as described in the individual National Forest or Bureau of Land Management land use plans, are also part of the Northwest Forest Plan.

Specific measures in the Northwest Forest Plan protect all occupied murrelet sites on Federal lands outside of the Federal reserve system. These measures include surveys prior to activities that may affect habitat and protection of contiguous marbled murrelet nesting and recruitment habitat (stands capable of becoming suitable nesting habitat within 25 years) within 0.8-kilometer (0.5-mile) of areas occupied by murrelets.

An assessment of population viability of marbled murrelets was conducted by the FEMAT. The assessment group concluded that "We believe there is only about a 60 percent likelihood (with a range of 50 to 75 percent) that the marbled murrelet population on Federal lands would be stable and well distributed after 100 years, regardless of which option is selected." An additional assessment based only on the projected habitat condition at 100 years concluded that there was an 80 percent likelihood that nesting habitat would be well distributed on Federal lands at 100 years under the option most similar to the current Northwest Forest Plan.

The Service recognizes the value of the Northwest Forest Plan (USDA and USDI 1994) and acknowledges its integral role in marbled murrelet conservation. The Northwest Forest Plan complements this critical habitat designation by stressing the need for protection of large, unfragmented areas of suitable nesting habitat that are well distributed throughout the species' range, with special emphasis on areas close to the marine environment.

Forested areas surrounding nest trees were retained because they likely contribute to successful reproductive efforts by providing the microclimate suitable for maintaining nest tree characteristics and potentially reducing predation. The contribution of forested areas to successful reproduction likely decreases with increasing distance from the nest tree and at some distance the contribution becomes indistinguishable. Raphael et al. (1995) found an increased chance of occupancy in landscape conditions with increased amounts of large saw timber and old growth components within a 0.8 km (0.5 mile) radius circle. Specific studies are lacking to document the value of forested conditions to marbled murrelet nesting beyond the 0.8 km (0.5 mile) radius. Therefore, until these studies are completed, it is the best professional judgement of Service biologists that forested conditions within 0.8 km (0.5 mile) of a potential nest tree contribute more significantly to successful reproduction than those beyond this area and the Service has changed the primary constituent elements accordingly.
http://ecos.fws.gov/docs/federal_register/fr2961.pdf

(3) Removal or degradation of forested areas with a canopy height of at least one half the site-potential tree height and regardless of contiguity, within 0.8 km (0.5 mile) of individual trees containing potential nest platforms. This includes removal or degradation of trees currently

unsuitable for nesting that contribute to the structure/integrity of the potential nest area (i.e., trees that contribute to the canopy of the forested area). These trees provide the canopy and stand conditions important for marbled murrelet nesting (Federal Register / Vol. 61, No. 102 / Friday, May 24, 1996 / Rules and Regulations 26271).

3.2.1.2 Protect “recruitment” nesting habitat to buffer and enlarge existing stands, reduce fragmentation, and provide replacement habitat for current suitable nesting habitat lost to disturbance events.

Stands (currently 80 years old or older) that will produce suitable habitat within the next few decades are the most immediate source of new habitat and may be the only replacement for existing habitat lost to disturbance (e.g., timber harvest, fires, etc.) over the next century. Such stands are particularly important because of the vulnerability of many existing habitat fragments to fire and wind and the possibility that climate change will increase the effects of the frequency and severity of natural disturbances. Such stands should not be subjected to any silvicultural treatment that diminishes their capacity to provide quality nesting habitat in the future. Within secured areas, these “recruitment” stands should not be harvested or thinned. In the matrix (on Federal lands), harvest in younger-aged stands should adhere to the techniques discussed in the following task (3.2.1.3) to more quickly develop into marbled murrelet habitat.

The proposed RMP states 13 murrelet sties will be taken, and increased predation is likely to result from the reduced buffers being provided and the application of clearcutting which will increase fragmentation.

34,362 acres of nesting habitat are in the harvest land base, including 3,425 acres of high quality habitat and provides the least amount of core habitat (38%) of any alternative analyzed. A significant amount of murrelet critical habitat, which is designated to protect and provide for recovery, is included in the harvest land base. Of the 39,718 acres of critical habitat, 36% is currently nesting habitat, and 3% is high-quality.

The remainder are younger forests that murrelet recovery requires be allowed to become suitable nesting habitat. However, the plan (p. 907) calls for logging 1-3% of murrelet nesting habitat within critical habitat per decade for the next five decades; essentially logging 100% of these younger forests. The BLM statement on p. 907 that timber harvest would not affect the functionality of critical habitat is therefore contradicted by this plan for extensive logging of 34,000 acres of murrelet critical habitat.

Table 3-261 on page 910 indicates tens of thousands of acres of murrelet nesting habitat will be targeted for logging each decade with a proposed total loss of 104,332 acres. Some of these acres would be subject to murrelet surveys that could remove these acres from logging. In addition, an estimated 39 murrelet sites will be lost during the first five decades as a result of surveys not taking place in Zone 2.

A Faulty and Fictional No Action Alternative

The No Action Alternative violates the National Environmental Policy Act because it is based on the Northwest Forest Plan as written, as opposed to how it actually being implemented in 2016. As a result, it does not offer a useful baseline for analysis, or for comparison with the proposed RMP.

White House Council on Environmental Quality guidance on this point is clear: “In these cases “no action” is “no change” from current management direction or level of management intensity.”

<https://ceq.doe.gov/nepa/regs/40/1-10.HTM>.

The draft *misled the public* by claiming expected timber outputs under the Northwest Forest Plan as written despite the fact that old growth logging projects in matrix were typically found by federal courts to be illegal. As a result, it was not possible for the interested public to determine whether the draft alternatives provided comparable levels of conservation to the requirements of the Northwest Forest Plan plus the adaptive management changes made since 1994 during implementation of the plan.

Figure 3-67 on page 352 of the FEIS reveals how far off the No Action Alternative is. The table shows actual timber sale averages at 167 mbf, but the No Action says it is 399. There is a considerable difference between 167 and 399. So while the plan proposes a 37% increase above the current target, it actually is proposing a 60% increase over the average from 1995-2012.

Inadequate Range of Alternatives – One Should Have Built on the Northwest Forest Plan

The range of alternatives in the draft was unduly narrow in violation of the National Environmental Policy Act. And, of the four draft alternatives, none were sufficiently protective of listed species in violation of the Endangered Species Act. The Northwest Forest Plan provides the best model for managing forests on BLM lands in Oregon. The Aquatic Conservation Strategy, Late-Successional Reserves, and the Survey and Manage program are essential elements of the plan. The range of alternatives should have been expanded to include an alternative that builds upon the Northwest Forest Plan. All the core science and rationale supporting adoption of the Northwest Forest Plan remain sound.

New information since the plan was adopted 20 years ago indicates a need for more forest conservation, not more logging. Global climate change is a new and significant issue that requires BLM to consider an alternative that emphasizes carbon storage by protecting all mature and old-growth forests and allow young forests more time to grow. Increased logging will accelerate the transfer of carbon from the forest to the atmosphere, while increased conservation will keep carbon out of the atmosphere and help mitigate global warming and ocean acidification.

In addition, the recent invasion and expansion of the range of the Barred Owl, which competes with Northern Spotted Owls for both territory and food, requires that BLM consider an alternative that protects all suitable nesting, roosting, foraging habitat. This will increase the chances that the two owls can co-exist instead of competitively exclude each other, and contribute to meeting the conservation requirements of the Endangered Species Act.

The conservation alternative should also have analyzed the benefits of expanding habitat conservation for the threatened Marbled Murrelet. The existing network of Late-Successional Reserves on federal lands in the Pacific Northwest that was designated in 1994 are insufficient to maintain the Marbled Murrelet population – the 2009 five-year status review is predicting extinction for the population outside of the Puget Sound area within 100 years. There is also inadequate mitigation of the apparent negative effects of fragmentation and human disturbance to nest survival.

To supplement recovery efforts we urged the Administration analyze protection of all mature and old-growth forests throughout the Oregon range of the murrelet. This conservation alternative should have analyzed protecting existing suitable habitat, both occupied and unoccupied, from logging and other

harms; recruiting additional suitable nesting habitat, by letting mature and younger forests grow; preventing fragmentation (including clearcutting or commercial thinning) of the land around suitable habitat, maintaining protective cover from nest predators; and increasing the size of and strengthening the standards for buffers surrounding the nesting sites.

Forest management

Large logs would be 9% of volume (p.307) and 188,816 acres of mature and structurally complex habitat are in the harvest base. The inclusion of group selection openings for creation of early seral habitat within areas where development of structural complexity and high-quality late-successional habitat are primary treatment objectives is inappropriate and will set back recovery of late-successional forest. (p. 308)

Prohibiting salvage logging in late-successional reserves will create additional high-quality early seral habitat. Table 3-246 on page 836 indicates that there is an abundance of early seral habitat across the landscape, including over one million acres of it on private lands, most of which are managed on short rotations. Moreover, a review of stand ages on page 840 reveals the shortage on the landscape is not early seral or young forests; it is mature and late-successional forests that are in short supply.

On (p. 314) BLM states that the harvest types employed would not result in an alteration of stand structure sufficient to cause a reset of stand age. While this may be true at the stand level, significant habitat is missing from within the stand as a result of the group selection openings noted above. Figure 3-60 on (p. 330) indicates that over 25,000 acres will be reset to early seral condition by 2043.

Smallest Inventory = Largest Carbon Loss = Worst Climate Alternative

The tilt towards intensive timber production is revealed in Table 3-53 (p. 336) with the proposed alternative leaving the least inventory in 2113 (44%), compared to Alt Sub B at 91% and Alt D at 92%. Particularly notable is the intense logging planned for reserves with only a 58% increase in inventory, far less than any other alternative including Alt. Sub C which managed 78%. This raises real doubt whether the reserves will function as intended due to the large amount and intensity of proposed logging.

This also has major implications from a climate perspective; this is by far the worst alternative analyzed and will cut the most timber over the next 100 years. In addition, it is evident that much of this timber will be mature forest. On page 841, it states that the percent of mature forest habitat would increase to 48% under the no harvest alternative, but only 42% in the preferred alternative. Cutting mature forests sets back forest recovery, increases carbon emissions and reduces sequestration.

Appendix B: Management Direction in Land Use Allocations

The management direction for Wild and Scenic Rivers corridors on p. 1099 is inappropriate due to inclusion of forest management. Allowing for an undefined “temporary loss” of outstandingly remarkable values is unacceptable and can allow for significant habitat degradation. Similarly on page 1101, the direction for Lands Managed for their Wilderness Characteristics allows mechanical vegetation treatments and forest management, and an undefined “temporary” loss of wilderness character. This is again unacceptable and fails to adequately protect this important value.

The direction for the Eastside Management Area regarding salvage logging is also of great concern because it ignores Recovery Action 12 and the need to retain snags and other structures that take a long time to form on the landscape. On page 1106, it exempts salvage logging from the normal large snag > 20" retention requirement included in regular harvest.

On page 1112, the direction header is to "Maintain marbled murrelet habitat", but then states that activities such as fuels reduction, bug control, and wildfire management can remove murrelet habitat. This appears to be contradictory, and in violation of the Endangered Species Act which prohibits the take of endangered species. This is further contradicted by direction on page 1157 that says that activities that disrupt murrelet nesting should be prohibited within 35 miles of the coast and in reserves 35-50 miles of the coast. Also of concern is direction of page 1158 indicating that even the inadequate 300 foot buffers are also subject to thinning up to 150 feet from the nest.

Conclusion: No Record of Decision Should be Signed

For these reasons, we request that the final RMP/EIS be mothballed and no record of decision signed. We urge the BLM to be directed to work with the Forest Service to develop a consistent regional inter-agency strategy to protect, restore and manage the federal forests under an augmented Northwest Forest Plan.

Thank you for considering these comments. I would be interested in meeting with you to discuss this further and can be reached at 202 888-7490 or sholmer@abcbirds.org to respond to this request.

Sincerely,

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Addendum of Relevant Documents

1. ABC Comment on Purpose and Need
 2. ABC Comment on Planning Criteria
 3. ABC Comment on Draft EIS
 4. Coalition Letter to Administration asking for Regional EIS
 5. Coalition Letter to Administration asking for Withdrawal of BLM
 6. ABC Comment on Uplisting Northern Spotted Owl to Endangered
 7. ABC Comment on Northern Spotted Owl Critical Habitat Rule
 8. ABC Comment in Support of Listing California Spotted Owl
 9. ABC Comment on Marbled Murrelet Critical Habitat Rule
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1. ABC Comment on Proposed Purpose and Need

To: Bureau of Land Management Staff
From: Steve Holmer, American Bird Conservancy
Date: August 1, 2013

American Bird Conservancy Comments on the Proposed Purpose and Need Statement for the Western Oregon Plan Revisions

One of the primary reasons given for the Western Oregon RMPs revision is that there has been a substantial, long-term departure from the timber outcomes predicted under the 1995 RMPs and a resulting need to increase logging now. This is not a good rationale to base a plan revision around because the timber outcomes predicted under the 1995 RMPs were never updated to reflect changed circumstances, public opposition to the logging of old growth forests, and the resulting application of environmental laws.

American Bird Conservation does agree that new scientific information and policies related to the Northern Spotted Owl, including a revised Recovery Plan, and a new designation of critical habitat are issues that can be addressed by land managing agencies. Some of the new information includes the Barred Owl invasion and the need to protect more suitable habitat to help Barred and Spotted Owls coexist.

There is also new scientific information related to the population decline of the threatened Marbled Murrelet that points to the need for additional conservation planning and habitat protection. We would further argue that climate science indicates that conserving carbon-dense forests can help maintain the percentage of atmospheric carbon being sequestered by forests.

The emphasis on “sustained yield management” for O & C lands is of concern. The agency has left itself some maneuvering room to define sustained yield to ensure other important values such as clean water, recreation and carbon storage are maintained. We urge the best available science be utilized to make these determinations and that sustained yield be calculated based on what's available after other public values are met and sustained, including clean water, fish, wildlife, listed species recovery, old growth ecosystem recovery, keeping species off the ESA list, carbon storage, recreation, and quality of life.

We appreciate the agency's recognition that conservation and recovery of the spotted owl includes maintaining a network of large blocks of forest to be managed for late-successional forests. In addition, the agency rightly recognizes the importance of older, more structurally complex forests. The large blocks must serve several purposes: providing connectivity within and between the provinces, and mitigating for late successional habitat loss on private land.

We are concerned that alternatives will propose varying degrees of conservation based on different definitions of older structurally complex forests and different management approaches. The reserve design of the Northwest Forest Plan provides for older structurally complex forests, and a redundant system of large blocks. The system of late-successional and riparian reserves should be enlarged to account for new information: Barred Owls and the need for more habitat protection to promote

coexistence, and the need for increased biogenic carbon storage to mitigate climate change. There is concern that redrawing the lines rather than expanding the existing system of reserves could lead to less overall habitat protection for the owl despite evidence that additional habitat is needed.

Recovery Action 32 of the owl recovery plan is an important tool to conserve owl habitat and providing a clearer and broader definition can benefit owl recovery. We do not agree that the active management portions of critical habitat rule and recovery plan are based on a scientific consensus and pose likely threats to both Northern Spotted Owls and Marbled Murrelets due to allowing for the conversion of suitable habitat into plantations and increased fragmentation.

Furthermore, the most recent scientific studies concerning the dramatic decline of the listed Marbled Murrelet population have not been adequately considered. These studies support a purpose of not only maintaining Murrelet habitat, but also providing for additional large blocks, and reducing fragmentation in nearby stands. We urge that providing additional conservation measures and habitat protection for the Murrelet be a purpose of this action.

Lastly, the contribution that conserving older and late-successional forests can make to sequestering carbon from the atmosphere should also be a purpose of this action. Wet, Westside forests store as much as or more carbon per acre than any other forests in the world. Given the likely decline of forest based carbon sequestration due to loss of forests to development as predicted in the Forest Service 2010 Resource Planning Assessment, protecting and maintaining existing carbon stores can help alleviate this trend.

American Bird Conservancy looks forward to working with the Bureau as it advances the Western Oregon Plan Revisions. I can be contacted at 202/234-7181 ext. 216 or sholmer@abcbirds.org if you have any questions concerning these comments.

Sincerely,

Steve Holmer
Senior Policy Advisor
American Bird Conservancy

2. ABC Comment on Planning Criteria

March 31, 2014

Jerome E Perez, State Director
Bureau of Land Management
Oregon/Washington
United States Department of Interior
P.O. Box 2965 Portland, OR 97208
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RE: Planning Criteria for Western Oregon Resource Management Plans

Dear Mr. Perez,

On behalf of American Bird Conservancy, please accept these comments on the Planning Criteria for Western Oregon Resource Management Plans. BLM forests in Oregon support listed populations of Northern Spotted Owl and Marbled Murrelet that provide outstanding sightseeing, fishing, hunting, camping, hiking and wild river boating opportunities for all Americans.

These public land forests purify drinking water for thousands of Oregonians, sequester large amounts of carbon thereby mitigating climate change, and provide a proven ecological defense against wildfire due to their older stand age. We want these important amenities and environmental services to continue on all BLM lands in western Oregon and not become degraded as a result of timber-dominant management.

We greatly appreciate the public review period for the planning criteria and the open house forums. We also appreciate the inclusion of threatened and endangered species recovery as a part of the BLM's Purpose and Need statement.

However, we are troubled by aspects of the Planning Criteria, including the shrinking the riparian buffers and old growth reserves, proposing clearcut logging, proposing logging in older forest stands and logging in critical habitat for endangered species. The BLM is emphasizing the timber primacy of the O&C Act and ignoring other court opinions that require the BLM to recover endangered species and promote clean water and older forest habitats.

In addition, we object to your lumping of all BLM lands. The O&C Lands Act does not apply to the Public Domain, acquired and other BLM lands. The non-O&C lands do not suffer from BLM's interpretation of the O&C Act that calls for timber maximization constrained only by other federal law.

The range of alternatives is unduly narrow. Of the four draft alternatives, none appear to be sufficiently protective of listed species and all should be dropped from further consideration.

Instead, we recommend you develop three alternatives that build upon the Northwest Forest Plan as implemented (exclude matrix regeneration of mature and old growth stands from the analysis) and also include an evaluation of pending legislation using the same planning criteria as the alternatives to allow for comparative analysis of likely affects. This would allow the public to fully evaluate the range of potential consequences of management schemes being proposed for Western Oregon BLM lands.



BLM Checkerboard. Photo by Steve Holmer.

Analysis of Legislative Proposals

The U.S. House of Representatives has passed the “O&C Trust, Conservation and Jobs Act” (Title III, H.R. 1526, 113th Congress). The second bill to review is S. 1784, the “Oregon and California Land Grant Act of 2013.” If either of these legislative proposals were to become law, they would essentially dictate the content of the revised BLM RMPs in western Oregon. For that reason, it is essential the public understand the likely consequences of the two pending legislative proposals.

All Alternatives Should Build on the Northwest Forest Plan

The Northwest Forest Plan provides the best model for managing forests on BLM lands in Oregon. The Aquatic Conservation Strategy, Late-Successional Reserves and the Survey and Manage program are essential elements of the plan. The range of alternatives should be expanded to include three alternatives that build upon the Northwest Forest Plan. All the core science and rationale supporting adoption of the Northwest Forest Plan remains sound.

New information since the plan was adopted 20 years ago indicates a need for more forest conservation, not more logging. Global climate change is a new and significant issue that requires BLM to consider an alternative that emphasizes carbon storage by protecting all mature & old-growth forests and allow young forests more time to grow. Increased logging will accelerate the transfer of carbon from the forest to the atmosphere, while increased conservation will keep carbon out of the atmosphere and help mitigate global warming and ocean acidification.

In addition, the recent invasion and expansion of the range of the Barred Owl, which competes with northern spotted owls for both territory and food, requires that BLM consider an alternative that protects all suitable nesting, roosting, foraging habitat. This will increase the chances that the two owls can co-exist instead of competitively exclude each other, and contribute to meeting the conservation requirements of the Endangered Species Act.

The third alternative should analyze the benefits of expanding habitat conservation for the threatened Marbled Murrelet. The existing network of late-successional reserves on federal lands in the Pacific Northwest that was designated in 1994 are insufficient to maintain the Marbled Murrelet population – the current 5-year status review is predicting extinction for the population outside of the Puget Sound area within 100 years. There is also inadequate mitigation of the apparent negative effects of fragmentation and human disturbance to nest survival.

To supplement recovery efforts we urge the Administration analyze protection of all mature and old-growth forests throughout the Oregon range of the murrelet. This alternative should analyze protecting existing suitable habitat, both occupied and unoccupied, from logging and other harms; recruiting

additional suitable nesting habitat, by letting mature and younger forests grow; preventing fragmentation (including clearcutting or commercial thinning) of the land around suitable habitat, maintaining protective cover from nest predators; and increasing the size of and strengthening the standards for buffers surrounding the nesting sites.

Comments on Preliminary Alternatives

“A” offers the highest degree of protection of the preliminary alternatives, but it is weaker than the current Northwest Forest Plan as implemented, and reduces riparian buffers. Proposed regeneration harvest (AKA clearcuts) would further fragment the landscape and thereby harm listed species including Northern Spotted Owl and Marbled Murrelet. Forests now protected by the Northwest Forest Plan in the 80-120 age class could be subject to logging.

“B” significantly reduces existing protected acres than the current Northwest Forest Plan by not providing as robust a network of large block reserves, reducing riparian reserves, and reducing protection for older forests to as high as 160 years for low productivity sites, and 140 years for moderate productivity sites. Managing for fire resilience within the reserves would allow clearcut logging of critical habitat which is likely to jeopardize the Northern Spotted Owl.

“C” fails to provide for sufficient protected reserve acres to provide for Northern Spotted Owl or Marbled Murrelet recovery, and the protection provided the reserves is also unclear; it should be dropped from any further consideration. Again, riparian reserves are reduced, and regeneration harvest broadly applied, major steps backward from the current Northwest Forest Plan as now implemented. Critical habitat outside of reserves would be subject to clearcutting which is likely to jeopardize the Northern Spotted Owl.

“D” is inadequate for the protection of listed species and should be dropped from any further consideration. This alternative does not provide for sufficient protected acres and the proposed targeting of critical habitat for logging is likely to jeopardize the Northern Spotted Owl by eliminating and fragmenting habitat.

Comments on Planning Criteria

On p. 8 of the Planning Criteria document BLM reiterates that sustained yield timber production is the primary or dominant use of the O & C Lands. We believe this is a misreading of the law. Attached are documents detailing arguments for a more balanced reading of the law that also recognizes multiple-use and water quality standards, and the need to assist in the protection and recovery of listed species.

In any case, the agency fails to make a logic case for why this interpretation of the law and timber dominant management should also apply to 19% of the planning area that are not subject to the O & C Act of 1937. Of particular concern are the Public Domain lands near the Pacific Coast within the range of the threatened Marbled Murrelet. These Public Domain lands should be managed specifically to assist in the maintenance and recovery of murrelet populations and to serve as carbon reserves.

On p. 13, BLM notes that “Contributing to the conservation and recovery of listed species is essential to delivering a predictable supply of timber...providing large, contiguous blocks of late-successional forests and maintaining older and more structurally complex multi-layered conifer forests are necessary components of the conservation and recovery of the Northern Spotted Owl...These purposes require the

BLM to exercise its discretion to determine how best to achieve sustained yield timber production over the long term and avoid future limitation on timber production.” This is helpful and appreciated, but it remains unclear if BLM can successfully argue the O & C Act requires that timber management should be the dominant use, while also retaining discretion on how to define sustained yield.

On p. 19 BLM states that the No Action Alternative will be based on the 1995 RMP as written and that it is not possible to analyze the plan as implemented but the arguments presented are not convincing. Public opposition to regeneration harvest on public lands is due to concerns about potential harm to water quality and wildlife habitat, as well as the resulting increased risk of landslides, and the overabundance of clearcuts on private and state lands. This opposition and application of federal environmental laws have altered the Northwest Forest Plan as written to exclude clearcutting of mature and old growth forests in the matrix. We urge that the No Action Alternative analyze the 1995 RMP as implemented by excluding clearcutting of mature and old growth forests in the matrix.

Regarding the framework for evaluating effects to the Northern Spotted Owl we are concerned about Conservation Need 3 which proposes a coordinated effort to reduce the loss of habitat due to catastrophic wildfire, and a monitoring program to clarify whether these risk reduction methods are effective and to determine how owls use habitat treated to reduce fuels. A recent peer-reviewed modeling study (Raphael et al.) on thinning indicate that habitat losses to the owl are likely greater from thinning, than from wildfire. A second paper with the same result is now under review.

Additional review of the available literature is recommended before embarking on an aggressive thinning program in owl habitat. We are further concerned by the statement on p. 176 that “...the creation of such a monitoring program is not a BLM responsibility and will not be included in the BLM evaluation.” This is of great concern because the U.S. Fish and Wildlife Service has repeatedly refused to carry out this work stating it is the responsibility of the land management agencies to do it. We recommend FWS conduct the monitoring and develop an Environmental Impact Statement prior to any significant logging of owl critical habitat.

Issue 7 on p. 179 focuses on Recovery Action 12 and post-fire logging. However, none of the preliminary alternatives provide any indication of the range of management actions being considered. We urge that post-fire treatments be prohibited in reserve areas to conserve and restore habitat elements that take a long time to develop such as large trees, medium and large snags, and downed wood. Please see attached letter regarding implementation of Recovery Action 12.

The direction on p. 182 to consider applying ecological forestry to Northern Spotted Owl critical habitat that is not currently late seral forest or high-value habitat is not consistent with the best available science and may jeopardize the subspecies. Attached are American Bird Conservancy’s comment on the draft Northern Spotted Owl critical habitat rule and critique of the final rule.

Regarding the threatened Marbled Murrelet we are concerned that the preliminary alternatives do not provide sufficient habitat protection to maintain or recover the species. On p. 186 the agency notes that “Higher amounts of habitat, greater patch cohesion, and larger mean patch size are indicative of better habitat conditions for the Marbled Murrelet at a landscape scale.” And on p. 187 that each alternative would rank the amount of high suitability habitat, patch diversity, connectivity, and future, occupied sites lost.

However, the alternatives are not being crafted to provide varying degrees of increased habitat protection and more protective management in buffer areas as is needed to recover the species. In addition, the proposed regeneration of late successional forest would be detrimental to Murrelet habitat and could jeopardize the Marbled Murrelet.

We are therefore asking that a Marbled Murrelet conservation alternative be developed. In addition to benefits to the Murrelet and water quality from increase forest protection in the Murrelet zone, that there will also be a very strong correlation to forests with the highest carbon storage potential. Attached are recent letters to the administration from a coalition of conservation groups, and a second from the Pacific Seabird Group outlining the conservation needs of the Marbled Murrelet.

Additional documents concerning S. 1784, Marbled Murrelet conservation, the Northern Spotted Owl Critical Habitat Rule, and forest carbon are attached. We look forward to working with the BLM on this planning effort. Thank you for your consideration.

Sincerely,



Steve Holmer
Senior Policy Advisor
American Bird Conservancy

3. ABC Comment on Draft EIS

2015

Janice Schneider
Assistant Secretary
Land and Minerals Management
U.S. Department of the Interior
Washington, D.C. 20540

Re: RMPs for Western Oregon Bureau of Land Management

Dear Assistant Secretary Schneider,

Thank you for this opportunity to comment on the draft Resource Management Plan/Environmental Impact Statement for federal forests in Western Oregon managed by the Bureau of Land Management.

As an initial amendment to President Clinton's Northwest Forest Plan, American Bird Conservancy is viewing this draft both in terms of its specific impacts to forests and wildlife in western Oregon, and how it changes the Northwest Forest Plan's regional restoration framework to provide additional habitat for and to conserve wide-ranging listed species including the Northern Spotted Owl and Marbled Murrelet.

Following a meeting with Forest Service regional foresters Jim Pena and Randy Moore in October 2014, conservation groups developed a set of consensus principles to help guide the Northwest Forest Plan revision process which are pasted below and attached. This document was broadly circulated among administration and agency staff, and discussed in follow up meetings with Interior and Agriculture Department officials, Council on Environmental Quality and Office of Management Budget staff, and BLM and Forest Service leaders and planning staff.

A key principle we now reiterate is that the regional conservation framework of the Northwest Forest Plan needs to be retained and that the BLM and Forest Service need to work together to ensure forest plans comply with the best available science and legal obligations to protect endangered species, and to provide the public a fair and complete understanding of the changes being proposed to the Northwest Forest Plan. This fundamental principle appears to have been ignored by BLM.

We are concerned that the draft alternatives reflect 1) an abandonment of the Northwest Forest Plan and the consistent regional management and restoration framework that it provides, 2) a significant weakening of protections for listed species, and water quality, by reducing riparian reserves and promoting clearcutting of mature forests including in Northern Spotted Owl critical habitat, and Marbled Murrelet nesting areas, and 3) an incomplete economic analysis that fails to recognize that recreation, clean water, carbon storage and other amenities provided by these federal forests are worth more in terms of jobs and overall economic contribution to society than an emphasis on increased timber production in endangered species habitat.

Many of these same concerns were raised in a January 22, 2015 letter to BLM Oregon State Director Jerome Perez. That letter is also pasted below and attached and it is of great concern that substantial concerns raised about the planning criteria being used for this plan revision appear to have been completely disregarded.

Northern Spotted Owl Requires Additional Habitat Protection, Not Less

A root problem is the use of the Northern Spotted Owl recovery plan and critical habitat rule to justify clearcutting currently occupied Spotted Owl habitat, including the take of large numbers of owls. All of the Northern Spotted Owl comment letters below should be considered as being part of our comments on the Draft RMPs/EIS.

Recent studies show that Spotted Owls are well-adapted to fire, and that post-fire logging, and mechanical thinning in owl habitat pose a significant threat and are contributing to population declines. Comments supporting uplisting the Northern Spotted Owl are below, as are comments on the draft Northern Spotted Owl Critical Habitat rule and an analysis of the final rule.

These include discussion on the need to protect all suitable Northern Spotted Owl habitat, not just high quality habitat, concerns about ecoforestry which would further fragment habitat and likely facilitate Barred Owl invasion, and the lack of adequate scientific justification for creating early seral habitats by logging mature forests. The Coos Bay BLM Wagon Road Pilot project was justified based on the need for more early-seral habitat in moist-forests, in this case, in exchange for the "take" of four Northern Spotted Owls. Some recent pictures are here:

<https://picasaweb.google.com/112037980213765028264/WagonRoadPilotProjectCut?authuser=0&feat=directlink>

A key piece of new information is now available, the 20-year monitoring reports of the Northwest Forest Plan, is now available and should be considered. The reports indicate that the plan is working as intended, creating additional habitat for listed species, improving water quality, guiding needed restoration, and providing a stable supply of timber. We urge that the reports be included in the comment record in their entirety.

ABC comments below address the issue of timber volume, and in brief, our review indicates that the BLM and Forest Service are producing as much timber as Congress is funding. Approximately 757 million board is the estimated volume that can be produced in the Northwest Forest Plan area, and the agencies have been consistently producing over 600 million board feet. Any perceived shortfall is related to funding levels set by Congress and the administration, and not the result of litigation by conservation groups.

A Faulty and Fictional No Action Alternative

The No Action Alternative is based on the Northwest Forest Plan is written, as opposed to how it actually being implemented in 2015. As a result, it does not offer a useful baseline for analysis, particularly for the 50-year projections, or for comparison with the proposed draft alternatives.

Even worse, it appears that the draft seeks to purposefully mislead the public by claiming expected timber outputs under the Northwest Forest Plan as written despite the fact that old growth logging projects in matrix were typically found by federal courts to be illegal. As a result, it is not possible for the interested public to determine if the drafts provide comparable levels of conservation to the requirements of the Northwest Forest Plan plus the adaptive management changes made since 1994 during implementation of the plan.

Timber Harvest & Value

The annual timber harvest value from 2012 was \$23 million. Under all alternatives it would increase; for alternative D it would increase to \$37 million, and under Alternative C to \$135 million, a 586% increase (p. 472). This assumes both an increase in total harvest volume, and the logging of larger, higher values trees than the current average.

Recreation Value

The 2012 value of recreation is estimated at \$223 million, and annual recreation value is expected to increase over the next decade to \$250 million annually in each alternative. BLM administers approximately 50 percent of all public land within 30-minute driving time of the 12 largest communities in western Oregon, and 34 percent within 60-minute driving time. There were 10.8 million participants in recreation, with wildlife/nature viewing, scenic driving, camping and picnicking, non-motorized trail use, and hunting all experiencing over one million participants (p. 489). BLM projects 16.5 million annual participants by 2060 (p. 491). It is estimated that hunting, including Migratory Game Birds generates \$26 million annually, and that wildlife viewing adds another \$31.5 million.

Employment

In 2012, BLM management contributed 7,900 jobs and \$355 million in earnings to the planning area, about .4 percent of total jobs and earnings. Under the alternatives this ranges from 6,900 jobs (Alt D) to 12,419 jobs (Alt C) (p. 472). Roseburg and Coos Bay Districts may experience losses under Alts A, B and D.

Special Forest Products

In 2012, BLM issued 4,029 special forest product permits. The market value was estimated at a minimum of \$4 million, but largely depending on the value of gathered mushrooms, could be as high as \$45 million (p. 496).

Carbon Storage Value

In 2012, the forests in the decision area fixed and stored a net total of about 673,000 metric tons of carbon (p. 501). While there are markets that exist to provide payments for carbon storage, there is currently no such market operating in western Oregon, and BLM does not participate. Absent a market value, BLM has analyzed the social cost of carbon which attempts to put a monetary value on the likely costs of climate change. There is considerable debate about these costs, so BLM has provided a range of values. At the low end, is an estimate of \$99 million dollars a year resulting from carbon storage on BLM managed lands. At the high end, \$291 million (p. 502).

Source Water Protection

BLM-administered public lands capture, filter and convey water that people in western Oregon drink. Approximately 80 percent of Oregonians depend on drinking water from public water systems. There are approximately 80 source water watersheds in the planning area and 73 percent of BLM-administered lands are in areas the Oregon DEQ identifies as drinking water protection areas (TNC and WSC 2012) (p. 502-503).

Here there appears to be some missing analysis because there is no estimate provided for the value of the water coming off of the forests, or of the replacement cost if that water not available, or possible filtration costs if currently clean water supplies were to become degraded. The analysis notes that the economics literature on water-treatment costs includes studies that show a relationship between the quality of forest cover and treatment costs. However, no value estimates are provided for water.

We urge a more complete analysis that puts a value on water, its replacement cost, as well as increased costs to local communities and water consumers in Oregon if filtration were needed from currently clean sources.

Biodiversity Value

Markets do not yet exist for biodiversity, but there are a number of ways to estimate values for ecosystem services provided by biodiversity, and the value to people of having wildlife in the environment. Food crops, clean water, clean air, and aesthetic pleasures depend on biodiversity as do the persistence, stability and productivity of natural systems (Millennial Ecosystem Assessment, 2005 p. 79). Biodiversity also supports basic ecosystem services including waste disposal, soil formation, nitrogen fixation, bioremediation of chemicals, crop and livestock breeding, biological control of pests, and pollination (Pimentel et al 1997, Krieger 2001) (p. 504). The economic value of these services is currently beyond accurate estimation, and the replacement cost likely is far beyond our ability to pay.

Scenic Amenities

While BLM divides lands into one of four classes based on the quality of visual resources, no economic estimate is provided for the value to private property owners with views of BLM-administered lands. Studies do show that properties with pleasing views, increase in value from 1 to 89 percent depending on locations. Here the issue of regeneration harvest becomes particularly relevant. The amount and spacing of clearcuts will have a significant impact on the resulting views from private property.

In this instance, the Northwest Forest Plan as implemented, where regeneration harvest is relatively rare, may provide for a much more pleasing view than the clearcuts allowed for under all draft alternatives. However, there is no comparative analysis provided for the likely impact of these management activities on private land scenery values (p. 506).

Summary of Economic Values and the Need for Further Analysis

Table 3-159 on page 508 summarizes the economic value of goods and services. Resource uses on BLM-administration lands including energy production, grazing, minerals, and timber generated approximately \$21 million of direct economic value in 2012. Carbon storage, recreation, and special forest products are valued at between \$326 and \$569 million. Other important values including water production, biodiversity, and scenery are not monetized in the report, but are likely beneficiaries of forest conservation and preservation.

In addition, an attached analysis by economist John Talberth indicates that BLM is misreading the O & C Act of 1937, when it fails to account for all costs, including decreased water quality, carbon storage, and recreational opportunities if logging of mature forests is increased. We urge a complete accounting of all costs related to timber production and that those costs be disclosed to the public and fairly included in bid prices to ensure that citizens receive fair value for publicly owned timber.

Conclusion

For these reasons, we request that the draft RMP/EIS be withdrawn, and that the BLM be directed to work with the Forest Service to develop a consistent regional strategy to protect, restore and manage the federal forests under the Northwest Forest Plan.

Thank you for considering these comments. I would be interested in meeting with you to discuss this further and can be reached at 202 888-7490 or sholmer@abcbirds.org to respond to this request.

Sincerely,

ABC Additional Comments on the Western Oregon Resource Management Plans

BLM forests in Oregon support listed populations of Northern Spotted Owl and Marbled Murrelet that provide outstanding sightseeing, fishing, hunting, camping, hiking and wild river boating opportunities for all Americans.

These public land forests purify drinking water for thousands of Oregonians, sequester large amounts of carbon thereby mitigating climate change, and provide a proven ecological defense against wildfire due to their older stand age. We want these important amenities and environmental services to continue on all BLM lands in western Oregon and not become degraded as a result of timber dominant management.

We appreciate the inclusion of threatened and endangered species recovery as a part of the BLM's Purpose and Need statement. However, we are troubled by aspects of the Planning Criteria, including the shrinking the riparian buffers and old growth reserves, proposing clearcut logging, proposing logging in older forest stands and logging in critical habitat for endangered species. The BLM is emphasizing the timber primacy of the O&C Act and ignoring other court opinions that require the BLM to recover endangered species and promote clean water and older forest habitats.

In addition, we object to your lumping of all BLM lands. The O&C Lands Act does not apply to the Public Domain, acquired and other BLM lands. The non-O&C lands do not suffer from BLM's interpretation of the O&C Act that calls for timber maximization constrained only by other federal law.

The range of alternatives is unduly narrow. Of the four draft alternatives, none appear to be sufficiently protective of listed species. Instead, we recommend you develop an alternative that builds upon the Northwest Forest Plan as implemented (exclude matrix regeneration of mature and old growth stands from the analysis).

At Least One Alternative Should Build on the Northwest Forest Plan

The Northwest Forest Plan provides the best model for managing forests on BLM lands in Oregon. The Aquatic Conservation Strategy, Late-Successional Reserves and the Survey and Manage program are essential elements of the plan. The range of alternatives should be expanded to include an alternative that builds upon the Northwest Forest Plan. All the core science and rationale supporting adoption of the Northwest Forest Plan remains sound.

New information since the plan was adopted 20 years ago indicates a need for more forest conservation, not more logging. Global climate change is a new and significant issue that requires BLM to consider an alternative that emphasizes carbon storage by protecting all mature & old-growth forests and allow young forests more time to grow. Increased logging will accelerate the transfer of carbon from the forest to the atmosphere, while increased conservation will keep carbon out of the atmosphere and help mitigate global warming and ocean acidification.

In addition, the recent invasion and expansion of the range of the Barred Owl, which competes with northern spotted owls for both territory and food, requires that BLM consider an alternative that protects all suitable nesting, roosting, foraging habitat. This will increase the chances that the two owls can co-exist instead of competitively exclude each other, and contribute to meeting the conservation requirements of the Endangered Species Act.

The conservation alternative should also analyze the benefits of expanding habitat conservation for the threatened Marbled Murrelet. The existing network of late-successional reserves on federal lands in the Pacific Northwest that was designated in 1994 are insufficient to maintain the Marbled Murrelet population – the current 5-year status review is predicting extinction for the population outside of the Puget Sound area within 100 years. There is also inadequate mitigation of the apparent negative effects of fragmentation and human disturbance to nest survival.

To supplement recovery efforts we urge the Administration analyze protection of all mature and old-growth forests throughout the Oregon range of the murrelet. This conservation alternative should analyze protecting existing suitable habitat, both occupied and unoccupied, from logging and other harms; recruiting additional suitable nesting habitat, by letting mature and younger forests grow; preventing fragmentation (including clearcutting or commercial thinning) of the land around suitable habitat, maintaining protective cover from nest predators; and increasing the size of and strengthening the standards for buffers surrounding the nesting sites.

Spotted Owls:

WOPR Proposed Actions Common to All Action Alternatives:

“Protect stands of older, structurally complex conifer forest” and “maintain habitat for NSO” In LSR.

- *Maintain means keep Nesting Roosting and Foraging Habitat (NRF) and dispersal. (Cites III-15 of recovery plan for management allowed in NRF)

- *Maintain NRF, Nesting Roosting and Foraging Habitat defined as multi-layered, multi-species canopy, diameter over 30 inches dbh and canopy cover over 60% and decadence components

- *Harvest generally prohibited, but road construction allowed, hazard logging allowed unless it downgrades habitat (NRF to dispersal).

- *Fire suppression, fuels reduction, insect and disease logging, or any other logging to promote overall health of stand allowed even if it downgrades or removes habitat.

- *No requirement for surveys.

- *Alternatives A and C: No protections for spotted owl known or historic sites, no requirement for spotted owl surveys. Entirely based on land allocations.

- *Alternative B: Is the same as A, except that the Sub-Alternative will protect known and historic sites within the Harvest Land Base, treating these areas as Reserves.

- *Alternative D: Maintains all known and historic sites, like Sub B.

NRF and Recovery Action 32 Habitat: It is unclear from the DEIS, but is NRF habitat now being defined as only multi-layered, multi-species canopy, diameter over 30 inches dbh and canopy cover over 60% and decadence components? Spotted owls can and do nest in forests over 80 years old, even if they have not yet developed full decadence components present in unique old-growth forests like RA 32 habitat. In this new plan and DEIS, is the BLM equating RA 32 habitat to NRF habitat?

Better Comparison with NFP:

Generally, spotted owl management under the Northwest Forest Plan consisted of a land allocation approach (Late-Successional Reserves, Riparian Reserves, etc.) and site specific management. In LSRs, timber harvest was not allowed in stands over 80, and in stands under 80 only thinning was permitted to accelerate growth of the stand. In the Matrix, the agency was required to retain 100 acres of best NSO habitat as close as possible to the nest site or owl activity center as a core. Cores are managed as LSR, even if later unoccupied. Additionally within an owl home range (historic, modeled, or documented), the agency is required to maintain certain percentages of the owl's home range (appx. 1.5 mile radius) and certain percentage of the owl's nest core (appx. .6 miles radius). This maintenance of owl habitat generally required the agency to maintain over 60% canopy cover in the area post-treatment.

Also across the Matrix were Connectivity Blocks, where individual tree retention was higher, and the agency was required to maintain 25% of the best habitat within these blocks. Also within each fifth field watershed, 15% of all Matrix lands had to be late-successional forest to help meet spotted owl needs.

The agency is also required to survey for the species in potential habitat, and abide by recommendations made by USFWS to mitigate or eliminate adverse impacts to the species and critical habitat. The agency is also required to comply with the owl's recovery plan.

Under WOPR, almost every alternative shifts these various layers of protection to one land allocation based approach. But the WOPR analysis is unclear and not specific on the impact of the removal of these various protections. For example, if the BLM retained that 15% standard what would still be protected vs. what would be lost? This side by side comparison specific to former individual protective standards is needed to fully grasp the impact of the proposed changes, and to better analyze which changes would be most beneficial or harmful to the species. Please elaborate on a protective standard by standard basis in the FEIS.

Importance of BLM Lands: As an initial point, it is unclear from the NEPA documents produced by the BLM how important BLM lands are to the northern spotted owl. From the logging numbers and conclusions from the modeling in Appendix S, it appears that the differences in harvest land base allocations and volume to be logged will not make any significant impact on owl habitat or recovery objectives. Accordingly, BLM concludes that the primary role of its lands for the northern spotted owl is connectivity in the "central Klamath," coast province.

But this contradicts the DEIS (p 746), that states that BLM are "indispensable" for the northern spotted owl, and critical for both east-west and north-south dispersion. Given the critical nature of BLM reserves, and the critical dispersal element these lands play, the BLM should choose an alternative or modification of an alternative that maximizes reserve size and maximizes dispersal corridors.

In the agency description of riparian reserve objectives, the contribution of conservation and recovery of species is limited to "special status riparian associated species". Formerly the reserves contributed to dispersal and connectivity corridors for terrestrial species as well.

Riparian reserves were originally designed in part to facilitate spotted owl movement between reserves. Given the BLM's lands indispensable need towards owl connectivity, these riparian dispersal corridors should be increased, but it appears that almost every alternative is moving to shrink these riparian corridors. In fact, in the purpose and need for riparian corridors, benefit to terrestrial species like the northern spotted owl was completely ignored, even though this was one of the primary reasons for this allocation's original creation. The BLM should consider an alternative that increased riparian reserve size and protections in order to benefit dispersal capabilities for the northern spotted owl and other terrestrial species. Also it appears the BLM failed to take a hard look at the terrestrial species benefits that are provided by the riparian reserves, or the potential for these benefits to continue.

Scale of Analysis: We are concerned that the spotted owl's scale of analysis was too broad, and may have eliminated many conservation potential benefits by operating on such a large scale. We understand that this scope of analysis is needed for overall harvest projections and a bigger picture, but more local and detailed analysis is needed to more fully capture impacts to individual owl sites, areas of threatened connectivity, and how to rehab or connect isolated patches of owl habitat.

It is clear from the conservation needs of the spotted owl, spelled out on page 747-48, that all high quality habitat is needed for owl recovery, and all sites need to be protected. We are concerned that the definitions of what is considered high-quality habitat has changed, and may have led to much potential habitat falling through the cracks.

Generally under the Northwest Forest Plan, forests over 80 years in age were considered to have developed some older forest characteristics that benefited spotted owls, and was considered nesting, roosting, and foraging habitat (NRF). NRF habitat was considered high-quality owl habitat. It appears that the BLM has not adapted this definition of owl habitat, but has used a more complex metric by

factoring in tree height, diameter, canopy cover and a range of other variables that are captured in a rating based on owl selection, i.e. “strongly selected for” or “strongly selected against.”

The WOPR NEPA description of the models used for spotted owl habitat are not elaborated upon well. Spotted owl habitat suitability is rated on a 0 to 100 scale (higher numbers indicating better habitat) and the scale is based upon canopy cover, mean tree diameter, and slope. This new metric raises a lot of questions. Exactly what variables were included, and how are they weighted? Were legacy trees accounted for or secondary older cohorts accounted for and how? Additionally, the BLM divided owl habitat into four categories “strongly selected for”, “selected for”, “selected against”, and “strongly selected against.” I believe this means that a “strongly selected for” area had a high proportion of northern spotted owl nest locations based on the relative habitat suitability value.

It would be beneficial to the public and our organization to see how this new metric rates against the more simple analysis of stand age. In other words, we would like to know and see maps of how much of the BLM land is over 80 years in age, and how much of this land falls within the different new allocations. We need to see these maps and tables side by side with the new interpretations of owl habitat. How many forests over 80 were lost with this new metric and in what areas, or how many forests were gained based on this new habitat value interpretation?

It would make sense based on the owl’s crashing demography that the BLM would err on the side of caution, and use the definition of habitat that would capture the most possible acreage to conserve based on the owl’s needs and the indispensable nature of BLM lands to these needs. Additionally, it appears that the BLM excluded habitat that was not in large chunks of certain sizes from its modeling or consideration for conservation. Again it would be nice to see on a map and in tables, how much habitat was lost through these consolidations, and in what areas were they lost. It is a hard reality that much of BLM land in western Oregon is in the checkerboard and highly fragmented, but it would be nice to know that the habitat restoration efforts over the past 20 years were not in vain. Perhaps many of these isolated areas are close to being connected by recovering riparian corridors, or recently thinned forests nearing 80 years in age and attaining mature forests characteristics.

We are worried, that this block defining may have incidentally excluded a good deal of habitat that was formerly the focus of numerous recovery efforts. It would also be beneficial to see maps of where thinning had formerly taken place, so that the BLM could take full advantage and consideration of past restoration efforts. It could be that forests poised to more quickly attain habitat characteristics that would benefit the owl because of restoration efforts, will be lost in the definition shuffle and large scale approach taken by the BLM here.

Appendix S Modeling: The BLM states that it modeled in all potential timber harvest when calculating and modeling effects from the alternatives to the species. They specifically did not include any patches under 10 acres, any forests over 500 meters from a road, any early-seral forest, and any forest logged within 50 years. Page 1484.

We are concerned that BLM also did not account for in the model logging defined as “fire-suppression, fuels reduction, insect and disease control, and other activities needed to protect health of the stand or adjacent stands.” This type of logging is permitted in LSRs even if it downgrades or removes spotted owl habitat. Page 938.

We have seen numerous timber sales under the Northwest Forest Plan that have logged extensively, downgrading and removing spotted owl habitat that has been classified as “fire-suppression, fuels

reduction, insect and disease control” and almost every timber sale planned is justified as a promotion of stand health.

Based on historic rates of this logging, the BLM needs to anticipate and account for a similar degree of this type of forest activity into the future, and needs to model its impact to the Northern Spotted Owl. BLM’s failure to do so fails to satisfy the “hard look” required under NEPA.

Additionally, the modelling for the northern spotted owl appears to have an improper baseline. The No Action Alternative is defined as the existing 1995 RMPs for the various BLM districts. Page 27. However, the models for impacts to Northern Spotted Owl habitat uses a baseline of no timber harvest. Appendix S, Page 1464. This is misleading to the public. Under the existing 1995 RMPs, the BLM was largely focused on restorative thinning projects to expedite the creation of Northern Spotted Owl habitat. By in essence changing the baseline to no timber harvest when analyzing impacts to the owl, the BLM masks the beneficial effect of the thinning regiment because under a no timber harvest baseline, these plantations are going to take much longer to development into taller, larger trees and other metrics the BLM is using to define good spotted owl habitat, or “strongly selected for” spotted owl habitat. The analysis needs to be consistent with its baseline approach, and the modeling for the Northern Spotted Owl needs to be based upon the current management regime under the 1995 RMPs.

Protection of existing sites:

Generally, Northern Spotted Owl management under the 1995 RMPs consisted of a land allocation approach (Late-Successional Reserves, Riparian Reserves, etc.) and site specific management. In LSRs, timber harvest was not allowed in stands over 80, and in stands under 80 only thinning was permitted to accelerate growth of the stand. In the Matrix, the agency was required to retain 100 acres of best NSO habitat as close as possible to the nest site or owl activity center as a core. Cores are managed as LSR, even if later unoccupied. Additionally within an owl home range (historic, modeled, or documented), the agency is required to maintain certain percentages of the owl’s home range (appx. 1.5 mile radius) and certain percentage of the owl’s nest core (appx. .6 miles radius). This maintenance of owl habitat generally required the agency to maintain over 60% canopy cover in the area post-treatment. To facilitate this management surveys were required for Northern Spotted Owls, and the BLM was also required to comply with the spotted owl’s recovery plan.

It appears in every action alternative that surveys for Northern Spotted Owls are not required. Are spotted owl surveys required for management actions in reserves under the various alternatives? The purpose of creating and protecting these reserves is to protect and recover the Northern Spotted Owl. Thinning efforts that have been occurring for decades in Late-Successional Reserves were done to accelerate the development of spotted owl habitat. Riparian Reserves and dispersal habitat have been maintained to allow spotted owls to recolonize this new habitat, which the BLM models to be extensive in the future in Appendix S.

However, as touched on above, management activities and logging is permitted in the reserves even if it downgrades or removes spotted owl habitat. Surveys should be required for the Northern Spotted Owl for projects in the reserves because the BLM is not modeling for future owl sites, and we want to protect owls that are recolonizing thinned/restored habitat. This would also be an essential monitoring tool for the species, to determine if indeed the species is recolonizing commercially thinned forests.

In order to satisfy Recovery Action 10 and the mandate to conserve spotted owl sites, the BLM needs to conduct surveys for spotted owls and protect sites that it finds. The BLM states that it will, “[i]n areas of significant population decline, sustain the full range of survival and recovery options for the species in light of significant uncertainty.” Page 747. The entire planning area is defined as an area of significant population decline.

Marbled Murrelet:

In the NFP and original BLM RMPs, the agency would survey prior to logging in any potential Marbled Murrelet habitat. If there is any indication of occupancy, the agency would protect a 0.5 mile radius of all contiguous existing and recruitment habitat (stands capable of becoming habitat in 25 years). These areas would be managed as LSR. Recruitment habitat was required to “protected and enhanced” by any silvicultural treatment. (Eugene RMP at 62).

WOPR alters this regiment in all alternatives as laid out below. In the preferred alternative, murrelet surveys are restricted to the first 35 miles from the coast, and marbled murrelet habitat generally can extend up to 55 miles inland. Additionally, survey habitat is much more strictly defined as detailed out below. Timber harvest is allowed without surveys if large legacy trees are withheld from harvest and habitat is “maintained.”

*Alternative A: No surveys, protect existing sites, seasonal disruption restrictions

*Alternative B: Surveys 35 miles from Coast in “mature or structurally-complex coniferous forest” and “conifer forests under 80 years old with platform trees (must be within 35 miles of coast, conifer, dbh greater than 19.1, over 33 meters tall, potential structure over 10 meters from ground, and contains platform over 4 inches in diameter. If stand occupied protect all occupied habitat plus 300 foot buffer around occupied stand. In stands under 80 with platforms, no surveys needed if platform trees aren’t removed; maintain habitat (need to define); seasonal restrictions during breeding season.

*Alternative C: surveys in conifer stands over 120 years old, protect sites same as above for 10 years, and existing site protection lasts 10 years

*Alternative D: surveys same as B (but no 35 mile limitation), buffer all contiguous habitat within .5 mile radius of occupied stand (no gaps wider than 100 meters in forest)

Existing Sites: Marbled Murrelets have high nest-site fidelity, and as such, the PSG protocol recommends treating all occupied Marbled Murrelet sites as occupied sites indefinitely. A murrelet site, due to the inability to locate an exact nest location, occupies the entire area of contiguous forest. Given that the BLM is under direction from the FWS to protect occupied habitat, a majority of BLM alternatives say that the BLM will protect existing sites, but it is unclear what this means. Page 722.

Pursuant to the PSG Protocol and available murrelet studies, occupied habitat means all the trees in a contiguous stand, including platform and non-platform trees. Any logging within this occupied habitat opens up the stand to predators and fragments the bird’s habitat, resulting in take.

The BLM states that under three of the four action alternatives, all existing murrelet sites would be “retained.” Page 733. The BLM needs to elaborate on what this means. We assume it means that the entire survey area, i.e. contiguous forest stand, for each murrelet nest site is to be protected, off limits from any kind of logging. Marbled Murrelet nest sites are compromised by forest and canopy openings that can be created by thinning or adjacent clearcutting. The BLM if indeed it is committed to protecting existing occupied sites, needs to ensure that all these sites are off limits from commercial harvest of any

kind, because logging will create forest edges and openings that will expose these nest sites to an increased risk of predation. Additionally, even if these sites are in reserves this does not guarantee their protection because of the logging permitted in reserves that can downgrade or remove older forest.

300 Feet: In two of the BLM Alternatives the BLM proposes to protect Marbled Murrelet nest sites with a buffer of 300 feet as opposed to a half mile. This results in marbled murrelet occupied sites are approximately 6.5 acres in size as opposed to approximately 500 acres in size. The BLM provides no analysis or scientific justification that these 300 foot buffers will ensure protection of the nest site. Almost assuredly, a 6 acre nest site for the murrelet will result in the failure or predation of that nest site. We have attached numerous studies on the murrelet to that regard. Therefore, the BLM's assumption in the DEIS, that these sites will not be "taken" because of this 300 foot buffer is false and has zero scientific justification or rationale. This prescription will result in violations of the ESA, the MAMU Recovery Plan, the 5 Year Review Recommendations, and the NWFP Recommendations.

Potential or Suitable Habitat: We are concerned that the BLM is defining potential or suitable survey habitat for these alternatives too narrowly, and will accordingly miss certain types of Marbled Murrelet nest sites from this survey regiment. Murrelets will nest in younger stands if a single legacy tree is present, but the BLM is taking a stand level approach. When averaged, stands that provide nesting trees and habitat for murrelets could have average DBH, tree height, and various measurements that will not satisfy the BLM survey standards laid out above. Please provide scientific justification for the assertions that a large cohort of legacy trees within a forest stand is necessary for marbled murrelet habitat.

The BLM either needs to delete the DBH and height limitations or any limitations based on the number of platform trees present, or the BLM needs to factor in the percentage of nest sites that will occur outside of survey habitat and account for their loss and destruction in the modeling of the impacts. As an illustration, the BLM admits that over 10% of the existing occupied sites exist outside of what the agency has modeled or considered "nesting habitat." Page 733. The agency needs to take a hard look at this issue.

35 Mile Delineation: Please explain or provide ecological or scientific justification for the 35 mile mark in Alternative B. It seems entirely arbitrary and will result in take of murrelets nesting outside this area.

Habitat "Maintenance": Under the alternatives where surveys are required in the future, we are concerned that the BLM's habitat maintenance program will not result in adequate protection of the newly discovered nest site, not make it safe to assume that new sites will be retained, or that Marbled Murrelets will continue to reproduce at these locations. The BLM is permitting logging, as long as the large legacy trees with platforms are not removed. Again, it is inadequate to just protect potential Marbled Murrelet nest trees in a stand. Logging trees that provide canopy closure around these legacy trees opens the stand up to corvids and will result in dramatic risk of nest predation and failure. The entire contiguous stand with large buffers needs to be protected in perpetuity to protect murrelets.

Large Block Habitat: The BLM should have considered blocking up large areas of habitat known to contain legacy and platform trees to provide refuges for the marbled murrelet. Aside from the no action alternative, it appears every alternative is reducing protections for the Marbled Murrelet. Given the species flat lining or declining population levels, coupled with an alarming drop in juvenile numbers which signal problems with reproduction, should implicate an alternative that strengthens protections for the species and creates special reserves for the species to guarantee viability of the species.

False Assumptions: In numerous places throughout the DEIS, the BLM assumes that murrelet populations are increasing. This is false, and we have attached numerous recent studies to this regard. Alternatives that all reduce protections for the species because they are based upon this false assumption flaws the NEPA process.

Red Tree Voles:

Under the former management mandate (2001 ROD), vole surveys were required pursuant to the species Survey Protocol (now 3.0) and any sites discovered were required to be managed pursuant to the species Management Recommendations (2.0). There was a frequently used exception for pre-disturbance surveys in thinning projects in stands under 80 years old (Pechmann Exemption). WOPR greatly reduces these protections in all alternatives, completely eliminating the vast majority of the species range (all habitat south of Highway 20) from any survey or management regime.

*Alternatives A and C: No surveys or protections, arguably violates BSS policies to prevent listing.

*Alternatives B and D: Just north of highway 20 surveys required (habitat same as in Survey Protocol), all projects (not just thinning exempt from surveys); vole sites south of highway 20 can/will be designated as non-high priority and logged, sites above highway 20 will be protected under current MR (10 acres buffer plus one acre for every additional nest found)

Sites in Reserves: In the WOPR analysis of effects to red tree voles, the BLM forecasted effects to the species by “applying observed detection rates and mean size of occupied stands against acreage of habitat in the Harvest Land Base” and “assumed all sites would be protected in reserves.” However, there is no requirement it appears from the management objectives and actions that surveys be conducted in reserves for red tree voles when activities are planned that could remove red tree vole habitat.

Any timber harvest activities in reserves will remove and displace voles. “Continuing timber harvest in younger forest areas adjacent to remaining patches of older forest diminishes the habitat quality of these stands by maintaining them in an isolated and fragmented condition that may not allow for persistent populations of red tree voles.” Federal Register /Vol. 76, No. 198 /Thursday, October 13, 2011 / Proposed Rules 63735. Thinning younger stands occupied by tree voles can reduce or eliminate voles from these stands (Biswell 2010, pers. comm.; Swingle 2010, pers. comm.), and Carey (1991, p. 8) suggests activities that result in rapidly developing (changing, unstable) younger forests are a limiting factor for red tree voles. Id. at 637-38.

If the BLM wants to make the assumption that all vole sites are reserved in its analysis, all timber removal activities in the reserves should require full and complete red tree voles surveys, and the adequate protection of these red tree vole sites. Id. at 637-38. This should include protections of large blocks of habitat not just isolated patches of older forests created by the current Management Recommendations because the FWS’s “evaluation of the remaining older forest patches within the DPS indicate they are likely insufficient to sustain red tree voles over the long term due to their relatively small size and isolated nature.” Id. at 637-38.

Non-high priority sites: Although the baseline No Action Alternative takes into account the 2001 ROD, it does not mention or consider the “Non-High Priority” process that has designated many acres of existing red tree vole sites as non-high priority and cleared them for logging. Not factoring in this option would allow the BLM to selectively log certain new red tree vole sites and it over looks an option existing land

managers had under the NFP. Its availability could influence the BLM's decision to eliminate Survey and Manage for red tree voles in most of the alternatives. Please disclose the amount of acres that have been designated or are proposed to be designated non-high priority. The BLM should develop an alternative that uses the survey and non-high priority approach to managing sites in the Harvest Land Base. Further surveys would contribute to a greater understanding of this imperiled species and inform future management and recovery decisions, not to mention the listing status of the species.

Need to List the Species: Based upon the findings of the FWS's Warranted but Precluded Findings for the North Coast Oregon DPS of the red tree vole, any reduction in federal vole protections will result in threats to the persistence of the species, and a potential need to list the species. The North Oregon Coast DPS extends north of the Siuslaw River to the Columbia, and the FWS concluded "that the ongoing effects of the destruction, modification, and curtailment of its habitat, in conjunction with other factors described in this finding, pose a significant threat to the persistence of the North Oregon Coast DPS of the red tree vole." FR 63740.

"Clearly, existing and projected amounts of older conifer forest habitat conducive to red tree vole persistence are less than the amounts projected to have occurred historically and with which tree voles have evolved. High-quality older forest habitat remains in isolated fragments, most of which are too small to support tree voles, and are so widely separated as to be likely well beyond the dispersal capability of the species. Unlike historical conditions, which were highly stochastic, these changes are likely to be permanent. Based on our analysis of best available information, we conclude the remaining high-quality habitat within the DPS is likely insufficient to support red tree voles over the long term, and persists in a fragmented and isolated condition that renders local populations of red tree voles vulnerable to extirpation or extinction through a variety of processes, including genetic stochasticity, demographic stochasticity, environmental stochasticity, and natural catastrophes." FR 63754.

Based on these conclusions by FWS, any reductions to protections to the species will contribute to the need to list the species. This is particularly true because "red tree voles are afforded more protection on Federal lands than on State Forest and private lands within the DPS, primarily as a result of the Survey and Manage protections" id, and every BLM DEIS Alternative aside from the no-action alternative removes Survey and Manage protections, or reduces these protections dramatically. Based on the WPB findings by the FWS, the BLM should have developed an alternative that set aside specifically large blocks of habitat in areas critical for red tree vole persistence, dispersal, and genetic connectivity. The BLM did not develop any alternative to this regard and did not analyze these issues at all.

Further, the BLM DEIS assumes a large number of sites will be treated as non-high priority, this was not the understanding of the FWS that concluded "all sites on Federal land within the DPS are considered high-priority sites with the exception of 198,000 ac (80,130 ha) of the southernmost portion of the DPS (primarily located within the Siuslaw River drainage)." Undermining survey and manage protections and the high-priority treatment of vole sites will lead to threats to the species persistence within the North Oregon Coast DPS, not just the area north of Highway 20.

Bald Eagle:

The BLM analyzes impacts to the Bald Eagle at the entire planning level scale, and concludes that there will be "indistinguishable" differences between the action alternatives at this scale. Given that there are only approximately 250 thousand acres of nesting habitat on BLM lands, the BLM should be looking specifically at the impacts to these various habitat patches (older forest in close proximity to large water

bodies). Merely concluding that there will be minimal differences at a scale of analysis taking into account millions of acres is inadequate under NEPA. Which sites will be logged, which sites will be retained? Does commercial thinning impact the species even if these sites are located in reserves? Please address these questions in the FEIS.

Pups are born at a natal den in spring (generally mid-to late April) and remain there with their mother for about 2 months (Mech 1970, Boyd 1999). During this time any disturbance that results in the female leaving the den may expose the pups to predation or inclement weather. The sensitivity of females to human disturbances at den sites varies greatly among individuals (Boyd 1999). Due to the potential disruption of breeding as a result of human activity associated with any timber harvest, hauling, or road construction activity, these activities and any other activities that could cause disruption should be restricted from April through June. BLM failed to take a hard look at this issue in violation of NEPA.

4. Northwest Forest Plan Revision Principles

The undersigned conservation organizations would like to follow up on a recent meeting with Forest Service regional foresters Randy Moore and Jim Peña and planning staff. Outlined below we express our concerns and offer a vision for the proposed revision to President Bill Clinton's Northwest Forest Plan (NWFP).

Our organizations are concerned by the proposed forest by forest revision process which lacks the overarching standards and guidelines of the NWFP, and past and current agency actions to weaken the NWFP, including the offering of projects inconsistent with conserving the Northwest's late-successional ecosystem and the birds, fish and other wildlife it sustains. We encourage the administration to consider a better course of action than the currently proposed NWFP revisions. We are confident one exists, and that it is consistent with the best available science and our collective efforts to combat climate change.

We urge the Obama Administration to keep the NWFP as a consistent, regional, interagency plan and continue the ecosystem management approach that accounts for the needs of multiple listed species which depend on the preservation and restoration of large blocks of mature and old-growth forests and intact watersheds that remain in short supply on the landscape. Recent science has reaffirmed the importance of the NWFP as a global model for ecosystem management and biodiversity conservation, particularly the reserve networkⁱ. We urge the administration to abide by the founding principles of the NWFP, particularly with respect to its emphasis on scientific credibility and legal defensibility as also outlined herein.

The NWFP is a success and an example of strong presidential leadership that provided the Northwest's old-growth forest ecosystem a needed breather from decades of intensive logging that all but eliminated a functional old forest ecosystem in the Pacific Northwestⁱⁱ and the resulting national public controversy. Due to forest growth provided for by the NWFP, what was once a significant annual source of CO₂ due to logging of old forests is now a significant net carbon sink.ⁱⁱⁱ Additionally, water quality has significantly improved due to the plan's watershed restoration emphasis and constraints on logging in riparian buffers^{iv}.

The NWFP as implemented (i.e., emphasizing commercial thinning in young plantations and de-emphasizing regeneration harvest (e.g. clearcutting) and preservation of mature and old growth forests)

remains a solid foundation upon which to build and offers the best model to address numerous new stressors to this late-successional ecosystem. For example, radio-tracking studies demonstrate that Northern Spotted Owls have a higher likelihood of survival against Barred Owl invasion when larger blocks of late successional habitat are available^v.

Based upon the latest information about wildlife population declines, the influx of the Barred Owl, rising carbon dioxide levels in the atmosphere and the likely impacts of climate change, additional protective measures for wildlife habitat, preservation of high biomass forests, and increased protection of stream buffers should be implemented by this plan revision.

We recommend that plan revisions build on the protective standards and guidelines and reserve allocations of the NWFP by incorporating new policy recommendations such as ecological integrity (as specified in the 2012 planning rule), climate resilience, connectivity, and especially carbon storage (as specified by the Council on Climate Preparedness and Resilience Climate and Natural Resources Working Group). Below are the following principles we believe are consistent with these new policies and best science.

Strengthening and Expanding Reserves

Expand the late successional reserve and riparian reserve systems to provide refugia for late-successional species and to ameliorate new stressors, including Barred Owls and climate change.

Prohibit post-disturbance logging in reserves to protect carbon sequestration of post-fire landscapes, provide habitat for threatened species and prey, and to provide complex early seral forests that are as rich as old-growth forests^{vi} and increasingly rare due to post-fire logging.

Designate additional reserves and larger no-logging buffers within the range of the threatened Marbled Murrelet to reduce habitat fragmentation effects.

Designate all mature and old-growth forest, all high-carbon forests, all reserves, all critical habitat, all key watersheds, and all roadless areas larger than 1,000 acres, as “not suitable for timber production” to ensure that timber production does not take priority over ecological and restoration goals.

Withdraw reserves and all administratively protected classifications from mining.

Protecting Watersheds, Aquatic Species

Retain existing Aquatic Conservation Strategy (ACS) objectives and riparian reserve boundaries, and the standards and guidelines that emphasize restoration, and avoid actions that would retard or prevent achievement of the ACS objectives for all watersheds, over time.

Preserve requirements that projects maintain and restore the aquatic functions and processes of streams and watersheds by demonstrating consistency with the nine Aquatic Conservation Strategy Objectives at scales relevant to those functions and processes.

Prohibit grazing in riparian reserves and key watersheds and provide for voluntary federal grazing permit vacation to reduce cumulative effects of grazing^{vii}.

Reducing Stressors by Addressing Roads

Rationalize the road system by reducing road densities and road-related impacts to listed aquatic and terrestrial species, improving all standards for road decommissioning and removal, and restoring connections to inventoried roadless areas.

Accelerate implementation of Travel Analysis Report recommendations and Watershed Restoration Action Plan projects to implement a minimum road system.

Advancing Forest Restoration

Promote variable density thinning in plantations to accelerate development of late-seral conditions and reduce fire risks. Limit tree thinning to 20 inch dbh to restore older tree characteristics to dry and moist forests.

Protecting High Biomass Forest Carbon Stores and Reducing CO₂ Emissions

Conduct baseline inventory of carbon stocks and fluxes to identify and protect all high biomass forests^{viii} for their carbon storage value.

Analyze and mitigate for carbon dioxide emissions resulting from regeneration logging, forest thinning, post-fire logging, and biomass utilization^{ix}.

Re-Establishing Connectivity

Establish and protect redundant habitat linkages for wolves and other wildlife along elevation gradients and north-south gradients and microrefugia (mainly low elevation and north-facing mature forests) for species movements and persistence in a changing climate^x.

Protect all native (unmanaged) forest in all land allocations from logging to add connectivity and increased functionality of late-seral ecosystem needed to arrest declines in listed salmon populations and late-seral species such as Northern Spotted Owl, Marbled Murrelet, Pacific Fisher, Humboldt marten, and Red-tree Vole.

Protecting Drinking Water Sources

Protect drinking water source areas for municipal water supplies from degrading activities including commercial logging, grazing, mining and off-road vehicle use.

Recommending Wilderness, Wild and Scenic and other Protected Areas

Recommend new Wilderness Areas and Wild and Scenic Rivers, including tributary additions to existing Wild and Scenic Rivers.

Complete the Research Natural Area System, designate additional Special Interest Areas and designate and protect National Recreational Trails.

Allowing for Appropriate Wildland Fire Management

When appropriate, allow fires to burn safely in the backcountry and provide for un-salvaged early seral habitat for fire-dependent species. Focus thinning on the home ignition zone and flammable tree plantations.

Conversely, conservation groups are opposed to dissolution of the regionally integrated NWFP with each National Forest and BLM District Office adopting inconsistent and weaker standards that do not take a comprehensive ecosystem protection and restoration approach. Judge William Dwyer concluded that the BLM and Forest Service had to do an ecosystem-wide plan as opposed to forest-by-forest plans and ruled that the agencies could not, given the current conditions of the forests, meet their obligations under NEPA and the ESA “without planning on an ecosystem basis.” *Seattle Audubon Society v. Lyons*, 871 F. Supp. 1291, 1311 (W.D. Wash. 1994) (emphasis in original).

The best available science does not support eliminating or shrinking the late-successional or riparian reserves or weakening of other protective management standards. As noted above, scientific studies indicate that Northern Spotted Owls have a better chance of coexisting with Barred Owls when there are more large blocks of habitat available. Logging in suitable or high quality Critical Habitat of the Northern Spotted Owl is inconsistent with recommendations to preserve existing habitat, and should be avoided. Clearcuts, including modified clearcuts (ecoforestry) on federal forests will hasten owl decline^{xi} and degrade water quality and should therefore be opposed.

Past and recent agency actions to weaken protections of the Northwest Forest Plan and to offer extensive post-fire timber sales and other projects in the NWFP region that are inconsistent with the best available science or current understandings of climate adaptation and resilience have eroded public and scientific trust. We are greatly concerned the land management agencies are leading NWFP revision process in what appears to be a piecemeal and uncoordinated fashion. Specifically, we are concerned by:

The BLM’s Western Oregon Plan Revision and the Okanogan/Wenatchee National Forest draft plan revision that propose to eliminate or reduce reserves and weaken management standards in the Northwest Forest Plan.

Proposals to replace the NWFP Aquatic Conservation Strategy with a modified Aquatic Conservation and Restoration Strategy that has weaker protection standards^{xii}, and to eliminate Survey and Manage Requirements.

Large-scale post-fire logging in mature and old-growth forests and Key watersheds such as the proposed Westside post-fire logging project on the Klamath National Forest in California despite extensive science that indicates this type of logging is not consistent with ecological integrity or climate resilience^{xiii}.

Raising the age of logging in late-successional reserves in California from 80 years to 120.

Allowing for logging that downgrades or degrades suitable Northern Spotted Owl habitat in designated critical habitat.

Not re-designating late-successional stands in the matrix as reserves or updating the current 800 million board foot Probably Sale Quantity to reflect the additional protections required by the Northern Spotted Owl critical habitat designation and the need to conserve forest carbon.

Continuing to propose damaging logging despite lack of up to date regional population numbers for Northern Spotted Owl, Marbled Murrelet, Red Tree Vole, and Pacific fisher and the impact of these projects on these imperiled species.

Lack of analysis of impact of large-scale thinning effects in Northern Spotted Owl and Marbled Murrelet critical habitat and suitable nesting, roosting and foraging owl habitat.

In conclusion, we urge the land management and wildlife protection agencies under your purview to address these specific recommendations listed above as part of the upcoming planning process and build upon the protections of the historic NWFP. This will ensure that the plan continues to be a leading example of large-landscape conservation and ecosystem restoration. Thank you for your consideration.

We look forward to working with the administration and federal agencies on the NWFP, and are interested in meeting with you at your convenience to discuss these issues in more detail.

Sincerely,

Kristen Boyles
Staff Attorney
Earthjustice

Rhett Lawrence
Conservation Director
Oregon Chapter, Sierra Club

Randi Spivak
Director of Public Lands
Center for Biological Diversity

Steve Holmer
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Joseph Vaile
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Tara Thornton
Conservation Director
Endangered Species Coalition

Francis Eatherington
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Cascadia Wildlands

Chuck Willer
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Diana Wales
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Joseph Patrick Quinn
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Kimberly Baker
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Klamath Forest Alliance

Thomas Wheeler
Legal Coordinator
Epic-Environmental Protection Information Center

Larry Glass
President of the Board
SAFE (Safe alternatives for our Forest Environment)

Laurele Fulkerson
Policy Director
Gifford Pinchot Task Force

5. Coalition Letter Asking for Withdrawal of BLM DEIS

October 30, 2015

Christy Goldfuss
Managing Director
White House Council on Environmental Quality
Washington, D.C. 20501

Dear Managing Director Goldfuss,

The undersigned conservation groups are writing to request that the Council on Environmental Quality conduct a review of the National Environmental Policy Act analysis of the Bureau of Land Management's Draft Environmental Impact Statement and Resource Management Plans for Western Oregon (DEIS). We are concerned that in numerous cases, the NEPA analysis in the DEIS appears to be incomplete or inaccurate.

The No Action Alternative is based on the Northwest Forest Plan as written, as opposed to how it is actually being implemented in 2015. As a result, it does not offer a useful baseline for analysis, particularly for the 50-year projections, or for comparison with the proposed draft alternatives.

White House Council on Environmental Quality guidance on this point is clear: "In these cases "no action" is "no change" from current management direction or level of management intensity."

In some instances the Northwest Forest Plan cannot be implemented as written because of changed circumstances from the Barred Owl, and the Northern Spotted Owl Recovery Plan's requirement to protect more suitable habitat in the matrix.

The draft does not provide the public with a suitable range of alternatives. Conservation groups had requested that BLM develop a conservation alternative that builds upon the Northwest Forest Plan by expanding the reserve network and applying additional conservation measures to protect declining species. This alternative is reasonable and implementable, and should have been considered by the BLM.

The draft also fails to analyze how the BLM's apparent abandonment of the Northwest Forest Plan will affect management on surrounding federal and nonfederal lands. As you know, the Northwest Forest Plan is a landmark conservation plan and represents the "federal contribution to recovery" of listed species: eliminating its core principles will undermine regulatory certainty that other landowners rely upon in their land management decisions, creating a regulatory vacuum and uncertainty.

The DEIS and draft RMPs appears to be driven by the BLM's perceived need to meet court ordered timber mandates. The timber industry had filed several challenges to BLM's management of O&C lands in the D.C. District Court, generally arguing in each case that BLM had failed to offer for sale sufficient timber to meet statutory requirements. Federal courts have rejected these challenges, and as a result, *there is no "court-ordered mandate" to increase timber harvest on O&C lands.*

Therefore, we believe a CEQ review of the NEPA analysis is warranted and urgently needed. We recommend that BLM withdraw the draft EIS, and work with the Forest Service to develop a regional EIS that retains the fundamental principles of the Northwest Forest Plan.

Thank you for considering this request.

Sincerely,

Steve Holmer
Senior Policy Advisor
American Bird Conservancy

Kristen L. Boyles
Staff Attorney
Earthjustice

Susan Jane Brown
Staff Attorney
Western Environmental Law Center

Megan Birzell
Northwest Forests Campaign Manager
The Wilderness Society

Randi Spivak
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Dominick DellaSala, Ph.D.
Chief Scientist
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Tom Wheeler
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Conservation Northwest

Josh Laughlin
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Cascadia Wildlands

Dave Willis
Chair
Soda Mountain Wilderness Council

Chuck Willer
Executive Director
Coast Range Association

Kimberly Baker
Executive Director
Klamath Forest Alliance

Joseph Patrick (Pat) Quinn
Conservation Chair
Umpqua Watersheds, Inc.

Larry Glass
Executive Director
SAFE = Safe Alternatives for our Forest Environment

6. ABC Comment for Uplisting Northern Spotted Owl to Endangered Status

June 9, 2015

Douglas Krofta
Chief, ESA Listing
U.S. Fish and Wildlife Service
Washington, D.C. 20540
Re: FWS-R1-ES-2014-0061

Dear Chief Krofta,

Thank you very much for this opportunity to comment on the status of the Northern Spotted Owl. Due to continued population declines across all demographic study areas, the lack of breeding success, past and ongoing habitat loss, lack of adequate regulatory mechanisms to conserve the subspecies on federal lands, and the Barred Owl invasion, American Bird Conservancy (ABC) urges that the Service propose to

uplist the subspecies to endangered status and that additional conservation measures promptly be developed and implemented to help prevent extinction.

Enclosed in this comment letter are past comments from ABC and others that underscore some of the reasons endangered status is warranted and identify critical issues that need to be addressed to stabilize owl populations and eventually recover the subspecies.

Briefly, some of these issues include decisions within the 2012 Northern Spotted Owl Critical Habitat rule to protect only high quality owl habitat versus all suitable owl habitat, and the promotion of active management and fire risk reduction in owl habitat. Recent population declines and a significant number of new published studies indicate these issues should be reexamined and new policies developed to augment habitat protection, and to reduce habitat loss and the risk of Barred Owl invasion from management activities.

The best available science and the continuing decline of Northern Spotted Owl populations indicate that the agency should protect all suitable owl habitat, not just high-quality owl habitat. The definition of high quality owl habitat needs to be made more inclusive to ensure sufficient habitat will be conserved to allow for recovery.

In its review of the draft Northern Spotted Owl recovery plan The Wildlife Society raised concern about the Service's narrow definition of high quality owl habitat. The Society notes that the proposed definition is only a subset of suitable habitat. Their analysis then states:

"...by limiting the definition of high quality habitat to a fairly narrow range of habitat conditions, management agencies will be able to justify thinning or commercial harvest in a broad range of naturally regenerated stands. Most of these naturally regenerating stands originated from fire and usually are suitable spotted owl habitat; therefore, they are not likely to be greatly "improved" by management. In western Oregon and Washington such stands are typically comprised of large trees that are 80-160 years old, and include scattered (i.e., residual) old-growth trees that survived wildfires. These stands may not meet the strict definition of high quality habitat, but they are often the best remaining habitat in the heavily harvested or burned landscapes that are managed by the Bureau of Land Management and Forest Service. They often occur in small patches, isolated among large areas of young forest within these disturbed landscapes, and they often serve as nest sites for spotted owls as well as refugia for species such as flying squirrels and tree voles, which are important prey of northern spotted owls. Because of the high timber volume in these stands there is intense pressure to log them. Commercial thinning is often recommended as a prescription to reduce risk of fire or improve forest conditions for owls in these stands, despite the fact that it is usually unclear if thinning will either improve these forests as habitat for owls or accelerate their transition from suitable to high quality habitat."

This uncertainty was one of the reasons that the Northwest Forest Plan included recommendations to restrict thinning in naturally regenerated stands over 80 years old in western Oregon and Washington. Another concern is the continued use of the rule's adverse modification standard to justify owl take and the elimination of mature forests eight years and older that are used by Northern Spotted Owls and prey. Please see the attached ruling on the White Castle Secretarial Pilot Project that proposed to log in mature forests utilized by owls. The ruling found this was a controversial practice likely to impact owls and therefore in need of a complete environmental analysis.

Another notable project that is an example of the current lack of adequate regulatory mechanisms on federal lands is the Westside Fire Recovery Project on the Klamath National Forest. The project is

inconsistent with the Northwest Forest Plan and Northern Spotted Owl conservation due to proposed extensive post-fire logging in a late-successional reserve. Dr. Jerry Franklin submitted comments on the project which are enclosed

ABC drafted a comment letter of support for the California Spotted Owl petition for listing which summarizes key points. Recently published studies indicate California Spotted Owls are well adapted to fire, that logging practices are contributing to population declines, and that post-fire logging in particular threatens owls and eliminates otherwise suitable owl habitat. ABC urges that these scientific findings also be applied to the Northern Spotted Owl.

Proposed and planned revisions to the Northwest Forest Plan are raising concern that existing regulatory mechanisms will be replaced with new standards that do not provide an equivalent level of protection of Northern Spotted Owls in the near term, and fail to provide for adequate protection of mature forests needed to replace and augment old-growth forests and restore the late-successional ecosystem.

Complete analysis of the draft BLM RMP is underway, but an initial review indicates that it weakens existing protections for mature forests and riparian reserves. It is of great concern that the no-action alternative in the BLM's draft RMP is based on the Northwest Forest Plan as written, as opposed to the Plan as currently implemented. As a result, there is not an accurate baseline upon which to compare the action alternatives.

The Forest Service is on a slower timetable and is currently developing a science synthesis to guide their Northwest Forest Plan revisions. Several recent letters to the administration and agency are enclosed to detail our concerns about the plan revisions and reiterate our view that additional habitat protection is urgently needed for the Northern Spotted Owl and that proposals to weaken existing standards are not based on the best available science.

It is important to consider that the backdrop of these plan revisions is a precipitous drop in owl numbers and a general lack of breeding success in many areas. A brief review of the 2013 reports finds a disturbing downward population trend.

Southern Oregon Cascades

<http://www.reo.gov/monitoring/reports/nso/CAS%20onso%20demog%20annual%20report%202014.pdf>

The percentage of sites where spotted owls were detected on the study area (31%) represented a 4.0% decrease from 2013. Overall, the mean percentage of sites with owls detected has remained similar for the Wilderness and LSR, although a gradual decline is evident on both areas. In 2014 the decline in sites where spotted owls were detected in the Matrix was greater than for most years. In 2014 there were 92 non-juvenile owls detected (\bar{x} = 160.1, SE = 7.4, n = 25 years), with 50 males, 41 females and 1 sex unknown; this was the fewest number of owls detected during the study (Appendix 5). However, despite our more extensive night time survey effort in the spring, the number of sites where spotted owls were detected in the last two years has been the lowest ever recorded. In 2014 productivity increased relative to 2013 and was greater than in most years. The total number of spotted owls detected and the number of previously banded owls identified in 2014 were the lowest recorded for the study. Spotted owl detections at historic territories were unchanged from 2013-2014 at LSR sites, whereas, the double digit decrease in spotted owl detections in the Matrix LUA well exceeded the slight decrease in detections recorded for the Wilderness sites. Overall this has been the long-term trend across the study area as detections of spotted owls has gradually declined.

East slope of the Cascade Range, Washington

<http://www.reo.gov/monitoring/reports/nso/CLE%20nso%20demog%20annual%20report%202014.pdf>

In 2014 we banded 5 juvenile owls and 2 adult owls, bringing the total number of owls banded during 1989-2014 to 857 (161 adults, 69 subadults, and 627 juveniles, Table 1). Our monitoring effort has remained relatively consistent after 1992, except for 8-10 territories we began monitoring with only 1 visit per year beginning in 2002. None of these “minimum-protocol” territories contained owls in 2014. We confirmed the bands of 14 Spotted Owls, and detected another 4 Spotted Owls on 11 territories. This compares to a high of 120 owls on 64 territories in the same area in 1992 (a decline of 85%, Figures 3, 4 Table 2). Four of the 5 females for which we determined nesting status in 2014 nested. We found young at an additional territory after the incubation and rearing period. Of these 5 nesting females, all produced young. Thus, the reproductive potential of the Spotted Owl population on the Cle Elum Study Area has declined over time. At the current population size, the total number of young produced in an above-average reproductive year (e.g. 2014) is only slightly greater than the worst reproductive years when the population was much larger (e.g. 1993, 1997, Figure 10). The small number of reproductive females remaining on the study area is clearly a cause for concern should this situation persist, given recent analyses that suggest there is a genetic bottleneck in this region (Funk et al. 2009).

Oregon Coast Ranges

<http://www.reo.gov/monitoring/reports/nso/COA%20nso%20demog%20annual%20report%202014.pdf>

In 2014, we detected owls at 48 of the 172 sites surveyed (Fig. 2, Appendix A). Owls were detected at 56 sites in 2013 (Fig. 2, Appendix A). The percent of sites in which a spotted owl was detected has gradually declined over the course of the study from a high of 88 percent in 1991 to a low of 28 percent in 2014. This was a decrease in 2014, from 33 percent in 2012 and 2013 (Fig. 3, Appendix A). In 2014, pairs were observed at 17 percent of the sites, down from 20 percent in 2013. Single owls were observed at 9 percent of the sites surveyed. In 2014, there were 2 sites (1% of total) where both a male and female were detected, but pair status was not established (Fig. 3, Appendix A). Of 33 females that met protocols for determination of nesting status in 2014, 22 (67%) attempted to nest and 12 (55%) successfully fledged young (Appendix D, F). Of 34 females that met protocols for reproductive status, 12 (35%) produced young (Appendix E). The total number of young produced by the 12 females that produced young was 20 and the mean brood size for those 12 females was 1.67 (SE= 0.14; Appendix H).

Willamette National Forest

<http://www.reo.gov/monitoring/reports/nso/HJA%20nso%20demog%20annual%20report%202014.pdf>

The number of sites surveyed in 2014 was similar to the number reported in past years (171 sites; Figure 1, Table 1). Most of the non-juvenile spotted owls detections in 2014 were pairs (68%) with substantially fewer resident single owls (12%) or single owls with unknown residency status (20%; Table 1). The proportion of sites where either a pair or a single owl was detected decreased by 11% (Table 1) and the proportion of sites where pairs were detected increased by 1% between 2013 and 2014 (Figure 1). This is the second lowest proportion of territories where we detected pairs of spotted owls to date (Figure 1). We were able to survey 35 spotted owl pairs to determine nesting status prior to 1 June 2014 (Forsman 1995). Twenty-nine of these pairs (83%) initiated nesting prior to 1 June 2014; all but one (97%) successfully produced at least one young (Figure 4). The Final Revised Recovery Plan released in 2011 (U.S. Fish and Wildlife Service 2011) has withdrawn the MOCA network and recommended that managers continue to consider the LSR land use allocation under the NWFP as the current reserve network. The Fall Creek LSR has supported as many as 25 pairs of spotted owls, but currently supports only 11. Continued loss of spotted owl pairs in that LSR may render that area ineffective as a reserve. The South Santiam, Horse Creek, and Hagan LSRs have never supported more than 11, 8, and 3 pairs,

respectively. These LSRs were not likely to support more than 20 pairs of spotted owls but may provide connectivity within the reserve network.

Klamath Mountain Province of Oregon

<http://www.reo.gov/monitoring/reports/nso/KLA%20nso%20demog%20annual%20report%202014.pdf>

In recent years there has been a steady decline in the number of non-juveniles detected (Appendix B) and an even larger decrease in the number of pairs detected (Appendix A). The number of non-juveniles detected in 2014 (102) was the lowest ever documented on the study area (Appendix B). The number of individual spotted owls during 2014 was 54.3% fewer than the high of 223 during 2002. The number of pairs detected on the study area has declined every year since 2005. The 38 pairs detected during 2014 was the lowest number documented during the study period. Although the number of sites surveyed during this period has remained relatively constant, the number of pairs detected at sites has declined and the number of unoccupied sites has increased (Appendix A). While the recent meta-analysis (Forsman et al, 2011a) indicated that survival on the KSA was stable through 2006, the most recent data regarding occupancy has shown a steady and rapid decline, which suggests the stability of the population may be in question. The decrease in the number of subadults is even more pronounced than the decrease within all non-juvenile age classes. The highest proportion of subadults ever documented in the KSA (25.1%) occurred during 2003 and has declined to under 10% during each of the past eight years (Appendix B). The nest success rate for 2014 (80.0%) was higher than the 1990-2014 average of 74.4%.

Barred Owl Impacting Spotted Owl Population

There is mounting evidence that barred owls may be negatively impacting the spotted owl population within the KSA. This is illustrated by several apparent population trends: (1) spotted owl detections have been steadily decreasing (Figure 6) and reached the lowest point in 2014, when barred owl detections reached their highest level; (2) fecundity rates appear to be declining (Figure 8) and in only 2 of the previous 10 years was the rate above the 25 year average; and (3) the fecundity rate for sites with known barred owl presence was lower than at other sites and is continuing to decline. Forsman et al. (2011a) noted that the consistency of the negative associations between spotted owl demographic rates and the presence of barred owls supports the conclusion that barred owls are having a negative effect on spotted owl populations. The recent KSA data, with the combination of decreasing occupancy and reduced fecundity, appears to reinforce this conclusion.

Northwestern California

<http://www.reo.gov/monitoring/reports/nso/NWC%20nso%20demog%20annual%20report%202014.pdf>

Reproductive patterns in northern spotted owls on our study area continues to follow a pattern of low reproductive output in “bad” years and average or, occasionally, high reproductive output in “good” years. In 2014, reproductive output by spotted owls was one of the highest observed (Table 6) during the 30 years of the study, only slightly less than reproductive output observed in 2001. In general, productivity and the proportion of nests that fledge young have remained relatively stable while the proportion of birds nesting each year is primarily responsible for variation in reproductive output. The average rate of population change for the WCSA population was 0.975, suggesting the WCSA population was declining at a rate of 2.5% per year. Based on 95% confidence interval, this estimate was different than a stationary population. However, this average rate of decline does not reflect the fairly dramatic loss in the population observed in 2011 and 2012 (Figure 4) although there was no apparent loss in 2013.

Olympic Peninsula

<http://www.reo.gov/monitoring/reports/nso/OLY%20FS%20nso%20demog%20annual%20report%202014.pdf> During the 2014 field season, we conducted 231 visits to 40 historical survey areas (mean survey visits per site = 6.0 ± 0.38 SE). Spotted owl pairs were detected at 5 sites (Tables 1–2). We detected spotted owls at 3 other sites during night surveys. Follow-up visits at the latter sites indicated that the spotted owl detections were from paired individuals that had been previously documented at adjacent sites. Of the 10 adult spotted owls detected in 2014, 6 were previously banded and 4 (2 male, 2 females) were banded for the first time (Table 3). The total number of territorial owls detected in 2014 decreased slightly from 2013 and was still far below historical levels (Table 1). In contrast, the number of survey areas in which we detected barred owls remained high (Fig. 3). All 5 females located in 2014 attempted to nest (Table 4) and 4 of the 5 females that nested produced young (Table 5). We documented 7 juveniles that successfully left the nest and 1 juvenile that was found dead at the base of a nest tree. As the total number of territorial adults detected on the study area in 2014 decreased slightly from 2013, the number of owls detected on the study area remained far below historical levels. This was the first year in which significant numbers of spotted owls nested on the study area 2 since 2010. Although this is a positive sign, the generally low level of reproduction in most years since 2010 is resulting in an aging population.

Olympic National Park

<http://www.reo.gov/monitoring/reports/nso/OLY%20NPS%20nso%20demog%20annual%20report%202014.pdf> In 2014, National Park Service personnel monitored and managed data on a sample of 52 spotted owl territories (hereafter “sites”) to measure survival and reproductive rates, as well as site occupancy status. Crews made 233 visits to these sites, detecting spotted owl pairs at four and single spotted owls at six. This was the lowest proportion of sites with detections of spotted owls for any year of this study. At the ten sites where spotted owls responded, they were found on an average of 58% of monitoring visits. We documented four nest attempts and all were successful, fledging a total of six young. ONP crews banded three new adult spotted owls, one subadult, and one juvenile.

Tyee Density Study Area, Roseburg, Oregon

<http://www.reo.gov/monitoring/reports/nso/TYE%20nso%20demog%20annual%20report%202014.pdf> In 2014, we documented 65 non-juvenile spotted owls in the DSA, including 27 pairs and 11 unpaired individuals (Appendix 2). This represents approximately 46% of the number of individuals that were located during the first year of the study in 1990 and was the lowest number of owls detected since inception of the study (Fig. 2). It also represents the first year that the population of spotted owls has dipped below 50% of the original 1990 population level. A comparison of the proportions of known-age owls detected in the study area in 1996, 2005, and 2014 indicates an aging population, with low recruitment of young owls in recent years (Fig. 3). Within the DSA we documented only 3 individuals under the age of 5 years old in 2014 as compared to 34 individuals in 1996. Median age in 1996 was 6 years old for males and 7 years old for females. It was very similar in 2005 where the median age for males was 7 years old and for females it was 6 years old. By 2014, the median age had raised to 10 years old for both sexes. In 2014, the number of pairs and the total number of non-juvenile spotted owls detected was the lowest recorded for the 25 year survey period (Fig. 4). In 2014, approximately 81% of the pairs (N=27) and 64% of the nesting pairs (N=11) in the DSA were located on federal land and 36% were on private land. Although proportion of females nesting in 2014 was higher than the previous year, (0.40, 95% CI = 0.20- 0.60), the proportion of those that actually were successful (2 out of 10) was well below the 62.7% average. The number of females actually nesting has severely declined in the last 5 years and remained low as the population of spotted owls continued to decline (Fig. 2). For all years combined, the annual percentage of females that nested averaged 48.6% (N= 25 years, Table 1). The average number of young produced per female in 2014 was 0.172, which was considerably lower than

the average of 0.506 for all years (N=25) (Appendix 3). The data continued to indicate that most measures of reproductive performance of spotted owls were lowest for 1-yr-old owls, intermediate for 2- yr-old owls, and highest for adults (Tables 2–3).

Hoop Valley

Of 60 historic spotted owl territories within and adjacent to the DSA, All were surveyed using night calling while 54 received at least one day-time site visit with a total of 188 site visits during the 2014 season. Twenty four activity centers were confirmed occupied during the 2014 season with 15 pairs and 9 single males within the DSA and the 2 territories in the ANNEX portion of the reservation along the southeast boundary (Table 1). In addition, 1 territory outside the DSA was also surveyed, off the NE corner which supported a pair. Of the 15 pairs checked for nesting status, 5 were nesting (Tables 1 and 2). The five nesting pairs fledged 10 young and the number of young fledged (NYF) per female monitored was 0.67 owlets per female monitored (Table 2). The estimate of λ RJS for the period 1995-2013 was 0.972 (SE 0.01 and 95% CI 0.953-0.991). This point estimate of λ indicates that the population is declining by 2.3% annually. The top random effects model included a quadratic time trend $\phi(t)$ $p(t)$ $\lambda(t)$: RE (T+TT) (Figure 3). The recent decline in survival, the point estimate of λ RJS and the actual number of birds detected this past season all point to a population that is in fact, declining. This apparent decline in spotted owls corresponds with an increase in total annual barred owl detections and proportion of spotted owl territories with barred owl detections (Figure 1).

The Northern Spotted Owl 2014 Demography Studies,

<http://www.reo.gov/monitoring/reports/northern-spotted-owl-reports-publications.shtml> are now available and a regionwide synthesis that should be considered in this status review is awaiting publication in Condor.

We believe a 12-month finding for endangered status would offer the Service an opportunity to review and analyze recent scientific studies and assess current management practices. Meanwhile, we urge the Service to develop and adopt interim protections for the Northern Spotted Owl. Specifically, we ask that the Service not allow for take of Northern Spotted Owls in connection with forest management activities on federal lands and to develop an outreach strategy to state and private landowners to adopt Habitat Conservation Plans or other measures to reduce take and to conserve suitable habitat.

Thank you for considering these comments on behalf of American Bird Conservancy. I can be contacted at sholmer@abcbirds.org, or 202-888-7490 if you have any questions or if I can be of further assistance.

Sincerely,

Steve Holmer
Senior Policy Advisor
American Bird Conservancy

7. ABC Comment Letter on Draft Northern Spotted Owl Critical Habitat Rule

July 6, 2012

Public Comments Processing
Attn: FWS-RI-ES-2011-0112
Division of Policy and Directives Management
U.S. Fish and Wildlife Service
4401 N. Fairfax Dr. MS 2042-PDM
Arlington, VA 22203

Thank you for this opportunity to comment. This letter and attached appendices on the proposed designation of Critical Habitat for the threatened Northern Spotted Owl are submitted on behalf of American Bird Conservancy (ABC).

Additional habitat protection is needed to stabilize and eventually recover the Northern Spotted Owl's population and ABC appreciates that the U.S. Fish and Wildlife Service (the Service) has identified nearly 14 million acres of potential Critical Habitat necessary to recover the threatened species and the old-growth ecosystem upon which it depends. With some modest additions, the Final Rule can provide a path towards eventual recovery and delisting of the species.

ABC supports designating as Critical Habitat all of the 13,961,684 identified acres, and adding all areas within the late-successional reserve network that were excluded, plus any occupied or suitable Northern Spotted Owl habitat that was not identified in the draft.

ABC is deeply concerned about the draft Rule's encouragement of active management in Northern Spotted Owl Critical Habitat, the changes it suggests to management plans and projects, and logging projects in suitable owl habitat that have already been initiated. The 2010 Final Northern Spotted Owl Recovery Plan is already influencing management changes on federal forests potentially detrimental to the restoration of large blocks of habitat needed to recover the Northern Spotted Owl such as regeneration of moist forests to create early-seral habitat. The draft Critical Habitat rule could expand this harmful policy and should be revised to instead to favor reducing forest fragmentation by maintaining the system of late-successional reserves to allow the continued formation of large blocks of suitable habitat.

A number of the Recovery Actions in the Final Recovery Plan appear to be contradictory, some calling for the protection of additional owl habitat, while others allowing, even encouraging increased adverse modification. This contradiction is also found in the draft Critical Habitat rule which proposes a significant increase in Critical Habitat acreage while at the same time green-lighting logging techniques proven harmful to owls and owl habitat, eliminating the proven late-successional reserves necessary to ensure large blocks of habitat, and recommending protection only for the very highest quality owl habitat.

The Environmental Assessment concluded that a wide degree of uncertainty would be created in regard to timber outputs, depending on how the Rule was implemented, and which of the advisory Recovery Actions were followed by the land management agencies. While the assessment did analyze different scenarios for timber production, it did not analyze a reserve-less strategy that could potentially allow for logging in currently-protected forests older than 80 years but not yet old enough to be considered high quality owl habitat. At the same time, the Service appears to endorse a policy of reserve-less management on page 94.

A more complete Environmental Assessment is needed for the public to be able to fully assess the potential consequences of this Rule. Similarly, the Economic Analysis is faulty and offers an incomplete look at the economic effects of the Rule by analyzing only the potential value of timber production, while ignoring the monetary benefits of other important values provided by maturing and old-growth forests such as stable stream flows, clean water supplies, and carbon storage.

Based on the available information in the draft Rule and Environmental Assessment, we must assume the elimination of late-successional reserves is a potential application of this Critical Habitat rule and Final Recovery Plan. Therefore the effects of eliminating the reserves should be fully analyzed by the Rule and companion Economic Analysis and Environmental Assessment. And because this analysis is notably absent, and because the Economic Analysis did not analyze the vast majority of economic activity on the forests affected, the public is currently unable to determine the full consequences of the pending rule.

We therefore urge the Service to make abundantly clear to the public and to the land managing agencies that elimination of the reserves is not an application of, or a recommendation of the final Rule, economic analysis, or environmental assessment.

The Service is promoting an unacceptably risky strategy in the Final Recovery Plan, Draft Rule and ESA consultations in regard to short-term losses of Northern Spotted Owl, a species that the evidence indicates merits endangered status. The draft Rule leaves many important questions unanswered. There is a lack of quantification of how many Northern Spotted Owls can be taken or habitat acres degraded, no thresholds are provided that land managers should not exceed, nor is there any indication how many additional owls may (or may not) be gained by the claimed long-term habitat benefits of the projects, or how and where large blocks of habitat will be recovered absent the reserves. Given these uncertainties, a more cautious approach that maintains the reserves created by the Northwest Forest Plan is warranted.

Thank you for this opportunity to comment. In the pages that follow are additional comments on the proposed Critical Habitat rule, essential background, and supporting materials that we hope you will find useful as you develop the final Rule. We look forward to working with the Service to preserve and recover the Northern Spotted Owl.

Comment Letter to President Barack Obama

Below is a comment letter concerning the Draft Critical Habitat rule from conservation groups and scientific organizations sent to President Barack Obama asking the mature and old-growth forests be protected and the Rule be changed to ensure the system of late-successional reserves created by the Northwest Forest Plan are maintained:

American Bird Conservancy ✨ Natural Resources Defense Council
Sierra Club ✨ Center for Biological Diversity ✨ Friends of the Earth Endangered Species Coalition ✨
Oregon Wild ✨ Conservation Northwest WildEarth Guardians ✨ Cornell Lab of Ornithology ✨ Geos
Institute

July 2, 2012

The Honorable Barack Obama
President of the United States of America
The White House
1600 Pennsylvania Ave NW
Washington D.C. 20500

Dear President Obama,

The undersigned organizations urge your support for the conservation of the mature and old-growth forests in the Pacific Northwest. These magnificent forests provide clean drinking water for millions of Americans, a world-class tourism destination, sustainable forestry, and habitat essential to the survival of hundreds of species of wildlife.

Conservation of the old-growth ecosystem as symbolized by the Northwest Forest Plan developed under the leadership of President Bill Clinton was a significant environmental advance that ended decades of unsustainable management practices in the region.

Studies show that the Northwest Forest Plan is working as intended to retain mature and old forests, and that the highly fragmented forest ecosystem is growing back into the large blocks of mature forest habitat needed to maintain water quality and recover threatened species such as the Northern Spotted Owl, Marbled Murrelet and Pacific salmon stocks.

Your administration recently released a draft Critical Habitat proposal for the Northern Spotted Owl that identifies sufficient habitat necessary to conserve the threatened species and the old-growth ecosystem upon which it depends. We commend the agency's use of modeling to identify the proposed acreage which we believe represents the best available science.

However, the draft plan and accompanying Presidential Memorandum raise concern because of the proposed active management in owl critical habitat that is not supported by the best available science. Three major scientific societies are advising the administration to conduct more research on the effects of active management on owl populations before treatments are applied more broadly. We agree with the scientists' call for caution.

The draft also includes provisions that could have the unintended consequence of weakening or eliminating habitat protections of the Northwest Forest Plan. We respectfully urge the administration to modify the proposed Critical Habitat rule to ensure that the protected reserves of the Northwest Forest Plan are maintained so that future generations of Americans will be assured they will have an opportunity to enjoy the splendor of these old-growth forests.

Sincerely,

George Fenwick, Ph.D.
President
American Bird Conservancy
The Plains, Virginia

Debbie Sease
National Campaign Director

Sierra Club
Washington, D.C.

Andrew Wetzler
Director, Land and Wildlife Program
Natural Resources Defense Council
Washington, D.C.

Kierán Suckling
Executive Director
Center for Biological Diversity
Tucson, Arizona

Eric Pica
Executive Director
Friends of the Earth
Washington, D.C.

Leda Huta
Executive Director
Endangered Species Coalition
Washington, D.C.

Mark Salvo
Wildlife Program Director
WildEarth Guardians
Phoenix, Arizona

John W. Fitzpatrick
Director
Cornell Lab of Ornithology
Ithaca, New York

Greg Harber, Chairman
Alabama Ornithological Society Conservation Committee
Birmingham, Alabama

Suzette Russi, Conservation chair
Prescott Audubon Society
Prescott, Arizona

Nancy Meister, President
Yuma Audubon Society
Yuma, Arizona

Allan Mueller
Conservation Chair
Arkansas Audubon Society

Conway, Arkansas

Don Schmoldt, President
Sacramento Audubon Society
Sacramento, California

Jeff Ebricht
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Kimberly Baker
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Portland, Oregon

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Klamath Siskiyou Wildlands Center
Ashland, Oregon

Chuck Willer
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Corvallis, Oregon

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Nick Cady
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Ann Vileisis
President
Kalmiopsis Audubon Society
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APPENDICES

- A. Petition to list the Northern Spotted Owl as Endangered prepared by the Geos Institute
- B. Comments on the Draft Economic Analysis of Critical Habitat Designation for the Northern Spotted Owl by Ernie Niemi
- C. Email from David Iverson, Region 4, dated August 6, 1990, Goodbye Thoughts, and “Inside Out” by Steven P. Smith, a farewell commentary by a Willamette National Forest biologist.
- D. Scientific Societies Request for Environmental Impact Statement of Proposed Active Forest Management in Spotted Owl Critical Habitat
- E. Open Letter to President Barack Obama from 229 Scientists in Support of Northwest Forest Plan
- F. The Wildlife Society Peer Review of the 2010 Draft Revised Recovery Plan for the Northern Spotted Owl
- G. Summary of Key Findings, Northwest Forest Plan: The First 15 Years (1994-2008), (Davis et al 2011), R6-RPM-TP-03-2011
- H. Watershed Condition Status and Trend (Lanigan et al 2012), General Technical Report PNW-GTR-856, February 2012
- I. Comment letter submitted by Earthjustice on behalf of plaintiff groups
- J. Forest Service and BLM Volume Offered under Northwest Forest Plan (FY 1995 – FY 2010), Region 5 & 6 PTSAR Report, and BLM Timber Sale Information System.
- K. What is Wrong with the Secretarial Pilot Projects by Francis Eatherington, Cascadia Wildlands

Executive Summary

Draft Critical Habitat Rule Weakens Habitat Protection for the Northern Spotted Owl

Studies show that the Northwest Forest Plan is working as intended to retain mature and old forests, and that the highly fragmented forest ecosystem is growing back into the large blocks of mature forest habitat needed to maintain water quality and recover threatened species such as the Northern Spotted Owl, and Marbled Murrelet.

With some modest additions the draft Critical Habitat proposal for the Northern Spotted Owl identifies sufficient habitat necessary to conserve the threatened species and the old-growth ecosystem upon which it depends. ABC commends the agency's use of modeling to identify a significant increase in proposed acreage which we believe represents the best available science. We support designating all of the identified acres, plus additional areas that warrant designation such areas in late-successional reserves, currently occupied and suitable owl habitat.

However, the draft plan and accompanying Presidential Memorandum raise concern because of the proposed active management in owl critical habitat that is not supported by the best available science. Three major scientific societies are advising the administration to conduct more research on the effects of active management on owl populations before treatments are applied more broadly. We agree with the scientists' call for caution.

The draft also includes provisions that could have the unintended consequence of weakening or eliminating habitat protections of the Northwest Forest Plan. In particular, the provisions in the draft plan encouraging unproven thinning and restoration logging, combined with the expansive definition of adverse modification that allows degradation of owl habitat, have the potential to allow for logging of areas now protected by the Northwest Forest Plan, including mature forests that the Plan had intended to become old-growth.

These provisions, which were repeated numerous times in the draft, appear to intend a substantial increase of timber harvest in the region while providing a minimum of habitat protection, in terms of both total acreage by encouraging unwarranted exclusions, and weaker management standards than the standards and guidelines of the Northwest Forest Plan's late-successional reserves. This language has the potential to allow excessive logging to the detriment of the Northern Spotted Owl population and may foreclose owl recovery by not providing adequate late-successional forest necessary to ensure high quality owl habitat in the future.

There is also concern about changes to land management plans resulting from the Critical Habitat rule and Final Recovery Plan. The Service tacitly endorsed elimination of the owl reserves east of the Cascade Crest by including language favorable to that approach in the Owl Recovery Plan. The proposed Okanogan-Wenatchee Forest Plan revision would eliminate the existing owl reserves and in the Environmental Assessment (p. 94), it says that would be consistent with Recovery Plan and therefore compatible with owl recovery.

We strongly disagree. It should be noted that this portion of the Draft Recovery Plan was strongly criticized by peer reviewers, but in the Final Plan, their concerns were not addressed.

We respectfully urge the U.S. Fish and Wildlife Service to modify the proposed Critical Habitat rule to ensure that the protected reserves of the Northwest Forest Plan are maintained so that future generations of Americans will be assured they will have an opportunity to enjoy the splendor of these old-growth forests.

Recommended Changes

We urge that the Final Critical Habitat Rule make clear that eliminating the system of late-successional reserves would be detrimental to owl recovery and is not a recommended outcome of this rulemaking, or the Environmental Assessment and Economic Analysis.

The proposal encouraging adverse modification of habitat for ecoforestry purposes is not supported by the best available science. We recommend it be removed from the final rule.

We recommend that the determinations of adverse modification be at the appropriate fine scale to ensure ESA compliance.

We recommend that the standards and guidelines of the Northwest Forest Plan late-successional and riparian reserve systems be used to preclude inappropriate or unsustainable management practices. The Northwest Forest Plan allows for restoration and provides standards and guidelines that are more protective of owls and better suited to experiments in ecological restoration.

Prescriptive requirements to retain trees above a certain age or size to restore the deficiency in old forests, and mapping where large blocks of closed canopy forests will be retained and allowed to mature is necessary to ensure these values will be not become subject to mismanagement or overcutting.

Active management in owl habitat should be considered experimental, conducted on a small scale, and monitored to determine its impact on Northern Spotted Owls. The necessity and benefits of active management in owl habitat remains in dispute.

We recommend the Service develop an environmental impact statement to devise a research strategy that addresses this question.

American Bird Conservancy

American Bird Conservancy (ABC) is a 501(c)(3) non-profit organization whose mission is to conserve native birds and their habitats throughout the Americas. It achieves this by safeguarding the rarest bird species, restoring habitats, reducing threats to bird species, and building capacity to advance bird conservation.

ABC is the only U.S.-based group with a major focus on bird habitat conservation throughout the entire Americas. ABC has more than 8,000 individual members and 30,000 constituents. ABC's members, supporters, and activists enjoy viewing, studying, and photographing migratory birds. Some of its members and constituents routinely observe the Northern Spotted Owl in California, Washington, and Oregon.

ABC is a leading organization working to reduce threats to birds from habitat destruction; from collisions with buildings, towers, and wind turbines; and from toxins such as hazardous pesticides and lead.

ABC uses a variety of mechanisms to achieve these objectives including scientific research and analysis; advocating for bird conservation at the local, state, regional, and federal levels; forming bird conservation partnerships; and pressing for meaningful regulatory changes to address such threats effectively through various means, including rulemaking petitions and litigation. See, e.g., *ABC v Fed. Communications Commission*, 516 F.3d 1027 (D.C. Cir. 2008) (in response to ABC's review petition seeking protection of migratory birds from collisions with communications towers, the court vacated a

part of the order for violation of the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 et seq.).

ABC's staff includes more than 20 scientists with expertise in bird conservation. ABC's scientists have published in many reputed journals such as the Antarctic Journal of the United States, The Auk, Biodiversity Conservation, Biological Invasions, Biological Sciences, Bird Conservation International, Boletín SAO, Canadian Field Naturalist, Chelonian Research Monographs, Colonial Waterbirds, Condor, Cotinga, Ecological Applications, Ecology, Emu, Florida Field Naturalist, International Zoo Yearbook, Journal of Avian Medicine and Surgery, Journal of Field Ornithology, Journal of Raptor Research, Journal of Wildlife Diseases, Journal of Wildlife Management, Molecular Ecology, Neotropical Birding, North American Bird Bander, Oecologia, Ornitología Columbiana, Ornitología Neotropical, Oryx, Pacific Conservation Biology, Proceedings of the National Academy of Science, Proceedings of the Western Foundation of Vertebrate Zoology, Wilson Bulletin, Wilson Journal of Ornithology, and Zoo Biology.

The American Bird Conservancy Strategic Bird Conservation Framework

The problems facing birds today are myriad and complex, requiring a far-reaching, bold vision for conservation. ABC has developed a unique and successful strategy to preserve bird diversity and maintain or increase wild bird populations. This strategy is fully articulated in The American Bird Conservancy Guide to Bird Conservation published in 2010 by University of Chicago Press (ISBN-13:978-0-226-64727-2).

The highest bird conservation priority is halting extinctions, followed by conserving and restoring habitats. In the case of the Northern Spotted Owl draft Critical Habitat rule, the Service is proposing to place lower priority general habitat needs before the specific needs of an endangered species, even to the point of allowing large numbers of Northern Spotted Owls to be killed (taken) and significant habitat to be degraded or completely eliminated for decades. While the stated goal to improve future habitat conditions for the owl is well-intended, this activity is not supported by peer-reviewed studies showing owl populations will benefit, and it is, in fact, pushing an already extremely imperiled species closer to extinction and should be immediately halted.

Review Indicates Endangered Status Warranted for Northern Spotted Owl

A review of the extensive literature on the Northern Spotted Owl, forest ecology, and conservation biology published over the two decades since the subspecies was listed indicates Northern Spotted Owl populations have continued to decline and now meet the Endangered Species Act's definition of an endangered species, that is, it is "...in danger of extinction throughout all or a significant portion of its range...". As a result, stronger conservation measures are needed than the Service is currently considering.

On federal lands, Northern Spotted Owl populations not only continue to decline despite the Northwest Forest Plan, the decline is accelerating and vital rates are deteriorating (Forsman et al. 2010). In study areas not managed under the Northwest Forest Plan owl declines are significantly greater (Anthony et al. 2006). A recently published large-scale demographic study (Forsman et al. 2010) found that the species is declining on seven of eleven active demographic study areas at about 3% annually range-wide, and concluded that the Northern Spotted Owl clearly is on a trajectory towards extinction. Funk et al. (2010) provides evidence for recent genetic bottlenecks in northern spotted owls that increase the vulnerability of the Northern Spotted Owl to extinction.

Currently, the subspecies is already nearly extirpated in much of its range. In British Columbia, as far as we know, all remaining birds are in captivity; few remain on the Olympic Peninsula, Southwest Washington, and the northern portion of the Oregon Coast Range. Populations are very small and isolated in most of Washington where rates of decline are highest. Areas that have little federal land support few or no owls, and Forsman et al. (2010) state that as a result, too few Northern Spotted Owls exist in four regions (southwestern Washington, the Coast Range of northwest Oregon, the California Cascades, and much of Washington's Olympic Peninsula) to conduct a demographic study with their methods. Further, the literature suggests these declines are not likely to lessen even with the latest owl recovery plan in place due to the un-quantified and unmitigated risks accepted in the plan.

Considering that the best available science has documented an ongoing, range-wide decline of the Northern Spotted Owl and its extirpation in many regions that historically were occupied, we are requesting that the Service upgrade the Northern Spotted Owl's Endangered Species Act listing status from threatened to endangered and take decisive action to stop the further deterioration of the Northern Spotted Owl's population and degradation of its habitat.

The Northern Spotted Owl meets the Endangered Species Act's definition of an endangered species because of impacts under four of five criteria established under the Endangered Species Act for determining the status of a species. A brief summary is provided here and the full analysis developed by the Geos Institute is available in the appendix.

1. The present or threatened destruction, modification, or curtailment of the owl's habitat or range

The Northern Spotted Owl is endangered by loss and modification of habitat, due especially to historic and ongoing logging and fire associated management. Over a century of logging has removed much of the Northern Spotted Owls' habitat. In 1990, habitat loss was estimated at 60-88% since the early part of the 19th Century. Since the owl was listed in 1990, habitat loss has continued throughout the owls' range. While much of this loss has slowed on federal lands due to the Northwest Forest Plan, habitat loss continues at relatively high rates on nonfederal lands. Additionally, it appears that the effects of past logging still are occurring on both federal and nonfederal lands as increased fragmentation and habitat loss propagate through the ecosystem.

The Northwest Forest Plan assumed a period of decades would be necessary before habitat in many of the late-successional reserves became suitable for owls; only about 36% of the reserves currently are functioning as old-growth forests, with most of the reserves still in various stages of recovery from logging. Additionally, other human actions, including post-disturbance logging and extensive fuel treatments, urban development, livestock grazing, mining, recreation, and road construction, have contributed to past and continue to contribute to present cumulative losses and degradation of Northern Spotted Owl habitat and their prey.

2. Disease or predation

The Northern Spotted Owl is subject to disease and predation pressures that have increased substantially since its listing. Changes in habitat that result in more open areas (e.g., from forest thinning) and increased fragmentation of older forests likely cause an increase in predation by Great Horned Owls, Northern Goshawks, and Red-Tailed Hawks that either increase mortality on adult Spotted Owls or on dispersing juveniles. In addition, Leskiw and Gutiérrez (1998) present evidence of predation

on Spotted Owls by Barred Owls, a risk that is growing with increasing overlap in distribution of Spotted and Barred Owls.

3. Inadequacy of existing regulations to protect the owl and its habitat

The Northern Spotted Owl is endangered and its habitat is subject to adverse modification due to the inadequacy of existing state and federal regulations. Existing regulations have failed to truly protect the Northern Spotted Owl and its habitat on private, state, or federal lands. This failure is evidenced by the continued loss and degradation of owl habitat, the failure to restore habitat damaged by past management practices, and by a demonstrated failure to reverse the decline of the Northern Spotted Owl over the last two decades.

4. Other natural or human caused factors

The Northern Spotted Owl is endangered by threats associated with the continued increase in Barred Owl populations. These detrimental impacts may be interacting with habitat loss and fragmentation to accelerate the decline of Northern Spotted Owl populations. Barred Owls compete with Northern Spotted Owls and are considered a major threat to Spotted Owls. Collapse of Northern Spotted Owl populations has followed the north to south invasion of the Barred Owl and areas that recently have been invaded by Barred Owls are beginning to show signs of population declines.

A Conservation History of the Northern Spotted Owl

The conservation history of the Northern Spotted Owl offers important lessons that should advise the options developed by policymakers. The consequences of past active management and agency misconduct have engendered mistrust with the public, and are a reason for caution whenever new proposals for active management in owl habitat are considered.

The damage caused to the National Forests by overcutting during the 1960s, 1970s, 1980s, and 1990s has yet to be addressed by the land management agencies. For example, there remains an excess of logging roads on the National Forests and an estimated \$10 billion backlog of road maintenance. The impacts to publicly owned forests are reduced water quality, increased water filtration costs for downstream communities, and diminished fisheries and aquatic ecosystems.

Agency scientists first confirmed the Northern Spotted Owl's decline and connection to old-growth forest habitat in 1983. But instead of taking steps to moderate habitat loss, a series of legislative riders allowed for record logging levels in owl habitat from 1983 – 1990 and listing of the species as threatened was delayed until 1990.

In 1990, Congress passed an old-growth logging rider (section 318 of the FY 1990 Interior Appropriations bill) that overturned two court injunctions that had halted over 140 old-growth timber sales, and orders the Forest Service and Bureau of Land Management (BLM) to offer a fixed volume of timber in Washington and Oregon during that year, about 9.6 billion board feet. It also includes sufficiency language saying citizens could not challenge these projects if they violate environmental laws except for the Endangered Species Act. Many of these projects did not have stream buffers to protect water quality or other minimal environmental safeguards.

Defeat of the next legislative amendment offered in 1991 to prevent environmental review of timber sales in owl habitat, opened the court house door to legal challenges against timber sales proposed in owl habitat. In 1991, Federal Judge William Dwyer then ruled the agency had systematically and deliberately failed to abide by wildlife protection laws.

Judge Dwyer's scathing ruling and resulting injunctions shut down the region's timber sales program on federal lands. In Congress, public pressure was building for permanent protection of the ancient forests. Only the intervention of Speaker of the House Thomas Foley prevented a House vote on the Ancient Forest Protection Act, a bill that had been championed by Rep. Jim Jontz.

The injunctions and political gridlock prompted intervention by incoming President Bill Clinton. A forest summit was held in Portland, Oregon in 1993, and agencies were directed to develop the Northwest Forest Plan. This was a first of its kind, multispecies and ecosystem conservation plan intended to protect late-successional forests and riparian areas, as well as the Northern Spotted Owl, Marbled Murrelet, Pacific Salmon stocks, and 600 other old-growth-dependent species. The Plan went into effect in 1994 and it remains today the best available conservation framework of its kind.

The Emergency Rescissions Act of 1995, better known as the "salvage logging rider" or "lawless logging", suspended most environmental laws from June 1995 until December 1996 to allow the Forest Service to address forest health emergencies. Instead of legitimate restoration, the public witnessed hundreds of old-growth and roadless area timber sales offered for sale, including dozens in the Pacific Northwest that had been previously ruled illegal by federal courts.

Strong public opposition and hundreds of protests ensued. Pressure on the Clinton Administration led then Secretary of Agriculture Dan Glickman to cancel over 150 of the roadless area projects that had been offered under the Rider, but many of the old-growth sales were logged.

Agency budgeting and the system of incentives created by Congress to boost logging played a role in the management abuses that occurred under the rider. In 1976, the Forest Service Salvage Fund was created to expedite the removal of insect-infested, dead, damaged, or down timber. Salvage sale revenues are deposited in the Salvage Fund to pay for additional projects. The Fund created an incentive for managers to promote salvage sales, because forest managers keep the sales receipts instead of returning the funds to the Treasury.

The Interagency Review on the Salvage Program of 1996 found that the fund creates a financial incentive for agency managers to choose salvage logging when other restoration activities that do not return receipts to the agency would be more appropriate. Other incentives such as the KV fund were found to create a similar problem. By allowing the Forest Service to keep all timber sale receipts instead of returning the proceeds of selling the public's timber to the Treasury, a powerful incentive has been created for the agency to overcut the forest to maintain their own budgets and staffing levels.

In the aftermath of the Salvage Logging Rider, multiple attempts were made in Congress and by the subsequent Bush Administration to expedite logging by weakening or eliminating environmental protection and public involvement for timber sales nationwide. Most of these efforts, such as Rep. Bob Smith's Forest Health Bill of 1997, were unsuccessful, but the Healthy Forests Restoration Act of 2003 did pass and was signed into law by President Bush, although only after significant changes were made to target projects towards thinning around homes and communities.

Repeated attempts were also made to reduce or eliminate key protections of the Northwest Forest Plan, including agency proposals to eliminate the survey and manage requirement, and the aquatic conservation strategy protecting streams and degraded watersheds. The Northern Spotted Owl Critical Habitat designation and Owl Recovery Plan offered by the Bush Administration were heavily criticized as scientifically flawed and biased against the Northwest Forest Plan.

A later investigation by the Department of Interior's Inspector General confirmed that political interference had prevented the Service from preparing a scientifically sound Recovery Plan. This contributed to the Recovery Plan being remanded and the Critical Habitat designation being thrown out.

In addition, BLM developed and publicly promoted the Western Oregon Plan Revisions (WOPR), a scientifically flawed plan that would have eliminated the late-successional reserves or allowed logging in reserve to increase logging of federal mature and old-growth forests managed by BLM in Oregon by 400%. Independent scientific reviews, including those by the U.S. Environmental Protection Agency and National Marine Fisheries Service, found the plan would likely cause significant harm to the forests, water quality, and threatened species. A review of the draft plan by BLM's own science assessment team found numerous deficiencies.

The WOPR planned for the elimination of 680 known nesting sites of the threatened Northern Spotted Owl, and another 600 known nesting sites of the Marbled Murrelet, a threatened sea bird that also depends on old-growth forests. The BLM's flawed WOPR analysis concluded that owl and murrelet populations would not be harmed by increased logging, but BLM refused to consult with Service wildlife experts on its plan. A federal judge rule the WOPR illegal in March 2012.

Administration Proposes another Western Oregon Plan Revision

The Administration has announced a new planning process for BLM-managed lands in Oregon. Based on the Notice of Intent (NOI) and the Administration's press statements, the plan shows a bias towards active management and proposes a significant departure from the Northwest Forest Plan by encouraging regeneration in moist mature forests. This is harmful to the Northern Spotted Owl by risking take of individual birds and habitat, increasing forest fragmentation, and setting back the needed expansion of the old-growth forest ecosystem over time to provide for owl recovery.

For example, the NOI states:

"The revisions to the existing RMPs will determine how the BLM will actively manage BLM-administered lands in western Oregon to further recovery of threatened and endangered species, provide clean water, restore fire-adapted ecosystems, produce a sustained yield of timber products, and provide for recreation opportunities."

The statement shows a high degree of bias because it falsely assumes active management can accomplish all of those things. In fact, past active management that resulted in excessive logging and road building is the reason we have threatened and endangered species in the region. Active management, while producing timber volume, also harms water quality and diminishes recreational opportunity. Active management has also been shown to increase, rather than decrease fire risk if expensive follow up treatments to remove or burn slash piles and to conduct managed burns are not carried out.

It also ignores the benefits of preservation. The Wilderness Society has released a report Wilderness and Water Mix Well on the relationship between healthy watersheds and protected lands in the National Forest System. The report found that only 38% of watersheds where active management is greatest were functioning properly, 58% were at risk, and 5% were impaired. In contrast, protected lands scored

much higher; 80% of Wilderness is functioning properly and only 18% at risk and 1% impaired. Roadless areas scored in second place with 64% functioning properly, 34% at risk and 2% impaired.

This new WOPR planning effort is essentially BLM pulling out of the Northwest Forest Plan. This undermines the integrity of the Plan, which provides an adequate regulatory mechanism to conserve the Northern Spotted Owl and other wide-ranging species. The importance of consistent management across the owl's range has been cited in past court cases.

Two key assumptions behind the biological analysis of the Northwest Forest Plan were that (1) "[r]iparian and Late-Successional Reserves (LSRs) will retain reserve status and will not be available for timber production other than as provided in Alternative 9" and (2) "[a]lternative 9 applies to Forest Service and BLM lands; all future actions on these lands would be consistent with Alternative 9, as adopted in the Record-of-Decision (ROD)." See FEIS at 2-33 to 2-34. (Earthjustice comment letter).

BLM's indicated management direction as expressed by the NOI, violates both of these assumptions.

Okanogan-Wenatchee National Forest Plan Revision

The Okanogan-Wenatchee National Forest Plan Revision has also raised great concern by proposing the elimination of the existing system of late-successional reserves. A Region 6 Forest Service Assessment found that late-successional forests are generally below their historic range of variability, and the availability of snags larger than 20 inches, and snag habitat is generally lacking in some forest types because of past management practices.

While the notice of intent proposes that a designated percentage of the forest will be managed for the owl's benefit, there will no longer be areas where the species' protection is guaranteed. This proposal is not consistent with the Northwest Forest Plan, which provides reserves with guaranteed protections that cannot be ignored at the discretion of the local land managers.

The Forest Service claims that static reserves are no longer a viable strategy for conserving the owl, but to date has not produced credible evidence to support that contention. Portions of the now discredited Northern Spotted Owl Recovery Plan of 2008 reached the same unfounded conclusion, and inclusion of similar language in the 2010 Draft Recovery Plan spawned strong opposition from the scientific societies that peer-reviewed the plan.

The Final Owl Recovery Plan calls for conserving older stands that have occupied or high-value spotted owl habitat, and to "Continue to manage for large, continuous block of late-successional forest." Without the system of late-successional reserves remaining in place, the agency has not provided any mechanism to ensure that the land management agencies will provide for large, continuous blocks. In fact, given the management history, and continued proposals to further fragment the forest, the importance of maintaining the reserve system should be that much more apparent.

The reviewers found that the science included in the draft was incomplete because numerous studies to the contrary had not been considered. In the final draft, a greater effort was made to reference the omitted studies, but the conclusions remained the same. For example, evidence presented in Hanson et al. (2009) on fire risk was cited but not used.

Several new studies have been published that also analyze satellite images of the forest, and have found that high intensity, "catastrophic" fires have not been increasing in Northern California, or on the

Eastside. As a result, we believe the plan overestimates fire risk. Similarly, the Hanson study was also not used regarding the rates of recruitment relative to rates of loss to stand-replacing fires, resulting in an overestimation of the amount of reserve likely to be lost.

In addition, the management standards proposed for portions of the former late-successional reserves could be potentially harmful to many species of wildlife, including the Northern Spotted Owl. The proposed Okanogan-Wenatchee forest plan would allow for significantly greater road densities (more than 15%) than allowed in the current six owl reserves and possibly eight others depending on agency interpretation changes in summer road use. Allowing greater fragmentation and road densities would reduce the amount of suitable owl habitat in those areas, not to mention increasing fire risks, and should not be allowed.

Volume Driven Restoration is Not Restoration

The Obama Administration has committed itself to a significant increase in logging on the National Forests as indicated by the February 2012 report “Increasing the Pace of Restoration and Job Creation on our National Forests.” A March Forest Service memo to Region 6 calls for a 20% increase in volume this year, and that it is to fall under the rubric of restoration.

We question whether legitimate restoration can be accomplished when meeting timber volume targets is the primary management directive. Hard timber targets on the National Forests were ended because evidence emerged that it was causing harm to the forests, and to the Forest Service itself.

Included in the appendix is a farewell letter from Steven Smith, a wildlife biologist from Willamette National Forest detailing mistreatment of agency biologists at the hands of timber managers. Here’s one excerpt:

“Even more disheartening is attending meetings where the spotted owl gets blamed for this internal crisis as well. A strange paradox since Forest Service managers are ultimately responsible for the spotted owl crisis as well.”

A return to timber target driven management would mark a huge setback that threatens to undo the agency’s progress towards professional integrity and stewardship. We urge the Service to oppose Forest Service and BLM plans to increase timber production under the guise of restoration. It threatens the Northern Spotted Owl and risks returning the Forest Service and BLM to the errant ways of their past as well as delegitimizing other much needed restoration work on federal lands.

Flawed Final Northern Spotted Owl Recovery Plan

Concern is being raised by scientists that active management in suitable owl habitat is not supported by the best available science. There are currently no peer-reviewed studies showing Spotted Owls benefit from the proposed logging treatments, while others show short-term harm to owl and prey base from thinning with declines lasting up to 30 years.

Estimates of owl habitat loss from fire are not based on defensible data sources and we remain concerned that the agency is operating on the unproven and unanalyzed assumption that Northern Spotted Owls are not resilient to fire. All three subspecies of Spotted Owl exist in fire adapted forests.

At the same time, the agency fails to address the problem of post-fire logging which degrades and eliminates legacies, habitat for the owl's prey base, and owl foraging areas.

Given the 2.9% annual decline in owl population, it is not acceptable to allow for short-term losses of owls in the hope that improved habitat conditions might prove beneficial to the species someday in the distant future. But this is precisely what the draft Plan is calling for.

"While proposed Federal actions must comply with requirements of the Act, actions with some short-term adverse impacts to spotted owls and critical habitat, but whose effect is to conserve or restore natural ecological processes and enhance forest resilience in the long term, should generally be consistent with the goals of critical habitat management."

(Executive Summary p. 8)

The proposed Critical Habitat rule relies heavily on the Final Northern Spotted Owl Recovery Plan and cites it as if it were a peer reviewed document. However, the Final Owl Recovery Plan was never peer reviewed. In addition, peer reviewers identified many faults in the Draft Recovery Plan, particularly concerning active management and the need for maintaining owl reserves that were never corrected in the Final.

For example, the summary of The Wildlife Society (TWS) review states:

"Other aspects of the 2010 DRRP are flawed and many are not based on best available science. The lack of a permanent proposal for a reserve system is a major problem that prevents full review of the 2010 DRRP. We believe this will necessitate further peer review prior to finalization of a recovery plan. The Service's strategy for no reserves in dry forests in the eastern Cascades is exacerbated by the proposals for aggressive management of these dry forests because the treatments will reduce the amount of closed canopy forests in the landscape and reduce the amount and suitability of habitat for the subspecies. These proposals are not based on a complete review of the available science and they rely on unpublished reports. In addition, there has been no formal accounting of how closed canopy forests can be maintained with the widespread treatments that are being proposed. Management actions, which are not based on good science, in dry forests with no reserves will likely lead to failure to achieve recovery criteria."

The TWS review also noted that in at least a dozen instances, important studies with bearing on these issues, and that often contradicted the intended management direction were excluded from the analysis. It can be concluded that the agency had cherry-picked studies supporting one view while actively ignoring opposing studies. The Society concluded in its typically diplomatic fashion that:

"In summary, we commend the Service for their intent to use the best available science in developing the 2010 DRRP for the Spotted Owl; however, we found strong evidence that this was not the case throughout much of the Plan. The Service should make a comprehensive effort to base their recommendations and guidelines on the best available science so that they are in compliance with Secretarial Order #3305 issued by Interior Secretary Salazar on September 29, 2010 and the Presidential Memorandum of Scientific Integrity."

Unfortunately, no such effort was made to correct the scientific deficiencies identified in the TWS review. While some of the omitted studies were cited in the final recovery plan, the same

unsubstantiated conclusions in support of logging in owl habitat and eliminating owl reserves on the Eastside were reached.

Another team of five scientists (Hansen, Bond, Odion, DellaSala, Baker) that reviewed the draft concluded, "...there are considerable deficiencies in the 2010 draft recovery plan where the Fish and Wildlife Service did not make use of best science, untested assumptions regarding risks of active management vs. fire, and unpublished literature in assessing forest recruitment vs. late-successional "losses" post-fire."

The group of scientists urged the Service to recommend retention of all existing late-successional reserves, additional new reserves to create greater connectedness across the landscape, and greater protections from logging, especially post-disturbance logging within late-successional reserves.

Research on Effects of Logging on Owl Populations

The scientific societies are urging the agency to develop an Environmental Impact Statement on the effects of thinning and ecoforestry on Northern Spotted Owl populations. To date the agency has no evidence that thinning or ecoforestry benefits owl populations, but we know that many of the projects will, in fact, cause short-term harm.

The need for this type of research was identified by Jack Ward Thomas in the 1990 Interagency Science Report, which also found that logging had not been found to be compatible maintaining suitable owl habitat, and the need for a precautionary approach that requires treatments be proven before broadly implemented.

"We propose a two-part conservation strategy. The first stage, prescribes and implements the steps needed to protect habitat in amounts and distribution that will adequately ensure the owl's long-term survival. The second stage calls for research and monitoring to test the adequacy of the strategy and to seek ways to produce and sustain suitable owl habitat in managed forests. Insights gained in this second stage can be used to alter or replace habitat conservation areas prescribed in the first stage, but only if the modified strategy can be clearly demonstrated to provide adequately for the long-term viability of the owl." (ISC p 2)

"The ability to harvest timber in currently suitable owl habitat and have that habitat remain suitable has not been clearly demonstrated." (ISC p 104)

"Allow silvicultural treatments that have been tested or demonstrated through experimentation to facilitate the development of suitable habitat, such as planting trees." (ISC p 325)

More recently the Forest Service Fifteen Year Monitoring Report on the Northwest Forest Plan states:

"First, there is very little research documenting the effect of wildfire on spotted owls and spotted owl demography. In light of losses of nesting/roosting habitat to wildfires as high as 10 percent in some provinces, we need to understand how fire severity, spatial patterns of wildfire, and fuel reduction management treatments might affect owl habitat use, prey populations, and owl demography. We recommend increased research and monitoring on this subject to better inform managers on how to manage habitat in fire-prone areas."

High Quality Habitat Is Insufficient

The best available science and the continuing decline of Northern Spotted Owl populations indicate that the agency should designate as Critical Habitat and protect all suitable owl habitat, not just high-quality owl habitat. The definition of high quality owl habitat needs to be made more inclusive to ensure sufficient habitat will be conserved to allow for recovery.

In its review of the draft recovery plan The Wildlife Society raised concern about the narrow definition of high quality owl habitat being proposed. The Society notes that the proposed definition is only a subset of suitable habitat. Their analysis then states:

"...by limiting the definition of high quality habitat to a fairly narrow range of habitat conditions, management agencies will be able to justify thinning or commercial harvest in a broad range of naturally regenerated stands. Most of these naturally regenerating stands originated from fire and usually are suitable spotted owl habitat; therefore, they are not likely to be greatly "improved" by management. In western Oregon and Washington such stands are typically comprised of large trees that are 80-160 years old, and include scattered (i.e., residual) old-growth trees that survived wildfires. These stands may not meet the strict definition of high quality habitat, but they are often the best remaining habitat in the heavily harvested or burned landscapes that are managed by the Bureau of Land Management and Forest Service. They often occur in small patches, isolated among large areas of young forest within these disturbed landscapes, and they often serve as nest sites for spotted owls as well as refugia for species such as flying squirrels and tree voles, which are important prey of northern spotted owls. Because of the high timber volume in these stands there is intense pressure to log them. Commercial thinning is often recommended as a prescription to reduce risk of fire or improve forest conditions for owls in these stands, despite the fact that it is usually unclear if thinning will either improve these forests as habitat for owls or accelerate their transition from suitable to high quality habitat.

This uncertainty was one of the reasons that the Northwest Forest Plan included recommendations to restrict thinning in naturally regenerated stands over 80 years old in western Oregon and Washington. This restriction should be retained in the final Critical Habitat Rule.

Under the proposed Rule, it is likely that the issue of whether a particular habitat meets the high quality standard will become an area of ongoing controversy and dispute, and as the TWS analysis indicates, it has the potential to leave unprotected large acreage in the 80-160 year range. These forests are currently protected if they are in late-successional reserves, but if the reserves are eliminated, these areas become subject to logging that will set back the recovery of owl habitat by many decades.

TWS recommended changes to the draft that were not incorporated into the final:

"Therefore, we recommend that the Service use a more inclusive definition of high quality habitat that would encompass a variety of late-successional forest types (i.e. mature and old-growth forests) in which spotted owls nest, roost, and forage. We also recommend that the Service take a more conservative approach and not recommend thinning in naturally regenerated stands over approximately 80 years old, especially when those stands include remnant old-growth trees. These stands will be the spotted owl nesting habitat of the future (if they are not already), and thinning them will most likely represent habitat loss for spotted owls and their prey, both in the near and long term. Such habitat loss will be in conflict with the Service's recovery criteria and delisting objectives as stated in the recovery plan."

Timber Sales Harmful to the Northern Spotted Owl

Forest Service Region 5 and now the BLM with the Pilots are moving forward with the type of active management envisioned in the Final Recovery Plan and Draft Critical Habitat rule. The results are not encouraging. Projects are resulting in take of Northern Spotted Owls, loss of Critical Habitat, controversy, appeals and litigation. There are better policy alternatives.

The Beaverslide Project

The Beaverslide Project on the Six Rivers National Forest proposes to remove and degrade owl habitat claiming it will provide long-term benefits after causing short-term harm. The proposed active management will degrade 850 acres of "low to moderate quality" nesting and roosting habitat, and 2,162 acres of foraging habitat.

The project was approved only several months before the owl Recovery Plan was completed and is being challenged by Conservation Congress and Environmental Protection Information Center who argue that due to new information from the Recovery Plan and other studies, the Fish and Wildlife Service should reinitiate consultation.

The plaintiffs argue that the agency has violated the ESA for failing to consider new information and for failing to use the best available science; violated the National Environmental Policy Act for failing to consider direct, indirect, and cumulative effects for its action the owl, its habitat, and its prey; and that the Forest Service violated the National Forest Management Act by failing to comply with monitoring requirements of the Six Rivers National Forest plan.

The 2011 Recovery Plan requires that "active management" projects explicitly evaluate the short-term effects to Spotted Owls and their prey while considering the long-term benefits of such projects, especially in Spotted Owl core areas. There are significant adverse short-term direct impacts to owls and to the owl's prey from commercial thinning and other management activities (Forsman et al. 2004, Manning et al. 2012). The Forest Service failed to consider these studies in its Biological Assessment because it predated the Recovery Plan.

The 2011 Revised Northern Spotted Owl Recovery Plan states:

"Research directly evaluating spotted owl responses to vegetation management including thinning, fuels reduction, and management intended to restore ecosystem functions is needed to address...whether thinning operations designed to create future spotted owl habitat result in site abandonment during or after the operation and what types of vegetation management operations will spotted owl to persist in existing territories (2011 RP at III-46 to III-47)."

This lack of information should cause the Service to take a precautionary approach, but instead the agency appears to be moving ahead as though those questions have been answered. To date, we see no indication the agency is even attempting to answer these questions and its work on the Beaverslide project shows a remarkable abdication of the agency's responsibility to conserve and recover a threatened species.

In the project area, "twelve of the thirteen Northern Spotted Owl territories are currently below threshold within the 0.7 mile radius and all territories are below threshold within the 1.3 mile radius" below which reproduction is diminished. But, the Service failed to consider the 2011 Recovery Plan's discussion about direct effects of thinning on Northern Spotted Owl's, or several other studies concerning decreased use by Northern Spotted Owl of harvested areas and reduced forage in stands that have been thinned or selectively logged for one to five decades. Without an explicit evaluation of short-term impacts to Northern Spotted Owls, it appears that implementation of the project will likely adversely affect the Northern Spotted Owls in the project area.

In an expert declaration in the case, Dominick DellaSala, chief scientist of the Geos Institute states: "The fact that all of these owl territories are below the Services' thresholds is a significant factor in analyzing potential harm to the resident owls in this area because any further degradation of the owl's structural habitat, or the owl's prey habitat is likely to cause significant short-term adverse effects on the owls, which may disrupt essential behavior patterns, including breeding, feeding, or sheltering...there is no analysis in the Biological Assessment that describes the short-term effects on the spotted owls that reside in the remaining territories...and the Service only presents its conclusions about the long-term habitat needs of the owl. The Service ' fails to ensure that they meet the requirements of the 2011 Recovery Plan that the area, "retain sufficient nesting, roosting, and foraging habitat within the provincial core-use area and within the provincial home range to support, breeding, feeding, and sheltering."

DellaSala also notes the area is already heavily fragmented from past active management and that "any additional fragmentation from road building (even temporary roads) or logging is likely to adversely impact owl occupancy" and could facilitate invasion of the area by Barred Owls.

In addition, the Forest Service failed to take a hard look as required by the National Environmental Policy Act at the short-term effects on the owls and their prey. The agency analysis admits that "timber harvest and associated management activities may have a short-term negative effect on Northern Spotted Owl by modifying suitable owl habitat", but it never provides the necessary "hard look" to determine whether this short-term negative effect could cause additional reductions in "productivity and survivorship" in these below threshold activity centers, and it also failed to discuss the potential adverse indirect effects from the short-term reduction in the owl's prey base.

The Forest Service then makes numerous statements about the project benefits, but never provides any quantifiable or the required detailed hard look to substantiate those conclusions. For example, there is no disclosure that flying squirrels may not again use these areas for 20 years or that Northern Spotted Owls may not again forage in these areas for decades, or that this may lead to a loss of productivity and survivorship. The Forest Service' failure to take a hard look at the direct and indirect impacts of thinning and other management activities on the Northern Spotted Owls and their prey base in already degraded activity centers is unreasonable, arbitrary, capricious, and otherwise in violation of NEPA.

Because the project would reduce the amount of snags in the project area, it is important to look at the effect that would have on species that require snags such as the Western Screech Owl. There is essentially no Western Screech Owl population data for the project or planning area making Forest Service assertions that these species habitats are sufficient impossible to verify. Other species that may be negatively affected by snag removal in the project area include the Red-breasted Sapsucker, White-headed Woodpecker, Downy Woodpecker, Hairy Woodpecker, Brown Creeper, Vaux's Swift, and Flammulated Owl.

Goose Logging Project

Conservation groups have filed a legal challenge against the 2,100 acre Goose timber sale in the Willamette National Forest, Oregon for the potential damage to streams and endangered species habitat it may cause if carried out unchanged. The project would remove large mature trees from riparian buffers, adversely modify 454 acres of suitable Northern Spotted Owl habitat, and the agency did not analyze or disclose the impacts the logging will have on competition with Barred Owls.

Rio Climax Timber Sale

Four conservation groups are protesting a BLM Medford District's plan to log trees larger than 30 inches in diameter and construct a new logging road because this will likely to adversely affect habitat of the Northern Spotted Owl.

Kelsey Peak Timber Sale, Six Rivers National Forest

The project proposes 1,521 acres of commercial thinning, 51 acres of late mature forest restoration and another 237 acres of low thinning considered as stand improvement (TSI). There are 13 owl activity centers in the project area. Fuel and thinning treatments within nesting-roosting habitat would amount to 327 and 85 acres respectively, for a total of 412 acres for all action alternatives. (DEIS p. 94) Within Northern Spotted Owl territories, Alternative 2A and 4 would thin 83 acres and Alternative 3 would thin 82 acres of nesting, roosting Northern Spotted Owl habitat that may cause short-term habitat degradation (DEIS 252).

Algoma EIS, Shasta-Trinity National Forest

The project area is in Northern Spotted Owl Critical Habitat and proposes to thin 5,600 acres of mixed conifer in natural stands and plantations, including 930 acres of sanitation treatments and 640 acres in Riparian Reserves, 1,100 acres of natural and activity generated fuels with mechanical and prescribed fire and an additional 200 acres with under burning. Including the future projects in the CHU from Table 14, there will be a 50 percent degradation of Northern Spotted Owl foraging habitat for 30 years, possibly longer. One stated purpose of the project is to produce LSR reserves to serve as habitat for the Northern Spotted Owl, yet the entire project area is in already suitable owl critical habitat. This logic would make sense if the FS were converting unsuitable habitat or plantation habitat to become nesting/foraging habitat. There is no need for forestry "improvements".

Mudflow EIS, Shasta-Trinity National Forest

The agency preferred Alternative 2 proposes 1626 acres of thinning of mixed conifer stands, 594 acres of plantations, 185 acres of ponderosa pine sanitation, 197 acres of regeneration, 189 acres of wet meadow logging, 121 acres of shaded fuel break, 45 acres of black oak restoration. 134 acres of regeneration is proposed for a plan amendment that would reduce the 15% retention guidelines. 88% of the project area is within designated Critical Habitat CA-2 for the Northern Spotted Owl.

Pettijohn HFRA LSR EIS, Shasta-Trinity National Forest

The project is within Clear Creek Late Successional Reserve (LSR) and Critical Northern Spotted Owl Habitat. Silvicultural methods include 802 acres (and 58 acres in Riparian Reserve (RR)) of Tractor thinning from below, 104 acres (and 16 acres in RR) of Cable logging, 153 acres (and 22 acres in RR) of Helicopter logging and 1,995 acres of FMZs that include mastication and hand pile/burn concentrations. The Biological Assessment page 51 for the Pettijohn project determined that the proposed actions “may affect and likely adversely affect the northern spotted owl through the reduction of habitat quality”. Existing NRF habitat would be degraded in about 1,793 acres due to FMZ and thinning prescriptions. Existing foraging habitat would be downgraded to connectivity habitat in about 288 acres due to thinning prescriptions.

Gemmill EIS, Shasta-Trinity National Forest

1,279 acres commercial logging, 10 Northern Spotted Owl Activity Center’s - The project proposes to; commercial thin 1,279 acres of that 300 acres is within Riparian Reserves (RR), 751 acres of mature forests and 528 acres of old-growth forest, thin from below 268 acres to reconstruct a 30 year old ridge top fuel break, 44 acres of plantation thinning, reduce fuels on 27 acres adjacent to private property, reconstruct 23.6 miles of road, construct 0.5 miles of “temporary” road. In LSR and Northern Spotted Owl Critical Habitat.

Petersburg Pines HFRA EA, Klamath National Forest

The project area boundary encompasses 10,380 acres. The proposed action is comprised of five main treatment types comprised of 7,350 acres: Thinning 2,332 acres with variable density thinning followed by fuels reduction activities (935 acres Tractor, 1,147 acres Skyline Yarder and 250 acres Helicopter); prescribed burning on 2,753 acres; fuel reduction activity in shaded fuel breaks on 879 acres; roadside fuels reduction activities on 1,288 acres and fuels reduction activities immediately adjacent to private property on 98 acres. The Proposed Action would “modify” 164 acres of N/R habitat within 1.3 mile home ranges and 755 acres of F habitat. Within Northern Spotted Owl 1.3 mile home ranges the Proposed Action may downgrade or remove approximately 79 acres of N/R habitat and 80 acres of forage habitat. Within Core Areas 17 acres of N/R and 45 acres of F would be modified.

Alternative 3 would modify 141 acres of N/R habitat and 834 acres of forage habitat. Understory burning and Fuel breaks could be detrimental to Northern Spotted Owl habitat and have the potential to downgrade and remove habitat within the project area by removing or reducing the suitable habitat characteristics within units. Shaded fuel breaks could be detrimental to Northern Spotted Owl habitat by reducing the amount and/or types of snags, CWD, understory vegetation and prey. Combined treatments within 1.3-mile Northern Spotted Owl home ranges would modify 560 acres of N/R and 1247 acres of foraging habitat. The Proposed Action would remove/downgrade N/R habitat within home range for a reproductive pair.

Smokey HFRA, Mendocino National Forest

Approximately 80% of the project area is within the Buttermilk Late Successional Reserve (LSR). 933 of commercial “thinning” is proposed within 737 acres in LSR and 196 acres in the Matrix land allocation. Mechanical fuels treatments are proposed on 637 acres, prescribed fire on 2689 acres, pre-commercial thinning on 400 acres, understory thinning and meadow enhancement on 1763 acres.

What is Wrong with Secretarial Pilot Projects in Moist Forests

Secretary of the Interior Ken Salazar has initiated a series of Pilot Projects on lands managed by the Bureau of Land Management that seek to test new ideas in ecoforestry. Two moist forest Pilot Projects are being implemented to test the theories of Drs. Norm Johnson and Jerry Franklin using regeneration harvest to produce high-quality early-seral forests. These are the Roseburg BLM Pilot and the Coos Bay BLM Pilot.

After tracking the BLM's two moist forest pilot projects, Cascadia Wildlands, a partner of American Bird Conservancy has identified significant problems, detailed in full in the appendix.

In our view, these moist forests are already providing Spotted Owl habitat and therefore should be retained. We encourage the BLM to discontinue implementation this type of harvest, especially in the new proposed Resource Management Plans. In addition, the Coos Bay BLM Pilot proposes to log over 900 healthy, rare, Port Orford Cedars and jeopardizes hundreds more that are retained, even old-growth trees.

The BLM has argued there is a need to break through "gridlock", implying that environmentalists have stopped all logging. This is not true. The Coos Bay BLM has been selling 150% of their target volume over the past five years with virtually no controversy. Roseburg BLM has been close to their target volume. There is no gridlock in our forests, and there are better ways to promote high-quality early-seral habitat, such as not salvage logging after a natural disturbance.

Lack of Service Oversight Allowing Owl Take on Private and State Lands

The U.S. Fish and Wildlife Service needs to do more to enforce the ESA against take of the Northern Spotted Owl on private lands. When asked about this at a public open house concerning the draft Critical Habitat rule, Oregon State Director Paul Henson stated that the agency had tried to enforce ESA Section 9 against Boise Cascade in one case twenty years ago and was ruled against by the court, and therefore would not make another Section 9 enforcement attempt for take on private lands. We like to see federal agencies doing everything it can to conserve the rapidly declining owl.

During the last administration, a Service program to review California timber sale plans and provide technical assistance to landowners was discontinued. As a result, these sales, that were formerly were often modified to mitigate the most likely harm to owl or owl habitat, are now proceeding unchanged.

The Environmental Protection Information Center has been compiling owl take information gathered by analyzing Timber Harvest Plans of Sierra Pacific Industries, Inc. whose actions, including logging, road building and other disturbance in northern California that result in significant habitat degradation and destruction that is likely to actually kill and injure Northern Spotted Owls. Sierra Pacific's actions result in unlawful take of Northern Spotted Owl by significantly impairing the essential behavior patterns of nesting, roosting, and foraging in violation of Section 9(a) of the ESA.

A review of seventeen Timber Harvest Plans with at least one Northern Spotted Owl activity center in or near the THP boundary. In total these will destroy over 1,000 acres of nesting/roosting habitat, and over 3,500 acres of foraging habitat. This constitutes illegal take under the ESA. Additional habitat will be destroyed by Sierra Pacific in areas where occupancy and use by the Northern Spotted Owl is unknown, and because the company does not share all information about Northern Spotted Owl on its property, additional take can be assumed.

Sierra Pacific currently lacks an HCP for management of their lands. Conservations groups are requesting the company halt logging or disturbance of owl habitat and immediately begin working with the Service to develop an HCP. We further urge the Service to renew the program of review timber harvest plans in California.

Regarding management of state lands in Washington State, the Society for Conservation Biology review of the draft owl Recovery Plan states: "One reviewer who is familiar with the actions of state agencies in Washington suggests that the regulations seem designed to facilitate continued declines in, rather than recovery of, Northern Spotted Owl populations."

Benefits of the Northwest Forest Plan

The Northwest Forest Plan is a significant environmental achievement of the Clinton Administration that should be built upon and extended by the Obama Administration. We believe this would be the best policy from a forest and wildlife management perspective. It is also the only mechanism available to provide legal certainty and ensure that an adequate regulatory mechanism remains in place to conserve and recover wide-ranging threatened species in the region.

What follows are a series of summaries and excerpts from Northwest Forest Plan documents detailing the management philosophy, standards and guidelines, and results.

The Forest Service Ten Year Review of the Northwest Forest Plan found that, overall, the Plan's conservation strategy and reserve network appear to be working as designed. The total area of medium and large older forests on federal lands in the Plan increased by more than 1 million acres during the ten-year period, almost double the anticipated amount. The Plan's outcomes for Spotted Owls were expected to take at least a century. Spotted Owl population declines were expected for the first 40 to 50 years under the Plan, with owl populations stabilizing in the mid-21st Century and possibly increasing after that as owl habitat recovery exceeded loss.

FEMAT: Report of the Forest Ecosystem Management Assessment Team

Option 9: thinnings are allowed in any stand regardless of origin up to 80 years; salvage of areas larger than ten acres where trees have been killed by catastrophic events.

The requirements for the Matrix under Option 9 vary by area:

For most National Forests in Washington, Oregon, and California, 15 percent of trees would be retained following harvest; half of that volume would be left in small intact patches of late-successional forest and the rest dispersed throughout the harvest unit.

For National Forests in the Oregon Coast Range, and the Olympic and Mt. Baker-Snoqualmie National Forests, retention requirements would be reduced because of the extent of Riparian Reserves and Marbled Murrelet protection in those areas.

For Bureau of Land Management districts in Oregon, retention varies from 6 to 25 large green trees per acre depending on location, with 150-year rotations prescribed for some areas.

* For federal forests in northern California, long rotations are prescribed for conifer and mixed conifer/hardwood (180 years) and hardwood (100 years) forests.

Five options (1, 3, 4, 5, and 9) specifically require protection of specified rare and locally endemic species associated with late-successional forests within the Matrix. All options except 7 and 8 require surveys and protection of occupied marbled murrelet nesting sites. Other protective measures may be added to provide for at-risk species under each option.

Late-Successional Reserves

Under Option 9, Late-Successional Reserves are based on boundaries that represent an Integration of previous efforts (Johnson et al. 1991; USDI 1992c). They incorporate some portion of the reserves from each of those previous efforts and include new areas designated to protect Key Watersheds. Thinning or silvicultural treatments inside Reserves require review by an interagency oversight team to ensure that they are beneficial to the creation of late-successional forest conditions. Activities that would be permitted in the western and eastern portions of the range are described separately below. Salvage of dead trees would be based on guidelines adapted from the Final Draft Recovery Plan for the Northern Spotted Owl (USDI 1992c) and would be limited to areas where catastrophic loss exceeded ten acres.

West of the Cascades

There is no entry allowed in stands older than 80 years of age. Thinnings (pre-commercial and commercial) may occur in stands up to 80 years of age regardless of the origin of the stands (plantations planted after logging or stands naturally regenerated after fire or blow down). The purpose of these silvicultural treatments is to be neutral or beneficial to the creation and maintenance of late-successional forest conditions.

East of the Cascades and the eastern portion of the Klamath Province

Given the increased risk of fire in these areas due to more xeric conditions and the rapid accumulation of fuels as the aftermath of insect outbreaks and drought, there are additional management activities allowed in late-successional reserves. Guidelines to reduce risks to large-scale disturbance are adapted from the Final Draft Recovery Plan for the Northern Spotted Owl (USDI 1992c). These guidelines can be found at the end of the chapter.

Northwest Forest Plan Record of Decision & Standards and Guidelines

Late-successional reserves: Late-successional reserves are to be managed to protect and enhance old-growth forest conditions. For each late-successional reserve (or group of small reserves), managers should prepare an assessment of existing conditions and appropriate activities. No programmed timber harvest is allowed inside the reserves. However, thinning or other silvicultural treatments inside these reserves may occur in stands up to 80 years of age if the treatments are beneficial to the creation and maintenance of late-successional forest conditions.

In the reserves east of the Cascades and in Oregon and California Klamath Provinces, additional management activities are allowed to reduce risks of large-scale disturbance. Salvage guidelines are intended to prevent negative effects on late-successional habitat. Non-silvicultural activities within late-successional reserves are allowed where such activities are neutral or beneficial to the creation and maintenance of late-successional habitat. Thinning or other silvicultural activities must be reviewed by the Regional Ecosystem Office and the Regional Interagency Executive Committee.

Alternative 9, like all of the other action alternatives, applies the same criteria for management of habitat on both Forest Service and BLM lands. This was done in order to accomplish most efficiently the

dual objectives discussed above -- that is, achieving the biological results required by law, while minimizing adverse impact on timber harvests and jobs. The inefficiencies involved in applying different criteria on Forest Service and BLM land have been noted in previous analyses. For example, in the Report of the Scientific Analysis Team ("SAT Report"), the team found that BLM's plans were relatively high-risk, when compared to the plans of the Forest Service, in terms of conserving the northern spotted owl. As a result, the SAT found that in order for the Forest Service to "make up for significantly increased risks," it would have to dramatically increase the size of protected areas on Forest Service land (SAT Report, pp. 12-13).

In addition, Alternative 9 offers one advantage that the other alternatives do not — its inclusion of adaptive management areas. Adaptive management involves experimentation, identifying new information, evaluating it, accounting for it in discretionary decisions, and determining whether to adjust plan direction. The object is to improve the implementation and achieve the goals of the selected alternative. Each of the alternatives incorporates the principles of adaptive management to some extent, but Alternative 9 is the only one that specifically allocates ten adaptive management areas, which may be used to develop and test new management approaches to achieve the desired ecological, economic, and other social objectives.

These AMAs offer the opportunity for creative, voluntary participation in forest management activities by willing participants. We recognize that this will take time, effort, and a good-faith commitment to the goal of improved forest management. Many of the potentially participating communities and agencies have different capabilities for joining this effort. Our approach to implementing this initiative will recognize and reflect these differences as we seek to encourage and support the broadest possible participation. Moreover, Alternative 9 allows silvicultural activities, such as thinning young monoculture stands, in late-successional reserves when those activities will enhance late-successional conditions.

Forest Service Ten Year Review (2003)

Overall, the Plan's conservation strategy and reserve network appear to be working as designed.

- The total area of medium and large older forests on federal lands in the Plan area gained more than 1 million acres during the ten-year period, almost double the anticipated amount.
- Spotted Owl populations declined about 7.5 percent per year across their northern range and 2 percent per year across their southern range. Declines may have resulted from habitat loss, Barred Owls, and other factors.
- The loss of habitat was less than expected, as less timber was harvested and less habitat was lost to wildfire than expected.

The Plan's outcomes for Spotted Owls were expected to take at least a century. Spotted Owl population declines were expected for the first 40 to 50 years under the Plan, with owl populations stabilizing in the mid-21st Century and possibly increasing after that as owl habitat recovery exceeded loss.

Forest Service Fifteen Year Review (2008)

The NWFP projected that over a time horizon of ten decades, LSOG forest could be restored and maintained at desired levels. In this second monitoring cycle....these analyses indicate a NWFP-wide

decline in federal LSOG slightly less than what was anticipated (FEMAT 1993); however, losses in some provinces (e.g. Oregon Klamath) were higher than the projected 2.5 percent decadal rate of loss. Helping to offset these losses is the potential for future recruitment in the next few decades (fig. 1-7). Furthermore, the results support assumptions made in the NWFP that the primary role in maintaining or restoring LSOG and related habitats would fall to federal lands. Specifically, federal lands contain less than half of the total forest land, but the federal share of total LSOG increased from 65 to 67 percent over the monitoring period. Harvesting removed about 13 percent (approximately 491,000 ac) of LSOG on nonfederal lands. Loss of LSOG on federal land due to harvest was less than 0.5 percent (approximately 32,100 ac).

The study found that: "...the current analysis of habitat within and around the large reserve network validates the assumption that the repetitive design of large reserves can absorb losses without resulting in isolation of population segments. Not enough time has passed for us to accurately detect or estimate significant recruitment of nesting/roosting habitat, however increases were observed in "marginal" younger forests indicating that future recruitment of nesting/roosting habitat will occur as anticipated, within the next few decades."

The most recent estimate for Northern Spotted Owl population trends on federally administered lands is a 2.8 percent annual rate of decline, which is slightly lower than the 2.9 percent estimated by Forsman et al. (2011), which included two additional nonfederal study areas not managed under the NWFP. The rate of decline is highest in the northern portion of the range (Washington), where populations are estimated to have declined 40 to 60 percent since 1994. Populations remain stationary in the central portion of the owl's range, located in southwestern Oregon (fig. 2-4).

Marbled Murrelet Findings in 15-Year Report

Declining murrelet population trends and habitat losses underscore the need to minimize the loss of suitable habitat, especially in the relatively near term (next 40 to 50 years at least), until re-growing forests develop the structure needed for marbled murrelet nesting. The observed population decline, about four percent per year at the NWFP-area scale, was not unexpected, as population demographic models have predicted murrelet populations to be declining south of Canada in the range of three to seven percent per year (McShane et al. 2004, USFWS 1997).

In light of the observed population declines and habitat losses, continued management of federal NWFP lands to conserve existing potential nesting habitat and to promote development of new nesting habitat is essential. It is not clear what other actions could be taken on federal lands to help reverse the population decline. Management to reduce risk of losses to fire would be important if done so that the management action has minimal impact to nesting habitat. The possible causes of observed population decline will require further study, and likely involve several interacting factors. Timber harvest of higher suitability habitat on nonfederal lands is one factor that may contribute to these declines.

Watershed Condition Status and Trend 15-Year Report

A Forest Service analysis of watershed condition released in Feb. 2012 finds that the Northwest Forest Plan is working well to recover impaired watersheds across the region. Watershed Condition Status and Trend (Lanigan et al 2012) published by the Pacific Northwest Research Station analyzed data from 1994-2008, the first fifteen years of the Northwest Forest Plan and found that 69% of the watersheds in the NWFP area had a positive change in condition as a result of road decommissioning and vegetation

growth. The report summary notes: "Watershed condition was most positive for congressionally reserved lands, followed by late-successional reserves, and then matrix lands."

Northern Spotted Owl Critical Habitat Rule

After the Bush Administration's owl Critical Habitat rule and Recovery Plans were remanded by a federal court in 2010, new plans were initiated with a court-ordered Nov. 15, 2012 deadline for the Critical Habitat designation. The best science indicates any final critical habitat designation and management recommendations should exceed the protections of the Northwest Forest Plan, not minimize or ignore them.

It is vitally important to note that this Critical Habitat designation will guide future management changes in the region. Following publication of the final rule, the land management agencies have indicated that forest and land management plans will be amended to conform to the Critical Habitat rule across the owl's range. Based on the available information, we must assume the elimination of late-successional reserves is a potential application of this Critical Habitat rule and therefore the effects of eliminating the reserves should be fully analyzed by both the rule and companion economic analysis and environmental assessment. And, because this analysis is notably absent, the public is currently unable to determine the full consequences of the pending rule. Redoing the analysis at this point is impossible given the court-ordered deadline.

We therefore urge the agency to make abundantly clear to the public and to the land managing agencies that elimination of the reserves is not an application of, or a recommendation of this rule.

The rule as drafted endorses a significant departure from the standards and guidelines of the Northwest Forest Plan by promoting active management in owl habitat, potentially weakens habitat protection for the threatened owl further by endorsing elimination of late-successional reserves, neither of which reflect the best available science.

The final Critical Habitat rule should instead provide for additional habitat protection needed to reverse the owl's decline and allow for its eventual recovery. Given past mismanagement, continuing pressure to utilize these forests to meet economic needs and to pay for local government services, and the influx of the Barred Owl, it is essential that firm protections, such as the system of late-successional reserves provided by the Northwest Forest Plan remain in place and that suitable owl habitat be preserved, not subjected to logging.

The Draft Critical Habitat Rule Undermines the Northwest Forest Plan

The draft critical habitat rule notes that the Northwest Forest Plan "...has been successful in the conservation and recruitment of late-successional forest and associated species on Federal lands (Thomas et al. 2006. P. 283) (p.52), but then proceeds to recommend its dismantling based on three main justifications, that commercial timber harvest from matrix lands was insufficient, the lack of active restoration in areas that may contain "uncharacteristically high risk of severe fire," and the a lack of early-seral habitats in moist forests. A careful review of these claims reveals that none of them hold up to scrutiny.

It should be noted the Service appears to be biased against the Northwest Forest Plan by ignoring information and studies in the scientific literature Courtney et al. (2004), Lint (2004), DellaSala and

Williams (2006) that demonstrate the importance of reserves and others that show the effectiveness of the overall strategy such as the Forest Service' fifteen year reviews mentioned above. Most recently 229 scientists sent a letter to President Barack Obama urging the preservation of the reserve system created by the Northwest Forest Plan. The letter is included in the appendix. This appearance of bias is of particular concern because that was one aspect of the political interference undermining the 2008 Critical Habitat Rule and Recovery Plan due to demands by Bush administration officials to ignore the requirements of the Northwest Forest Plan.

The Service on page 53-54 of the draft rule sites and appears to be agreeing with Thomas et al concerning improvements to the Northwest Forest Plan. Missing from the list however, was any mention of maintenance of large blocks of habitat necessary for the owl survival and recovery.

The bias against the late-successional reserves is heard once again on page 54 where it repeats that "Critical Habitat for the northern spotted owl is not intended to be a "hands off" reserve in the traditional sense. Rather, it should be a hands-on ecosystem management landscape that should include a mix of active and passive actions to meet a variety of conservation goals that support long-term spotted owl conservation."

However, on page 131 the draft contradictorily advises "(3) Continue to manage for large, continuous blocks of late-successional forest."

And on page 274 directs for the East Cascades "In the interim, management actions are needed to protect current habitat, especially where it occurs in large blocks on areas areas of the landscape where it is more likely to be resistant or resilient to fires and other disturbance events."

There is no indication how these requirements are to be accomplished under a reserve-less system. And nowhere is there any analysis showing that a reserve-less strategy allowing logging in owl habitat is going to be better for Northern Spotted Owl populations than the current system of protected reserves.

Timber Analysis: Agencies Meeting 96% of Funded Volume Target Since 2003

Timber sale data undermines the idea that the Northwest Forest Plan is not producing a stable flow of timber. The final Northwest Forest Plan was a political compromise that under-delivered on old-growth protection by placing 42% of the remaining acres in the matrix, and overpromised on timber volume. The plan's billion board foot estimate was never realistic because it is predicated on logging old-growth, which is not supported by the public and that in practical terms has generally been ruled in violation of wildlife protection laws. The estimate was also completed prior to the designation of the riparian reserve network which turned out larger than anticipated. The Bush Administration recognized these factors to a degree, and lowered the allowable sale quantify to 800 million board feet.

A look at timber sale output in the Northwest Forest Plan region reveals the agency is at a sustainable level and meeting the volume targets budgeted by Congress; see Forest Service and BLM Offered under the Northwest Forest Plan included in the appendix. Since 2003, the budget approved by Congress and the Administration has called for 4,668 million board feet from the Northwest Forest Plan area. The agencies have offered 4,507 board feet, or 96% of the planned budget.

In addition, exports from the region are skyrocketing. In 2010 over 2 billion board feet of logs and lumber were exported from the West Coast. In 2011 it topped 3 billion. There is no shortage of logging in the Pacific Northwest.

The Probable Sale Quantity (PSQ) needs to be recalculated to offer a realistic assessment based on conservation needs. Here are some factors to consider:

Clearcutting and regeneration harvest are socially and scientifically unacceptable because removing the majority of the structure harms water quality and does not mimic natural processes. By increasing forest fragmentation it is particularly harmful to the threatened Northern Spotted Owl and Marbled Murrelet. The need to increase protection Northern Spotted Owls and meet Recovery Action 32 to protect all suitable nesting, roosting, foraging habitat indicates that all suitable nesting, roosting and foraging habitat should be removed from the timber base. Similarly, the need to protect Marbled Murrelet habitat, including both occupied stands, and mature forest to be recruited as high quality nesting habitat indicates that all the mature forests within the range of the marbled murrelet should be removed from the timber base.

The PSQ needs to be recalculated to mitigate for the increasing intensity of management on non-federal lands as a result of the current boom in raw log exports. Harvest rotations are getting shorter and ecological and watershed values are declining and habitat for the Northern Spotted Owl and Marbled Murrelet continue to be lost, so management of federal forest lands must be adjusted to compensate. In addition, the Rule and accompanying Economic Analysis and Environmental Assessment fail to analyze a range of management options that could meet the objective of ecological restoration and forest resilience while also minimizing harm to the Northern Spotted Owl. For example, conservation groups have released a report Ecologically Appropriate Restoration Thinning in the Northwest Forest Plan Area identifying twenty-years of non-controversial thinning projects in Oregon and Washington that do not rely on removing owl habitat. We urge the Service consider this option as opposed to allowing regeneration of mature forests that are already providing suitable Northern Spotted Owl habitat.

Economic Analysis of the Draft Critical Habitat Designation

The Draft Economic Analysis has substantial flaws and fails to provide the Secretary with a sound basis for determining if the economic benefits of excluding any area from the Critical Habitat designation outweigh the economic benefits of including it. Instead, it provides a poorly informed, incomplete, and biased description of these benefits. Consequently, the Draft Analysis does not provide a reasonable basis for any determination by the Secretary to exclude any area from the final designation.

The Draft Analysis narrowly focuses on how the designation of critical habitat would affect the timber industry, disregarding its other effects on the economy. Extensive evidence confirms that timber constitutes a small percentage of the total value of goods and services provided by forests in this region. With its limited focus and pro-timber bias, the Draft Analysis cannot provide the Secretary with a solid foundation for weighing the full economic benefits of designating lands against the full economic benefits of excluding them.

The Draft Analysis misconstrues the designation's timber-related benefits. The Draft Analysis measures the benefits of increased timber production with one eye closed, looking only at the market value of the additional logs and ignoring the costs of producing them.

The Draft Analysis fails to comply with the requirements of Executive Order 12866. This executive order requires the Secretary, before adopting a final rule to designate critical habitat for the Northern Spotted Owl to describe for the public and base his decision on “the best reasonably available...economic...information concerning the need for and consequences of the intended regulation.” The Draft Analysis overlooks far too much of the best, readily available economic information to provide a full picture of the economic consequences of excluding areas from the designation. This conclusion is reinforced by comparing the Draft Analysis against the requirements of OMB Circular A-4, which provides guidance for complying with Executive Order 12866.

This guidance requires the Secretary to “consider any important ancillary benefits and countervailing risks” before making any decision to exclude areas from the designation, using “the same standards of information and analysis quality that apply to” the analysis of timber-related impacts. In stark contrast, The Draft Analysis arbitrarily focuses on how the designation (or exclusion) of different areas would affect timber production, and applying dramatically different standards of information and analysis to describe the other important ancillary benefits of designation. Thus, the Secretary would violate Executive Order 12866 if he were to rely on the Draft Analysis as the basis for a decision to exclude any area from the designation.

These are the findings of Dr. Ernie Niemi who has drafted “Comments on the Draft Economic Analysis of Critical Habitat Designation for the Northern Spotted Owl.” These comments are included in the appendix.

Active Management in Critical Habitat

The draft Critical Habitat rule includes extensive language supporting active management in all areas of owl Critical Habitat, including regeneration harvest in moist Westside forests. The draft goes so far as to suggest that forest management goals can take precedence over owl conservation, and that the conservation of this endangered species must be “compatible with broader landscape management goals”:

We strongly encourage the application of ecosystem management principles and active forest management to ensure the long-term conservation of the Northern Spotted Owl and its habitat, as well as other species dependent on these shared ecosystems. (p. 13)

In conclusion, the designation and management of critical habitat for the spotted owl must be compatible with these broader landscape management goals if it is to conserve the spotted owl as required by the Act. It is therefore important to emphasize that spotted owl critical habitat should not be a “hands off” reserve in the traditional sense. Rather, it should be a “hands on” ecosystem management landscape that should include a mix of active and passive actions to meet a variety of forest conservation goals that support long-term spotted owl conservation. It would be inconsistent with the stated purposes of the Act, the Revised Recovery Plan (USFWS 2011), and the goals of the Northwest Forest Plan (NWFP) if spotted owl critical habitat was narrowly managed and, in so doing, discouraged land managers from implementing scientifically justified measures for conserving forest ecosystem functions and health.(p.15)

Likewise, in moist and some mixed forests, management of spotted owl critical habitat should be compatible with broader ecological goals, such as the retention of high-quality older forest, the

continued treatment of young or homogenous forest plantations, and the conservation or restoration of complex early seral forest habitat (Spies et al. 2007b, pp. 57–63; Betts et al. 2010, pp. 2117, 2126–2127; Swanson et al. 2010, entire). In general, actions that promote ecological restoration and those that apply ecological forestry principles as described in the Revised Recovery Plan (USFWS 2011, pp. III-11 to III-41) are likely to be consistent with the conservation of the Northern Spotted Owl and the management of its critical habitat.

Recommendation for moist Westside forests:

“Regeneration harvest, if carried out, should consider ecological forestry principles.” (p.131)

For example, some restoration treatments may have an immediate neutral or beneficial effect on existing Northern Spotted Owl habitat (e.g., roads management, some prescribed fire prescriptions). Other treatments, however, may involve reductions in stand densities, canopy closure, or ladder fuels (understory vegetation that has the potential to carry up into a crown fire)—and thus affect the physical or biological features needed by the species. At the stand scale, this can result in a level of conflict between conserving existing Northern Spotted Owl habitat and restoring dry-forest ecosystems. We typically cannot expect to meet both objectives on the same acre if that acre currently functions as suitable Northern Spotted Owl habitat. We can reconcile this conflict, however, by managing at the landscape scale.

This approach has raised the concern of Society for Conservation Biology, The Wildlife Society, and American Ornithologists’ Union who wrote:

“These proposed policy changes have the potential to adversely impact federal lands in the Pacific Northwest to the detriment of spotted owls and other federally threatened and endangered species....we are especially concerned about the potential habitat impacts of adopting untested “active management” forestry technique.”

The groups are asking the Department of the Interior to prepare an Environmental Impact Statement to prepare a scientific approach to test active management forestry’s impact on spotted owl prior to being used at a commercial or landscape scale. We agree with this assessment and urge an end to owl take until the agency can offer an analysis showing what the acceptable limits to owl take and habitat loss are while still providing a high degree of certainty of owl recovery.

Adverse Modification of Habitat

The draft Critical Habitat rule further states that if projects have considered ecological forestry principles, that in general these activities would not be considered adverse modification of owl habitat by the Service. As a result of this provision, the normal protections provided by critical habitat to prevent adverse modification may not apply at the discretion of the Service.

In general, silviculture prescriptions that apply ecological forestry principles to address the conservation of broader ecological processes are compatible with maintaining the proposed critical habitat’s essential features in the long term (USFWS 2011, p. III-14). (p. 14)

We would anticipate that in most cases, restoration and thinning actions (see Special Management Actions and Considerations) at or below this size (500 acres) will likely not adversely affect a given

critical habitat subunit; however, such a determination would have to be made on a case-by-case basis, after careful consideration of the specific conditions of the proposed action.

The Service should evaluate adverse modification at the appropriate scale of individual owl home ranges as geographically defined for each proposed project action, particularly active management; determine jeopardy at the scale of the subunit (approximately 100,000 acres), and cumulative effects need to be evaluated to avoid a level of excessive loss that is currently not quantified.

The 1993 Report of the Scientific Analysis Team (SAT) ironically, already thoroughly reviewed the risks associated with logging in suitable owl habitat, and concluded “intentions to selectively cut forest stands to create conditions favorable for spotted owls, represents increased risks to the viability of the spotted owl (SAT p. 145).”

The issue of short-term losses versus long-term habitat gains was also analyzed and the scientists concluded “that the short-term effect of these actions on habitat loss may be much more significant than the long-term predicted habitat gains.”

The Scientific Analysis Team report said:

“Lacking experience with selective cutting designed to create spotted owl habitat, such practices must be considered as untested hypotheses requiring testing to determine their likelihood of success. ... Given the uncertainty of achieving such expectations, it is likely that some silvicultural treatments, which have been characterized as largely experimental, may well have an opposite effect from that expected. Consequently, such treatments may hinder the development of suitable habitat or they may only partially succeed, resulting in development of marginal habitat that may not fully provide for the needs of spotted owls. Results which fall short of the expected conditions could occur because of delay or failure to regenerate stands that have been cut, increased levels of wind throw of remaining trees, mechanical damage during logging to trees remaining in the logging unit, the spread of root rot and other diseases. Increased risk of wildfires associated with logging operations that increase fuels and usually employ broadcast burning to reduce the fuels also increase the risk of not attaining expected results. Such events may spread to areas adjacent to stands that are logged, thereby affecting even more acreage than those acres directly treated.” [SAT p 147-148]

“The combined risks associated with treatment of spotted owl habitat or stands expected to develop into suitable habitat for spotted owls, as discussed above, will likely result in situations where either habitat development is inhibited or only marginal habitat for spotted owls is developed. The exact frequency of these partial successes or failures is unknown. Given the likely cumulative relationship among the risks for each factor, it appears to us that the overall risk of not meeting habitat objectives is high. ... Members of the Interagency Scientific Committee indicated that, because a plan (the Interagency Scientific Committee’s Strategy) was put forth which proposes to reduce the population of a threatened species by as much as 50 percent, providing the survivors with only marginal habitat would be extremely risky and certainly in their minds not ‘scientifically credible’ (USDA 1991:45).” [SAT p 151].

“The transition period (1-50 years) between implementation of the Interagency Scientific Committee’s Strategy and achievement of an equilibrium of habitat and spotted owls is a critical consideration. ... Given the existing risks that face owl populations and the sensitivity of the transition period, the short-term effect of these actions on habitat loss may be much more significant than the long-term predicted habitat gains. We further conclude that, although research and monitoring studies are presently being initiated, no significant new data exist which suggest that the degree of certainty that is expressed in the

Bureau of Land Management Draft Resource Management Plans for developing owl habitat silvicultural treatments is justified. Therefore, it is our opinion that the course prescribed in the Interagency Scientific Committee's Strategy, pertaining to timber harvest in Habitat Conservation Areas, remains the most likely course to result in superior habitat conditions within reserves (i.e., Old-Growth Emphasis Areas). The approach prescribed by the Interagency Scientific Committee's Strategy preserves options for adjustments in the course of management under a philosophy of adaptive management." [SAT p 151-152].

According to forest policy expert Doug Heiken of Oregon Wild, "The SAT indicates that these comments apply equally to density management and patch cutting, both of which are being promoted as tools to enhance owl habitat. The SAT also cited concerns about the effect of logging on snags and down woody debris which are essential features of owl habitat. The authors of the Northwest Forest Plan took all this into account and determined that 80 years is a useful place to draw the line between younger forests that are likely to benefit from careful thinning and older forests that are likely to experience net negative consequences. There is no new science to change that conclusion." ABC urges the Service to not allow for adverse modification of Northern Spotted Owl Habitat by active management or ecoforestry in stands greater than 80 years.

Lack of Scientific Evidence for Active Management

While early-seral habitats are desirable for some species, logging is not the best means to establish early-seral habitat within the range of the Northern Spotted Owl. We recommend that agency utilize natural disturbances and refrain from post-fire logging which has the potential to create abundant high-quality early-successional habitats.

In the draft Rule land managers are encouraged to develop early seral habitat to benefit a variety species but no evidence is presented showing the Northern Spotted Owl benefits from the creation of early seral habitat, nor is there analysis showing what potential harm may come to the threatened species if various levels of direct take and habitat loss or degradation were to occur.

The draft Environmental Assessment identified two endangered species, Fender's blue butterfly and Oregon silverspot butterfly whose open, early seral habitat such as grasslands, meadows, oak woodlands, or aspen woodlands may conflict with Northern Spotted Owl management intended to

maintain closed canopy forests (p. 52). But the assessment notes that listed plant and butterfly species and their closely associated open habitats are explicitly not included in the proposed critical habitat revision (p.50). The Service concludes on page 62: “that designation of critical habitat for the Northern Spotted Owl in this alternative would have a neutral effect on those species associated with open, early seral habitats.”

We see no justification to convert nesting, roosting, and foraging habitat of the Northern Spotted Owl to early-seral. Under the Northwest Forest Plan restoration of owl habitat, when it occurs, should hasten creation of owl habitat, not set it back by many decades. This provision is unrelated to owl recovery or sound forest management and should be removed from the final designation.

Other listed species may also be harmed by the proposed active management such as the Marbled Murrelet. The draft Environmental Assessment found that “Active forest management that is in the vicinity of murrelet nesting stands may be detrimental to the species survival and recovery.” (p. 61) This results from increased fragmentation and opening the forests to crows, ravens, and jays, increasing predation pressure on nesting murrelets. Despite this, there is no prohibition in the draft Rule on the proposed active management to ensure murrelet nesting stands will not be disturbed.

The draft Rule on page 8 on the other hand states: “Consistent with the best available science and the adaptive management principles outlined in the Revised Recovery Plan for the Northern Spotted Owl, we strongly encourage the application of ecosystem management principles and active forest management to ensure the long-term conservation of the northern spotted owl and its habitat, as well as other species dependent on these shared ecosystems.”

In reality, active management, if conducted near nesting murrelets would be harmful. There is also indications the prey base of the Northern Spotted Owl could also be harmed by active management including thinning, but these factors appear to be glossed over by the draft Rule. And unlike the Northwest Forest Plan, there is no detailed analysis how other listed species will fair under the active management being proposed by the draft Rule.

Studies by Hanson (2009 and 2010) and Miller (2012) have found that dry forests on the Eastside and in Northern California have not seen an increase in severe, high-intensity fires. Most of the acreage burned has been low to moderate severity with generally beneficial ecological effects. The risk of fire to owls also appears to be exaggerated in the final Owl Recovery Plan and draft Critical Habitat rule.

The agency recommends conserving old-growth trees and forests on wherever they are found, including in the matrix lands. This is the most positive development stemming from the final Recovery Plan and draft Critical Habitat rule.

The Rule recommends that for the moist forests in the West Cascades/Coast Ranges of Oregon and Washington “...to conserve stands that support northern spotted owl occupancy or contain high-value northern spotted owl habitat (USFWS 2011, p. III-17). Silvicultural treatments are generally not needed to accomplish this goal.”

However despite this clear statement that active management is not needed in these moist forests, the Draft recommends “dynamic management” in threatened forest types that conserves all stages of forest development where tradeoffs between short-term and long-term risks are better balanced, and

recognize the Northwest Forest Plan is now an integrated conservation strategy that contributes to all components of sustainability.

In plain language that says the Service is approving a more discretionary management approach that reduces protections to increase the amount of logging in owl habitat.

Presidential Memorandum

President Barack Obama issued a memorandum to Secretary of the Interior Ken Salazar stating that logging should be allowed and considered an acceptable practice in Northern Spotted Owl Critical Habitat. The memo is of great concern because it is not based on the best available science and makes exaggerated claims about the evidence supporting the Service's position. It appears to prejudge the outcome and effects of a federal rulemaking and seek a predetermined outcome before the public had even been given a chance to review or comment on the draft Rule. The text of a portion of the memo signed by President Barack Obama follows:

Importantly, the proposed rule recommends, on the basis of extensive scientific analysis that areas identified as Critical Habitat should be subject to active management, including logging, in order to produce the variety of stands of trees required for healthy forests. The proposal rejects the traditional view that land managers should take a "hands off" approach to forest habitat in order to promote species health; on-going logging activity may be needed to enhance forest resilience. In order to avoid unnecessary costs and burdens and to advance the principles of Executive Order 13563, consistent with the ESA, I hereby direct you to take the following actions:

- (1) publish, within 90 days of the date of this memorandum, a full analysis of the economic impacts of the proposed rule, including job impacts, and make that analysis available for public comment;
- (2) consider excluding private lands and State lands from the final revised critical habitat, consistent with applicable law and science;
- (3) develop clear direction, as part of the final rule, for evaluating logging activity in areas of critical habitat, in accordance with the scientific principles of active forestry management and to the extent permitted by law;
- (4) carefully consider all public comments on the relevant science and economics, including those comments that suggest potential methods for minimizing regulatory burdens;
- (5) give careful consideration to providing the maximum exclusion from the final revised critical habitat, consistent with applicable law and science; and
- (6) to the extent permitted by law, adopt the least burdensome means, including avoidance of unnecessary burdens on States, tribes, localities, and the private sector, of promoting compliance with the ESA, considering the range of innovative ecosystem management tools available to the Department and landowners.

The Society for Conservation Biology, The Wildlife Society, and American Ornithologists' Union raised the same concern about the President's memo stating:

"We are concerned that this memorandum overstates the quality and quantity of scientific research on the potential benefits of active forest management, especially in the Pacific Northwest on a federally threatened species. In particular, we are unaware of any substantial or

significant scientific literature that demonstrates that active forest management enhances the recovery of spotted owls.”

Additional Areas Where Critical Habitat Should Be Designated

ABC believes all occupied and suitable owl habitat should be designated Critical Habitat. Tribal lands important for the recovery of Northern Spotted Owl, such as the 5,400 acre Coquille forest have been excluded. Similarly, portions of the Coos Bay Wagon Road lands and the Cascade-Siskiyou National Monument area in Oregon have also been excluded with little explanation.

We urge the agency to allocate additional critical habitat in prime Northern Spotted Owl habitat adjacent and near to the Monument to include as much dispersal/connectivity habitat as possible. The Monument currently seems to be a functional island of designated Critical Habitat in its surrounding landscape.

Dave Willis, a local conservationist familiar with the area recommends some specific additions we believe beneficial to the Northern Spotted Owl and would urge their inclusion.

“Some of the best canopy in the area is located outside the Monument in and NNW of the Monument’s “missing northwest quadrant” in the western half of T39S, R3E. This forest canopy and Northern Spotted Owl habitat is as good or better quality than anything in the Monument CHU itself north of Highway 66. Yet the document designates only ~200 acres of CHU in the far extreme northwest Section 6 corner of the western half of T39S,R3E. The gap in CHU between northern CSNM CHU in ECS2 and the most southeastern CHU in Klamath East Subunit 5 is quite strange – skipping over and excluding some of the best forest canopy in the region. Likewise, in addition to the gap in CHU designation NNW of the Monument highlighted above, CHU designation on the Monument’s east and west sides are also deficient.

Noting the inadequacy of the Monument’s current boundaries, a group of scientists with much research and on-the-ground experience in the Cascade-Siskiyou National Monument area has recommended expansion of the Monument in exactly this outside-the-current-Monument area between the Green Springs Summit and Grizzly Peak. (See: Frost, Odion, Trail, Williams et al, Interim Report – Cascade-Siskiyou National Monument Boundary Study: Identification of Priority Areas for Monument Expansion, April 2011.) Rather than aid this needed biological bolstering outside current Monument boundaries, the current lack of CHU designation adjacent and near to the Monument undercuts the considered and informed recommendations of this site-specific scientific report – and degrades the habitat connectivity function of the existing Monument itself by further isolating it.”

Coos Bay Wagon Road Lands

Similarly, here is a concern being raised by Francis Eatherington, a local expert regarding the lack of designation on federal lands with likely merit. We believe these lands should be reviewed and the occupied and suitable Northern Spotted Owl designated as Critical Habitat.

“Many of the sections of Coos Bay Wagon Road (CBWR) lands with mature and old growth forests were left out of proposed Critical Habitat, even though these lands had been designated in 1992. Out of 74,500 acres of Coos Bay Wagon Road in Coos Bay and Roseburg BLM Districts, only about 14,000 acres were proposed for critical habitat. The remaining 60,000 contain areas of significant old growth forests

and mature forests over 120 years old. For instance, section 1, T28, R11, or section 1, T29, R10, or sections 5 and 19, T28, R7.

14,000 acres of critical habitat that was designated was in current LSR in Coos County. However, no CBWR lands in Douglas County were proposed for critical habitat, not even in the LSR or the ACEC lands managed by Roseburg BLM, where significant old growth forest exists.

In Coos County, and on Coos Bay BLM District lands, only some of the existing LSR was proposed a critical habitat. None of the existing matrix was proposed, even though these lands were critical habitat in 1992, and still contains significant stands of mature and old growth forests.”

Exclusions

The draft has identified 13,962,449 acres of potential Critical Habitat, a significant increase in acreage above the 5.3 million acres currently designated. The Administration is recommending that some identified lands be exempted from Critical Habitat designation because they argue the lands are already being conserved or that conservation purposes can better be achieved through exclusion. Here’s a brief summary of the proposed and potential exclusions:

Private lands with conservation agreements such as Habitat Conservation Plans (HCPs), and Safe Harbor agreements are proposed for exclusion	711,803 acres
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State land with conservation agreements are proposed for exclusion	225,013 acres
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State park lands are proposed for exclusion	164,776 acres
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Congressionally reserved natural areas are proposed for exclusion	2,631,736 acres
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Private lands without formal conservation agreements	555,901 acres
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State lands without formal conservation agreements	281,247 acres
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The draft includes language favoring the general exclusion of state and private lands, to exclude the proposed lands, and to strongly consider the exclusion of other state and private lands unless it is absolutely essential for owl conservation. Private and state lands without formal conservation agreements are also under consideration for exclusion. Private lands in Oregon were not included the modeling analysis.

If all exclusions were granted, a total of 9,391,973 acres would remain. ABC supports designating all 13,962,449 acres plus additional acres where occupied or suitable Northern Spotted Owl habitat is found.

Private and state land HCPs and Safe Harbor agreements are a means of encouraging landowner support and participation in species conservation. Providing an exemption in this case creates an incentive for landowners that have been cooperative and developed HCP or Safe Harbor Agreement. However, in regard to the Northern Spotted Owl stronger steps to ensure recovery are needed. This exemption should not be granted and all conservation agreements updated to include recovery goals in areas with proposed critical habitat.

Funding shortfalls have led to the potential closing of many California state parks. Some states have made severe cuts in environmental programs and public lands and their management have become increasingly politically polarized. Proposals to privatize public lands are being offered in many state legislatures. As a result, there is no assurance these state park lands will be managed for conservation purposes in the future.

Similarly, political polarization and ongoing efforts to boost logging in owl habitat, dispose of federal lands and to de-designate Wilderness and other conservation designations raise concern that these lands cannot assure the conservation benefits they currently provide. As a result of these threats, the owl should have the added assurance of all occupied and suitable habitat receiving the protection of critical habitat designation.

Private and state lands without conservation agreements should not be excluded. The Owl Recovery Plan states that an additional contribution to owl habitat protection is needed on private and state lands.

Oregon State Forests in particular are failing to comply with the owl recovery plan. On the Elliot State Forest, the Oregon Department of Forestry (ODF) has abandoned its HCP and its plans fail to comply with the recovery plan with sale proposals in violation of recovery actions 10, 19 and 32. The Elliott's Forest Management Plan says it will only "consider" the recovery plan, but to date, there is no indication it is being followed. ODF now claims forests as young as 51 years old can be suitable nesting habitat, while the agency is clearcutting forests 130-150 years old. In addition, any notion of adaptive management improvements over time is currently impossible. ODF admits that there is no budget for the monitoring necessary for adaptive management, and there is still not even a draft monitoring plan for the Elliott.

Legal Issues Related to Exemptions and Adverse Modification

A review of the draft Rule by Earthjustice found a number of concerns that also influenced ABC's decision to oppose the proposed exemptions. Here is a brief summary of their analysis which is included in full in the appendices.

The proposed critical habitat rule proposes exemptions and active management in designated critical habitat not supported by the law or the best available science. It is recommended that the Service designate all lands, both federal and non-federal, identified as suitable habitat exclusions, and to adopt a much more cautious approach toward logging in designated critical habitat by eliminating or modifying language related to active management in the draft rule. The scale at which adverse modification of critical habitat will be assessed must be clarified to be at the appropriate subunit scale to comply with the intent of the ESA and provide for owl recovery.

Analysis: Draft Rule Lowers the Bar for Habitat Protection

The provisions in the draft plan encouraging unproven thinning and restoration logging, combined with the expansive definition of adverse modification that allows degradation of owl habitat, have the potential to allow for logging of areas that should be conserved to provide the additional habitat needed to stabilize Northern Spotted Owl populations and provide for recovery. This Rule, combined with the elimination of late-successional reserves could allow logging in areas now protected by the Northwest Forest Plan, including mature forests that the Plan had intended to become old-growth.

These provisions, which were repeated numerous times in the draft, appear to allow an increase of timber harvest in the region while minimizing habitat protection, in terms of both total acreage by encouraging unwarranted exclusions, and lax management standards weaker than the standards and guidelines of the Northwest Forest Plan.

This language encouraging active management in Northern Spotted Owl Critical Habitat, particularly on combination with the elimination of reserves has the potential to allow excessive logging to the detriment of the Northern Spotted Owl population and may foreclose recovery by not providing adequate late-successional forest necessary to ensure high quality habitat in the future. Changes to land management plans such as the proposed Okanogan-Wenatchee Forest Plan are being influenced by the Final Recovery Plan, and Draft Critical Habitat rule's and Environmental Assessment's encouragement of a reserve-less strategy.

We urge the Service to reconsider. This approach of allowing the land management agencies broad discretion for active management across the landscape was tested in the decades prior to the Northwest Forest Plan and proved disastrous to the Northern Spotted Owl and Marbled Murrelet and left only fragments of the old-growth ecosystem remaining.

Recommended Changes

We urge that the Final Critical Habitat Rule make clear that eliminating the system of late-successional reserves would be detrimental to owl recovery and is not a recommended outcome of this rulemaking, or the Environmental Assessment and Economic Analysis.

The proposal encouraging adverse modification of habitat for ecoforestry purposes is not supported by the best available science. We recommend it be removed from the final rule.

We recommend that the determinations of adverse modification be at the appropriate fine scale to ensure ESA compliance.

We recommend that the standards and guidelines of the Northwest Forest Plan late-successional and riparian reserve systems be used to preclude inappropriate or unsustainable management practices. The Northwest Forest Plan allows for restoration and provides standards and guidelines that are more protective of owls and better suited to experiments in ecological restoration.

Prescriptive requirements to retain trees above a certain age or size to restore the deficiency in old forests, and mapping where large blocks of closed canopy forests will be retained and allowed to mature is necessary to ensure these values will be not become subject to mismanagement or overcutting.

Active management in owl habitat should be considered experimental, conducted on a small scale, and monitored to determine its impact on Northern Spotted Owls. The necessity and benefits of active management in owl habitat remains in dispute.

We recommend the Service develop an environmental impact statement to devise a research strategy that addresses this question.

Northern Spotted Owl Critical Habitat Final Rule Summary and Analysis

Protecting the old growth forests of the Pacific Northwest and northern California is a major challenge due to political and economic pressures to allow for a maximum timber harvest within wildlife protection legal constraints. In the case of the Northern Spotted Owl political interference preventing sustainable forest management was a primary factor in its' population decline and listing as a threatened species and it continues to be a major hurdle to recovery that has to be overcome by federal and state wildlife professionals and conservationists.

The Final Critical Habitat rule reflects the ongoing challenge to balance preservation with commerce due to the inclusion of additional habitat protection measures coupled with direction for increased active management. The ultimate impact of the final rule will be determined by the project-by-project Sec. 7 consultations required by the Endangered Species Act, and potential changes to federal forest management plans across the region that attempt to incorporate direction from the final Northern Spotted Owl Critical Habitat Rule and Final Recovery Plan.

Summary

The Northern Spotted Owl critical habitat final rule of 2012 designates 9,577,969 acres, an increase of 4,265,600 acres from the current designation. A total of 4.3 million acres determined to be important for the owl's recovery were exempted from the designation.

The rule also directs the land management agencies to conserve older forest, high-value habitat, and areas occupied by Northern Spotted Owls. An estimated 1.1 acres of occupied and high-quality owl habitat previously designated for timber harvest in the Matrix should now to be protected.

Another 1.1 million acres of designated critical habitat in the Matrix is not considered high quality or occupied owl habitat. For these areas of the Matrix, the rule promotes active forest management including application of "ecological forestry," which may result in an increase or decrease in timber harvest of approximately 25 million board feet depending on the extent in which the proposed active management prescriptions or habitat protection measures are applied by the land management agencies.

The rule acknowledges the supremacy and importance of the Northwest Forest Plan, but then endorses pending changes to the region's forest management plans proposed by the land management agencies to adopt the active management principles espoused in the Rule and Recovery Plan. The Incremental Effects Memorandum concluded that the management standards of the Recovery Plan and proposed Rule are weaker than the standards and guidelines of the existing Northwest Forest plan.

This analysis, combined with the stated intentions of the land management agencies to increase harvest in the region by 20% or more, and the marked and continual decline of the Marbled Murrelet population, raises concern the proposed management changes to the Northwest Forest Plan are likely to have negative consequences for two listed bird species of highest conservation concern.

Presidential Memorandum

The draft 2012 Northern Spotted Owl critical habitat rule was accompanied by a Presidential Memorandum which was in keeping with the Obama Administration's recently announced deregulatory

initiative to direct the agency to tailor regulations to “reduce burdens and maintain flexibility” based on the Jan. 18, 2011 Executive Order 13563.

The memo directed the agency to accomplish this in part by adhering to a new policy of “active management” including logging and to reject the “hands off” management approach of past critical habitat designations. The memorandum claimed there is “extensive scientific analysis” in support of active forest management in owl critical habitat. In fact, there are no peer-reviewed studies demonstrating that Northern Spotted owl populations benefit from the proposed logging. Dozens of other peer-reviewed studies show that if carried out in owl habitat, the proposed active management would likely be harmful to owl populations and their prey, and to the threatened Marbled Murrelet.

The memo further directed the agency to develop clear direction for logging in critical habitat. The final rule provides more detailed logging prescriptions than in the draft. The final rule also provides important clarifications narrowing the proposed the active management to younger stands in the Matrix not being utilized by the owl for nesting or roosting.

However, direction for Eastside forests raise concern due to the lack of adequate landscape scale protection, there is a lack of clear direction in the Klamath region, and standards for conserving high-quality owl habitat on BLM lands are lax. This will be discussed in more detail in the active management section.

The Presidential Memo appears to have influenced the modeling exercise which demonstrates a bias against inclusion of private and state lands. Appendix C of the draft rule provides a detailed sequential summary of the process that sought to limit acreage protected, and to restrict that protection to public lands. Private lands in Oregon were never included in any of the models.

Ultimately, the model chosen did not include the alternative with most acres (over 18 million), and it assumes that Barred Owl control will be taking place, thereby reducing the amount of needed habitat. There is considerable doubt that the shot-gunning of thousands of Barred Owls will happen on federal lands due to opposition from animal rights groups. Therefore, it possible the agency has underestimated the amount of acres needed for recovery.

The other main effect of the memo is the broad exclusions for private, state and congressionally designated lands. While some of these exclusions are consistent with other designations and agency policy in regard to private landowners with HCPs and other conservation agreements, other aspects of the decision exclude areas without adequate conservation agreements that account for recovery, or in the case of state lands, without adequate forest management standards being in place. The Society of Conservation Biology and Environmental Protection Information Center are developing detailed critiques of the exemptions, the need for recovery standards in HCPs, and exclusion of Critical Habitat in the Redwoods region.

FWS Response to Presidential Memorandum Finds No Substantial Regulatory Burden (*ABC Comments in italics*)

FWS responded to the Presidential Memorandum in the Final Rule that it had released an economic analysis, and provided a description of ecological forestry.

“Consistency with Presidential Directive. On February 28, 2012, the President issued a memorandum to the Secretary of the Interior regarding the proposed revised critical habitat for the northern spotted owl, specifically on minimizing regulatory burdens.” (p. 10)

The agency then notes it will be up to the land management agencies to decide upon and implement ecological forestry:

“We note, however, that this discussion of ecological forestry is provided to Federal, State, local and private land managers, as well as the public, for their consideration as they make decisions on the management of forest land under their jurisdictions and through their normal processes. This critical habitat rule itself does not take any action or adopt any policy, plan, or program in relation to active forest management.” (p. 10-11)

FWS concludes that any concerns about the potential regulatory burden are unfounded and have been addressed in the final rule:

“Our analysis indicated that the revision of critical habitat could have relatively little incremental effect above and beyond the conservation measures already required as a result of its threatened species status under the Act, and thus is not expected to impose substantial additional regulatory burdens.” P. 11

FWS is committed to working closely with the land management agencies to implement active management and ecological forestry:

“The Service is committed to working closely with the U.S. Forest Service and BLM to implement the active management and ecological forestry concepts discussed in the Revised Recovery Plan and this critical habitat rule. Both recommend that land managers use the best science to maintain and restore forest health and resilience in the face of climate change and other challenges.

To meet this goal, we have prioritized the timely review of forestry projects that will be proposed in critical habitat. We have already completed section 7 conference opinions on the proposed rule with the agencies, and have recently held interagency coordination meetings with the section 7 Level 1 staff in Oregon, Washington, and California. In these meetings, we identified ways to streamline the section 7 process to ensure that potential projects can be implemented in a timely manner consistent with northern spotted owl conservation.” (p. 271-272)

“The Service has assured the BLM and FS that it is committed to working closely with them to evaluate and implement active management and ecological forestry concepts of the recovery plan and critical habitat rule into potential timber management projects.” (p. 281)

FWS says the ecological forest management is compatible with owl recovery and may increase timber harvest. While we agree that timber harvest may increase for a variety of reasons, we do not see where FWS has demonstrated that ecological forestry is compatible with owl recovery. And while we appreciate the limitations prescribed in the final rule, we remain concerned that the rule inappropriately promotes logging in owl habitat.

“In our proposed rule, we provided a description of ecological forestry management actions that are compatible with both northern spotted owl recovery and timber harvest, as recommended in the

Revised Recovery Plan for the Northern Spotted Owl (76 FR 38575; July 1, 2011), which, in some areas, may actually increase harvest relative to recent realized levels (but not necessarily to planned levels under the NWFP). While it is outside the purview of the Service to direct forestry management, we will consult with Federal action agencies and make recommendations on the best measures to provide protections for the owl and have minimal negative economic impacts.” (ECON p. ES-3)

Importance of Northwest Forest Plan

The final rule appropriately acknowledges the importance of the Northwest Forest Plan in conserving habitat and populations of the Northern Spotted Owl. In addition, it recognizes the need to recruit additional owl habitat, and confirms that the Northwest Forest Plan has been successful at retaining and expanding owl habitat.

“In developing this critical habitat designation, we also recognize the importance of the Northwest Forest Plan (NWFP) and its land management strategy for conservation of native species associated with old-growth and late-successional forest, including the northern spotted owl. The designation of areas as critical habitat does not change land use allocations or Standards and Guidelines for management under the NWFP, nor does this rule establish any management plan or prescriptions for the management of critical habitat.” (p. 7)

“The Service believes the NWFP has functioned as intended for the retention and development of late-successional forest habitat (Thomas et al. 2006; Davis 2012). (p. 622)

“We recently issued a Revised Recovery Plan for the Northern Spotted Owl (2011) that recommends more specific types of timber-harvest prescriptions in both areas managed for wildlife and areas managed for timber production, and also recommends extra protections for older habitat and spotted owl sites in non-reserved areas or areas managed for timber production. Currently, the guidelines for managing the large reserves of the NWFP are more restrictive than the recommendations for reserved lands in the Revised Recovery Plan or in the proposed revised critical habitat designation.” (ECON p. B-4)

Misuse of Ecosystem Management

The Northwest Forest Plan is first and foremost, a multispecies management plan for listed species including the Northern Spotted Owl, Marbled Murrelet and salmon stocks that provides the land management agencies with an adequate regulatory mechanism to comply with the Endangered Species Act. The Northwest Forest Plan promotes an ecosystem management approach with the specific goal of protecting those listed species and perpetuating the late-successional forest ecosystem. The Final Rule misapplies the Northwest Forest Plan’s ecosystem management approach to promote ecological forestry which has not been adequately field tested or monitored, and is likely to be detrimental to Marbled Murrelets and listed salmon by increasing fragmentation.

American Bird Conservancy has developed a unique and successful strategy to preserve bird diversity and maintain or increase wild bird populations. This strategy is fully articulated in The American Bird Conservancy Guide to Bird Conservation published in 2010 by University of Chicago Press (ISBN-13:978-0-226-64727-2). The highest bird conservation priority is halting extinctions, followed by conserving and restoring habitats.

In the case of the Northern Spotted Owl draft Critical Habitat rule, the Service is proposing to place lower priority general habitat needs before the specific needs of an endangered species, even to the point of allowing large numbers of Northern Spotted Owls to be killed (taken) and significant habitat to be degraded or completely eliminated for decades. While the stated goal to improve future habitat conditions for the owl is well-intended, this activity is not supported by peer-reviewed studies showing owl populations will benefit, and it is, in fact, pushing an already extremely imperiled species closer to extinction and should be immediately halted.

“Thus, to conserve the northern spotted owl as directed by the Act, one must also conserve the ecological processes that occur within the ecological landscape inhabited by the species. These processes—such as vegetation succession, forest fire regimes, and nutrient cycling—create and shape the physical or biological features that form the foundation of critical habitat.” (p. 20-21)

“A fundamental goal of critical habitat management should thus be to understand, describe, and conserve these processes, which in turn will maintain the physical or biological features essential to the conservation of the species. This ecosystem approach will ultimately have the highest likelihood of conserving listed species such as the northern spotted owl in the long term (Knight 1998, p. 43).” (p. 21)

“Active adaptive forest management within critical habitat, as discussed herein for the consideration of land managers, may be fully compatible and consistent with these landscape-level ecosystems. Most importantly, this approach is compatible with the ecosystem-based approach of the Northwest Forest Plan.” (p. 21)

Timber sale data undermines the idea that the Northwest Forest Plan is not producing a stable flow of timber. The final Northwest Forest Plan was a political compromise that under-delivered on old-growth protection by placing 42% of the remaining acres in the matrix, and overpromised on timber volume. The plan’s billion board foot estimate was never realistic because it is predicated on logging old-growth, which is not supported by the public and that in practical terms has generally been ruled in violation of wildlife protection laws. The estimate was also completed prior to the designation of the riparian reserve network which turned out larger than anticipated. The Bush Administration recognized these factors to a degree, and lowered the allowable sale quantity to 800 million board feet.

A look at timber sale output in the Northwest Forest Plan region reveals the agency is at a sustainable level and meeting the volume targets budgeted by Congress; see Forest Service and BLM Offered under the Northwest Forest Plan included in the appendix. Since 2003, the budget approved by Congress and the Administration has called for 4,668 million board feet from the Northwest Forest Plan area. The agencies have offered 4,507 board feet, or 96% of the planned budget.

In addition, exports from the region are skyrocketing. In 2010 over 2 billion board feet of logs and lumber were exported from the West Coast. In 2011 it topped 3 billion. There is no shortage of logging in the Pacific Northwest.

“While the NWFP has been successful in conserving large blocks of late-successional forest (Thomas et al. 2006, p. 283, Davis et al. 2011, p. 38), concerns have been expressed that it provides less than the anticipated level of commercial timber harvest on matrix lands, does not promote active restoration in areas that may contain uncharacteristically high risk of severe fire (Spies et al. 2006, pg. 359; Thomas et al. 2006, p. 277), and does not promote development of complex early-seral forest in areas where

regeneration harvest has been conducted (Betts et al. 2010, p. 2117; Hagar 2007, p. 109; Swanson et al. 2011, p. 124). (p. 24-25)

Need for Additional Habitat Conservation

The rule confirms that additional habitat is necessary to conserve the Northern Spotted Owl in light of continued populations decline and the growing presences of the Barred Owl.

“Although the rate of loss of habitat due to timber harvest has been reduced on Federal lands over the past two decades, both past and current habitat loss remain a threat to the northern spotted owl. Despite implementation of habitat conservation measures in the early 1990s, Thomas et al. (1990, p. 5) and USDI (1992, Appendix C) foresaw that owl populations would continue to decline for several decades, even with habitat conservation, as the consequence of lag effects at both individual and population levels.” P. 13

“The development of a critical habitat network for the northern spotted owl must take into account current uncertainties, such as those associated with barred owl impacts and climate change predictions (USFWS 2011, p. III-10).” (p. 17)

“Given the continued decline of northern spotted owl populations, the apparent increase in severity of the threat from barred owls, and information indicating a recent loss of genetic diversity for the subspecies, retaining both occupied northern spotted owl sites and unoccupied, high-value northern spotted owl habitat across the subspecies’ range are key components for recovery (USFWS 2011, p. I-9).” (p. 17-18)

“This revision of critical habitat represents an increase in the total land area identified from previous designations in 1992 and 2008. This increase in area is due, in part, to: (a) the unanticipated steep decline of the northern spotted owl and the impact of the barred owl, requiring larger areas of habitat to maintain sustainable spotted owl populations in the face of competition with the barred owl (e.g., Dugger et al. 2011, p. 2467); (b) the recommendation from the scientific community that the conservation of more occupied and high-quality habitat is essential to the conservation of the species (Forsman et al. 2011, p. 77); (c) the need to provide for redundancy in northern spotted owl populations, by maintaining sufficient suitable habitat for northern spotted owls on a landscape level in areas prone to frequent natural disturbances, such as the drier, fire-prone regions of its range (in other words, —back-up areas of habitat so that owls have someplace to go if their habitat burns or trees die due to insect infestation, etc.)” (p. 85)

“(3) It ensures that adequate amounts of current and future habitat is available for spotted owls to persist and recover by designating a habitat network consisting of approximately 50 percent of the available high-suitability spotted owl habitat rangewide. An additional 21 percent of high-quality habitat is encompassed within Congressionally Reserved lands that are not designated, but will retain their value for spotted owls. This high-quality habitat, in addition to areas required for population connectivity, is necessary to support rangewide populations with low extinction risk at both rangewide and regional scales.

(4) Compared to previous spotted owl conservation strategies, it provides increased redundancy in habitat to help buffer potential adverse impacts due to climate change and other stochastic (i.e.,

unpredictable) events by enlarging the total area of the final designation within the fire-prone portions of the northern spotted owl's range." (p. 175-176)

"In the development of habitat conservation networks, the intent of spatial redundancy is to increase the likelihood that the network and populations can sustain habitat losses by inclusion of multiple populations unlikely to be affected by a single disturbance event. This is essential to the conservation of the northern spotted owl because disturbance events such as fire can potentially remove large areas of habitat with negative consequences for northern spotted owls. Redundancy provides a type of —emergency back-up system to sustain populations in the wake of such events. While the modeling and evaluation process used by the Service did not formally analyze redundancy, we incorporated spatial redundancy at two scales: by (1) making critical habitat subunits large enough to support multiple groups of owl sites; and (2) distributing multiple critical habitat subunits within a single geographic region. This was particularly the case in the fire-prone Klamath and Eastern Cascades portions of the range." (P. 557)

"Likewise, in addition to our modeling results, peer review of both the Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011) as well as our proposed rule to revise critical habitat, suggested that retention of high quality habitat in the matrix is essential for the conservation of the species. Population performance based on reserves under the NWFP, for example, fared very poorly compared to this final designation of critical habitat. As described in the section Changes from the Proposed Rule, we tested possible habitat networks without many of these matrix lands, which resulted in a significant increase in the risk of extinction for the northern spotted owl." (p. 567-568)

"We recommend that habitats with high value to the conservation of the northern spotted owl be conserved. High-value habitat includes mid-seral forests as one component. Mid-seral forests that are generally not occupied by northern spotted owls, however, may be appropriate areas for land management agencies to consider for active forest management that may increase their rate of development into high-quality habitats." (p. 594)

"Rangewide, the proposed revised critical habitat is comprised of approximately 4.6% younger forests that are essential to the conservation of the species, and where individual timber harvests may occur. (For analysis purposes we used a 40-acre minimum patch size to determine such areas, because areas smaller than 40 acres are not likely to have individual planned timber harvests. Based on our experience, harvests in areas smaller than 40 acres would likely be incorporated within a larger planning and consultation process). In particular, of the 63 critical habitat subunits proposed for designation, four (NCO-5, ORC-3, WCC-1 and WCS-6) contain proportionally greater areas of younger forests that are essential to the conservation of the species (10.03%, 10.29%, 12.58% and 10.42%, respectively) because they can develop additional habitat necessary to support viable spotted owl populations in the future. These areas of younger forest may or may not presently be occupied by spotted owls. These areas are important for the purposes of distinguishing potential effects of the designation, because they represent cases wherein section 7 consultations may not be necessary but for the designation of critical habitat. In other words, impacts and resulting costs associated with consultation in these areas may be solely an incremental effect of the designation." (ECON p. B-7)

Need for Additional Habitat Due to Barred Owl

“The recovery of the northern spotted owl therefore requires both protection of habitat and management where necessary to provide sufficient high-quality habitat to allow for population growth and to provide a buffer against threats such as competition with the barred owl.” (p. 139-140)

“As the barred owl is present throughout the range of the northern spotted owl, special management considerations or protections may be required in all of the critical habitat units and subunits to ensure the northern spotted owl has sufficient habitat available to withstand competitive pressure from the barred owl (Dugger et al. 2011, pp. 2459, 2467). In particular, studies by Dugger et al. (2011, p. 2459) and Wiens (2012, entire) indicated that northern spotted owl demographic performance is better when additional high-quality habitat is available in areas where barred owls are present.” (p. 140)

“Including more habitat in critical habitat designation, as compared to the No Action Alternative, would provide increased conservation benefits for northern spotted owls in the face of predicted climate change and the threat from barred owls. Hotter, drier summers and wetter nesting seasons, as predicted for the Pacific Northwest, have the potential to negatively affect northern spotted owls. The presence of high quality habitat may buffer the negative effects of climate change (see section 3.4.3 Climate Change). In addition, maintaining additional habitat distribution across the range of the species may increase the likelihood that spotted owls will persist in areas where barred owls are also present (Dugger et al. 2011; Forsman et al. 2011; Wiens 2012).” (EA p. 107)

Importance of Northwest Forest Plan Reserves

The documents reaffirm other federal studies showing the effectiveness and importance of the Northwest Forest Plan reserves for maintaining and providing for additional old growth forests and to enhance water quality across the region:

“The system of reserves within the NWFP is essential for the conservation and development of large areas of late-successional forest across the landscape; however, because the NWFP was designed to benefit multiple species not every acre of the late-successional reserves (LSRs) provide high-quality habitat for northern spotted owls. In addition, barred owls have become increasingly abundant in the Pacific Northwest and likely have a large effect on the continued decline of northern spotted owl populations. With barred owls now sharing the range of the northern spotted owl, conservation of northern spotted owls outside NWFP reserved areas is increasingly important for species recovery.” (p. 24)

“To conserve the northern spotted owl it is essential to have larger, connected areas that are managed for the development of their habitat even though some of those areas may not currently be occupied by the species. As habitat develops over time, both within occupied and unoccupied areas, we anticipate northern spotted owls will colonize the unoccupied habitat and positively contribute to population demographics which contribute to conservation of the species.” (p. 619)

“The Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011a) recommends restoration-focused management in reserve and non-reserve areas to accommodate climate change and dynamic ecosystem processes, with the goal of maintaining or restoring forest ecosystem structure, composition, and processes so they are sustainable and resilient under current and future climate conditions. In addition, the plan recommends extra protections for older habitat and spotted owls sites in non-reserved areas (USFWS 2011a). Recovery actions recommended by recovery plans are not regulatory and are implemented at the land manager’s discretion.

“The current guidelines for managing the large reserves of the NWFP are aimed at creating and maintaining the habitat characteristics required by late-successional species, including the northern spotted owl, and, thus, are consistent with the objectives of the proposed critical habitat designation (USDA and USDI 1994a, b).” (EA p. 47)

“The current guidelines for managing the large reserves of the NWFP may be more restrictive than the general recommendations provided by the Service in the proposed revised critical habitat designation. Therefore, reserved lands are already being managed to reduce impacts or for the benefit of the NSO, consistent with the objectives of proposed critical habitat designation.” (ECON p. 4-4)

Eastside Reserves

The final rule doubts the viability of Eastside reserves as result of fires, a point that was strongly contested by The Wildlife Society and peer-reviewers. The Forest Service claims that static reserves on the Eastside are no longer a viable strategy for conserving the owl, but to date has not produced credible evidence to support that contention. Portions of the now discredited Northern Spotted Owl Recovery Plan of 2008 reached the same unfounded conclusion, and inclusion of similar language in the 2010 Draft Recovery Plan spawned strong opposition from the scientific societies that peer-reviewed the plan.

The Final Owl Recovery Plan calls for conserving older stands that have occupied or high-value spotted owl habitat, and to “Continue to manage for large, continuous block of late-successional forest.” Without the system of late-successional reserves remaining in place, the agency has not provided any mechanism to ensure that the land management agencies will provide for large, continuous blocks. In fact, given the management history, and continued proposals to further fragment the forest, the importance of maintaining the reserve system should be that much more apparent.

The reviewers found that the science included in the draft was incomplete because numerous studies to the contrary had not been considered. In the final draft, a greater effort was made to reference the omitted studies, but the conclusions remained the same. For example, evidence presented in Hanson et al. (2009) on fire risk was cited but not used.

Several new studies have been published that also analyze satellite images of the forest, and have found that high intensity, “catastrophic” fires have not been increasing in Northern California, or on the Eastside. As a result, we believe the plan overestimates fire risk. Similarly, the Hanson study was also not used regarding the rates of recruitment relative to rates of loss to stand-replacing fires, resulting in an overestimation of the amount of reserve likely to be lost.

“Widespread management of large, fully contiguous blocks of habitat east of the Cascades is not ecologically sustainable in many places, due to the dynamic ecological processes and fire regimes that shape the distribution of forested habitats in this region (Williams 2012, entire). We do, however, recommend land managers consider the conservation of larger blocks of current habitat on areas of landscapes where it is more likely to be resistant or resilient to fire and other natural disturbance. We encourage the use of landscape assessments to identify areas important for ecological process restoration and areas that are valuable for northern spotted owl conservation and recovery (see, e.g., NWFP Standards and Guidelines p. C-13).” (p. 593-594)

Economic Impacts

The economic analysis concluded that the final rule is not likely to have a major economic impact. For example, the reduction of potential harvest from high-quality owl habitat in matrix lands may be offset by a slight increase in harvest from other matrix lands as a result of the active management provisions in the Rule.

“It concludes that only a relatively small portion of the overall proposed revised designation may result in more than minor incremental administrative costs. It found that potential incremental changes in timber harvests on Bureau of Land Management and U.S. Forest Service lands may occur on approximately 1,449,534 ac (585,612 ha) proposed for designation, or 10 percent of the total lands included in the proposed designation and that there is the potential for 307,308 ac (123,364 ha) of private land to experience incremental changes in harvests, or approximately 2 percent of total lands proposed. No incremental changes in harvests are expected on State lands.” (p.12)

“Most potential economic impacts would occur, if at all, on Federal matrix lands managed by BLM and the Forest Service, although we note that the amount of Federal matrix lands has been reduced from the proposed rule, as described in Changes from the Proposed Rule, which would have the effect of reducing the range of potential economic impacts presented by the FEA.” (p. 307)

“As outlined in the economic analysis timber harvest may increase, decrease or stay substantially the same as recent timber harvest levels depending on how the Forest Service and BLM decide to manage their lands within the designation. Furthermore, timber industry employment is affected not only by harvest trends but also by fluctuations in national and international markets; changes in land ownership; and increasing mechanization and productivity in the industry.” (p. 581)

“Of the matrix lands, approximately 1.1 million acres are predominantly younger forests (considered to be unoccupied) and 1.6 million acres are northern spotted owl habitat. Furthermore, we estimate that approximately 6.5 percent of northern spotted owl habitat is likely to be unoccupied. We find that incremental economic impacts to USFS timber harvest are relatively more likely in unoccupied matrix lands or approximately 1,158,314 acres of 2,629,031 total acres of all USFS matrix lands.” (p. 661)

“The results of this assessment suggest that incremental changes in annual harvests are likely to be small, less than one percent of total harvests in the 56 counties overlapping the designation.” (p. 676)

“Importantly, we note that under the third scenario analyzed in the DEA, the potential decrease in harvest from BLM lands represents approximately 2 percent of total harvests from BLM lands in these counties (Based on BLM transaction data over the last four quarters (2011Q4–2012Q3) viewed at <http://www.blm.gov/or/resources/forests/blm-timber-data.php>). Thus, if affected, impacts to revenue payments resulting from the designation are likely to be small.” (p. 681)

“Finally, the designation is likely to reduce or increase annual timber harvests from Federal lands by less than one percent.” (p. 682)

“These scenarios include: (1) administrative costs only; (2) potential positive incremental impacts to timber harvest on Federal lands; and (3) potential negative incremental impacts to timber harvest on Federal lands. Furthermore, the economic analysis presents a potential low impact and high impact outcome for each of the three scenarios. Thus under the positive impact scenario, the estimated annualized increase in timber harvest revenue on Federal lands range from \$1,230,000 to \$3,070,000.

Under the negative impact scenario, the annualized decrease in timber harvest revenue on Federal lands ranges \$2,460,000 to \$614,000,000. In all three scenarios, the estimated annualized administrative costs on Federal lands are from \$185,000 to \$316,000.” (p. 751)

“In addition, actual Federal timber harvests have not kept pace with the levels anticipated by the NWFP due in part to controversy over harvesting mature and old-growth stands, which were expected to be the primary harvest component in the first few decades of the plan. For example, planned annual harvest levels under the NWFP totaled over 800 million board feet from 1999 to the present, while actual harvest levels in recent years have been approximately 60 percent of this planned total (USFS, Pacific Northwest Region, Northwest Forest Plan—The First 15 Years (1994-2008): Socioeconomic Status and Trends, R6-RPM-TP-03-2011, 2011.). As the availability of Federal timber sales decreased, the relative importance of harvests from private lands increased.” (ECON p. ES-6)

“Between 1990 and 2000, timber industry employment in the NWFP area declined by approximately 30,000 jobs. Meanwhile, there were increases in both population and total employment in the tri-state area of California, Oregon, and Washington; population increased by 15 percent and employment grew 18 percent, representing a total of 3.8 million jobs gained. Routman, K. 2007. Forest Communities and the Northwest Forest Plan: What Socioeconomic Monitoring Can Tell Us. Science Findings (95). Pacific Northwest Research Station, USDA Forest Service. (ECON p. ES 6-7)

“The 2012 Economic Analysis distinguishes the incremental costs of designation from baseline costs, and quantifies specific potential effects to timber harvest practices and volume along with administrative costs. As discussed in detail in this report, the annualized incremental impacts under the negative impact scenario range from a loss of approximately \$2.65 to \$6.48 million, while the positive impact scenario ranges from a gain of approximately \$900,000 to \$2.9 million. The analysis also contemplates an “administrative cost only” scenario, with annualized losses of \$196,000 to \$335,000.” (ECON p. ES-10)

“Timber harvests between 2000 and 2010 did not keep pace with NWFP projections. The plan predicted that harvests from public lands within the NWFP area would be over 800 million board feet (MMBF) annually from 1999 to present.⁸⁰ Predicted harvests have not been met within the NWFP area, in part due to controversy over harvesting mature and old-growth stands, which were expected to be the primary harvest component in the first few decades of the NWFP. (ECON p. 3-3)

Ecological Forestry and Increasing Timber Harvest

This section of the economic analysis attempts to analyze how much additional harvest could be expected if ecological forest was applied to non-high quality matrix. Approximately, a 10% increase above current volume levels can be expected.

“190. Compared to actual timber harvest levels in recent years, the Service and available literature suggest that there is the potential for increases in timber harvest on some Federal matrix lands if the USFS and BLM apply the considerations in the proposed critical habitat rule for active management in dry, mixed, and moist forests. The best opportunity for increases in Federal timber harvest, compared to the recent status quo, involve a mix of thinning and variable retention prescriptions in younger matrix forests consistent with existing standards and guidelines of the NWFP. The proposed critical habitat rule considers these methods and provides considerations for how to apply them in a manner consistent with NSO recovery and to avoid destruction and adverse modification of critical habitat.

Some published literature and reports exist that outline how these forestry practices might affect timber harvest practices and volumes. Ecological forestry methods are being applied in the Pacific Northwest, in part, in an effort to better reconcile competing economic and conservation goals.¹⁵⁷ Specifically, we rely on research published by Dr. K. Norman Johnson and Dr. Jerry F. Franklin to support the analysis.¹⁵⁸ This research contemplates that implementation of ecological forest practices, as envisioned by the Franklin/Johnson Moist Forest restoration strategy, could produce about two-thirds of the per-acre timber yields anticipated by the NWFP.¹⁵⁹

192. We utilize this ratio, in combination with the ratio of historical actual harvest volumes relative to NWFP planned volumes, to derive an estimate of potential increases in harvest levels relative to the regulatory baseline. Historic timber harvest on Federal lands have equaled approximately 60 percent of the probable sale quantity (PSQ) envisioned under the NWFP.¹⁶⁰ The two-thirds timber harvest yield resulting from ecological forestry practices as envisioned by Johnson and Franklin is also based on PSQ under the NWFP. Thus, for purposes of illustrating a potential increase in timber harvest resulting from critical habitat, we scale baseline projections up by 10 percent ($0.66 \div 0.60 = 1.10$).” (ECON p. 4-29)

Active Management

While we appreciate that the final Rule offers clarifications about where and under what conditions active management would be appropriate for owl recovery we remain concern that the benefits of active management are overstated and even under the more limited circumstance described in the final rule, could cause harm to owls and elimination of habitat.

The 1993 Report of the Scientific Analysis Team (SAT) thoroughly reviewed the risks associated with logging in suitable owl habitat, and concluded “intentions to selectively cut forest stands to create conditions favorable for spotted owls, represents increased risks to the viability of the spotted owl (SAT p. 145).”

The issue of short-term losses versus long-term habitat gains was also analyzed and the scientists concluded “that the short-term effect of these actions on habitat loss may be much more significant than the long-term predicted habitat gains.”

“As stated above, many areas of critical habitat do not require active management, and active forest management within such areas could negatively impact northern spotted owls. We are not encouraging land managers to consider active management in areas of high-quality owl habitat or occupied owl sites; rather, we encourage management actions that will maintain and restore ecological function where appropriate. In some areas, forest stands are not on a trajectory to develop into high-value habitat, ecological processes have been disrupted by human actions, or projected climate change is expected to further disrupt or degrade desired forest conditions.” (p. 26)

“In general, prescriptions (e.g., vegetation management, prescribed fire, etc.) that apply ecological forestry principles to address the restoration and conservation of broader ecological processes in areas where this is needed, while minimizing impacts to structurally diverse or mature and old forest that does not require such management can be compatible with maintaining the critical habitat’s essential features in the long term at the landscape scale (USFWS 2011, p. III-14). The Service has recently consulted on these types of management actions in occupied northern spotted owl habitat on Bureau of Land Management (BLM) and U.S. Forest Service (USFS) lands.” (p. 28)

In sum, vegetation and fuels management in dry and mixed-dry forests may be appropriate both within and outside designated critical habitat where the goal of such treatment is to conserve natural ecological processes or restore them (including fire) where they have been modified or suppressed (Allen et al. 2002, pp. 1429–1430; Spies et al. 2006, pp. 358–361; Fielder et al. 2007, entire; Prather et al. 2008, entire; Lindenmayer et al. 2009, p. 274; Tidwell 2011, entire; Stephens et al. 2009, pp. 316–318; Stephens et al. 2012a, p. 13; Stephens et al. 2012b, pp. 557–558; Franklin et al. 2008, p. 46; Miller et al. 2009, pp. 28–30; Fule et al. 2012, pp. 75–76).

“Likewise, in some moist and mixed forests, management of northern spotted owl critical habitat should be compatible with broader ecological goals, such as the retention of high-quality older forest, the continued treatment of young or homogenous forest plantations to enhance structural diversity, heterogeneity and late-successional forest conditions, and the conservation or restoration of complex early-seral forest habitat, where appropriate (Spies et al. 2007b, pp. 57–63; Betts et al. 2010, pp. 2117, 2126–2127; Swanson et al. 2011, entire).

In general, actions that promote ecological restoration and those that apply ecological forestry principles at appropriate scales as described above and in the Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011, pp. III-11 to III-41) may be, in the right circumstances, consistent with the conservation of the northern spotted owl and the management of its critical habitat. However, we emphasize that this rule does not take any action or adopt any policy, plan or program in relation to active forest management.” (p. 30)

“The Service supports the goals of maintaining and restoring ecological function and development of future northern spotted owl habitat. We encourage land managers to consider a stronger focus on ecological forestry in areas where commercial harvest and restoration are planned. We recognize the need to balance both the conservation of current owl sites and the development of future owl habitat.” (p. 31)

“...whereas other forest areas would likely benefit from more proactive forestry management. For example, in drier, more fire-prone regions of the owl’s range, habitat conditions will likely be more dynamic, and more active management may be required to reduce the risk to the essential physical or biological features from fire, insects, disease, and climate change, as well as to promote regeneration following disturbance.

While we recommend conservation of high-quality and occupied northern spotted owl habitat, long-term northern spotted owl recovery could benefit from forest management where the basic goals are to restore or maintain ecological processes and resilience, as discussed in detail in the Revised Recovery Plan (USFWS 2011, pp. III-11 to III-39). (p. 141)

“The Service believes that application of these ecological forestry goals and principles, including those generally described in Johnson and Franklin (2009, entire; 2012, entire), may result, in some situations, in fewer adverse impacts to northern spotted owl critical habitat when compared to application of traditional silviculture as currently applied or permitted on private, State, and Federal matrix lands.” (P. 546)

“This rule does not establish management prescriptions for lands designated as critical habitat. However, the Service has made considerable effort to discuss, for the benefit of land managers, potential approaches to active forest management in dry forests, including actions that manage fuels

and restore ecosystem health. We encourage land managers to consider active management of their forests that balances short-term impacts with long-term beneficial effects that ultimately support long-term conservation of the northern spotted owl. In dry forests, this could include using a landscape assessment approach to improve the estimation of effects of management actions on northern spotted owl habitat and to better identify and prioritize areas for treatments. The assessment may be used to provide support and rationale for treatment, especially in areas where active forest management actions appear to be in conflict with the conservation of high-value northern spotted owl habitat.” (p. 586)

“Outside of LSRs, proposed timber sales may be designed to maximize timber extraction within the NWFP guidelines, including green-tree retention, coarse-wood retention, etc. Where spotted owl habitat would be harvested within proposed critical habitat in these land-use allocations, we would likely request a modification to the prescriptions in an effort to retain and improve spotted owl habitat to better meet critical habitat goals.

More recently, timber sales in all of these non-reserved areas that are occupied by spotted owls have been generally designed following the recommendations of the Revised Recovery Plan, which call for using ecological-forestry techniques to help create better spotted owl habitat more quickly than if the forest was left alone while retaining existing spotted owls at their nests. These ecological-forestry recommendations are consistent with the activities we also recommend within critical habitat in the proposed revised rule to help develop higher-quality spotted owl habitat. Therefore, we would not be likely to request significant changes in the project design due to critical habitat.” (ECON p. B-11)

“On non-DOD Federal lands, we conclude that the highest potential for on-the-ground incremental effects due to the designation of spotted owl critical habitat is likely to be in unoccupied spotted owl habitat (1) in areas where regeneration-harvest timber sales were anticipated by the NWFP and (2) in post-fire salvage situations in non-LSR allocations.” (ECON p. B-15)

Ecological Forestry

The sections below provide an honest assessment of the intent of ecological forestry which is to attempt to increase harvest while conserving the owl. In practice, ecological forestry is a more benign form of clearcutting than allowed by the letter of the Northwest Forest Plan. But it very important to note, clearcutting is currently only rarely allowed to happen by the courts on any significant scale as a result of impacts it has to wildlife habitat and water quality. So while not as bad as the clearcuts of old, ecological forestry is a step in the wrong direction because right now there is little or no clearcutting on heavily fragmented federal lands, while extensive clearcutting is taking place on private and state lands.

BACKGROUND ON ECOLOGICAL FORESTRY

132. As discussed above, the Pacific Northwest timber industry has faced challenges over the past decade. Likewise, the forests themselves have undergone changes due to past management practices, shifting disturbance patterns, and climate change.¹²⁵ In an effort to address some of these challenges, land managers are contemplating a shift to ecological forestry practices. Johnson, N.K. and J.F. Franklin. 2009. Restoration of Federal Forests in the Pacific Northwest: Strategies and Management Implications. Unpublished manuscript. August 15, 2009. 120 pp. Accessed at http://www.cof.orst.edu/cof/fs/PDFs/JohnsonRestoration_Aug15_2009.pdf on April 5, 2012.

133. The main goal of ecological forestry-based management is to achieve ecological goals while simultaneously providing economic and social benefits.¹²⁷ In general, the approach follows the principles of natural forest stand development; it values the role of natural disturbances in initiating, developing, and maintaining forest ecosystems, and encourages active restoration of spatial heterogeneity and conservation of older stands and trees.¹²⁸ In addition, it recognizes that desirable ecological conditions are maintained through a program of active management that includes periodic timber harvest.¹²⁹

134. The Proposed Rule states that, i§In general, actions that promote ecological restoration and those that apply ecological forestry principles as described in the Revised Recovery Plan (USFWS 2011, pp. IIIiV11 to IIIiV41)iKare likely to be consistent with the conservation of the northern spotted owl and the management of its critical habitat.i”^{130,131} It recommends that land managers consider managing NSO critical habitat according to the following basic management practices, which are consistent with ecological forestry and recommended in the Revised Recovery Plan:

Conserve the older growth, high quality and occupied forest habitat as necessary to meet recovery goals;
Implement science-based active vegetation management to restore forest health, especially in drier forests in the eastern and southern portions of the species’ range;

Encourage landscape-level planning and vegetation management that allow historical ecological processes, such as characteristic fire regimes and natural forest succession, to occur on these landscapes throughout the range of the NSO. This approach has the best chance of resulting in forests that are resilient to future changes that may arise due to climate change.¹³²

135. Ideally, implementation of ecological forestry would allow Federal land managers to increase the overall amount of timber harvested from Federal lands while simultaneously improving habitat for the NSO and other listed species. Exactly how these practices would be implemented by the land management agencies is currently uncertain. Various pilot projects on BLM lands are ongoing to test alternatives and learn more about the challenges and opportunities associated with ecological forestry practices.¹³³ In addition, the land managing agencies must make decisions consistent with their land use management plans, forestry programs, and other statutory and regulatory responsibilities.¹³⁴ Thus, capturing the interface between ecological forestry and critical habitat concerns, and assessing related economic impacts, is an uncertain exercise.” (ECON P. 3-23 – 3-25)

Early Seral Management

We appreciate the clarification that high-quality or areas on a trajectory to become high-quality habitat should not be removed to create early-seral habitats. We remain concerned about the potential effect of harvest to create early seral habitats and that passive restoration of post-fire environments be utilized instead of active management.

“The Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011) suggests that management of early-seral habitats be considered where they are underrepresented and would improve landscape and biological diversity. Within that context, thinning and targeted variable-retention harvest in moist forests could be considered, where the conservation of complex early-seral forest habitat is a management goal. This approach provides a contrast to traditional clear-cutting that does not mimic natural disturbance or create viable early-seral communities that grow into high-quality habitat (Dodson

et al. 2012, p. 353; Franklin et al. 2002, p. 419; Swanson et al. 2011, p. 123; Kane et al. 2011, pp. 2289–2290; Betts et al. 2010, p. 2127, Hagar 2007, pp. 117–118). Swanson (2012, entire) provides a good overview and some management considerations. The Revised Recovery Plan does not suggest that high-quality owl habitat or areas currently on a trajectory to become high-quality owl habitat be removed to create early-seral conditions. The Revised Recovery Plan recommends such treatments, if considered by the land management agencies, be applied in matrix areas consistent with the Standards and Guidelines of the NWFP.” (p. 592)

Need for Additional Research

We appreciate the advisories calling for additional research and concur that the Experimental Forests are an appropriate place for experimentation. We remain concerned that the land management agencies are not being required to provide evidence of the benefits of active management to owl populations prior to proposed removal of owl habitat.

“However, a better understanding of how ecological forestry approaches affect owls and their prey is needed. Studies have shown negative effects of commercial thinning and other conventional forestry practices on both northern spotted owls (Forsman et al. 1984, pp. 16-17; Meiman et al. 2003, p. 1261) and their prey (Waters et al. 1994, p. 1516; Luoma et al. 2003, pp. 343-373; Wilson 2010, entire). This need was recognized in Recovery Action 11 of the Revised Recovery Plan, which states —When vegetation management treatments are proposed to restore or enhance habitat for northern spotted owls (e.g., thinnings, restoration projects, prescribed fire, etc.), consider designing and conducting experiments to better understand how these different actions influence the development of northern spotted owl habitat, northern spotted owl prey abundance and distribution, and northern spotted owl demographic performance at local and regional scales. Furthermore, the recovery strategy outlined in the Revised Recovery Plan (USFWS 2011) identifies monitoring and research, as well as active adaptive forest management, as important steps in achieving recovery goals.” (p. 31)

“Towards this objective of learning critical new scientific insights from research and adaptive management, we especially encourage research and active adaptive forest management on the seven Forest Service Experimental Forests.” (p. 32)

“Five peer reviewers and numerous public commenters indicated that active forest management should be conducted in areas that are not currently high value for northern spotted owls and in an adaptive management framework given the uncertainties regarding how such management practices will impact northern spotted owls and their prey.

The Service expects to support and design, in concert with the BLM, USFS, and researchers, scientific studies on the effects of ecological forestry projects in northern spotted owl critical habitat, to gain a better understanding of the short-term and long-term impacts of these silvicultural treatments on northern spotted owls, their prey and forest vegetative structure. We are currently designing and funding just such a study through Oregon State University for the pilot project in the Middle Applegate Watershed.” (P. 544).

Limitations on Active Management

We appreciate the limitations and clarifications on active management detailed in the following sections, particularly the Westside, but we remain concerned that adequate direction has not been provided for the Eastside or Klamath:

“Given these concerns, and recognizing that appropriate management actions will vary depending upon site-specific conditions, we provide the following suggestions regarding active forest management for consideration by land managers within critical habitat as consistent with the recommendations of the Revised Recovery Plan for the Northern Spotted Owl:

1. Focus active management in younger forest, lower quality owl habitat, or where ecological conditions are most departed from the natural or desired range of variability.
2. In moist forests on Federal lands, follow NWFP guidelines as informed by the Revised Recovery Plan and focus on areas outside of LSRs (i.e., matrix). In dry forests, follow NWFP guidelines and focus on lands in or outside of reserves that are most —at-risk of experiencing uncharacteristic disturbance and where the landscape management goal is to restore more natural or resilient forest ecosystems (see, e.g., Davis et al. 2012, entire; Franklin et al. 2008, p. 46).
3. Avoid or minimize activities in active northern spotted owl territories (or the high-quality habitat within these territories).” (p. 32)

Determinations of Adverse Effects and Application of the Adverse Modification Standard.

“We have clarified that our discussion of ecological forestry and active management is intended for land managers to consider when developing management plans or planning projects, as in many areas this approach may be consistent with critical habitat for the northern spotted owl, but that such management is not mandated by the Service and is not required as the result of this rulemaking. We have also clarified this issue in the final rule language by stating that we have made the 16 U.S.C. 1532(5)(A)(i) determination that essential biological and physical features in occupied areas may require special management considerations or protection, but that the rule does not require land managers to implement, or preclude land managers from implementing, such measures.” (p. 59)

“We have clarified language regarding development of diverse, early-seral forest to indicate that: (1) We do not recommend these actions in older forest stands or areas that currently function as owl habitat; and (2) this type of management is most appropriate where more traditional forestry methods have typically been conducted on matrix lands.” (p. 59)

“Some areas of northern spotted owl habitat, particularly in wetter forest types, are unlikely to be enhanced by active management activities, but instead need protection of the essential features;” (p. 141)

“In moist forests that are currently providing mature and late-successional forest that functions as habitat for northern spotted owls, active management is generally unnecessary to conserve older growth forests (Johnson and Franklin 2009, p. 3).” (p. 142)

“If land managers are actively managing forests, we recommend that these activities be focused on lower quality owl habitat (lower relative habitat sustainability (RHS)); that these activities focus on ecological restoration, or apply principles of ecological forestry; and, where possible, evaluate the effects of these treatments on northern spotted owls and other species of concern using an active adaptive forest management framework.” (p. 143-144)

“Within dry forests, the Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011) emphasizes active forest management that could meet overlapping goals of northern spotted owl conservation, climate change response, and restoration of dry forest ecological structure, composition, and process,

including wildfire and other disturbances (USFWS 2011, pp. III-20). For the rest of the northern spotted owl's range that is not fire-prone, the Revised Recovery Plan emphasizes habitat management that accelerates the development of future habitat, restores larger habitat blocks, and reduces habitat fragmentation." (p. 282)

"Second, we continue to encourage forest land managers to consider the application of ecological forestry principles to their commercial timber harvest (see response to peer review question 4a-c, above), and we believe that application of these principles in many instances may result in better long-term ecological conditions for northern spotted owls and other forest wildlife when compared to the application of traditional silviculture methods." (P. 549-550)

"Commercial thinning has been shown to negatively affect northern spotted owls and their prey, and we have included a more detailed discussion of this issue in the final rule. In areas where active management may be appropriate for consideration, the goal is to conserve and restore ecological function; however, we recognize that management agencies may have multiple management goals. In areas where actions such as commercial thinning may be considered (e.g., the matrix land use allocation), we are not encouraging them in areas of high-quality owl habitat." (p. 593)

"We have identified the major threats to owl recovery in this rule, including traditional timber harvest that resulted in the removal of large areas of old forest. Active management, in general, may affect water quality and recreational opportunities, but it may also restore habitat conditions or reduce fire risk if implemented properly. We encourage land managers to be mindful of these concerns and to protect important areas from long-term adverse impacts wherever possible." (p. 595)

"We emphasize that careful consideration should be given to any forest management activities occurring within northern spotted owl critical habitat... Further, we recommend that the focus of these treatments be outside of high-value habitat for northern spotted owls wherever possible and that high-quality habitats be conserved and recruited. Work inside of LSRs should be in accordance with the NWFPP Standards and Guidelines." (p. 596)

"In the final rule, we have refined and expanded our discussion of ways land managers might implement active management to minimize potential risks to northern spotted owls and their habitat, and provide appropriate safeguards in the face of scientific uncertainties surrounding disturbance dynamics in dry forests and northern spotted owl responses to management." (p. 597)

"The Revised Recovery Plan for the Northern Spotted Owl also recommends the application of active forest management to restore forest ecosystem structure, composition, and processes. In response to public comment regarding the appropriateness of this activity in critical habitat, we have clarified the relationship between this revised recovery plan recommendation and its application within spotted owl critical habitat. Its discussion in the revised critical habitat rule is provided primarily for consideration by Federal, State, local, and private land managers, as they make decisions on the management of forest land under their jurisdictions and through their normal processes. This critical habitat rule does not take any action or adopt any policy, plan or program in relation to active forest management. Many areas of critical habitat do not require active management, and active forest management within such areas could negatively impact northern spotted owls. We are not encouraging land managers to consider active management in areas of high-quality owl habitat or occupied owl sites; rather, we encourage management actions that will maintain and restore ecological function where appropriate." (EA p. 55-56)

“Public commenters and peer reviewers were divided on the ecological effects of active forest management and forest restoration as described in the proposed revised rule. Much of the concern from those opposed to active management within critical habitat units derived from a false assumption that critical habitat designation would require these activities and would allow or encourage activities inconsistent with the objectives and standards and guidelines of the late-successional reserves of the NWFP. We did not propose any change to the NWFP in the proposed rule, nor does the Service have the authority to change the land management plans of other agencies. We have clarified this in the final rule, stating that actions within critical habitat would also need to be consistent with the objectives and standards and guidelines of all relevant agency management plans. In addition, although the proposed critical habitat rule refers to the active management recommendations of the Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011), the critical habitat rule itself does not mandate or require any specific type of management by any agency or entity. It discusses the concept of active forest management only for future consideration by land managers as they make their own land management decisions. Finally, because all federal activities in designated critical habitat, regardless of objective, must avoid its destruction or adverse modification, the discussion of active forest management and restoration does not override the necessity to meet section 7(a)(2) requirements of the ESA. The only statutory requirement resulting from the designation of critical habitat is that Federal agencies ensure that their actions are not likely to result in the “destruction or adverse modification” of critical habitat, as that term is used in its statutory context, after consultation with the Service. Based on these clarifications regarding the discussion of active forest management in the preamble to the rule, we do not consider the impacts of the rule to be significant or highly controversial for this reason.” (EA p. 151)

Limitations on Active Management – West Cascades/Coast Ranges of Oregon and Washington

“Special management considerations or protection may be required in areas of moist forests to conserve or protect older stands that contain the conditions to support northern spotted owl occupancy (RA10: USFWS 2011, p. 43) or contain high-value northern spotted owl habitat (RA32: USFWS 2011, p. 67). Silvicultural treatments are generally not needed to maintain existing old-growth forests and high-quality habitat on moist sites (Wimberly et al. 2004, p. 155; Johnson and Franklin 2009, pp. 3, 39). Efforts to alter either fuel loading or potential fire behavior in these sites could have undesirable ecological consequences as well (Johnson and Franklin 2009, p. 39; Mitchell et al. 2009, pp. 653–654; USFWS 2011, p. III-17). Furthermore, commercial thinning has been shown to have negative consequences for northern spotted owls (Forsman et al. 1984, Meiman et al. 2003) and their prey (Waters et al. 1994, Luoma et al. 2003, Wilson 2010). Active management may be more appropriate in younger plantations that are not currently on a trajectory to develop old-growth structure.” (p. 145)

“(1) Conserve older stands that contain the conditions to support northern spotted owl occupancy or high-value northern spotted owl habitat as described in Recovery Actions 10 and 32 (USFWS 2011, pp. III-43, III-67). On Federal lands this recommendation applies to all land-use allocations (see also Thomas et al. 2006, pp. 284–285).

(2) Management emphasis needs to be placed on meeting northern spotted owl recovery goals and long-term ecosystem restoration and conservation. When there is a conflict between these goals, actions that would disturb or remove the essential physical or biological features of northern spotted owl critical habitat need to be minimized and reconciled with long-term ecosystem restoration goals.

(3) Continue to manage for large, continuous blocks of late-successional forest.

(4) In areas that are not currently late-seral forest or high-value habitat and where more traditional forest management might be conducted (e.g. matrix), these activities should consider applying ecological forestry prescriptions.” (p. 146)

“Ideally, proposed actions within critical habitat should occur on relatively small patches of younger, mid-seral forest stands that do not cause reductions in higher quality northern spotted owl habitat. They should also be planned in such a way that their net occurrence on the regional landscape is consistent with broader ecosystem-based planning targets (e.g., Spies et al. 2007a, entire) to provide the physical or biological features that are essential to the conservation of the northern spotted owl. Within that context, thinning and targeted variable-retention harvest in moist forests could be considered where the conservation of complex early-seral forest habitat is a management goal. This approach provides a contrast to traditional clearcutting that does not mimic natural disturbance or create viable early-seral communities that grow into high-quality habitat (Dodson et al. 2012, p. 353; Franklin et al. 2002, p. 419; Swanson et al. 2011, p. 123; Kane et al. 2011, pp. 2289–2290; Betts et al. 2010, p. 2127, Hagar 2007, pp. 117–118).” (p. 283-284)

“In other words, such treatments can be dispersed across the landscape and over time to both accommodate northern spotted owl habitat needs and conservation of diverse and complex early-seral habitat.” (p. 284)

Limitations on Active Management – Eastside/Dry Forests

A key difference in the recommendations for Westside and Eastside is for the Westside the agency recommends managing for large, continuous blocks of late-successional forest, but the forest the Eastside this is absent. There continues to be scientific controversy and uncertainty regarding the likely survival of eastside reserves. The agency has overstated the likelihood they will be lost.

“In order to preserve the essential physical or biological features, these dynamic, disturbance-prone forests should be managed in a way that promotes northern spotted owl conservation, responds to climate change, and restores dry forest ecological structure, composition and processes, including wildfire and other disturbances (USFWS 2011, p. III-20). The following restoration principles apply to the management that may be required in this dry forest region (USFWS 2011, pp. III-34 to III-35):

- (1) Conserve older stands that contain the conditions to support northern spotted owl occupancy or high-value northern spotted owl habitat as described in Recovery Actions 10 and 32 (USFWS 2011, pp. III-43, III-67). On Federal lands this recommendation applies to all land-use allocations (see also Thomas et al. 2006, pp. 284–285).
- (2) Emphasize vegetation management treatments outside of northern spotted owl territories or highly suitable habitat;
- (3) Design and implement restoration treatments at the landscape level;
- (4) Retain and restore key structural components, including large and old trees, large snags, and downed logs;
- (5) Retain and restore heterogeneity within stands;
- (6) Retain and restore heterogeneity among stands;
- (7) Manage roads to address fire risk; and
- (8) Consider vegetation management objectives when managing wildfires, where appropriate. (p. 147-148)

“The Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011) recommends that the dynamic, fire-prone portion of the northern spotted owl’s range be actively managed to conserve northern spotted owls, but also address climate change and restore dry forest ecological structure, composition, and processes (e.g., wildfire) to provide for the long-term conservation of the species and its habitat in a dynamic ecosystem (USFWS 2011, pp. III-13, III-20). To do this, management actions should be considered to balance short-term adverse effects with long-term beneficial effects.” (p. 285)

“Conflicts between objectives will remain in some locations, such as in places where removing younger, shade-intolerant conifers to reduce competition with larger, legacy conifers may result in a substantial decrease in canopy cover that translates into a reduction in northern spotted owl habitat quality.” (p. 287)

“The Service has made considerable effort to discuss recommendations and descriptions of active forest management in dry forests, including actions that manage fuels and restore ecosystem health, in this critical habitat rule. This rule is different from previous designations of northern spotted owl critical habitat in that we are recommending a —hands on— approach to forest management within critical habitat. We encourage land managers to consider active management of forests that balance short-term impacts with long-term beneficial effects, which ultimately supports long-term conservation of the northern spotted owl. In dry forests, we recommend that land managers consider a landscape assessment approach to improve the estimation of effects of management actions on northern spotted owl habitat and to better identify and prioritize areas for treatments.” (p. 601)

Limitations on Active Management – Klamath

This is inadequate. It grants broad agency discretion in a region that is already beset with controversy over aggressive logging projects in owl habitat.

“In some areas, appropriate management will be more consistent with dry forest management strategies, while in other areas wet forest management strategies will be more appropriate. (p. 151)

Limitations on Active Management – Redwoods

“The long growing season in this region, combined with redwood's ability to resprout from stumps, allows redwood stands to attain suitable stand structure for nesting in a relatively short period of time (40–60 years) if legacy structures are present. Late-successional forest is an important component of nesting and roosting habitat in the Redwood Zone, and demographic productivity on northern spotted owl breeding sites has been positively correlated with the density of legacy trees in proximity to owl nest sites (Thome et al. 1999, p. 57). Forest management in this region should conserve older stands that contain the conditions to support northern spotted owl occupancy or high-value northern spotted owl habitat as described in Recovery Actions 10 and 32 (USFWS 2011, pp. III-43, III-67). On Federal lands this recommendation applies to all land-use allocations (see also Thomas et al. 2006, pp. 284–285).” (p. 152)

Active Management and Forest Planning

The Administration has announced a new planning process for BLM-managed lands in Oregon. Based on the Notice of Intent (NOI) and the Administration’s press statements, the plan shows a bias towards active management and proposes a significant departure from the Northwest Forest Plan by

encouraging regeneration in moist mature forests. This is harmful to the Northern Spotted Owl by risking take of individual birds and habitat, increasing forest fragmentation, and setting back the needed expansion of the old-growth forest ecosystem over time to provide for owl recovery.

This new WOPR planning effort, as announced, amounts to the BLM pulling out of the Northwest Forest Plan. The importance of consistent management across the owl's range has been cited in past court cases.

Two key assumptions behind the biological analysis of the Northwest Forest Plan were that (1) "[r]iparian and Late-Successional Reserves (LSRs) will retain reserve status and will not be available for timber production other than as provided in Alternative 9" and (2) "[a]lternative 9 applies to Forest Service and BLM lands; all future actions on these lands would be consistent with Alternative 9, as adopted in the Record-of-Decision (ROD)." See FEIS at 2-33 to 2-34. (Earthjustice comment letter). BLM's indicated management direction as expressed by the NOI, violates both of these assumptions.

The Okanogan-Wenatchee National Forest Plan Revision has also raised great concern by proposing the elimination of the existing system of late-successional reserves. A Region 6 Forest Service Assessment found that late-successional forests are generally below their historic range of variability, and the availability of snags larger than 20 inches, and snag habitat is generally lacking in some forest types because of past management practices.

While the notice of intent proposes that a designated percentage of the forest will be managed for the owl's benefit, there will no longer be areas where the species' protection is guaranteed. This proposal is not consistent with the Northwest Forest Plan, which provides reserves with guaranteed protections that cannot be ignored at the discretion of the local land managers.

In addition, the management standards proposed for portions of the former late-successional reserves could be potentially harmful to many species of wildlife, including the Northern Spotted Owl. The proposed Okanogan-Wenatchee forest plan would allow for significantly greater road densities (more than 15%) than allowed in the current six owl reserves and possibly eight others depending on agency interpretation changes in summer road use. Allowing greater fragmentation and road densities would reduce the amount of suitable owl habitat in those areas, not to mention increasing fire risks, and should not be allowed.

"Land managers should change from the practice of implementing many small, uncoordinated and independent fuel-reduction and restoration treatments. Instead, coordinated and strategic efforts that link individual projects to the larger objectives of restoring landscapes while conserving and recovering northern spotted owl habitat are needed (sensu Sisk et al. 2005, entire; Prather et al. 2008, entire; Gaines et al. 2010, entire). Some examples of this type of planning in the east Cascades that may be emulated or referenced include the Okanagon-Wenatchee National Forest (USDA 2010, entire), The Nature Conservancy (Davis et al. 2012, entire), and the Deschutes National Forest (Smith et al. 2011, entire). (p. 149)

"We are also closely involved in and supportive of the respective Forest Service and BLM landscape-level planning efforts currently underway, and will work with the agencies to incorporate the conservation planning recommended in the Revised Recovery Plan and discussed in this final critical habitat designation." (p. 272)

"Landscape assessments developed at the scale of entire National Forests, Ranger Districts, or BLM Districts have the broad perspective that can improve ability to estimate effects of management

activities on the function of critical habitat and better identify and prioritize treatment areas and the actions that will restore landscapes while conserving northern spotted owl habitat. The Okanogan-Wenatchee National Forest has developed a landscape evaluation process as part of their forest restoration strategy (USDA 2010, pp. 36–52) that can serve as an example for other administrative units when developing their own assessment approaches. We suggest that the value of such assessments in guiding vegetation management within critical habitat can be enhanced by spatially identifying locations where restoration objectives and northern spotted owl habitat objectives converge, are in conflict, or simply are not an issue (see, e.g., Davis et al. 2012, entire).” (p. 287)

“Spies et al. (2012, entire) to help prioritize actions and consider tradeoffs such as northern spotted owl conservation, restoration of ecological conditions, and other land management goals. Given the wide geographic area of this critical habitat designation and the variety of landscape conditions and fire regimes, more precise planning and implementation should be done at the appropriate landscape scales such as the National Forest scale, consistent with the goals of the Northwest Forest Plan.” (P. 549)

“The landscape assessment approach for the East Cascades provides the best basis for development of strategies to manage dry forest landscapes. Products of the landscape assessment can be used to describe the rationale for management actions. The Service is available to work with land managers to assist in the development and implementation of landscape assessments, but this rule does not mandate any specific management within the critical habitat network, which would be beyond the scope of this rulemaking.” (p. 559)

“The BLM is revising its resource management plans for its western Oregon districts in part because of new science related to forest resiliency that was brought forth in the Revised Recovery Plan. Thus, Federal agencies seem to be starting to implement discretionary measures described in the Revised Recovery Plan, but it is too early to foresee the extent to which these recommendations will be applied.” (EA p. 48)

“The BLM is beginning another revision of their resource management plans (BLM 2012), in part because of new science related to forest resiliency that has been applied in the northern spotted owl Revised Recovery Plan. BLM announced their notice of intent to develop an Environmental Impact Statement on March 9, 2012 (77 Fed. Reg. 14414), with scoping concluding on June 7, 2012. Though still in the very early stages of planning (that is, just concluding scoping) BLM has indicated a shift towards use of ecological forestry actions to further northern spotted owl conservation. While this action may likely benefit northern spotted owls, the extent and degree to which their resource management plans direct the implementation of these actions, and potentially other recommendations from the Revised Recovery Plan, is not reasonably foreseeable. As details of these actions develop, they will be subject to NEPA analysis, as will the individual projects implemented under these revised resource management plans; more specifics will be available in those analyses to more accurately determine effects.” (EA p. 142)

“While the Forest Service still continues to operate under the NWFP within the range of the northern spotted owl, the Okanogan-Wenatchee National Forest is undergoing a revision of their land use management plan. This forest covers over 4 million ac in the eastern Washington Cascades, and most of it overlays the range of the northern spotted owl. The forest has a proposed action (USFS 2011) and is in the process of developing their draft Environmental Impact Statement, which is due out the first half of 2013. Key features of their proposed action relevant to spotted owl critical habitat are:

- (1) A shift in focus from commodity production to ecosystem restoration.
- (2) Addressing spotted owl recovery and better integrating habitat conservation with disturbance processes, climate change, and barred owl establishment by moving from smaller scale analyses and projects to incorporating a landscape-scale approach. The forest proposes managing habitat across the landscape, rather than limited to reserve areas, in configurations that are most likely to be, “sustainable, appropriately connected, and most resilient to changing climatic conditions.” (USFS 2011, p. 39).
- (3) Managing for spotted owl habitat, at the forest-wide scale, on 30 to 75 percent of the habitat capable lands, depending on forest type. Seventy-five percent of the habitat would be within a 1.8 mile radius of a northern spotted owl activity center.

The Forest’s proposed action, as described above, mirrors recommendations from the Revised Recovery Plan for northern spotted owl conservation in dry-forest ecosystems and may provide additional conservation benefit to northern spotted owls. However, the forest is still developing their draft Environmental Impact Statement and it remains to be seen whether and to what degree these features are included in the final management plan. As details of these actions develop, they will be subject to NEPA analysis, as will the individual projects implemented under the revised forest plan; more specifics will be available in these analyses to more accurately determine effects.” (EA p. 142-143)

“202. We note again that which of these scenarios, or combinations of these scenarios, comes to pass is largely dependent on the approaches undertaken by the land management agencies and the cooperative section 7 processes between the Forest Service or BLM and the Fish and Wildlife Service. Both the Forest Service and the BLM manage their timberlands under the direction of the NWFP, which includes provisions for management both within and outside of reserved areas. Inside reserves, the Service believes that the guidance for development of late-successional forest characteristics is consistent with recommendations for implementing ecological forestry methods to benefit the retention and development of spotted owl habitat. In the non-reserved, or the Matrix, portion of the landscape which these agencies manage, the NWFP provides minimum levels and sizes of standing trees that must remain post-harvest, depending on specific location within the range of the species. The NWFP does not, however, mandate that retaining only these minimum levels of retained trees is necessary. Indeed, in the past decade, the BLM and Forest Service have shifted their timber management emphasis in the Matrix from a regeneration harvest dominated program to one more focused on thinning prescriptions that leave more trees per acre than the minimums allowed under the NWFP. Since both the BLM and Forest Service have a track record of planning and implementing these thinning sales, the Service believes there will be a smooth transition to designing and implementing timber sales that are consistent with the ecological forestry recommendations in the Revised Recovery Plan and the proposed critical habitat designation and with the green-tree retention levels of the NWFP. We mention, however, that the timing of this implementation is uncertain. Thus, Scenario 1 may be more representative of likely outcomes in the near term.” (ECON p. 4-36 – 4-37)

“(2) Potential for Future Revision of Management Plans

(a) Forest Service. The Forest Service has begun the process of revising its Land and Resource Management Plans (which outline the management of, usually, individual National Forests) with the Wenatchee-Okanagan National Forests, and has plans to continue these revisions through most of the range of the spotted owl in the coming decade or more. These revisions could modify the current land-use allocations (e.g., change late-successional reserve to matrix), which could greatly alter both the intended management on those specific areas and also the effect of having designated critical habitat within those areas. It is not possible for us to predict where or how these changes will align with the

proposed revised spotted owl critical habitat, except to assume areas of designated critical habitat will continue to be in some sort of reserve or conservation-management status.

(b) Bureau of Land Management. In 2008, the BLM revised its resource-management plans for western Oregon (where the large majority of its lands occur within the range of the spotted owl). Due to legal challenges, the BLM announced on March 9, 2012 that it was initiating the revision of their resource management plans in western Oregon. While we expect BLM to take into account the final critical habitat designation, it would be premature to predict the how management goals and objectives in their revision (including any potential land allocations) would correspond to spotted owl critical habitat. Until these revisions are complete the BLM will be managing their lands within the range of the spotted owl under the NWFP (per solicitor's email)." (ECON p. B-18 – B-19)

Post-Fire Forest Management

Stronger emphasis is needed on changes to post-fire management and restrictions on post-fire logging in owl habitat. While the Recovery Plan offers guidance to the agencies to this effect, only through the Section 7 consultation process can better management that deemphasizes post-fire logging become the norm. The result should be accelerated formation of high-quality owl habitat and nesting structures or multiple cavity-nesting species of conservation concern.

"Under the NWFP, post-fire salvage can occur in the Matrix, AMAs, and, to a much more limited extent, in LSRs (USDA and USDI 1994a, b). In areas where management is focused on development of spotted owl habitat (e.g., critical habitat), the Revised Recovery Plan (Recovery Action 12) recommends managing post-fire areas for, "conserving and restoring habitat elements that take a long time to develop (e.g., large trees, medium and large snags, downed wood)" (USFWS 2011a, p. III-49). Again, it is too early in the implementation of the recovery plan to know the extent to which this recommendation will be applied by the agencies." (EA p. 48)

"Under the auspices of the Revised Recovery Plan's Recovery Action 12 recommendation, critical habitat designation could shift post-fire salvage management guidelines in the matrix from extraction of timber resources to "conserving and restoring habitat elements that take a long time to develop (e.g., large trees, medium and large snags, downed wood)."138 Additionally, under the NWFP, Late Successional Reserves (LSRs) provide for salvage logging after fire events greater than ten acres in size that would likely be inconsistent with this recommendation." (ECON p. 4-5)

"Guidelines for management in LSRs, whether in spotted owl habitat or in younger forest, are generally more restrictive than our management recommendations in the Revised Recovery Plan and those outlined in the preamble to the proposed critical habitat designation. One exception would include timber management after a fire. The Revised Recovery Plan (Recovery Action 12 (RA 12)) recommends:

In lands where management is focused on development of spotted owl habitat, post-fire silvicultural activities should concentrate on conserving and restoring habitat elements that take a long time to develop (e.g., large trees, medium and large snags, downed wood).

In the NWFP LSRs provide for salvage logging after fire events greater than 10 acres in size that would likely be inconsistent with RA 12, identified above. Otherwise, we don't anticipate requesting any project modifications to proposed projects in LSRs. While we do not expect that substantive changes to a project would be required to avoid adverse modification to critical habitat, in LSRs that are occupied or assumed occupied by the spotted owl the critical habitat designation will trigger an adverse modification

analysis in addition to the baseline jeopardy analysis. As referenced above, the cooperative nature of inter-agency consultations makes jeopardy and/or adverse modification determinations for the spotted owl extremely rare. By minimizing the impacts of proposed projects to the spotted owl and its habitat we believe it is likely we've also minimized the impacts to the proposed critical habitat network, since many (but not all) of the minimization actions overlap both the species and its important habitat. Therefore, we expect the addition of an adverse modification analysis to both existing and future consultations to be a relatively minor administrative burden of an additional 4-6 hours per consultation between all Federal staff working on the consultation." (ECON p. B-10)

Forest Service and Bureau of Land Management Ask That Matrix be Exempt

It is of concern that the Forest Service and BLM asked that matrix lands be excluded from the Critical Habitat designation in light of the Final Owl Recovery Plan that indicates high-quality owl habitat in the matrix must be conserved.

"Formal comments from the Forest Service requested that we consider large numbers of specific areas to be removed from, or added to, critical habitat, submitted to us in the form of GIS data. This proposal would have greatly reduced matrix lands in moist forest areas (Western Cascades, Oregon Coast Range, and North Coast Olympics) and eliminated Adaptive Management Areas and Experimental Forests from critical habitat. In addition, BLM requested removal of approximately 300,000 acres of selected BLM lands in western Oregon.

Population modeling results for Composite 8 indicated that many of the lands proposed for removal were essential to conservation of the northern spotted owl because the rangewide population declined by 39 percent and population risk increased by 44 percent. To bring the spotted owl population results back up to levels comparable to proposed critical habitat, the final critical habitat designation includes areas recommended by those agencies for elimination (and that had been removed in our test of Composite 8) because we determined they are essential to the conservation of the species." (p. 60-61)

"Overall, about 318,296 acres of BLM and USFS lands were removed from critical habitat, 74 percent (236,887 acres) of which were matrix lands of relatively lower value to northern spotted owls." (p. 62-63)

Forest Service Request for 20% More Logging and Regeneration

We see no ecological benefit and likely harm resulting from the Forest Service push for 20% additional logging in the region, and the prospect the agency will begin clearcutting as the BLM is proposing to do. Volume driven logging undermines valid restoration and promotes unsustainable practices.

"The U.S. Forest Service questioned the DEA assumption about the distribution of timber harvested from Federal lands, and stated that the average estimated annual yield per acre may understate actual timber harvest, as well as the assumption that USFS harvest projections include only thinning activities and do not anticipate future regeneration harvest activities." (p. 659)

"The DEA based FS Region 6 projections on historical timber harvest quantities provided by USFS. Therefore, planned changes to timber harvest were not contemplated. To address this uncertainty in the amount of timber that could potentially be harvested in the future (i.e., if changes to timber harvest should occur), the FEA scales existing baseline projections upward to account for a potential 20-percent

increase in timber harvest projection on USFS lands. The FEA also revised the language regarding projected timber activities to clarify that they may include both thinning and regeneration harvest.” (p. 660)

“In Region 6, the FY2013 and FY2013 NWFP timber program is expected to increase by 20 percent in terms of acres and volume. USFS also disagrees with the assumption that —USFS harvest projections include only thinning activities and do not anticipate future regeneration harvest activities (page 4-18).” (p. 660)

“USFS: Information provided by USFS Region 6 suggests that projections based on historical timber harvest may underestimate future levels of timber harvest. Specifically, the Region 6 timber program is endeavoring to increase production in FY 2013 and FY 2014.¹⁶⁵ USFS will undertake future actions related to the use of active forest management targeting a 20 percent increase in terms of timber harvest volume and acres. Therefore, we contemplate a sensitivity analysis in which the baseline timber harvest accounts for a 20 percent increase in USFS Region 6 relative to historical yields.” (ECON p. 4-38)

O & C Lands

We remain concerned about proposals to privatize or manage federal forests as though they were industrial lands. A letter was recently sent to Governor John Kitzhaber by a coalition of conservation groups pointing out that the Northwest Forest Plan requires conservation in these areas, and if they were to be logged, private and state forest lands would likely have to reduce production to compensate.

“In some areas, for example the O&C lands, our modeling results indicated that those Federal lands make a significant contribution toward meeting the conservation objectives for the northern spotted owl in that region, and that we cannot attain recovery without them.” (p. 567)

“The O&C Act (pertaining to lands in Oregon and California) does not limit the Service’s authority to designate critical habitat for the northern spotted owl. The designation of critical habitat is not a land use allocation and does not impose management prescriptions.” (p. 583)

Fire Impacts and the Creation of Suitable Owl Habitat

The rule details the owl’s life history, but the role of fire in the creation of suitable owl habitat is largely absent. Moreover, the rule repeatedly notes that nesting and roosting habitat are generally characterized by “Large snags and large accumulations of fallen trees and other woody debris on the ground,” which typically result from past fires. Then, at the same time the Rule justifies extraordinary active management measures in owl habitat to reduce fire risks; it makes apparently contradictory claims like those below.

Studies by Hanson (2009 and 2010) and Miller (2012) have found that dry forests on the Eastside and in Northern California have not seen an increase in severe, high-intensity fires. Most of the acreage burned has been low to moderate severity with generally beneficial ecological effects. The risk of fire to owls also appears to be exaggerated in the final Owl Recovery Plan and draft Critical Habitat rule.

“The question of protecting critical habitat from the effects of fire is beyond the scope of this rulemaking.” (P. 510)

“Second, there is considerable scientific uncertainty over the risk of fire to northern spotted owl habitat.” (p. 599)

“Wildfire Management: NSO habitat is particularly vulnerable to wildfire in drier forest systems, which have experienced recent wildfire losses that have exceeded the range of historical variability.³⁵ Some habitat losses resulting from increased wildfire frequency, intensity, and size can be attributed to excessive fuel buildup resulting from many decades of fire suppression. Fire management activities that benefit the NSO may include modified fuel reduction and fire suppression practices.” (ECON p. 1-7)

Current and Past Timber Harvest Listed as a Threat

Nearly all of the subunits proposed for designation managed by federal agencies had current timber harvest listed a significant threat to the species. It is of concern that FWS continues to forcefully promote active management, i.e. logging in owl critical habitat, when timber harvest continues to be such a major and prevalent threat to the species in nearly every single designated subunit.

“Threats in this subunit include current and past timber harvest;” (p. 190, 191, 192, 193, 196, 197, 199, 200, 201, 208, 209, 211, 212, 214, 216, 217, 218, 219, 220, 221, 223, 224, 225, 227, 228, 229, 230, 231, 232, 234, 235, 236, 238, 239, 241, 242, 243, 244, 245, 247, 248, 250, 251, 252, 253, 254, 255, 257, 258, 259, 261, 262, and 263.)

Adverse Modification

This provision remains of concern because it allows for the adverse modification of habitat resulting from active management.

“Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation function or purpose for the species.” (p. 265)

“The key factor involved in the destruction/adverse modification determination for a proposed Federal agency action is whether the affected critical habitat would continue to serve its intended conservation function or purpose for the species with implementation of the proposed action after taking into account any anticipated cumulative effects (USFWS 2004, in litt. entire). Activities that may destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for the northern spotted owl.” (p. 267)

“In general, we would anticipate that management actions that are consistent with the overall purpose for which a critical habitat unit was designated would not likely destroy or adversely modify critical habitat as those terms are used in the context of section 7(a)(2) of the Act. Such actions include activities whose intent is to restore ecological processes or long-term forest health to forested landscapes that contain northern spotted owl habitat, such as those actions described in the Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011) and elsewhere in this document. However, each proposed action will be considered on a case-by-case basis.” (p. 269-270)

If the effects of the project have more than an insignificant or discountable impact on the ability of the PCEs to provide life-history functions for the northern spotted owl, then the project is likely to adversely affect northern spotted owl critical habitat, and formal consultation is warranted.

...the determination of whether an action is likely to destroy or adversely modify critical habitat is made at the scale of the entire critical habitat network. However, a proposed action that compromises the

capability of a subunit or unit to fulfill its intended conservation function or purpose could represent an appreciable reduction in the conservation value of the entire designated critical habitat. Therefore, the biological opinion should describe the relationship between the conservation role of the action area, affected subunits, units, and the entire designated critical habitat.” (p. 277)

“As described above, in general, we do not anticipate that activities consistent with the stated management goals or recommended recovery actions of the Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011, Chapters II and III) would constitute adverse modification of critical habitat, even if those activities may have adverse effects in the short term, if the intended result over the long term is an improvement in the function of the habitat to provide for the essential life-history needs of the northern spotted owl. However, such activities will be evaluated under section 7, taking into account the specific proposed action, location, and other site-specific factors.” (p. 293)

“Each situation should be considered on a case-by-case basis, but, generally, actions that have short-term negative impacts may be consistent with the recovery needs of northern spotted owl when the intent of the action is (1) to improve long-term conditions for the species or (2) to improve the overall condition of the ecosystem. It could be argued either that where populations are greatly depressed there is more need for these actions or, conversely, that there is less flexibility to conduct these actions depending on the specifics of the action and the habitat needs of the owl in that area.” (p. 558-559)

“Consequently, project modifications as a result of critical habitat designation may only occur on those portions of the Matrix and AMA that is either younger forests or unoccupied by spotted owls (IEc 2012). The economic analysis calculated the portion of Matrix and AMA that could be affected based, in part, on an assumption that 6.5% of these lands would be unoccupied by northern spotted owls (IEc 2012).” (EA p. 54-55)

Consultation

We remain concerned that current FWS consultations are not adequately protecting Northern Spotted Owl and Marbled Murrelet habitat. We appreciate the direction provided below and urge that FWS adopt a moratorium on the elimination of owl and Murrelet habitat on federal lands.

“Habitat-manipulation projects within unoccupied habitat often trigger formal consultation because of the impacts to the recovery potential of the species, dispersal, and reduced segregation from barred owls; however, in unoccupied spotted owl habitat outside of LSRs the designation of critical habitat may have more of an impact on the design of proposed timber sales. The NWFP guidelines anticipated that most of the timber volume from Federal land would come from these lands, although some provisions (e.g., downed wood and leave trees) were included to assist species remaining after harvest. Since critical habitat is designated to help conserve (recover) the species, the designation of critical habitat in unoccupied spotted owl habitat may result in the Service requesting that timber sales in these areas be designed to help retain existing habitat and speed the development of spotted owl habitat and late-successional characteristics (including after wildland fire) instead of to maximize the extraction of timber. These ecological-forestry techniques may include smaller pockets of tree removal to create openings, but they would likely be significantly different than a traditional matrix timber-harvest prescription.” (ECON p. B-11 – B-12)

“(5) Potential project modifications

(a) Due to the presence of the listed species. The spotted owl protections and minimization and conservation measures triggered by the consultation process (which largely occur during the pre-consultation phase consistent with our streamlined-consultation guidance) include such parameters as: Restrictions on the timing of activities to avoid disturbing spotted owls during critical nesting periods; Planning timber sales to avoid existing spotted owl sites; Planning timber sales to minimize the likelihood of exacerbating barred owl and spotted owl interactions, particularly at existing spotted owl sites; Minimizing the impacts to existing spotted owl nesting, roosting, and foraging habitat at the localized scale and dispersal habitat at the landscape scale (including overall connectivity between populations); and Following the recommendations of the Revised Recovery Plan for the Northern Spotted Owl, including conserving known spotted owl sites, retaining older, more-complex stands on the landscape, and following ecological-forestry techniques when conducting timber harvest in areas important to spotted owls. Due to the conservation mandate of critical habitat, our recommendations on actions in critical habitat in the matrix would likely be to change the focus from timber production to development of spotted owl habitat. Following the Revised Recovery Plan's RA 12 recommendation, our recommendations for post-fire salvage management would potentially shift from extraction of timber resources to conserving and restoring habitat elements that take a long time to develop (e.g., large trees, medium and large snags, downed wood). The incremental effects would not be dependent on the occupancy status of the stands.

The above measures may be applied in areas known or assumed to be occupied by spotted owls, or in areas of suitable habitat whether occupied by spotted owls or not, and may result in the action agency modifying its proposed action." (ECON p. B-14)

Comments from Peer Reviewers

A review of the peer reviews indicates that there isn't real scientific consensus on how to manage forests within the range of the Northern Spotted Owl, there are currently no studies showing owl populations benefit from active management, and there are numerous studies showing potential harm to the owl, its prey based, and to other list species.

Active Management

"Reviewers were divided on the risks posed by climate change and forest health, and whether active management should be applied within critical habitat." (p. 491)

"Three reviewers disagreed with some of the science that was cited, or the interpretation of that science, and noted that the discussion did not adequately address studies that have documented negative effects of timber management on northern spotted owls and their prey." (P. 494)

"Four reviewers indicated that parts of the document were unclear on whether ecological science was applied appropriately, and highlighted the lack of understanding about how such management actions may affect owls and their prey. Two reviewers specifically indicated that they did not think that approach is appropriate." (P. 494)

"Five reviewers believed that the risks were not appropriately balanced, that the discussion was too vague in weighing the tradeoffs, or that there is too little specific scientific understanding of the explicit tradeoffs to conduct an informed discussion. Several of these reviewers indicated that there was too

much emphasis on active management in the preamble to the proposed rule given the lack of understanding about how ecological forestry and restoration management might affect owls.” (P. 495)

Matrix Protection

“Eight reviewers addressed this question, and all agreed that inclusion of matrix lands in critical habitat was supported. One reviewer noted that the barred owl issue needs to be addressed (see response to 0 for detailed discussion of this issue), and another reviewer was surprised that all habitat-capable lands in the western portion of the species’ range were not included in critical habitat (see 0 for a more detailed discussion of this issue).” (p. 493)

Marbled Murrelet

Other listed species may also be harmed by the proposed active management such as the Marbled Murrelet. The draft Rule’s Environmental Assessment found that “Active forest management that is in the vicinity of murrelet nesting stands may be detrimental to the species survival and recovery.” (p. 61)

This results from increased fragmentation and opening the forests to crows, ravens, and jays, increasing predation pressure on nesting murrelets. Despite this, there was no prohibition in the final Rule on the proposed active management to ensure murrelet nesting stands will not be disturbed, and notably, the fact that active management may be detrimental to Murrelet nesting stands was not mentioned.

Active management, if conducted near nesting murrelets will likely be harmful. There are also indications the prey base of the Northern Spotted Owl could also be harmed by active management including thinning, but these factors are glossed over by the final Rule. And unlike the Northwest Forest Plan, there is no detailed analysis how other listed species will fair under the active management being proposed by the Rule.

We appreciate the concern expressed for the Murrelet and potential implications if its critical habitat is vacated. We are discouraged however, by the lack of discussion on potential negative consequences for the Murrelet of active management in owl habitat, and how adverse modification of owl habitat is in fact allowed by the Rule, and will not afford the Murrelet additional protection in that circumstance.

“Currently 1,735,900 ac of the 2008 northern spotted owl critical habitat designation overlays critical habitat designated for the marbled murrelet. Critical habitat for the marbled murrelet is currently under litigation and may be vacated (see section 3.4.4 Cumulative Impacts). Should vacature occur, the nesting habitat components for marbled murrelets would generally be protected through avoidance or adverse modification of spotted owl PCEs in those areas where marbled murrelet critical habitat overlaps the 2008 spotted owl critical habitat. This 1.7 million acres of overlap will be a baseline from which to compare other alternatives to determine the amount of existing marbled murrelet critical habitat that may continue to be afforded incidental protections as a result of avoiding adverse modification of spotted owl critical habitat.” (EA p. 90)

“Most of the PCEs for nesting habitat under this alternative (e.g., moderate to high canopy closure; multi-layered, multi-species canopy with large overstory trees; and a high incidence of large trees with various deformities) provide structural features that also meet the nesting structure needs of marbled murrelets. However, in some parts of the spotted owl range, PCEs that provide for foraging in the form of dense shrub and hardwood openings, or low density patches of forest, particularly in the Klamath, Northern California Interior Coast Ranges, and Redwood Coast Critical Habitat Units, may not be conducive to murrelet nesting habitat (See Section 2.2.1 Primary Constituent Elements). These

vegetation pockets open up forest canopies and fragment the landscape for murrelets, inviting corvids (e.g., crows, ravens, and jays) and increasing the predation pressures on nesting murrelets, reducing the ability of this species to reproduce (Nelson et al. 2006). In these areas, protection of spotted owl foraging PCEs from destruction or adverse modification may not necessarily protect some of the habitat attributes required by nesting marbled murrelets. Nevertheless, avoiding adverse modification of spotted owl critical habitat may benefit marbled murrelets overall. Spotted owl critical habitat under this alternative overlaps 2,548,700 ac of marbled murrelet critical habitat. This is a 812,800 ac increase in overlap compared to the No Action Alternative. Should vacature of marbled murrelet critical habitat occur, the nesting habitat components for marbled murrelets would generally be incidentally protected through avoidance or adverse modification of spotted owl PCEs in the approximately 2.5 million acres where marbled murrelet critical habitat overlaps critical habitat designated for the spotted owl under this alternative. However, the specific effects to murrelets are not reasonably foreseeable because the specific responses by managers to critical habitat designation are not reasonably foreseeable (See section 3.1.2.2 Alternative B).” (EA p. 94)

“Critical habitat designated for the marbled murrelet, is currently under litigation. On Jan. 25, 2012, plaintiffs American Forest Resource Council, Carpenters Industrial Council, and Douglas County, Oregon, filed suit in Federal district court, in part, challenging the rule designating marbled murrelet critical habitat. American Forest Resource Council v. Ashe, Civil No. 12-111-JDB (D.D.C.). On Aug. 20, 2011, the Service and the plaintiffs filed a joint motion for entry of a consent decree under which the Court would remand the murrelet critical rule to the Service for reconsideration, and the rule would be vacated pending completion of the remand. As of this writing, the Court has not ruled on this motion. Should the motion be granted, this would result in the removal of critical habitat for the marbled murrelet on the landscape until the Service completes a revision of the rule. Effects of such an action would be a reduction in murrelet habitat protection by removing the requirement for Federal agencies to not destroy or adversely modify critical habitat. Protection for most of the critical habitat PCEs for nesting spotted owl habitat under all action alternatives (e.g., moderate to high canopy closure; multi-layered, multi-species canopy with large overstory trees; and a high incidence of large trees with various deformities) through avoiding their destruction or adverse modification may provide structural features that also meet the nesting structure needs of marbled murrelets. Thus, critical habitat designation for the northern spotted owl may provide some ancillary benefits to marbled murrelets. However, in some parts of the spotted owl range, PCEs that provide for foraging in the form of dense shrub and hardwood openings, or low density patches of forest, particularly in the Klamath, Northern California Interior Coast Ranges, and Redwood Coast Critical Habitat Units, may not provide features beneficial to nesting murrelets. These vegetation pockets open up forest canopies and fragment the landscape for murrelets, inviting corvids (e.g., crows, ravens, and jays) and increasing the predation pressures on nesting murrelets, reducing the ability of this species to reproduce (Nelson et al. 2006). In these areas, protection of some spotted owl PCEs through the avoidance of adverse modification may not provide the habitat attributes needed by nesting marbled murrelets. Should the motion for remand of marbled murrelet critical habitat be granted, the protections of marbled murrelet critical habitat would not be in place in these areas. However, where spotted owl critical habitat overlaps murrelet critical habitat, it may provide incidental protections to habitat attributes necessary for nesting marbled murrelets through the avoidance of destruction or adverse modification of spotted owl PCEs that also support nesting murrelets.

The current designation of spotted owl critical habitat overlaps 1,735,900 ac of marbled murrelet critical habitat. All Action Alternatives result in an increase in overlap of marbled murrelet habitat compared to the No Action Alternative, ranging from a minimum of approximately 2.1 million ac of overlap for

Alternative E, to a maximum of approximately 2.5 million ac for Alternative B. Thus, even if the vacature of marbled murrelet critical habitat occurred, compared to the No Action Alternative, all action alternatives provide an increase in the area of incidental protections that may be afforded to marbled murrelets through the avoidance of destruction or adverse modification of critical habitat for spotted owls, and would generally benefit murrelets. Even in those areas outside of critical habitat, the marbled murrelet would continue to be protected under section 7 (Federal actions must avoid jeopardizing the species) and section 9 (prohibition of take of the species without a permit) of the ESA. That is, habitat that is currently occupied will be protected through the consultation process and jeopardy analysis for actions with a Federal nexus (section 7 of the ESA), and the ESA section 9 prohibitions against “take” and the incidental-take-permitting process will also protect both occupied and unoccupied habitat.” (EA p. 143-144)

Northern Spotted Owl

We appreciate the hard work that went into the modeling effort and the development and completion of this rule. Despite some flaws and uncertainties, the rule offers renewed hope that the Northern Spotted Owl can be saved from extinction.

“Spotted owl population modeling results for this alternative (northern spotted owl population size of 3,224 females at year 350, and extinction risk of 3 percent of simulations with populations below 1,000 individuals) (Figures 20 and 21) indicate better population performance as compared with the No Action Alternative, and similar performance as compared with the Proposed Action (Alternative B).” (EA p. 106)

8. ABC Comment in Support of Listing California Spotted Owl

February 20, 2015

Doug Krofta
Chief, ESA Listing
U.S. Fish and Wildlife Service
Washington, D.C. 20240

Dear Mr. Krofta,

American Bird Conservancy (ABC) is writing in regard to the petition to list the California Spotted Owl as threatened or endangered submitted by the Wild Nature Institute and John Muir Project of Earth Island Institute. ABC agrees that a review of the best science and current management practices reveals that the petition has merit and should be considered by the agency.

The petition argues that current land management strategies in California Spotted Owl habitat under the 2004 Sierra Nevada Framework are at the root of continued population declines. The evidence from a significant number of scientific studies cited within the petition is compelling and we urge its consideration.

Recent findings indicate that low and moderate severity fires are not a threat to California Spotted Owl populations, and that owl populations are declining in areas where there is post-fire logging and mechanical fuels treatments. Post-fire logging has been shown to be particularly detrimental to all three

owl subspecies' populations by causing abandonment of burned areas that might otherwise remain occupied. The only areas where California Spotted Owl populations are stable are in National Parks.

Information on impacts to the California Spotted Owl should also be considered across the entire range of the species regarding management decisions affecting habitat of the threatened Northern and Mexican Spotted Owl. Based on recent studies, we anticipate current management will lead to a decline of Northern Spotted Owl populations. This comes at a critical population bottleneck for the northern subspecies resulting from historic and ongoing loss of habitat. The Northwest Forest Plan predicted it would not be for another 30 years that sufficient habitat would grow back into large blocks to see owl populations begin to recover.

The invasion of Barred Owl into Spotted Owl's range requires a higher level of protection than previously projected, and more than is being currently afforded by the critical habitat rule's adverse modification policy and post-fire logging of mature and old-growth forests that maintain important biological legacies for owls and a host of prey species found in the ensuing complex early seral and unsalvaged habitat. These activities threaten to undermine the functionality and future extent of the late-successional reserve network envisioned by President Clinton's Northwest Forest Plan.

Risk of fire to the Spotted Owl is being overstated in the Mexican Spotted Owl Recovery Plan, the Northern Spotted Owl Recovery Plan and Final Critical Habitat Rule and the Sierra Nevada Ecosystem Framework of 2004 and aggressive fuels treatments in owl habitat may be counterproductive to recovery. That is because projects now being undertaken in the name of fire prevention in Spotted Owl habitat are often harmful to the owls and require take.

For that reason, we respectfully urge FWS to reexamine this policy and for the land management agencies to avoid Spotted Owl take pending completion of an updated analysis.

We look forward to working with you and the FWS staff to conserve and recover the Spotted Owl.

Sincerely,

Steve Holmer
Senior Policy Advisor
American Bird Conservancy

Cc: Michael Bean, Principal Deputy, Fish, Wildlife and Parks, Department of the Interior
Robert Bonnie, Undersecretary for Natural Resources and the Environment, Department of Agriculture
Tom Tidwell, Chief, U.S. Forest Service
Neil Kornze, Director, Bureau of Land Management

Summary of Wild Nature Institute and John Muir Project Petition

A fundamental premise of the listing petition is that new information merits revisiting the 2006 FWS decision to not list the subspecies based on uncertainties over its population size and response to wildfire and forest management. As the petition notes: "The CSO was denied protection in 2006 based on the assertion that fire represented the primary threat to its survival, and the threat was being addressed by Forest Service actions."

Analysis of demographic data of five California Spotted Owl populations concludes that since 2006 four out of the five populations' studied are declining. The other population, which inhabits National Parks is stable. Other studies published since 2006 indicate the owls are well-adapted to low and moderate severity fire, and that post-fire logging is likely to be the driver of owl population declines.

There is only an estimated population of the CSO based on the number of known occupied sites. In 2006 there were approximately 1,200 – 1,700 pairs. The demographic study estimates a 10-15% decline since that time so ABC estimates the current population is approximately 1,100 – 1,600 pairs.

The demographic data collection was initiated in the late 1980s and early 90s to estimate the subspecies population. The petitioners reviewed the results of multiple analysis methods to determine population trends in each of the five study areas, Lassen, Eldorado, Sierra, Sequoia-Kings Canyon, and San Bernardino, which total 1.4 million acres.

In two of the study areas in Sierra Nevada national forests, populations have declined approximately 10 percent since 2003 (Conner et al 2013), and the other Sierra Nevada study area has a 20 percent decline (Tempel and Guitierrez 2013, Tempel 2014). Population trends for the Lassen study area showed population declines in 2001, 2010, and 2013 (Blakesley et al, 2001, Blakesley et al 2010, and Conner et al 2013) and Conner et al estimated a 21-22 percent decline over the past 18 years. The Tempel 2014 study found the decline in the El Dorado area was as high as 50 percent from 1990-2012.

Gutierrez et al 2012 confirmed this decline stating “there has been a clear decline in abundance over the last fifteen years.” Modeling also indicates that extinction is outpacing colonization leading to reduction in owl sites over time. Tempel and Guitierrez 2013 concluded areas are not being colonized due to habitat alternation.

Keane et al (2012) reported that the Meadow Valley fuels treatment project on the Plumas National Forest conducted from 2006-08. After the logging the number of territorial sites declined from 9 to 4 over a four year period (2007-2011). This was confirmed by Stephens et al (2014) which found a 43% loss of CSO within a few years of mechanical thinning. The authors noted that while the region's overall population is declining, the steep rate of decline in the fuels treatment study area were of “a greater magnitude” than elsewhere on the landscape.

Conner et al 2013 found that the Sequoia-Kings Canyon area analysis indicates a population increase of 16-27 percent over the seventeen year study period. Blakesley et al 2010 reported that at a minimum their analysis showed a stable population with a higher adult survival rate than other study areas. The authors suggested the higher survival rate of adults in the National Park resulted from “differences in habitat quality resulting from differences in forest management both before and during the study period...”

The petitioner's conclude on page 92 that: “the only area in the Sierra Nevada in which California spotted owl populations are known to be stable or slightly increasing is an area with an active mixed-severity fire regime and no mechanical thinning or post-fire logging (Sequoia/Kings-Canyon National Park), while all study areas on national forests and private lands (characterized by aggressive reduction of fire due to fire suppression, landscape-level mechanical thinning, and common post-fire logging) have declining populations (Conner et al. 2013, Tempel and Gutiérrez 2013, Tempel 2014, Tempel et al. 2014a). These findings indicate that mixed-severity fire (which includes a high-severity fire component) is, on its own, not a significant threat to California spotted owls. Instead, management activities that

follow mixed-severity fire (post-fire “salvage” logging), or are conducted ostensibly to “save” owls from higher-severity fire (mechanical thinning), are primary threats to the owl.”

The San Bernardino population declined at a 9 percent rate from 1987 to 1998 (LaHaye et al 1999). The region had extensive logging on private lands and the San Bernardino National Forest in response to a bark beetle outbreak.

Other studies have looked into the effect of habitat alteration. Seamans and Guitierrez (2007a) found the probability of territory colonization decreased, and territory occupancy decreased in areas with as little as 40 acres of logging. Bias and Guitierrez (1992) attributed low use of private timberlands by roosting and nesting CSOs to sanitation and high-grade logging that removed potential nest trees.

Clark et al (2013) concluded: “Our results also indicated a negative impact of salvage logging on site occupancy by spotted owls. We recommend restricting salvage logging after fires on public lands within 2.2 km of spotted owl territories (the median home range size in this portion of the spotted owl’s range) to limit the negative impacts of salvage logging.”

A 2012 Forest Service study (Lee et al) examining 11 years of CSO breeding season survey data from burned and unburned forests found no significant effects of fire on probabilities of local extinction and colonization. Roberts (2008) and Robert et al. 2011 found many Spotted Owl sites continued to be occupied and reproduced successfully after fire burned portions of their home ranges and core area, and Roberts (2008) also found a higher reproduction rate in mixed-severity burn areas over unburned areas. Williams et al (2011) found that owl home ranges in burned areas are similar to unburned areas. Jenness et al (2004) found that numbers of successfully reproducing Mexican Spotted Owls territories did not statistically differ between burned and unburned forests.

In addition, management prescriptions to prevent fire, risk turning viable habitat into areas with less than 40 percent canopy cover which owls are likely to abandon. Under the Defensible Fuel Profile Zones and Strategically Placed Area Treatments, canopies are reduced the 40 percent cover, the minimum usable by Spotted Owls. Gallagher (2010) found owls avoided foraging in these treatment areas. Bond (2009) found that Spotted Owls forage in all burn severities, and that owls have a slight preference for feeding in burned areas over unburned areas, and unlogged areas over logged forests.

Under the 2004 Framework, the Forest Service is defining suitable habitat too narrowly, automatically disqualifying burned areas even if owls continue to occupy the site. Despite exposure of agency wrongdoing by an Associated Press expose by Scott Sonner in 2004, the agency continues to assume burned habitat, particularly high-severity burn areas, are a complete loss as owl habitat, and therefore, can be opened to logging. This is a result of the 2004 SFNPA that states areas with stand replacing fires can be removed from Protected Activity Centers.

On page 100 the petition notes: In the Power Fire area and the Freds Fire area, the 2004 Sierra Nevada Forest Plan Amendment allowed the Forest Service to treat the higher-severity fire areas within the pre-fire PAC boundaries as being lost/unsuitable, which not only opened the PACs to post-fire logging, but also allowed the Forest Service to misleadingly claim that “0” acres of “suitable habitat” within the PACs would be salvage logged (Bond 2011).

Current policy also promotes landscape level mechanical thinning in spotted owl habitat, even allowing such activities in PACs and HRCAs. As noted above, the 2004 plan also promotes post-fire logging of owl

habitat, assuming that it no longer habitat, and mechanical thinning, despite evidence this is causing severe harm to California Spotted Owls. As the petitioners note on page 95:

“Tempel et al. (2014b) found that mechanical thinning is significantly harming California spotted owls. The authors found that the amount of mature forest with high canopy cover (70–100 percent) was a critical variable for California spotted owl viability (survival, territory extinction rates, and territory colonization rates), and determined that “medium-intensity” logging—mechanical thinning under the 2004 Amendment, and earlier prescriptions generally consistent with the 2004 Amendment—significantly adversely affects California spotted owls at all spatial scales by targeting dense, mature forests with high canopy cover, degrading the quality of such habitat by reducing it to moderate canopy cover. This is adversely affecting California spotted owl reproduction (Tempel et al. 2014b).”

The evidence of negative impacts to owls from post-fire logging is of particular concern. Lee et al. (2012) report that mixed-severity (averaging 32 percent high-severity fire effects) did not reduce CSO occupancy. However, sites that were also post-fire logged saw complete abandonment.

It is also important to consider the historic loss of CSO habitat as a result of reduced abundance of large, old trees, and a decline in snag density. It will take many decades to restore late-successional conditions, and a change in post-fire logging policy to restore snags and downed woody debris. A review of Sierra Nevada National Parks by the SNEP Report found 55 percent of forests are in late-successional condition, but on other federal lands such conditions are found on only 19 percent of forest lands. Beardsley et al (1999) estimated that old growth forests declined from 45 percent to 11 percent of the landscape since 1945.

There is concern that the Forest Service is ignoring the available scientific literature to continue this management direction which is harmful to CSO. The 2013 forest plan for the Lake Tahoe Basin Management Unit continues to claim still occupied habitat has been “lost” to fire, reduced canopy cover protection for owls, and allows clearcutting of owl habitat and cutting of large trees over 30-inches. Similarly the scoping document for the three early adapter forests in California promotes mechanical thinning and does not provide any significant protections for CSOs.

Negative Impact of Fire Risk Reduction Needs Further Analysis

There currently is a scientific debate about the role of mixed and high severity fires in providing habitat and nesting structures for Spotted Owls, and the degree to which fire is a threat to owl populations. This debate is a core issue for habitat management of all three subspecies, and aggressive management to reduce fire risk has been incorporated into recovery plans, forest plans, and critical habitat rules.

A number of recent studies (Bond et al, , Ganey et al 2014) indicate owls will forage in moderate and even in high severity burn areas due to an abundance of prey, and that these fires create future nest trees and snags and large wood debris beneficial to owl prey (Baker et al 2012).

Maintaining legacies is essential for future use by owls. North et al. (1999) notes “In our study area, stands with high use by owls typically included many “legacies” that survived a fire or windstorm that destroyed much of the previous stand.” So, while fire risk reduction may be necessary to protect human lives and homes, scientific evidence is lacking that it is a critical conservation need of Spotted Owls.

Recovery Action 12 of the Northern Spotted Owl Recovery Plan recognizes this importance and recommends that ALL structures that take a long time to form such as legacies and large downed trees be retained. But post-fire logging projects such as the Douglass Fire Recovery and Westside Fire Recovery Projects propose to log extensive areas of suitable owl habitat and remove these legacies RA 12 says should be retained. In addition to removing suitable habitat, the Douglass Project proposes to directly take 24 Spotted Owls, and the Westside Fire Recovery project, still in scoping, contains over fifty owl activity centers within the proposed logging area.

A January 13, 2015 objection to the Four-Forest Restoration Initiative submitted by Dr. William Baker concludes that "...new science shows parts of the plan and Final EIS are not scientifically supported." Baker found that fire risks are overstated, in part because new habitat resulting from forest succession is not being considered, and recommended that the Final EIS suspend proposed treatments in MSO habitat until adequate analysis is completed.

"USFWS and the scientific community need to undertake needed analysis to accurately estimate fire risk to MOS relative to benefits of mixed- and high severity fire for MSO and rates at which new habitat is being produced by forest succession. During the suspension, it is important to conduct and complete small-scale experiments to determine the effects of thinning on MSO, since nothing is known about this."

Additional Resources

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Managing Sierra Nevada Forests, Forest Service Technical Report (PSW-GTR-237)

http://www.fs.fed.us/psw/publications/documents/psw_gtr237/psw_gtr237.pdf

An Ecosystem Management Strategy for Sierran Mixed-Conifer Forests (PSW-GTR-220). A Forest Service report from Pacific Southwest Research Station (with addendum, February, 2010),

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9. ABC Comment on Draft Marbled Murrelet Critical Habitat Rule

October 26, 2015

Michael Bean
Principal Deputy Assistant Secretary for Fish and Wildlife and Parks
U.S. Department of the Interior
Washington, D.C. 20240

Public Comments Processing
Attn: FWS-R1-ES-2015-0070
Division of Policy, Performance and Management Programs
U.S. Fish and Wildlife Service, MS: BPHC
Falls Church, VA 22041-3803

Dear Principal Deputy Assistant Secretary Bean,

Thank you for this opportunity to comment on the designation of critical habitat for the threatened Marbled Murrelet. Based on the best available science and a review of pending threats to Marbled Murrelet habitat, American Bird Conservancy (ABC) respectfully requests that the U.S. Fish and Wildlife Service (the Service) propose additions to designated critical habitat and require new protective measures to ameliorate continuing habitat loss and fragmentation from timber harvest on private, state and federal lands.

The small number of this distinct population segment, the significant population decline in Washington State, and past projections of likely extinction in California and Oregon within 100 years, are indications that current protections and efforts to restore old-growth forest habitat need to be augmented. This would aid in the recovery of the Murrelet, listed salmon stocks, and the threatened Northern Spotted Owl, and also benefit clean air, clean water, wild salmon runs, carbon sequestration and other ecosystem services uniquely provided by these irreplaceable late-successional forests.

ABC agrees with the Service that all 3,698,100 acres currently designated meet the definition of critical habitat and should be retained. In addition, ABC urges the Service to identify additional acres, including near shore areas, that are suitable for critical habitat designation, and to direct federal and state land management agencies to adopt more stringent habitat protection measures for the Marbled Murrelet, including larger buffers around timber management projects.

In addition, proposed regulatory and legislative changes threaten both Murrelet habitat and the conservation framework now in place on federal lands to provide for its recovery. There are also deficiencies in the 1996 rule, including a lack of adequate critical habitat designations on tribal, private, and state forest lands, and near shore areas that should be addressed by this proposal.

In conclusion, we urge your support for expanding the critical habitat designation and promote more aggressive habitat conservation measures for the murrelet on federally and state managed forests, as well as added conservation incentives for landowners and public acquisitions of private lands from willing sellers. Additional recommendations and relevant background information are contained below.

Thank you for your attention to these concerns.

Sincerely,

Steve Holmer
Senior Policy Advisor
American Bird Conservancy

Northwest Forest Plan is Conserving Marbled Murrelet Habitat, Just Not Enough

The Marbled Murrelet is an amazing seabird that in the Pacific Northwest nests in mature and old-growth trees. Due to extensive habitat loss caused by widespread logging near the coast of central to northern California, Oregon, and Washington State, a distinct population segment of the Marbled Murrelet is federally listed as threatened under the Endangered Species Act.

A region-wide court injunction against logging on federal lands and political gridlock prompted intervention in the ancient forest debate by incoming President Bill Clinton. A forest summit was held in Portland, Oregon in 1993, and agencies were directed to develop the Northwest Forest Plan. This was a

first of its kind, multispecies and ecosystem conservation plan intended to protect late-successional forests and riparian areas, as well as the Northern Spotted Owl, Marbled Murrelet, Pacific Salmon stocks, and 600 other old-growth-dependent species. The Plan went into effect in 1994 and it remains today the best available conservation framework of its kind.

The Northwest Forest Plan is first and foremost, a multispecies management plan for listed species including the Northern Spotted Owl, Marbled Murrelet and salmon stocks that provides the land management agencies with an “adequate regulatory mechanism” to comply with the Endangered Species Act, the National Forest Management Act, the Clean Water Act, and the National Environmental Policy Act. The Northwest Forest Plan promotes an ecosystem management approach with the specific goal of protecting those listed species and perpetuating and expanding the size of the region’s late-successional forest ecosystem.

Studies show that the Northwest Forest Plan is working as intended to retain mature and old forests, and that the highly fragmented forest ecosystem is growing back into the large blocks of mature forest habitat needed to maintain water quality and recover threatened species such as the Northern Spotted Owl, Marbled Murrelet and Pacific salmon stocks. It is important to note that the Northwest Forest Plan is a 100-year plan, now in its 21st year, and significant habitat gains for Northern Spotted Owl and to a much lesser degree Marbled Murrelets are not anticipated until mid-century.

According to the Pacific Seabird Group:

“significant thinning and logging is taking place within LSRs, which is further fragmenting the landscape and extending the time when large contiguous blocks of late seral habitat will exist on the landscape. In fact, under the NWFP, HCPs, and other habitat management plans, new murrelet habitat will not be suitable for at least 50 to 200 years. The inability to create new murrelet habitat in the short term combined with the continued harvesting of occupied and unoccupied habitat on state, federal and private lands ensures a downward trend in suitable habitat and murrelet populations into the future.

The continued loss of murrelet nesting habitat threatens their survival by: (1) reducing the amount of nesting habitat which in turn decreases the proportion of the population that is able to find quality nest sites; (2) fragmenting occupied sites and subjecting them to harmful edge effects, especially predation, that reduce nest success rate; and (3) reducing the availability of quality nesting habitat forcing murrelets to nest in lower-quality habitat, which diminishes nest success (USFWS 1997, 2012).”

Overall, under the Northwest Plan, 97% of the Murrelet habitat on federal lands has been conserved. However, it is important to remember that the Northwest Forest Plan alone does not provide enough to provide habitat protection for Murrelet recovery. As the 1996 rule notes, the FEMAT viability assessment concluded: “We believe there is only about a 60 percent likelihood that the Marbled Murrelet population on federal lands would be stable and well distributed after 100 years, regardless of which option is selected.” (p. 26262)

In the 2009 5-year status review, FWS stated that although the Northwest Forest Plan protects some murrelets, without critical habitat, “conservation benefits would not likely extend to all areas currently protected for the murrelet.” In addition, the protections these birds enjoy under the Northwest Forest Plan may change as forest plans are revised. Both the Bureau of Land Management (BLM) and USFS are currently undertaking plan revisions in the region that seek to alter the Plan’s management standards.

Marbled Murrelet 20-Year Monitoring Report (excerpts)

Annual population estimates for the entire NWFP area ranged from about 16,600 to 22,800 murrelets during the 14-year period, with a 2013 estimate of 19,700 (95 percent confidence interval: 15,400 to 23,900). At the conservation-zone scale, there was strong evidence of a linear decline in the two conservation zones in Washington: Conservation Zone 1 (3.9 percent decline per year), which includes the Strait of Juan de Fuca, San Juan Islands, and Puget Sound and Conservation Zone 2 (6.7 percent decline per year), which includes the outer coast of Washington. At the state scale, which combines conservation zones and portions of conservation zones, we found strong evidence for a declining linear trend in Washington (4.6 percent decline per year) and no evidence of a trend in Oregon. For the entire NWFP area the trend estimate for the 2001 to 2013 period was negative, but here also the confidence interval for the estimate overlapped zero and the evidence for a trend was inconclusive. This result differs from the decline previously reported at the NWFP-scale for the 2001 to 2010 period. This difference was the result of high population estimates for 2011 through 2013 compared to the previous several years, which reduced the slope of the trend and increased variability. Continued monitoring should help to better understand population trends and to assess underlying factors that might explain trends and variability in annual estimates. The population monitoring results to date indicate that the NWFP goal of stabilizing and increasing marbled murrelet populations has not yet been achieved throughout the NWFP area.

We found a net loss of about 2 percent of potential nesting habitat from 1993 to 2012 on federal lands, compared to a net loss of about 27 percent on nonfederal lands. In both analyses, we found that numbers of murrelets are positively correlated with amounts and pattern (large contiguous patches) of suitable nesting habitat, and that population trend is most strongly correlated with trend in nesting habitat although marine factors also contribute to this trend.

Model results suggest that conservation of suitable nesting habitat is key to murrelet conservation, but that marine factors, especially factors that contribute to murrelet prey abundance, play a role in murrelet distribution and trend. Conservation of habitat within reserves, as well as management actions that are designed to minimize loss of suitable habitat or improve quality of nesting habitat on all lands, should contribute to murrelet conservation and recovery.

Our findings indicate that the answer to this question is “no,” the murrelet population associated with the NWFP area is not stable or increasing, at least not in Washington. We believe that the magnitude of the decline observed for Washington State and its two conservation zones, based on the 2001 to 2013 period, is sufficient to cause concern, and may merit a review of potential management implications and responses.

Both the NWFP (FEMAT 1993) and the species’ recovery plan (USFWS 1997) anticipated a challenge in maintaining murrelet populations for 50 to 200 years, until new nesting habitat develops. In light of observed population trends, our findings underscore the importance of the short-term goal to maintain existing nesting habitat.

Loss of higher-suitability habitat was greatest on nonfederal lands (losses were 29.8, 21.1, and 21.8 percent of baseline in Washington, Oregon and California, respectively; Tables 2-9 and 2-10). On nonfederal lands, almost all loss (98 percent) was due to harvest (Tables 2-12 and 2-13). Losses were lower from federally reserved lands, totaling 1.7, 3.8, and 1.1 percent from the three states (Tables 2-9 and 2-10). The cause of loss varied by land ownership, based on the LandTrendr-verified losses. On

federal lands, most of this loss of higher-suitability habitat (62 percent) was due to fire and about 23 percent due to harvest (Table 2-12). On federally reserved lands, wildfire accounted for 66 percent of losses (Table 2-12). Most of these losses (62 percent of all losses in reserves) occurred in the Oregon Klamath physiographic province, and from a single fire, the 2002 Biscuit Fire, which was Oregon's largest contiguous, single-year fire on record (Azuma et al. 2004).

Implications of Results

In the short term, the objective is to conserve all remaining habitat, and to that end the NWFP has conserved to date the large majority (greater than 97 percent) of suitable marbled murrelet nesting habitat that was present on the federal lands NWFP management at the inception of the plan in 1994.

While some future losses due to wildfire and natural disturbances are likely, harvest losses within federal reserves should drop or cease, with the completion of the 'grandfathered' timber sales approved prior NWFP implementation, but harvested after 1993. Over 90 percent of currently higher-suitability habitat on federal lands occurs within the various reserve land use allocations, but whether this continues is highly dependent on future management and political decisions.

However, rate of loss of higher-suitability habitat has been about 10 times greater (26.6 percent) on nonfederal lands, due mostly to timber harvest (Table 2-13). Conservation of the threatened murrelet is not possible if such losses continue at this rate into the future. If the amount of higher-suitability habitat for murrelets is to be maintained at its current level, and given that almost half of the higher-suitability habitat is on nonfederal lands, accomplishing this goal will require significant contributions from nonfederal lands.

The development of stands with old-growth characteristics necessary for murrelets is expected to take at least 100 to 200 years from the time of regeneration (USFWS 1997). For the many younger stands in the murrelet range that were clear-cut harvested in the past century, the benefits of habitat development are far into the future. However, if management for late-successional and old-growth forests continues, projections show substantial increases of forest exceeding 150 years in age by 2050 on western federal lands (Mills and Zhou 2003).

Over the long run it is not unreasonable to expect to see some net increase in total amount of higher-suitability habitat, however in the short term conservation of the higher-suitability habitat (Classes 3 and 4) is essential. If losses of suitable habitat are reduced, old forest suitable for nesting is allowed to develop, and fragmentation of older forest is reduced throughout the reserved federal lands, then meeting murrelet population objectives will be more certain. Given declining murrelet population trends as well as habitat losses, in many areas, it is uncertain whether their populations will persist to benefit from potential future increases in habitat suitability. This underscores the need to arrest the loss of suitable habitat on all lands, especially on nonfederal lands and in the relatively near term (3-5 decades).

In Chapter 2 of this volume, we found that a relatively high proportion (typically two-thirds or more) of suitable nesting habitat occurs as small patches (lacking interior forest conditions that are more than 90 m from a patch edge) or as edges of larger habitat patches. In this chapter, we found that nesting habitat cohesion, which is the inverse of habitat fragmentation, is a strong predictor of murrelet abundance and trends. This result is not surprising because murrelets prefer larger patches, which also tend to have fewer nest predators (Malt and Lank 2007, Raphael et al. 2002).

A key feature of the NWFP is a network of late-successional reserves that have the management objective of protecting and enhancing late-successional forest ecosystems, which serve as habitat for late-successional forest species, including the murrelet. These reserves contain both older and younger forests, and over time, as more mature habitat develops around existing older forest in reserves, patch size should increase, and fragmentation and the prevalence of edges should decrease within reserves. However, it can take many decades for murrelet nesting habitat to develop, and in the short-term, protection of existing habitat will continue to be critical to minimize habitat losses, both within and outside of late-successional reserves.

Near-term murrelet conservation should also consider habitat loss caused by windthrow. Windthrow is a natural phenomenon and an important process in coastal forests of the Pacific Northwest, but it can be highly influenced by human activities. Clearcut or heavy thinning harvests can increase the amount of windthrow on the landscape dramatically. This effect depends on complex interactions between biotic (e.g., forest age and condition) and abiotic (e.g., slope and aspect) factors operating at different spatial and temporal scales (Sinton et al. 2000). Portions of forests can also be lost to windthrow after lighter thinning, but the magnitude of the effect depends on factors including topography and tree height-to-diameter ratios (Harrington et al. 2005, Roberts et al. 2007, Wilson and Puettmann 2007). Thus, thinning operations may accelerate the creation of forest conditions suitable to murrelet nesting in the long term (e.g., Maguire et al. 1994), but have short term negative impacts to murrelets to consider in management decisions (McShane et al. 2004).

Forest practices, natural forest disturbance and the interaction between these factors can increase the amount of forest edge. Increased edge resulting from forest fragmentation appears to have negative effects on murrelets. Malt and Lank (2007) found that murrelet nest sites at timber harvest edges had lower moss abundance than interior and natural edge nests sites (stream corridors and avalanche chutes) due to stronger winds, higher temperature variability, and lower moisture retention. Moss is an important nest substrate on large branches for murrelets in much of the NWFP area, therefore management actions adjacent to suitable murrelet nesting habitat can have implications for murrelets. Another negative impact to murrelets associated with edges, especially those that occur between clearcuts or large openings and forests, is increased nest depredation rates (Masselink 2001, Marzluff et al. 2004, Marzluff and Neatherlin 2006). This is especially true when edges are near human development such as campgrounds (Marzluff and Neatherlin 2006) or include berry producing plants such as elderberry (*Sambucus* sp.; Masselink 2001).

One conservation measure that is commonly used to minimize negative effects of forest edges is to provide forested buffers (USFWS 1997). The murrelet recovery plan includes as a short-term recovery action maintaining and enhancing buffer habitat around occupied nesting habitat, and suggests minimum buffer widths of 300-600 feet in this situation (USFWS 1997). Buffers around suitable nesting habitat (whether determined to be occupied or not) would help reduce fragmentation, risk of windthrow loss, and potentially reduce nest predation risk (USFWS 1997). Buffers are particularly important in the near-term while larger blocks of habitat develop on reserved lands. The details of such buffers are beyond the scope of this report. However, if not already accomplished, development and implementation of forest management practices that protect (short-term) and develop (long-term) suitable murrelet nesting habitat on NWFP lands within the murrelet range would be beneficial. For such practices, minimizing short term impacts, such as by avoiding harvest of suitable nesting habitat, providing buffers round suitable nesting habitat to minimize edge effects of management actions (such as from thinning or clearcuts), and minimizing fragmentation of suitable habitat, will likely improve the status of this threatened species.

As described in Chapter 2, a substantial amount of suitable nesting habitat occurs on state and private lands. The loss of habitat on those lands is occurring at a much more rapid rate than on Federal lands. Because of the strong relationship between murrelet populations and nesting habitat and because recovery of murrelet populations will likely require contributions of nesting habitat on state and private lands, at least in the short-term (as discussed in the murrelet recovery plan), there is a need for incentives for private forest landowners to avoid fragmentation and loss of high quality nesting habitat and to maintain blocks of interior nesting habitat on the landscape as well as buffers adjacent to suitable habitat on federal and state lands.

Several points bear repeating: (1) loss of higher-suitability habitat has been relatively low on Federal land compared to non-federal land since creation of the Northwest Forest Plan; (2) marbled murrelet declines are not related to the small loss of higher suitability habitat on Federal lands, but could be related to the lack of buffers and heavy thinning adjacent to murrelet habitat in the LSRs; and (3) there appears to be a strong relationship between murrelet population declines and the large loss of higher suitability habitat on non-federal land, especially in Zone 2.

Marbled Murrelet Population Trend and Long-Term Viability

Declining murrelet population trends and habitat losses documented in the 20-year monitoring report of the Northwest Forest Plan underscore the need to minimize the loss of suitable habitat, especially in the relatively near term (next 50 – 100 years), until re-growing forests develop the structure needed for marbled murrelet nesting. Previous studies came to similar conclusions.

The 2004, “Evaluation Report for the 5-Year Status Review of the Marbled Murrelet in Washington, Oregon, and California”¹ reported that the population of approximately 21,900 (3-state population estimate) individuals is declining and that the extinction risk for this species is at least 100% within 100 years in all areas that the species inhabits in the Washington, Oregon, and California, except zone 1 (Puget Sound Area). “Since the 1992 listing, suitable breeding habitat and number of occupied trees have decreased throughout the 3-state region”.¹

The importance of terrestrial habitat for both survival and recovery of Marbled Murrelets in Washington, Oregon, and California is clear from the status review conducted in 2004 which states “It is unrealistic to expect that the species will recover before there is significant improvement in the amount and distribution of suitable habitat”.¹ A 2013 peer-reviewed study by the U.S. Fish and Wildlife Service (FWS) and U.S.D.A. Forest Service (USFS) found that distinct population segment of the Marbled Murrelet had declined by 29% over the last decade.

These findings, bolstered by the 20-year monitoring report, indicate that current measures to eliminate threats and protect habitat are inadequate and that additional measures are urgently needed. In addition, the Murrelet faces new threats in the form of inadequate regulatory mechanisms as a result of proposed changes to the resource management plans in Oregon, and legislation.

Threats to Marbled Murrelet Habitat

Proposals to increase logging in currently protected forests has also spawned opposition from scientists working to conserve the threatened Marbled Murrelet. The Pacific Seabird Group, an international, nonprofit organization that promotes the study and conservation of Pacific seabirds, sent a letter to

President Obama stating, “we have a high level of concern about current proposals to increase logging in western forests, where the cumulative impacts of the patchwork landscape could exacerbate problems already faced by the Marbled Murrelet.”

The group pointed out that plans to increase logging and create a timber trust on the Oregon & California Railroad (O & C) lands managed by the Bureau of Land Management would be particularly harmful to the murrelet. “Impacts on the Marbled Murrelet could be severe, because the lands that likely would be logged and fragmented include active murrelets and surrounding forest habitats.”

H.R. 2647, passed by the House of Representatives, would create new categorical exclusions for large-scale logging, limit citizen involvement and oversight, and undermine protections of the Northwest Forest Plan. The administration is strongly opposing the bill which if passed could result in significant habitat loss. The proposed O & C Land Grant Act, S. 132, would increase the risk of habitat loss and fragmentation for the Marbled Murrelet. The bill, which the administration has also raised concerns about, could be improved by prohibiting ecoforestry and other even-aged management within the Murrelet’s nesting area.

The 2012 Final Northern Spotted Owl Critical Habitat Rule misapplies the Northwest Forest Plan’s ecosystem management approach to promote ecological forestry which has not been adequately field tested or monitored, and is likely to be detrimental to Northern Spotted Owls, Marbled Murrelets and listed salmon by increasing fragmentation and facilitating Barred Owl invasion.

The draft Northern Spotted Owl Critical Habitat Rule’s Environmental Assessment found that “Active forest management that is in the vicinity of murrelet nesting stands may be detrimental to the species survival and recovery.” (p. 61)

Logging (clearcutting and commercial thinning) increases fragmentation, opening the forests to nest predators such as crows, ravens, and jays. Despite this, there was no prohibition in the final owl critical habitat rule on the proposed active management to ensure murrelet nesting stands will not be disturbed, and notably, the fact that active management may be detrimental to Murrelet nesting stands was not mentioned as it had been in the draft, a glaring omission that again raises concern that Murrelet conservation is not receiving adequate attention by the Service.

Western Oregon Plan Revision Threatens the Northwest Forest Plan

The draft 2015 Western Oregon Plan Revisions poses a significant threat to the Marbled Murrelet, in addition to the Northern Spotted Owl and Coho salmon. ABC’s full comment is attached and some key excerpts follow.

As an initial amendment to President Clinton’s Northwest Forest Plan, American Bird Conservancy is viewing this draft both in terms of its specific impacts to forests and wildlife in western Oregon, and how it changes the Northwest Forest Plan’s regional restoration framework to provide additional habitat for and to conserve wide-ranging listed species including the Northern Spotted Owl and Marbled Murrelet.

A key principle we now reiterate is that the regional conservation framework of the Northwest Forest Plan needs to be retained and that the BLM and Forest Service need to work together to ensure forest plans comply with the best available science and legal obligations to protect endangered species, and to

provide the public a fair and complete understanding of the changes being proposed to the Northwest Forest Plan. This fundamental principle is being ignored by BLM.

We are concerned that the draft alternatives reflect 1) an abandonment of the Northwest Forest Plan and the consistent regional management and restoration framework that it provides, 2) a significant weakening of protections for listed species, and water quality, by reducing riparian reserves and promoting clearcutting of mature forests including in Northern Spotted Owl critical habitat, and Marbled Murrelet nesting areas, and 3) an incomplete economic analysis that fails to recognize that recreation, clean water, carbon storage and other amenities provided by these federal forests are worth more in terms of jobs and overall economic contribution to society than an emphasis on increased timber production in endangered species habitat.

A key piece of new information is now available, the 20-year monitoring reports of the Northwest Forest Plan, is now available and should be considered. The reports indicate that the plan is working as intended, creating additional habitat for listed species, improving water quality, guiding needed restoration, and providing a stable supply of timber.

Western Oregon Plan Revision Threatens the Marbled Murrelet

The BLM and Forest Service are producing as much timber as Congress is funding. Approximately 757 million board is the estimated volume that can be produced in the Northwest Forest Plan area, and the agencies have been consistently producing over 600 million board feet. Any perceived shortfall is related to funding levels set by Congress and the administration, and not the result of litigation by conservation groups.

The timber industry had filed several challenges to BLM's management of O&C lands in the D.C. District Court, generally arguing in each case that BLM had failed to offer for sale sufficient timber to meet statutory requirements. In August, the DC Court of Appeals rejected the first of these challenges, holding that the timber industry did not have standing to raise such a challenge because plaintiffs could not demonstrate that their claimed economic harm was linked to BLM's timber program, as opposed to the Great Recession, lower funding levels for BLM operations, and other factors. In September, the District Court dismissed three additional challenges on the same grounds. As a result, there is no "court-ordered mandate" to increase timber harvest on O&C lands.

Faulty No Action Alternative: The No Action Alternative is based on the Northwest Forest Plan as written, as opposed to how it is actually being implemented in 2015. As a result, it does not offer a useful baseline for analysis, particularly for the 50-year projections, or for comparison with the proposed draft alternatives. The draft misleads the public by claiming inflated timber outputs under the Northwest Forest Plan as written despite the fact there has been considerable adaptive management since 1994, and old growth logging projects in matrix were typically found by federal courts to be illegal. White House Council on Environmental Quality guidance on this point is clear: "In these cases "no action" is "no change" from current management direction or level of management intensity."

In addition, the economic analysis was incomplete, but it did include significant evidence that non-timber values such as recreation, water, wildlife habitat and carbon storage are more valuable than timber. However it failed to assess the costs of proposed increases in mature forest logging as proposed in the DEIS, which would diminish those values. Details below are from the BLM DEIS.

Recreation Value: The 2012 value of recreation is estimated at \$223 million, and annual recreation value is expected to increase over the next decade to \$250 million annually in each alternative. BLM administers approximately 50 percent of all public land within 30-minute driving time of the 12 largest communities in western Oregon, and 34 percent within 60-minute driving time. There were 10.8 million participants in recreation, with wildlife/nature viewing, scenic driving, camping and picnicking, non-motorized trail use, and hunting all experiencing over one million participants (p. 489). BLM projects 16.5 million annual participants by 2060 (p. 491). It is estimated that hunting, including Migratory Game Birds generates \$26 million annually, and that wildlife viewing adds another \$31.5 million.

Carbon Storage Value: In 2012, the forests in the decision area fixed and stored a net total of about 673,000 metric tons of carbon (p. 501). While there are markets that exist to provide payments for carbon storage, there is currently no such market operating in western Oregon, and BLM does not participate. Absent a market value, BLM has analyzed the social cost of carbon which attempts to put a monetary value on the likely costs of climate change. There is considerable debate about these costs, so BLM has provided a range of values. At the low end, is an estimate of \$99 million dollars a year resulting from carbon storage on BLM managed lands. At the high end, \$291 million (p. 502).

Source Water Protection: BLM-administered public lands capture, filter and convey water that people in western Oregon drink. Approximately 80 percent of Oregonians depend on drinking water from public water systems. There are approximately 80 source water watersheds in the planning area and 73 percent of BLM-administered lands are in areas the Oregon DEQ identifies as drinking water protection areas (TNC and WSC 2012) (p. 502-503).

Here there appears to be some missing analysis because there is no estimate provided for the value of the water coming off of the forests, or of the replacement cost if that water not available, or possible filtration costs if currently clean water supplies were to become degraded. The analysis notes that the economics literature on water-treatment costs includes studies that show a relationship between the quality of forest cover and treatment costs. However, no value estimates are provided for water.

Biodiversity Value: Markets do not yet exist for biodiversity, but there are a number of ways to estimate values for ecosystem services provided by biodiversity, and the value to people of having wildlife in the environment. Food crops, clean water, clean air, and aesthetic pleasures depend on biodiversity as do the persistence, stability and productivity of natural systems (Millennial Ecosystem Assessment, 2005 p. 79). Biodiversity also supports basic ecosystem services including waste disposal, soil formation, nitrogen fixation, bioremediation of chemicals, crop and livestock breeding, biological control of pests, and pollination (Pimentel et al 1997, Krieger 2001) (p. 504). The economic value of these services is currently beyond accurate estimation, and the replacement cost likely is far beyond our ability to pay.

Scenic Amenities: While BLM divides lands into one of four classes based on the quality of visual resources, no economic estimate is provided for the value to private property owners with views of BLM-administered lands. Studies do show that properties with pleasing views, increase in value from 1 to 89 percent depending on locations. Here the issue of regeneration harvest becomes particularly relevant. The amount and spacing of clearcuts will have a significant impact on the resulting views from private property.

In this instance, the Northwest Forest Plan as implemented, where regeneration harvest is relatively rare, may provide for a much more pleasing view than the clearcuts allowed for under all draft

alternatives. However, there is no comparative analysis provided for the likely impact of these management activities on private land scenery values (p. 506).

Summary of Economic Values and the Need for Further Analysis: Table 3-159 on page 508 summarizes the economic value of goods and services. Resource uses on BLM-administration lands including energy production, grazing, minerals, and timber generated approximately \$21 million of direct economic value in 2012. Carbon storage, recreation, and special forest products are valued at between \$326 and \$569 million. Other important values including water production, biodiversity, and scenery are not monetized in the report, but are likely beneficiaries of forest conservation and preservation.

Marbled Murrelet Put at Risk by DEIS

The DEIS puts the Marbled Murrelet at risk by proposing to increase logging, fragment habitat, and remove specific protection included in the Northwest Forest Plan. Under the Plan and current BLM RMPs, the agency must survey prior to logging in any potential Marbled Murrelet habitat. If there is any indication of occupancy, the agency protects a 0.5 mile radius of all contiguous existing and recruitment habitat (stands capable of becoming habitat in 25 years). These areas would be managed as LSR. Recruitment habitat is required to “protected and enhanced” by any silvicultural treatment. (Eugene RMP at 62).

The BLM’s proposed DEIS alters this requirement in all alternatives as laid out below. In the preferred alternative, murrelet surveys are restricted to the first 35 miles from the coast, although marbled murrelet habitat can extend up to 55 miles inland. Additionally, survey habitat is much more strictly defined as detailed out below. Timber harvest is allowed without surveys if large legacy trees are withheld from harvest and habitat is “maintained.”

*Alternative A: No surveys, protect existing sites, seasonal disruption restrictions

*Alternative B: Surveys 35 miles from Coast in “mature or structurally-complex coniferous forest” and “conifer forests under 80 years old with platform trees (must be within 35 miles of coast, conifer, dbh greater than 19.1, over 33 meters tall, potential structure over 10 meters from ground, and contains platform over 4 inches in diameter. If stand occupied protect all occupied habitat plus 300 foot buffer around occupied stand. In stands under 80 with platforms, no surveys needed if platform trees aren’t removed; maintain habitat (need to define); seasonal restrictions during breeding season.

*Alternative C: surveys in conifer stands over 120 years old, protect sites same as above for 10 years, and existing site protection lasts 10 years

*Alternative D: surveys same as B (but no 35 mile limitation), buffer all contiguous habitat within .5 mile radius of occupied stand (no gaps wider than 100 meters in forest)

Existing Sites: Marbled Murrelets have high nest-site fidelity, and as such, the Pacific Seabird Group (PSG) protocol recommends treating all occupied Marbled Murrelet sites as occupied sites indefinitely. A murrelet site, due to the inability to locate an exact nest location, occupies the entire area of contiguous forest. Given that the BLM is under direction from the FWS to protect occupied habitat, a majority of BLM alternatives say that the BLM will protect existing sites, but it is unclear. Page 722.

Pursuant to the PSG Protocol and available murrelet studies, occupied habitat means all the trees in a contiguous stand, including platform and non-platform trees. Any logging within this occupied habitat opens up the stand to predators and fragments the bird’s habitat, resulting in take.

The BLM states that under three of the four action alternatives, all existing murrelet sites would be “retained.” Page 733. The BLM needs to elaborate on what this means. We assume it means that the entire survey area, i.e. contiguous forest stand, for each murrelet nest site is to be protected, off limits from any kind of logging. Marbled Murrelet nest sites are compromised by forest and canopy openings that can be created by thinning or adjacent clearcutting. The BLM if indeed it is committed to protecting existing occupied sites, needs to ensure that all these sites are off limits from commercial harvest of any kind, because logging will create forest edges and openings that will expose these nest sites to an increased risk of predation. Additionally, even if these sites are in reserves this does not guarantee their protection because of the logging permitted in reserves that can downgrade or remove older forest.

300 Feet: In two of the BLM Alternatives the BLM proposes to protect Marbled Murrelet nest sites with a buffer of 300 feet as opposed to a half mile. This results in marbled murrelet occupied sites are approximately 6.5 acres in size as opposed to approximately 500 acres in size. The BLM provides no analysis or scientific justification that these 300 foot buffers will ensure protection of the nest site. Almost assuredly, a 6 acre nest site for the murrelet will result in the failure or predation of that nest site. Therefore, the BLM’s assumption in the DEIS, that these sites will not be “taken” because of this 300 foot buffer is false and lacks scientific justification or rationale. This prescription will result in violations of the ESA, the MAMU Recovery Plan, the 5 Year Review Recommendations, and the NWFP Recommendations.

Potential or Suitable Habitat: We are concerned that the BLM is defining potential or suitable survey habitat for these alternatives too narrowly, and will accordingly miss certain types of Marbled Murrelet nest sites from this survey regiment. Murrelets will nest in younger stands if a single legacy tree is present, but the BLM is taking a stand level approach. When averaged, stands that provide nesting trees and habitat for murrelets could have average DBH, tree height, and various measurements that will not satisfy the BLM survey standards laid out above.

The BLM either needs to delete the DBH and height limitations or any limitations based on the number of platform trees present, or the BLM needs to factor in the percentage of nest sites that will occur outside of survey habitat and account for their loss and destruction in the modeling of the impacts. As an illustration, the BLM admits that over 10% of the existing occupied sites exist outside of what the agency has modeled or considered “nesting habitat.” Page 733. The agency needs to take a hard look at this issue.

35 Mile Delineation: Please explain or provide ecological or scientific justification for the 35 mile mark in Alternative B. It seems entirely arbitrary and will result in the take of murrelet nesting areas.

Habitat “Maintenance”: Under the alternatives where surveys are required in the future, we are concerned that the BLM’s habitat maintenance program will not result in adequate protection of the newly discovered nest site, not make it safe to assume that new sites will be retained, or that Marbled Murrelets will continue to reproduce at these locations. The BLM is permitting logging, as long as the large legacy trees with platforms are not removed. Again, it is inadequate to just protect potential Marbled Murrelet nest trees in a stand. Logging trees that provide canopy closure around these legacy trees opens the stand up to corvids and will result in dramatic risk of nest predation and failure. The entire contiguous stand with large buffers needs to be protected in perpetuity to protect murrelets.

Large Block Habitat: The BLM should have considered blocking up large areas of habitat known to contain legacy and platform trees to provide refuges for the marbled murrelet. Aside from the no action

alternative, it appears every alternative is reducing protections for the Marbled Murrelet. Given the species flat lining or declining population levels, coupled with an alarming drop in juvenile numbers which signal problems with reproduction, should implicate an alternative that strengthens protections for the species and creates special reserves for the species to guarantee viability of the species.

False Assumptions: In numerous places throughout the DEIS, the BLM assumes that murrelet populations are increasing. This is false as the 20-year monitoring indicates. Alternatives that all reduce protections for the species because they are based upon this false assumption flaws the NEPA process.

Riparian Reserve Reductions: Marbled Murrelets depend disproportionately on lower slopes and riparian forests. FWS' 1997 Recovery Plan for the Marbled Murrelet says "With respect to slope, eighty percent of nests in the Pacific Northwest were located on the lower one-third or middle one-third of the slope." Hamer and Nelson (1995) show that the mean distance to streams from marbled murrelet nests in the Pacific Northwest is 159 meters.

In California, Baker et al. (2006) found that marbled murrelet nest sites "were located closer to streams, had a greater basal area of trees >120 cm dbh, and were located lower on slopes than random sites based on analysis of variance models." Baker (2006) states:

We found that nest sites were much closer to streams than would be expected based on randomly available sites within old-growth forests. Nest sites may have been located near streams because these sites afforded murrelets better access from at-sea flyways. Studies have found proximity to streams or other openings to be important for murrelet nesting in other regions as well (Hamer and Nelson 1995, Meyer et al. 2004, Zharikov et al. 2006).

Proposed increased clearcutting within riparian reserves in the BLM's DEIS is in direct conflict with FWS' 1997 Recovery Plan for the Marbled Murrelet which recommends that mature forests within "secured areas" (such as riparian reserves) be protected so they can serve as future nesting habitat for the marbled murrelet. This recovery plan recommendation is not about existing high quality habitat, but about mature forests that can serve as future recruitment habitat. These 80-120 year-old maturing forests are precisely those targeted for logging in many recent policy proposals, such as the BLM Secretarial Pilots, and the federal legislation.

BLM DEIS Should Be Withdrawn

For these reasons, American Bird Conservancy is requesting that the draft RMP/EIS be withdrawn, and that the BLM be directed to work with the Forest Service to develop a consistent regional strategy to protect, restore and manage the federal forests under the Northwest Forest Plan. We further urge the Service to encourage BLM to drop its current effort to reduce protections for the Marbled Murrelet and its habitat, and to designate additional critical habitat to compensate for this risk, and the extensive logging over the past decade on private and state lands in Oregon.

State Rules, HCPs, 1996 Rule are Inadequate to Protect the Marbled Murrelet

Loss and degradation of murrelet habitat on private, state, and federal lands continues despite the Northwest Forest Plan, the 1996 critical habitat rule, the 1997 recovery plan, Habitat Conservation Plans (HCPs) and other conservation agreements. The 20-year monitoring indicates that loss of habitat on non-federal lands is a significant threat, and that remaining high quality habitat should be conserved.

The 1996 rule did not designated sufficient critical habitat on non-federal lands to conserve the population. A total of 870,300 non-federal acres were designated, approximately 22% of the murrelet's habitat. However, of the total, non-federal lands provide 41% of the known habitat indicating the designation should have been much larger. It is also important note that the loss of higher-suitability habitat was greatest on nonfederal lands. Losses were 29.8, 21.1, and 21.8 percent of baseline in Washington, Oregon and California.

The Service noted in the 1996 rule that there was limited data about the amount of suitable nesting habitat on private lands. Since that time, new survey methods and modeling provide managers a better understanding making the identification of additional habitat possible. We urge the agency to inventory private lands to assess areas of suitable habitat to designate as critical habitat.

Meanwhile, where the species is declining at the steepest rate (5.1% per year), Washington State has failed to comply with its federally-approved Trust Lands HCP, which required it to develop a long-term marbled murrelet conservation strategy for approximately 1.6 million acres of state-managed trust lands within the range of the murrelet. And despite the Conservation Plan now being eighteen years overdue, Federal and state agencies in Washington continue to allow significant fragmentation to take place through timber extraction activities, as well as loss of mature forests needed to provide future additional habitat.

The 2008 Science Report contained recommendations to the Department of Natural Resources for southwest Washington, and the Olympic Experimental State Forest. MM Manage Areas were identified in both places and the team recommended that 100% of these critical habitat areas be retained in southwest Washington, and 50% on the OESF. The Report also called for a one-mile buffer for the area around Olympic National Park to be deferred from harvest and managed to develop old forest habitat.

The 50% protection recommendation for OESF now appears to be insufficient, and the team did not provide recommendations or identify critical areas for the Northwest Puget Sound or Straits of Juan de Fuca Planning Units. Since 2010, significant habitat losses of mature forest (3,400 acres) have occurred in the Straits Planning Unit. We urge critical habitat designation for all Washington State managed lands that currently host Murrelets, and additional areas required to ensure that habitat will be provided for recovery.

In Oregon, no murrelet HCPs currently exist. It is notable that the Elliott State Forest, which was originally proposed for critical habitat designation was excluded from the murrelet's 1996 final critical habitat rule because the State of Oregon's HCP. Subsequently, the State of Oregon has pulled out of the HCP development process to increase timber production in murrelet habitat. Critical habitat needs to be designated for suitable habitat on Oregon State Forests, particularly the Elliott.

The Quinalt and Siletz tribal lands were not included in the 1996 designation, which states that if the rule is revised, that these areas should be reconsidered. We urge that these tribal areas be reevaluated and any remaining suitable habitat be designated.

2006 Critical Habitat Rule and 2012 Proposed Vacature

The Service's proposed vacature of Marbled Murrelet critical habitat in 2012 was unreasonable, and raised concern that conservation of this threatened population segment is not a priority for the Service. Similarly, in 2006 the Service proposed to revise the designation of critical habitat to 221,692 acres, a

reduction of approximately 3,666,108 acres. This was followed by a proposal in 2008 to delist the distinct population segment.

And, while we appreciated concerns expressed in the 2012 Final Northern Spotted Owl Critical Habitat rule for the Murrelet and potential implications if its critical habitat were vacated (see excerpts from the rule below), we were very disappointed that this was proposed by the Service. Vacating critical habitat until 2018 as the Service proposed would likely have resulted in significant additional Marbled Murrelet habitat loss and degradation. Moreover, the final owl rule lacks discussion on potential negative consequences for the Murrelet of active management in owl habitat, and how adverse modification of owl habitat is in fact allowed by the Rule, and will not afford the Murrelet additional protection in that circumstance.

“Currently 1,735,900 ac of the 2008 northern spotted owl critical habitat designation overlays critical habitat designated for the marbled murrelet. Critical habitat for the marbled murrelet is currently under litigation and may be vacated (see section 3.4.4 Cumulative Impacts). Should vacature occur, the nesting habitat components for marbled murrelets would generally be protected through avoidance or adverse modification of spotted owl PCEs in those areas where marbled murrelet critical habitat overlaps the 2008 spotted owl critical habitat. This 1.7 million acres of overlap will be a baseline from which to compare other alternatives to determine the amount of existing marbled murrelet critical habitat that may continue to be afforded incidental protections as a result of avoiding adverse modification of spotted owl critical habitat.” (EA p. 90)

Thus, critical habitat designation for the northern spotted owl may provide some ancillary benefits to marbled murrelets. However, in some parts of the spotted owl range, PCEs that provide for foraging in the form of dense shrub and hardwood openings, or low density patches of forest, particularly in the Klamath, Northern California Interior Coast Ranges, and Redwood Coast Critical Habitat Units, may not provide features beneficial to nesting murrelets. These vegetation pockets open up forest canopies and fragment the landscape for murrelets, inviting corvids (e.g., crows, ravens, and jays) and increasing the predation pressures on nesting murrelets, reducing the ability of this species to reproduce (Nelson et al. 2006). In these areas, protection of some spotted owl PCEs through the avoidance of adverse modification may not provide the habitat attributes needed by nesting marbled murrelets. Should the motion for remand of marbled murrelet critical habitat be granted, the protections of marbled murrelet critical habitat would not be in place in these areas. However, where spotted owl critical habitat overlaps murrelet critical habitat, it may provide incidental protections to habitat attributes necessary for nesting marbled murrelets through the avoidance of destruction or adverse modification of spotted owl PCEs that also support nesting murrelets.

In response to the proposed vacature and continuing habitat loss, ABC and large coalition of conservation groups sent President Obama a letter asking that planning be undertaken to provide additional conservation measures for the Marbled Murrelet. We are disappointed that the administration and Service is not addressing these concerns in the proposed critical habitat rule and would urge that a revised rule and additional conservation actions be undertaken in the near term.

Policies to Protect Marbled Murrelet Habitat

The NWFP requires surveys for and the protection of occupied marbled murrelet nesting sites. It is essential that this protective management requirement be retained. Similarly, the need to protect Marbled Murrelet habitat, including both occupied stands, and mature forest to be recruited as high

quality nesting habitat indicates that all the mature forests within the range of the Marbled Murrelet should be conserved.

We urge that the Service re-evaluate their decision to include marine areas in the critical habitat designation for this species. As a seabird, murrelets are highly dependent on marine habitats throughout their life cycle. Oil spills, both acute and chronic, are a demonstrated threat to these birds. In addition, other potential threats include marine traffic, fisheries interactions, and contaminants.

The 1996 rule considered including five marine areas that supported the highest concentration of Murrelets during breeding season. Pacific Seabird Group states that "Murrelets cannot survive without an abundant and available prey base near suitable nesting habitat. Designating marine CH will be critical to murrelet survival and recovery." We urge the Service to reanalyze this issue and determine if these areas should be designated.

Bolster the Reserve Network on Federal Lands

The existing network of late-successional reserves on federal lands in the Pacific Northwest designated in 1994 to conserve old growth ecosystems, including Northern Spotted Owls and listed salmon stocks, are insufficient to recover the Marbled Murrelet. There is inadequate mitigation of the apparent negative effects of fragmentation and human disturbance on both public and private lands to nest survival. To supplement recovery efforts we urge the Administration to halt sales of mature and old-growth forests throughout the tri-state range of the Murrelet, and designate additional critical habitat for habitat in the range of the murrelet.

The 1997 Marbled Murrelet Recovery Plan, page 143, recommends greater conservation of mature forests so they can grow and provide future murrelet nesting habitat:

Consistent with the Forest Plan Record of Decision, thinning within Late-Successional Reserves should be restricted to stands younger than 80 years.... 3.2.1.2 Protect 'recruitment' nesting habitat to buffer and enlarge existing stands, reduce fragmentation, and provide replacement habitat for current suitable nesting habitat lost to disturbance events. Stands (currently 80 years old or older) that will produce suitable habitat within the next few decades are the most immediate source of new habitat and may be the only replacement for existing habitat lost to disturbance (e.g., timber harvest, fires, etc.) over the next century...Such stands should not be subjected to any silvicultural treatment that diminishes their capacity to provide quality nesting habitat in the future. Within secured areas, these "recruitment" stands should not be harvested or thinned.

Recommendations for Additional Marbled Murrelet Protections

Based on the ongoing decline of this species and the rarity of its remaining mature and old-growth forest habitat, we urge the Service to direct the USFS and BLM to adopt Marbled Murrelet conservation measures recommended by scientists and murrelet conservation experts. Restoring the Marbled Murrelet population will necessitate:

- Protecting existing suitable habitat, both occupied and unoccupied, from logging and other harms.
- Recruiting additional suitable nesting habitat, by letting mature and younger forests grow.

- Preventing fragmentation (including clearcutting or commercial thinning) of the land around suitable habitat, maintaining protective cover from nest predators.
 - Increasing the size of and strengthening the standards for buffers surrounding the nesting sites.
- We request the Service analyze the conservation benefits of a one-mile buffer.

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