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January 11, 2008

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Western Oregon Plan Revisions
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Re: Comments on the Western Oregon Plan Revisions Draft Environmental Impact Statement

Thank you for accepting these comments from the Rogue Group Sierra Club on the Western Oregon Plan Revision (WOPR). The Rogue Group Sierra Club has over 2,000 members, and our organization and its membership will be harmed by the implementation of any of the action alternatives in the WOPR. The WOPR fails to protect old growth forests, clean water, recreation and other important values currently provided by these public forests in western Oregon.

Rogue Group Sierra Club is an advocate for the forests and wildlife of the Klamath and Rogue watersheds of northwest California and southwest Oregon. We use environmental law, science, collaboration and education to defend healthy ecosystems and help build sustainable communities. The Rogue Group Sierra Club incorporates by reference the comments of the National Center for Conservation Science and Policy, Oregon Wild, and the Pacific Rivers Council.

Broadly, we are convinced that all of the primary action alternatives would have negative environmental, social and economic consequences for the planning area and the entire Pacific Northwest. The BLM's new interpretation of the law – particularly its elevation of the O&C Act as a timber-dominant statue – is fundamentally flawed (see Earthjustice's scoping comments on the WOPR).

Areas of Critical Environmental Concern (ACECs)

In the WOPR planning area there are 132 existing and potential ACECs (many submitted by citizens under scoping) 124 of which were analyzed. Under Alternative 2, 93 of the 124 sites would be designated, for a total of 72,318 acres (less than 3% of the BLM land

base) (807) and twenty-four (24) of the 93 ACECs would be designated without the timber harvest base acres included (M 1308-M 1321). In other words, those acres would be logged. The relevant and important values of the remaining (non-designated) 31 ACECs "would eventually be degraded or lost (808)."

The BLM is wrong in its determinations of many of these ACECs. Areas such as Long Gulch, for example, do indeed include the relevant and important values and should be protected as ACECs. In addition to its flawed interpretation of the O&C Act, the BLM is also using an overly broad definition of commercial timber. Indeed, many of the acres that the BLM claims are "commercial" should not be logged because they are on marginal ground with little to no proof of conifer regeneration, no access, and are without the possibility of economically feasible logging operations.

The BLM has not addressed many of the areas that were considered for ACEC status in the last plan revision (se the October 1994 Proposed Resource Management Plan Environmental Impact Statement). There are several areas that would have been designated, and met the relevance and importance criteria for ACEC. The WORP DEIS is silent as to these potential ACECs, yet the BLM is obligated to disclose the impacts to these areas.

Rogue Group Sierra Club is very concerned with the lack of protection afforded to existing ACECs on the Medford District in the WOPR DEIS and the BLM's fundamentalist interpretation of the O&C Act further threatens many of the ACECs that are recommended. The BLM is being arbitrary and capricious by not reversing course on protections it has offered ACECs for several decades.

The WOPR does not provide discussion or clarification for the BLM's reversal of protection for ACECs. In order to reevaluate current ACECs the BLM must determine the following:

- Determine if they still meet the criteria of relevance and importance.
- Determine if a designation is still necessary for special management to protect the features for which areas have been designated.
- Determine if modifications such as boundary changes, addition and deletions of acreage, and type of designation are needed.

The WOPR is absent of any of this analysis. Here are our specific concerns about each of the ACECs.

Baker Cypress (Existing) 11 acres, is not recommended under any action alternative.

Baker Cypress is a very rare tree species and the BLM needs to document and analyze why this important ACEC would not be afforded protection as it meets the importance and relevance criteria for ACECs.

Bobby Creek RNA (Existing) 1,915 acres, is recommended under all action alternatives.

The Bobby Creek RNA should be expanded to include the surrounding late-successional habitat nearby the existing RNA. The BLM is systematically removing important habitat in the vicinity of this ACEC and compromising the natural function of the area. The RNA and surrounding environs have been recognized as critical to the east/west connectivity for species such as the Northern spotted owl and Pacific fisher. In the Bobby Creek RNA Management Plan Environmental Assessment (June 2004) the BLM states that

> The RNA is currently threatened by proposed timber harvest activity on property bordering the RNA. Edge effects due to clearcuts along the RNA include windthrow to border trees, as well as temperature and light increases. These threats may disrupt the ecological processes for which the area has been dedicated. EA at 15.

Since the very lands and management activities (clearcutting) are under the guidance of the Glendale Resource Area of the Medford BLM, would it not make the most sense for the BLM to tell your timber planners to lay of the off the old-growth clearccutting in the West Fork Cow Creek? Yet, the WOPR sets this area up for more clearcutting. Thus, the BLM is failing to protect the Bobby Creek RNA in the WOPR.

Brewer Spruce RNA (Existing) 1,707 acres, is recommended under all action alternatives.

Cobleigh Road (Potential) 261 acres, is recommended, but without O&C land.

The interpretation of the O&C Act is not grounded in case law or BLM interpretation over the years. Excluding O&C acres from ACECs in the year 2008 would be arbitrary, capricious and otherwise not in accordance with the law. The BLM cannot exclude land without determining the productive forest lands or TPCC –limited classifications in this ACEC.

Crooks Creek (Existing) 147 acres, is recommended only under Alternative 2.

This area should be expanded to include more of the natural features in the vicinity.

Dakubetede Wildland, (Potential) 1,796 acres is recommended, but without O&C land.

The interpretation of the O&C Act is not grounded in case law or BLM interpretation

over the years. Excluding O&C acres from ACECs in the year 2008 would be arbitrary, capricious and otherwise not in accordance with the law. The BLM cannot exclude land without determining the productive forest lands or TPCC –limited classifications in this ACEC. Additionally, this ACEC is too small should be expanded to include more of the natural features in the vicinity, totaling approximately 6,000 acres in a north unit, and 1,500 acres in a south unit.

East Fork Whiskey Creek (Potential) 3,188 acres is recommended only in Alternative 2.

This ACEC is too small and should be expanded to protect the objects of interest. The BLM originally recommended the East Fork Whisky Creek ACEC in the Kelsey Whisky DEIS, but the Oregon State Office rejected the District's nomination. The area clearly qualifies, as does the surrounding landscape. If the BLM will not protect the Greater Wild Rogue Wilderness Study Area, it should designate the entire area an ACEC for naturalness, roadlessness and undisturbed qualities and attributes. There are several unique and noteworthy habitats and plant association groups in the area as well.

Eight Dollar Mountain (Existing) 1,249 acres is recommended under all action alternatives.

Designated for special status plants and Darlingtonia fens. The BLM should ensure that this ACEC is not being harmed by Off Road Vehicles. This ACEC is too small and should be expanded.

French Flat (Existing) 651 acres is recommended, but without O&C land.

The interpretation of the O&C Act is not grounded in case law or BLM interpretation over the years. Excluding O&C acres from ACECs in the year 2008 would be arbitrary, capricious and otherwise not in accordance with the law. The BLM cannot exclude land without determining the productive forest lands or TPCC –limited classifications in this ACEC.

Grayback Glades RNA, (Existing) 1,022 acres is recommended under all action alternatives.

Grayback Glades should be expanded to protect the entire roadless area on the north side of the Kangaroo Inventoried Roadless Area. This area is contiguous with the roadless area and should be protected. Why is this area smaller than it was originally proposed (1,069 acres)?

Hole-In-The- Rock (Existing) 63 acres, is not recommended under any action alternative.

Why not? The BLM needs to disclose to the public the reasons for the dismissal of this area or it is arbitrary and capricious in its determinations.

Holton Creek RNA (Existing) 421 acres, is recommended under all action alternatives.

This ACEC is too small and should be expanded.

Hoxie Creek (Existing) 255 acres, is not recommended under any action alternative.

Why not? The BLM needs to disclose to the public the reasons for the dismissal of this area or it is arbitrary and capricious in its determinations.

Iron Creek (Existing) 286 acres

This ACEC is too small and should be expanded in order to protect the natural features in the area.

Jenny Creek (Existing) 966 acres

This ACEC is too small and should be expanded in order to protect the natural features in the area.

King Mountain Rock Garden (Existing) 68 acres, is recommended, but without O&C land.

King Mountian was designated for special status plants and plant communities. The interpretation of the O&C Act is not grounded in case law or BLM's historic interpretation. Excluding O&C acres from ACECs in the WOPR would be arbitrary, capricious and otherwise not in accordance with the law. The BLM cannot exclude land without determining the productive forest lands or TPCC – limited classifications in this ACEC. This ACEC should be expanded; it is too small to protect objects of interest.

Long Gulch (Potential) 1,020 acres is not recommended under any action alternative.

Despite the long list of endorsers and supporters protecting this unique trellised watershed and low elevation old-growth, the BLM has failed to protect this area as an ACEC for several years. The BLM needs to provide a detailed explanation in the DEIS as to why this area does not meet the relevance and importance criteria for ACECs. Moreover, the BLM never adequately analyzed the entire 5,000 (approximate) acres in the ACEC nomination.

The BLM proved that this area was not commercial by failing to sell a timber sale it prepared. Thus, it cannot claim that there are commercial interests in the area that prevent ACEC designation.

Lost Lake RNA (Existing) 387 acres is recommended under all action alternatives.

This ACEC is too small and should be expanded in order to protect the natural features in

the area.

Moon Prairie (Existing) 92 acres, is not recommended under any action alternative.

Like all the ACECs that are not recommended, there is no explanation why the Moon Prairie ACEC is not recommended. The BLM needs to disclose to the public the reasons for the dismissal of this area or it is arbitrary and capricious in its determinations. This is a very unique and interesting stand of ancient forests in the Cascades. Nearby old-growth stands should be included in this ACEC.

North Fork Silver Creek RNA (Existing), 499 acres is recommended under all action alternatives.

It is quite unfortunate that the BLM logged much of the North Fork Silver after the Biscuit Fire, despite the outstanding natural resource values in the area. The Port Orford cedar, unique plant communities, outstanding botanical diversity and the post wildfire environment provide an excellent opportunity for study. The BLM should establish an RNA in this area.

Oregon Gulch RNA, (Existing) 1,051 acres is recommended under all action alternatives.

This ACEC is too small and should be expanded.

Pickett Creek (Potential) 32 acres, is recommended under all action alternatives.

This ACEC needs to be much larger to protect the objects of interest.

Pilot Rock (Existing) 544 acres

Pipe Fork RNA (Existing) 516 acres, is recommended under all action alternatives.

This ACEC needs to be much larger to protect the objects of interest. Much of the forest near this RNA has been protected as an LSR, but would be unprotected under the WOPR (made into a TMA). This area has important Port Orford cedar plant communities. Why is this area smaller in the WOPR than it was in the last plan (529 acres)?

Poverty Flat (Existing) 29 acres, is recommended under all action alternatives.

This ACEC needs to be much larger to protect the objects of interest.

Reeves Creek (Potential) 117 acres, is not recommended under any action alternative.

Why not? The BLM needs to disclose to the public the reasons for the dismissal of this area or it is arbitrary and capricious in its determinations.

Rough and Ready (Existing) 1,189 acres is recommended, but without O&C land.

The Rough and Ready ACEC is a gem. The creek and the botanical resources in the area are world renowned and part of the reason the area is designated an International Union for the Conservation of Nature global botanical area. If this is not enough for the BLM to protect the area, what is? The interpretation of the O&C Act is not grounded in case law or BLM interpretation over the years. Excluding O&C acres from ACECs in the year 2008 would be arbitrary, capricious and otherwise not in accordance with the law. The BLM cannot exclude land without determining the productive forest lands or TPCC – limited classifications in this ACEC.

Round Top Butte RNA (Existing) 605 acres is recommended under all action alternatives.

This area should be expanded to include more of the natural features in the vicinity.

Scotch Creek RNA (Existing) 1,799 acres, is recommended under all action alternatives.

This area should be expanded to include more of the natural features in the vicinity.

Sterling Mine Ditch (Existing) 143 acres, is not recommended under any action alternative.

Why not? The BLM needs to explain to the public why a very popular ACEC, with unique plant communities and distinctive scenic, cultural and historical values is being taken away. This area includes an important trail, historic mining trail and special status species.

Table Rocks ONA (Existing) 1,244 acres, is recommended under all action alternatives.

The BLM is arbitrary and capricious by protecting this ACEC with O&C land, but few others.

Tin Cup (Existing) 83 acres, is not recommended under any action alternative.

Why not? The BLM needs to disclose to the public the reasons for the dismissal of this area or it is arbitrary and capricious in its determinations. This area has important natural systems and botanical and wildlife values.

Waldo-Takilma (Potential) 1,760 acres, is recommended under all action alternatives.

How does this ACEC match up to the citizen nominations?

Woodcock Bog RNA (Existing) 265 acres, is recommended under all action

alternatives.

This area should be expanded to include more of the natural features in the vicinity. Why is this area smaller than it was originally proposed (280 acres)? This area is important for special status plants and Darlingtonia bogs.
We are concerned that the Upper Klamath ACEC would lose the O&C portion of their designation. DEIS at M1317-1321

Nominated ACECs obidient

The failure of the BLM to recognize areas that were nominated as ACECs in the course of the WOPR planning process does not meet the requirements of FLPMA. Several of the nominated ACECs met the criteria, but the BLM arbitrarily denied protection for these potential ACECs and never analyzed these areas in the DEIS.

As review, in order to qualify as an ACEC the area must meet the relevance and importance criteria. According to the BLM:

An area meets the "relevance" criterion if it contains <u>one or more</u> of the following:
1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resource important to Native Americans).
2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive or threatened species, or habitat essential for maintaining species diversity).
3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian; or rare geological features).
4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.

Importance is defined as:

The value, resource, system, process, or hazard described above <u>must have substantial significance</u> and values in order to satisfy the importance criteria. This generally means that the value, resource, system, process, or hazard is characterized by <u>one or more</u> of the following:

1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
3. Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of Federal Land Management and Practices Act

(FLMPA).
4. Has qualities which (sic) warrant highlighting in order to satisfy public or concerns about safety and public welfare.
5. Poses a significant threat to human life and safety or to property.

The following are some of the ACECs that were nominated on the Medford District, but were summarily rejected by the BLM: Murphy/Roundtop, Enchanted Forest, Long Gulch, North Kangaroo, Waldo, Integrated Dynamic Landscape and several other areas. The BLM arbitrarily failed to analyze these meritorious ACEC nominations in the DEIS for the WOPR.

Wild and Scenic Rivers

Existing, eligible and suitable Wild and Scenic Rivers will be lost with the implementation of the WOPR. The BLM admits that 73,338 acres would be logging of Wild and Scenic rivers. DEIS at 793. This would be an irreversible and irretrievable commitment of resources.

The BLM will be violating the Wild and Scenic Rivers Act, by impairing existing, suitable and potential Wild and Scenic Rivers. The BLM needs an accounting of all the eligible Wild and Scenic Rivers and explain what impacts the WOPR would have on these rivers.

The BLM was in error in mapping its eligible and suitable Wild and Scenic Rivers in the WOPR. This is a gross error, which gave the public the impression that the BLM would be protecting many streams in the project area. The BLM never attempted to fix this error, despite issuing newsletters, attending public meetings and employing an aggressive media schedule.

The BLM needs to reissue a Draft EIS with this major error repaired.

There is no “No Action” Alternative

BLM claims that "better mapping" will reduce riparian reserves from 552,000 acres to 364,000 acres even under the No Action alternative. This would in turn increase the ASQ by 32% to 268 mmbf. So even the No Action Alternative increases harvest by 32%. DEIS at 566. This is not a minor tweak; this is a 1/3rd increase in volume, which requires its own separate NEPA analysis. This is not a baseline for the No Action Alternative.

The BLM must include a range of alternatives. This is not accomplished if all the alternatives are just the degree to which the agency is going to massively increase logging of older forests, including the No Action Alternative (which is really an action alternative that would increase logging by 32%).

Flawed Modeling Assumptions

The modeling methodologies the BLM employed to determine that there would be no impacts on aquatic habitat are flawed. There is a body of science that demonstrates that logging and road construction contributes significantly to erosion and peak flow responses. Yet, the WOPR runs some models and concludes that the BLM can clearcut 140,000 acres and build 1,000 miles of new roads per decade with no impact on aquatic habitat. Listed fish, water quality and aquatic habitat are sure to suffer under the WOPR. Rogue Group Sierra Club does not buy into the assumptions and parameters built into the models used in the WOPR.

The habitat models that show the BLM will grow more old growth forest in the future are fundamentally flawed. The BLM needs to hang on to the older forests it has today, not rely on some Frankensteinian creation of forests in the future.

> "Late-successional forest communities are the result of a unique interaction of disturbance, regeneration, succession and climate that probably can never be created with management. At present, we do not even fully understand the structure, species composition, and function of these forests. The best we can hope to accomplish through silviculture is to at least partially restore or accelerate the development of some of the structural and compositional features of such forests. Because they will be regenerated by different processes during a different period from that of the existing late-successional forests, it is highly likely that silviculturally created stand will look and function differently from current old stands that developed over the last 1,000 years. Consequently, conserving a network of natural old-growth stands is imperative for preserving biodiversity into the future." -FEMAT IV-31,32.

Alternative 2 of the WOPR would result in a 9 to 1 clearcut to thin harvest ratio. DEIS at 536. Regardless of how this harvest ration would play out in the Medford District, the drier portions of Western Oregon are not suited to clearcut logging, and these forests surely cannot be relied on to respond by re-growing into a tree plantation after clearcut logging. Moreover, the BLM assumes that in 100 years these forests will provide habitat for late-successional species. This is dubious at best.

We are not convinced that the models the BLM employed to determine timber volume, habitat growth potential and other projections that form the basis of the effects analysis are sound. Certainly, the Medford District BLM places hundreds of thousands of acres in classifications that are not suitable for timber production, as evidenced by the District's inability to reforest its land in a timely and sufficient manner. Over much of the District, from the Applegate to the Indian Plateau, reforestation failures are evident. The Medford District is clearly aware of this problem, as the Jenny Creek WA, Ashland Resource Area, Medford District BLM (February 3, 1995. Page 17) speaks directly to it. Regarding the Dead Indian Plateau (100,000 acres of potential TMA), the WA states:

> "About 60% of the Jenny Creek Watershed is located on the Dead Indian Plateau, which is unique in regard to reforestation efforts. The plateau is approximately 100,000 acres resembling an elevated saucer lying southwest of Mount McLoughlin. The plateau is characterized by cold, snowy winters that alternate with hot, dry summers. **Freezing night temperatures in combination with gentle, concave topography produce extreme frost damage problems for seedlings**. Temperatures at Howard Prairie range from -20 degrees to 95 degrees Fahrenheit. **Pocket gophers in combination with frost problems create extreme reforestation problems. Minore (1978) found that average seedling survival under a tree canopy was 88.8 percent versus 36.4 percent in clearcut areas**."

The BLM claims that timber sales were included (calculated) "regardless of award and execution or litigation." This is similar to how the BLM calculates Annual Sale Quantities. Rogue Group Sierra Club is afraid that this rewards illegal behavior because it counts offering an illegal project as contributing the goals of the agency. DEIS at D-967. This is not a sound methodology.

WOPR defines "short-term" as 50 years (and long-term as 100 years). The NWFP is 12 years old and yet is being scraped already. Hence the WOPR projections for short or long-term impacts are bogus. There is absolutely no chance that the WOPR management will last even "short term."

The DEIS claims that only 3 mmbf/year would come from non-ASQ (RR and LSR) thinning in Medford under No Action Alternative. This can't be right. Rogue Group Sierra Club is aware of far more volume coming from LSRs and Riparian Reserve thinning (see sales like California Gulch, Rum Creek, Rich and Rocky, Deer Willy, etc.). DEIS at 568.

Riparian Reserves

The WOPR would remove the BLM from the Northwest Forest Plan's Aquatic Conservation Strategy. DEIS at 111. This would prevent the BLM from meeting its burden under the Endangered Species Act to protect at-risk fish species.

We hereby incorporate by reference the comments from Rich Nawa of the Siskiyou Project and the comments of the Pacific Rivers Council relating to riparian reserves, aquatic impacts and rare impacts to fish species.

The BLM must address the October 1994 Medford District RMP FEIS (volume III page 10, response to comments):

> "The design of the preferred alternative [option 9] and the PRMP is intend to allow as high a level of sustainable timber supply as possible without risking further curtailments in the timber supply in the future due to the requirements of a myriad of other laws under which the BLM must operate."

> "The level of riparian protection included in the PRMP [option 9] was selected not only to meet current legal requirements, but also to promote the goals of watershed protection contained in the O&C Act and to provide sufficient protection to reduce the potential for listing of aquatic species as threatened or endangered. **Taking into consideration the anticipated benefits to the quality of watersheds in the O&C Act, it does not necessarily follow that the alternative with the least riparian protection allowed by law is the 'most consistent with the O&C Act'"**

Please address these issues in a new DEIS.

BLM Budget

Implementation of Alternative 2 requires a 60% increase in the BLM budget. DEIS at 534. The BLM's objective here is to enlarge its budget and presents a conflict of interest. Also, getting the 60% budget increase is far more speculative than is climate change. Yet the BLM won't even comment on climate change because it is speculative. Relying on budget increases in order to implement alternatives cannot be relied on as reasonable alternative. Please explain how the public should assume the BLM be appropriated an increased budget from congress.
Moreover, it is extremely disingenuous for the BLM to promise kickbacks to the counties based on a speculative, ambitious budget increase. The BLM is playing fast and loose with the facts in its desire to increase the cut and fatten its budget for old-growth logging.

Cumulative Effects

The BLM must consider past, present and future activities in a comprehensive cumulative effects analysis. The cumulative impacts analysis (for past actions) makes reference to, and relies upon, the Bush Administration CEQ guidance to ignore the individualized analysis of past actions by shifting the focus solely to the current condition (DEIS at 478). The courts have struck down this CEQ guidance (see especially ONRC v. Timber Products).

Northern Spotted Owl and Marbled Murrelet

The WOPR relies on the 2007 Draft Recovery Plan for the recovery of the northern spotted owl. Three separate professional societies and three of the world's leading experts in the northern spotted owl all say that this draft recovery plan will not recover the owl. The U.S. Fish and Wildlife Service did not use the best available science in preparing the Draft Recovery Plan and instead was influenced by pro-old growth logging political appointees instead of science. By connection, the BLM's WOPR is also flawed and will not provide for the recovery of the northern spotted owl. This is particularly true in areas where the BLM land acts as a link between the Cascades, Klamath, Siskiyou and Oregon Coastal Mountain Ranges. The BLM lands on the Medford, Klamath Falls, Coos Bay and

Roseburg Districts area especially critical to owl recovery because they provide the only inter-provincial habitat to link owl populations otherwise isolated.

The BLM's owl analysis is inadequate, often nonsensical, and the BLM needs to reissue an EIS that makes sense.

We find it alarming that the DEIS relies on the speculative outcomes of the NSO Recovery Plan and the CHU re-designation. DEIS at 479. There are dozens of BLM projects that refuse to acknowledge the less speculative (due to the settlement agreement and the BLM's current interpretation of the O&C Act) foreseeable outcome of the WOPR. Further, the reliance on the speculative outcomes of the Recovery Plan and the CHU re-designation can be contrasted with the agency's refusal (page 491) to "speculate" on climate change. The arbitrary determination of what is speculative and what is not makes both the owl and climate change effects analyses useless.

Alternatives 1 and 2 allow regeneration logging of known and historic owl activity centers in the TMAs. DEIS at XLIX. It is unclear how logging owl activity centers (core habitat areas around the nest) will help this species recover. Please inform the public of how the WOPR is the best strategy for recovering the owl in the FEIS and ROD and how logging owl nest sites helps the species recover.

The BLM states that, "there are no explicit thresholds for habitat conditions within the areas of [NSO] concern below which owl movement would be disrupted." DEIS at 666. We do not understand this reasoning. Certainly there is a threshold for habitat, below which individual owl movement would be disrupted. Please address any science to support the conclusion that owl habitat is not disrupted by habitat alteration, of the type and scale that is contemplated in the WOPR. The BLM claims that Alternatives 2 and 3 decrease the amount of suitable NSO habitat in CHUs, while the No Action Alternative would increase the amount of suitable NSO habitat in CHUs. DEIS at Appendix G-1042-43. Please inform the public how decreasing suitable habitat in CHUs would help recover the species. Only the No Action Alternative "would not decrease total dispersal habitat from current conditions over the next 100 years" in the (1) South Willamette/North Umpqua, (2) Rogue-Umpqua and (3) Ashland, NSO Areas of Concern. DEIS at 668, 670, 672. Please explain why 100 years is an appropriate temporal scale for analyzing owl viability, especially when the species is declining up to 4 percent per year. Should not a shorter time frame be used? Should not the goal be to increase habitat and populations, as the recovery burden of the ESA is so explicit in requiring?

The DEIS fails to analyze the effect of its radical increase in older forest logging to NSO populations and only addresses owl habitat. See DEIS at 634. This violates FLMPA, NEPA and the ESA, which require protection of well distributed populations, disclosure of impacts to such populations and recovery of the species, respectively. Courts have struck down using habitat as a proxy for population monitoring in other instances, and they are likely to do the same with the WOPR.

Not only do BLM forests, including O&C lands, help recover threatened and endangered

species such as the northern spotted owl, the “forward looking management” strategy of the Northwest Forest Plan helps the BLM continue to produce timber. Without such a strategy, more late-successional species may be listed and further limitations on timber production will likely occur.

As further illustration, please read the October 1994 Medford District RMP FEIS (volume I page 1-5), which speaks to the importance of BLM forests to the recovery of the owl and the continued production of timber:

> "One of the purposes of the ESA is the preservation of ecosystems upon which endangered and threatened species depend. A forward-looking land management policy would require that federal lands be managed in a way to minimize the need to list species under the ESA. Additional species listings could have the effect of further limiting the O&C Lands Act's goal of achieving and maintaining permanent forest protection. This would contribute to the economic instability of local communities and industries in contravention of a primary objective of Congress in enacting the O&C Lands Act. That Act does not limit the Secretary's ability to take steps now that would avoid future listings and additional disruptions.
>
> Protection of watersheds and regulating streamflow are explicit purposes of forest production under the O&C Lands Act. Riparian reserves, including those established on O&C lands under the PRMP, are designed to restore and maintain aquatic ecosystem functions. Together with other components of the ACS, riparian reserves will provide substantial watershed protection benefits. Riparian reserves will also help attain and maintain water quality standards, a fundamental aspect of watershed protection. Both riparian reserves and late successional reserves will help regulate streamflows, thus moderating peak streamflows and attendant adverse impacts to watersheds."

While the Northwest Forest Plan employed this forward-looking strategy, the WOPR (especially alternatives 2 and 3) would decrease suitable NSO habitat in the Rogue-Umpqua "Area of Concern" for the next 50 years. DEIS at 633. This is the precise area where connectivity is the most important, and where genetic interchange is happening. BLM forests in this area are the only habitat blocks in the area, and the WOPR would wipe them out.

The BLM does acknowledge a significant overestimate of actual suitable NSO habitat, but the BLM states that accuracy doesn't matter for WOPR. DEIS at 640 (Footnote 9). The BLM also acknowledges importance of scattered NRF habitat for the next 50-100 years while LSMAs come on-line (see above) but then proposes to liquidate that habitat within that timeframe. DEIS at 648. Clearly, the WOPR will not help recover the Northern spotted owl.
Not surprisingly, the DEIS admits that alternatives 2 and 3 would decrease suitable marbled murrelet habitat for the next 50 years. DEIS at 633. The WOPR at G-1027 states that **existing LSRs** are insufficient "to reverse the decline and maintain a well-distributed

population" of murrelets. The BLM should be taking actions necessary to prevent the decline of this species by protecting more habitat, not less as the WOPR proposes. What other late-successional species will the WOPR drive to the endangered species list?

The BLM's contention that 99% of LSMA (capable) will be suitable habitat by 2106 is arbitrary and capricious. DEIS at 642. Usually the agency doesn't predict that over 70% will be suitable. See FEMAT and LSRAs. How does this square with the BLM conclusion that Alternative 2 will increase fire hazard putting the LSRs at risk of uncharacteristically severe fire. The BLM can't have it both ways. Either post-fire habitat is important for owls or it is not.
The WOPR proposes to liquidate the East Cascade LSRs (Klamath Falls BLM). DEIS at 649. The East Cascades LSRA states that these LSRs are important, yet the BLM ignores these finding in the WOPR. The WOPR needs to incorporate finding from the Late-Successional Reserve Assessments, which speak to the need and importance of the LSRs that would be removed in the plan revisions. The BLM cannot arbitrarily conclude that these LSRs are no longer important, without looking at the site specific analysis that went into the LSRAs.

Climate Change

The BLM is completely ignoring climate change in its modeling assumptions. How will the hundreds of thousands of acres of new plantations respond to climate change? How will removing large carbon sinks (older forests) help or hinder climate change? The BLM should use all the available science to discuss this, not just timber industry funded junk.

The BLM claims that climate change falls under "incomplete or unavailable information." Therefore, "the analysis assumes no change in climate conditions, because the specific nature of regional climate change over the next decade remains speculative (491)." Not only is this dangerous, it is completely false. Ample information exists to suggest that older forests store carbon.

Old Growth Forests/Late Successional Habitat

The failure of the BLM to produce a DEIS that protects older forests is socially and ecologically bankrupt. While the vast majority of Americans want an end to old growth logging, the BLM is proposing a massive increase in such logging in the WOPR.

We remind the BLM that scientists, economists, and the public want the remaining fragments of public old-growth forest protected:

> When Euro-Americans arrived in the mid-1880s, as much as 80% of the forests in western Oregon and Washington were older than 80 years and about two thirds were older than 200 years. By the 1990s, researchers estimated only 13% to 18% of the forested area in western Oregon and Washington was in older growth, a reduction of over 75%. Federal lands are the last repositories of the unique

> ecological wealth represented by these older forests. –Prominent Scientists to the Bush Administration.
>
> As older forests have become increasingly scarce, the recreational and passive-use value of these forests have increased relative to the value of extractive use. …we conclude that there is insufficient economic justification to warrant further logging of the region's late-successional and old-growth forests. We urge you to protect all remaining late-successional and old-growth forests throughout the Pacific Northwest region. –Prominent Economists to the Bush Administration.

3 of 4 Oregonians want remaining older forests protected. –2001 Poll Results.

The WOPR DEIS states that only 350,000 acres out of 2.6 million are *currently* comprised of "old forest". That's only 1/8th of the land base! Yet, the BLM wants to log at least 43% of the 1/8th! DEIS at 509.

Alternative 2 projects that the first decade the BLM will regenerate 12% of the harvest land base (which would equate to about a 85-year rotation). The majority of the timber volume would come from 200 year old and older forests and virtually ALL of the volume will come from 100-year old and older large diameter trees. DEIS at 581. Then the BLM will return to small diameter rotational forestry. How does this meet O&C Act for sustained flow?

The BLM claims that "57% of old forest would remain unharvested," then immediately undermines this claim with the admission on 511 that salvage could occur in late successional management areas. DEIS at 507.

Rogue Group Sierra Club does not need to remind the BLM of the agencies' insistence on logging older forests after they have experienced natural wildlife. The BLM already proposes such logging in the Elk Creek (Timber Rock) and Silver Creek (Biscuit) drainages. The BLM should also be aware of recent science that demonstrates that older forests after wildfire continue to provide habitat for the northern spotted owl. Indeed, these studies are taking place on BLM land in the Timbered Rock fire area.

The claim that 57% of older forests would remain unharvested is not only unreliable and misleading, the BLM cannot use these figures in its effects analyses in regards to the late-successional forests and meet the disclosure requirements of NEPA.

Off Highway Vehicle Areas

Alternative 2 would designate approximately 100,000 additional acres of "Off Highway Vehicle Emphasis Areas," including one new emphasis area on the Coos Bay District. Ten new OHV emphasis areas would be added to the 3 existing on the Medford District, totaling 105,800 acres, or 12% of the district's total land base. DEIS at 143, 777-78. These are areas "where off-highway vehicle use is more concentrated and intensively

managed."

There is a demonstrated concern from area residents about these OHV areas, yet the BLM fails to analyze many of the impacts that would result. For example, many fear the increased ORV presence would will lower their property values, but the BLM does not consider this in the DEIS. The John's Peak timber Mountain area could certainly have that impact, and designation of this area has the potential to make the City of Jacksonville a destination area for OHV users.

In the case of the John's Peak Timber Mountain OHV area, the BLM has failed to consider the interdependent effects of the Motorcycle Riders Association purchase of nearby property that would tie into the BLM OHV area. What is the impact to the adjacent land? What are the impacts to species, such as Gentner's Fritillary? We understand that these populations are crashing. How is further OHV use going to help recover this endangered species? When considering the past, present and future activities, what impacts will of all of the proposed OHV areas have on rare plants, property values, non-motorized recreation, clean water, and wildlife habitat?

The BLM has listed Anderson Butte as a potential OHV Emphasis Area of over 11,742 acres. The proposed Emphasis Area is along foothills of the Siskiyou Crest, an important east/west connectivity corridor in the Klamath-Siskiyou Region. Important wildife, such as the Northern spotted owl and Pacific fisher use the area, and a rare, potentially endangered plant (*Calochortus persistens*) has been located in the area by the BLM. The area is in the Dakubetede roadless area, which has been proposed for wilderness. How does the BLM's maintenance of wilderness character for the Dakubetede align with an OHV emphasis area? The BLM needs to analyze the impacts of this OHV emphasis area on plants and wildlife, habitat connectivity, wilderness character, ACEC status and the other values of this area. The Bear Creek watershed is to the north of the OHV area and the Little Applegate River watershed to the south. What will the impacts be to threatened fish species in the Little Applegate and Rogue Basin?

The projected levels of participation in non-motorized recreation is a 27.2% annual increase in the next decade verses a 2.3% annual increase for motorized OHV recreation (plus snowmobile/motorized winter activity at a 5% increase). Non-motorized recreation includes hunting, fishing, camping, non-motorized boating, wildlife viewing and nature study). DEIS at 413. Yet, the BLM prioritizes logging and OHV use above non-motorized recreation when motorized recreation will impair the other recreation types. The BLM needs a better cost accounting of recreation in the WOPR. The claim that recreation receipts (1.2 mil/yr) won't vary by alternative is bogus. EIS at 534.
How does the economic contribution of non-motorized recreation meet the O&C Act's explicit direction to maintain recreational facilities? Many citizens recreate in a dispersed manner throughout the planning area. How does the BLM plan to maintain these experiences and provide for facilities to do so? Clearly, the BLM's draconian interpretation of the O&C act will harm recreation and the competing clause in the O&C Act for the BLM to maintain such recreation facilities.

In general, the WOPR lacks an analysis of the OHV emphasis areas on the Medford District. The BLM needs to analyze the impacts of OHV areas on the various other uses of these public lands. The BLM is required to minimize conflicts among users, yet many of these OHV emphasis areas are sure to increase such conflicts. The BLM is reqired to ensure safety of the various uses of these lands, but the WOPR fails to ensure that OHV use will be safe in the context of other uses.

BLM Sensitive Species

All the action alternatives in the WOPR would remove the Survey and Manage program on BLM forests and replace this element of the Northwest Forest Plan with a Special Status Species Program. This program does not require surveys for rare or sensitive species, and would not require mitigation for at-risk species until populations are dangerously small. This is particularly alarming given the species that occur in the "conifer [habitat] group" would be subject to intensive timber management, road construction, Off Highway Vehicle use, grazing and other threats under the WOPR.

The WOPR Sensitive and Assessment species population projections are a major concern, with some of the most impacts to be noticed on the Medford District. While only 1% of the 865,800 acres in the Medford BLM District contain BSS, it is troublesome that the BLM can't restrain itself to the other 99% of its land base where these species do not exist. The DEIS at 593 predicts a moderate risk of local extirpation for some species in conifer forest habitat group.

New road construction in the Klamath province has the potential to affect more BLM sensitive and assessment plan species relative to other provinces becasue of the higher density of such plant populations in this province. Yet the effects of such road building are not documented or quantified in the DEIS. DEIS at 600.

The DEIS admits that there will be plats lost due to grazing, but does not propose any mitigation. Grazing allotments are most prevalent on the Medford District. We are unclear as to the justification for rejecting Bureau Sensitive Species (BSS) conservation measures for mining notices. DEIS at 601.

> "The Medford District would have the most occupied habitat, and includes most of the Klamath province. The amount of projected populations in the Medford District is nearly 4 times greater than the next nearest district.
>
> Under all action alternatives the risk of damage and loss of populations of the BLM's sensitive and assessment species changes by district relative to the number of populations and the patch size. In districts where few populations are found, the likelihood of activities occurring where populations occur is lower. In districts where more populations are found, the likelihood of activities occurring where populations occur is higher." DEIS at 609.

Through the development of the Northwest Forest Plan, a panel of scientists was asked to

evaluate how to best ensure the survival of over 1,000 species, many of which are dependent on late-successional forests. Experts on certain taxa were asked to rate the likelihood that the Northwest Forest Plan would provide sufficient habitat to "allow species populations to stabilize, well distributed across federal lands." The Survey and Manage program was developed and originally included over 400 species in several levels of protection. For 77 species, the Forest Service and BLM needed to survey before ground-disturbing activities and protect areas where the species were found. Judge William Dwyer, who approved the legality of the Northwest Forest Plan, underscored the importance of the Survey and Manage program:

> "Far from being minor or technical violations, widespread exemptions from the survey requirements would undermine the management strategy on which the ROD [Northwest Forest Plan] depends. The surveys are designed to identify and locate species; if they are not done before logging starts, plants and animals listed in the ROD will face a potentially fatal loss of protection."

The BLM defines Special Status Species as those listed as threatened or endangered by the Endangered Species Act (including proposed and candidate species), listed by a state as being of special concern (state listed species), and listed by the BLM as sensitive or needing assessment (i.e., Bureau sensitive species and Bureau assessment species).

Bureau Assessment Species are a category established by the BLM that includes those plant and vertebrate species that are not presently eligible for official federal or state status but are of concern in Oregon or Washington and may, at a minimum, need protection or mitigation in BLM activities.

Bureau Sensitive Species are a category established by the BLM that includes those plant and animal species that are eligible for status as federally listed, federal candidate, state listed, or state candidate (plant) species; on List 1 of the Oregon Natural Heritage Database or approved for this category by the BLM state director; or included under agency species conservation policies.

The Federal Land Policy and Management Act ("FLPMA") and its implementing regulations require the Bureau of Land Management to manage public lands in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values and provide food and habitat for fish and wildlife. 43 U.S.C. § 1701(a)(8). By allowing the likely extirpation of species from all or parts of its lands, and the harm to other species caused by the WOPR, the BLM has violated FLPMA.

The BLM admits that under the action alternatives, "in regeneration harvests and partial harvests on O&C harvest base lands, few populations of species in the conifer forest habitat group would survive because of multiple fuels and silvicultural treatments associated with treating forests in the stand establishment structural stage classification within a 3 to 20 year period of time. This would also occur because no conservation measures under BLM special status species policy would be applied, except where populations of species are 20 or fewer." WOPR DEIS 598

We are also concerned that the loss of riparian reserves contemplated in the WOPR will harm terrestrial species. The bases of the riparian reserve widths are not solely related to aquatic habitat, but "the analysis of Riparian Reserve widths must also consider the contribution of these reserves to other, including terrestrial, species." -Attachment A of the Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl at B-17. Removal of riparian and late-successional reserves, coupled with the increase of logging of old-growth forests

Thus, commenting organizations are convinced that the potential of the WOPR to impair the viability of rare and at-risk species, such as BLM Special Status species, is extremely high. There are 117 special status animal species (amphibians, reptiles, birds, invertebrates, and mammals) documented or suspected to occur within the planning area. Many of these species are associated with, or dependent upon, the older forests that will be targeted in the WOPR. For rare plants, the BLM admits that, "Under the three action alternatives, some populations on O&C lands would be lost and the risk of local extirpation or extinction to bureau sensitive species and bureau assessment species would increase compared to the No Action Alternative." WOPR DEIS at LVI.

The BLM's application and strict fundamentalist and selective interpretation of the O&C Act will lead to a trend toward listing dozens of rare plant and animal species associated with low elevation old growth forests in the Pacific Northwest. This interpretation will make the Special Status program ineffective at preventing species from being placed on the ESA threatened or endangered list. The BLM will allow species to approach dangerously low numbers, and these low population numbers will not ensure the survivability of rare species associated with older forest.

> Under the action alternatives, conservation measures from the BLM Special Status Species Policy would be applied on Public Domain lands and O&C lands that are not in the harvest land base. With the exception of the conifer habitat group, all other habitat groups occur primarily on Public Domain and O&C lands not in the harvest land base. Conservation measures would not be applied to populations of species in the conifer habitat group that occur within the O&C harvest land base unless 20 or fewer populations of a species are known to exist. -WOPR DEIS at 596.

This approach violates the BLM's affirmative duty under FLPMA, and the BLM will cause a number of species and associated habitats dwindle. The following are some of the species that are at-risk due to the WOPR:

Puget Oregonian
Tillamook westernslug
Salamander slug
Spotted tail-dropper
Bald hesperian
Oak springs hesperian
Oregon giant earthworm
Roth’s blind ground beetle
Oregon slender salamander
Traveling sideband (snail)
Klamath taildropper
Modoc sideband (snail)
Siskiyou hesperian
Chase sideband (snail)
California slender salamander
Oregon shoulderband (snail)
Black salamander
Siskiyou mountains salamander
Sisters hesperian
Green sideband (snail)
Gophers Pistol river pocket gopher
Gold beach pocket gopher

The BLM Planning Handbook 1601-1 Appendix C instructs BLM, when preparing land use decisions, to "Designate priority species and habitats, in addition to special status species, for fish or wildlife species recognized as significant for at least one factor such as density, diversity, size, public interest, remnant character, or age. Identify desired outcomes using BLM strategic plans, state agency strategic plans, and other similar sources. Describe desired habitat conditions and/or population for major habitat types that support a wide variety of game, non-game, and migratory bird species; acknowledging the states' roles in managing fish and wildlife, working in close coordination with state wildlife agencies, and drawing on state comprehensive wildlife conservation strategies. Identify actions and area-wide use restrictions needed to achieve desired population and habitat conditions while maintaining a thriving natural ecological balance and multiple-use relationships. (Also see previous Section D, Special Status Species.) Identify essential fish habitat (EFH) for federally managed fish species (Oregon, Washington, California and Idaho only)."

The WOPR fails to prioritize species, and fails to ensure that focal species would be monitored to ensure that habitats are protected for species that rely on older forest habitat. Under all action alternatives, populations of species in the conifer habitat group on O&C lands in the harvest land base would be subject to forest management activities. This would include regeneration harvest, partial harvest, thinning harvest, slash treatment, silviculture treatments, and road construction. DEIS at 604.

The specific location of management activities that would take place under the alternatives is unknown in relation to the specific locations of populations of the BLM's sensitive and assessment species. Therefore, the specific number of populations in the conifer habitat group that would be lost is uncertain. However, the risk of local extirpation to species in the conifer habitat group would increase under the action alternatives compared to the No Action Alternative. Populations would be lost under all action alternatives. Few populations would survive in areas of regeneration harvest that occur in the path of direct operational activities. DEIS at 604.

In 1992 the Oregon State Office of the BLM published "Fish and Wildlife 2000: A Vision For The Future." Among the objectives stated in the document is:

> Protect the <u>full range of genetic diversity for plants and animals</u> on public land ecosystems (e.g., <u>old growth forest</u>, wetlands, riparian, and native sagebrush steppe) and on other unique habitat such as cliffs, talus, caves, meadows, lakes, headwaters, playas, lithosols, ash deposits, and serpentine soils. This includes not only the most obvious vegetation types, but also key habitat components such as snags, dead or down woody material, light, moisture, soil structure, and processes such as fire, flooding, and <u>migration</u>. -OR/WA BLM, F&W 2000 page 40 (emphasis added).

The tenets of this "policy tier" document were derived from a national BLM Fish and

Wildlife 2000 signed by the national Director of the BLM in May 1987. OR/WA BLM F&W 2000 page 1. RMPs are to allocate resources and select appropriate uses of BLM land "based on direction from the policy tier." OR/WA BLM, F&W 2000 page 3.

> BLM Manual 6840.22
> **Conservation of species other than under the ESA.** The ESA establishes policy, procedures, and requirements for the conservation of listed species, designated critical habitat, proposed species, and proposed critical habitat. BLM policy is broader than the ESA in that it addresses special status species that may be affected by BLM activities, as well as federally listed and proposed species. It is in the interest of the public and the affected special status species for BLM to undertake conservation actions for such species before listing is warranted or the designation of critical habitat becomes necessary. It is also in the interest of the public and the affected special status species for BLM to undertake conservation actions that improve the status of such species to the point where their special status recognition is no longer warranted. By doing so, BLM will have greater flexibility in managing the public lands to accomplish native species conservation objectives, while fulfilling other FLPMA mandates.
>
> **A. Planning.** The BLM should obtain and use the best available information deemed necessary to evaluate the status of special status species in areas affected by land use plans or other proposed actions and to develop sound conservation practices. Land use plans shall be sufficiently detailed to identify and resolve significant land use conflicts with special status species without deferring conflict resolution to implementation-level planning. Implementation-level planning should consider all site-specific methods and procedures which are needed to bring the species and their habitats to the condition under which the provisions of the ESA are not necessary, current listings under special status species categories are no longer necessary, and future listings under special status species categories would not be necessary.
> ...
> **C. Agreements, Assessments, and Cooperative Strategies for Conservation.** The BLM shall work cooperatively with other agencies, organizations, governments, and interested parties for the conservation of plants and animals and their habitats to reduce, mitigate, and possibly eliminate the need for their identification as a special status species. Cooperative efforts are important for conservation based on an ecosystem management approach and will improve efficiency by combining efforts and fostering better working relationships. Stabilizing and improving habitat conditions before a species is listed may allow more conservation and other management flexibility, reduce conflicts, and reduce the cost of conservation.
> ...
> **2. Habitat Conservation Assessments and Conservation Agreements.** In an effort to eliminate the need for listings under the ESA, the BLM shall participate in developing habitat conservation assessments leading to conservation agreements for proposed, candidate, and sensitive species, groups of species, or

specific ecosystems. This is pursuant to the MOU (94-SMU-058, dated June 25, 1994) entered into by the BLM, U. S. Forest Service, FWS, NMFS and the National Park Service to establish an interagency framework for cooperation and participation to achieve this objective.

...

4. Ecosystem Management and Native Biodiversity. BLM management should take into consideration ecosystem management and the conservation of native biodiversity to reduce the likelihood of placing any native species on a special status species list.

HYPERLINK "http://www.blm.gov/nhp/efoia/wo/manual/6840.pdf" http://www.blm.gov/nhp/efoia/wo/manual/6840.pdf The EIS should prepare a new analysis like that in Appendix J2 of the 1994 SEIS. The elimination of large reserves and riparian on BLM lands in western Oregon will significantly change the conclusions about the risk faced by various species that were expected to be protected by those reserves.

BLM should anticipate future ESA listing and adopt measures to conserve and recover those species. In fact, the loss of protection afforded by the Northwest Forest Plan will lead to accelerated pace of new listings due to the inadequacy of regulatory mechanisms (one of the key criteria for ESA listing determinations). Likely ESA candidates include:

Pacific fisher
Lamprey
Northern goshawk
White-headed woodpecker
Siskiyou Mountain Salamander
White-footed vole
Red tree vole
Dusky red tree vole
Searun cutthroat trout
Oregon Coast Coho
Numerous low-mobility species formerly protected by the survey and manage program. The NWFP Ten-Year Monitoring Report recognizes that "Maintaining persistence of extremely rare species will probably require continuing fine-filter conservation approaches, including protection of known sites."

HYPERLINK "http://www.reo.gov/monitoring/10yr-report/documents/synthesis-reports/index.html" http://www.reo.gov/monitoring/10yrreport/documents/synthesis-reports/index.html

Some additional species that were NOT protected by the survey and manage program because they were given fairly good odds of persistence under Option 9 which assumed that BLM would continue to protect low elevation LSRs and riparian reserves. With the failure of this assumption, many species such as the Pacific fisher, the white-footed vole, and various salmonid ESUs are now at much greater risk.

The BLM must give special attention to the red tree vole and other arboreal prey for the

spotted owl. Given the invasion of the barred owl, the spotted owl may rely more on a more arboreal prey base, where it may enjoy a competitive advantage over the barred owl. Surveys and buffers should be required.

For example, the Oregon red tree vole inhabits low elevation old-growth forests. These are the very forests the BLM is targeting for increased clearcut logging under the WOPR. According to the red tree vole survey protocol, red tree voles need these older forests because "the tall, multi-layered canopies of old growth retain humidity and intercept fog, which functions as a climatic buffer and a source of free water. Large branches provide stable support for nests, protection from storms, and travel routes (Gillesberg and Carey 1991)."

Researchers (e.g. Aubry et al., 1991) found red tree voles use old-growth forests significantly more than in younger forests. Many suggest that RTVs are associated with old forest with a component of large, old-growth trees. Voles are found in young stands (Maser 1966; Corn and Bury 1986, 1991; Carey 1991; Johnson and George 1991; Aubry et al. 1991; Gillesburg and Carey 1991; Gomez 1992), but Carey (1991) suggested these younger forests may be population sinks rather than sources. (See Red Tree Vole Survey protocol).

With the BLM policy of allowing species habitat to be clearcut until they reached to 20 populations (it is not explained how the BLM would monitor this), the BLM is sure to contribute to the need to list species like the red tree vole under the ESA. Several studies have shown that minimum viable population sizes are much larger than what the BLM proposes here. Researchers (Reed et. al., 2003) found that minimum viable population sizes to avoid extinction were at least 7,000 individuals, to avoid extinction.

How big to the populations have to be for the BLM to consider a special status species' population viable? How will the BLM address meta-population structure?

We are very concerned that many of the 77 Survey and Manage species and many of the BLM Special Status species will decline due to the WOPR. Lungless salamanders are another taxa that we fear will decline due to the WOPR. Plethodons breathe through their skin and although they don't live directly in water, they do need moist microhabitats to live out their life cycles. They are protected because they are sensitive to logging and are found in old forest. There are several species of plethodons that are rare and at-risk: the Larch Mountain, Siskiyou Mountains, Van Dyke's and Del Norte salamanders.

Within the past five years, a new species of salamander has been discovered (the Scott bar salamander) in extreme northern California. There is the potential for other species to be discovered as further genetic investigation take place. Investigators are looking at the Del Norte salamander and the Siskiyou Mountains salamander (a species that is already being considered for ESA listing) for taxonomic clarification. The BLM could cause the extinction of one of these potential new species prior to discovery, under the WOPRs aggressive clearcutting strategy.

Another salamander of concern is the Southern Torrent Salamander (*Rhyacotriton variegatus*), petitioned for listing under the Endangered Species and on June 6, 2000 the US Fish and Wildlife Service determined that listing was not warranted (USDI 2000). It is currently a USFWS Species of Concern in Oregon and listed as a vulnerable species by the Oregon Department of Fish and Wildlife. In their finding the Fish and Wildlife Service relies heavily on the Northwest Forest Plan's Aquatic Conservation Strategy stating:

> "Based on the evidence that southern torrent salamanders appear to stay in very close proximity to watercourses, we believe the riparian reserve system of the currently adopted and court-tested Forest Plan [Northwest Forest Plan] provides adequate protective measures to maintain the quality of most of the riparian and aquatic habitats for the southern torrent salamander on public lands across the range of the species."

and conclude:

> "…we believe that current regulatory practices, while not ideal, provide sufficient protection to insure that the existence of the species is not threatened at this time. While recent improvements in protections of southern torrent salamander habitats have been implemented on Federal lands, habitats on private lands are still vulnerable until specific changes in policy and procedures change the way these habitats are protected."

While this species has a limited range that includes all WOPR BLM districts with the exception of the Klamath Falls Resource Area, has a demonstrated association to older forests, and is negatively impacted by timber harvest, we find no mention of this species in the WOPR DEIS.

We request that the Final DEIS analyze and disclose the direct, indirect, and cumulative impacts to this species and disclose any trend towards listing that might occur. How will the BLM prevent the listing of this species? This species is found in small seeps and springs and high order, high gradient streams, is particularly vulnerable to changes in microclimate, and has limited capacity disperse across the landscape. How will the loss of riparian protections affect this species?

The effects of the WOPR on landbirds are also a concern. Recently, the PNW Region of the Forest Service commissioned a report on the status of landbirds populations. Two of the focal forests in this report were located adjacent to BLM lands affected by the WOPR. Several species were determined to be declining. The findings include:

> [Seven] species of conservation concern declined at Willamette MAPS stations and emerge as candidate species for management concern. These include four Neotropical-wintering species ("Western" flycatcher, dusky flycatcher, orange-crowned warbler, and MacGillivray's warbler) and three temperate-wintering

> species (American robin, dark-eyed junco, and pine siskin). (Nott et. al., 2006) [p56]

In order to avoid trends toward listing, BLM must adopt measures to conserve these species. Since many species need large tracts of habitat which are more prevalent on Forest Service lands, these species' population status is probably even more precarious on the fragmented BLM lands. The NEPA analysis must address these issues.

The WOPR DEIS admits that habitats for landbirds will decline dramatically under the WOPR.

> Assuming that bird abundance responds directly to habitat abundance, this loss of habitat would result in a corresponding decrease of approximately 50% of the birds associated large trees, snags, and multi-layered dense canopy within eastside conifer forests on BLM-administered lands. *Table 201* (*Habitat features and focal bird species of conservation concern in the eastside conifer plant group in central, eastside Oregon and Klamath Basin*) shows habitat features and associated species (Altman 2000a). Private forest lands would not contribute to structurally complex forest habitat because it is assumed that private forest lands are generally managed on short rotations. -DEIS at 703.

This is a projection that would lead to the extirpation of landbirds on BLM lands, particularly those in the Klamath Falls Resource Area, in violation of FLPMA, the ESA and other law and regulation. In the Klamath Falls Resource Area Current 80% habitat capable goes to 30%. The BLM wants to remove eastside screens and target large pines for logging. DEIS at 703.

The landbird analysis is inadequate and largely does not make sense. For example, why does table 203 indicate 0 residual trees in LSMAs for alt 2? What does this table mean? DEIS at 707.

BLM should give special attention to the State of Oregon's Comprehensive Wildlife Conservation Strategy, which identifies "strategy species" for the Coast Range, Klamath Mountains, and West Cascades Ecoregions. The CWCS identifies the following "strategy species" that may need special attention within late successional forests: ringtail, fisher, marbled murrelet, northern spotted owl, red tree vole, American marten, Oregon slender salamander, Johnson's hairstreak (butterfly), and Roth's ground beetle. Oregon Department of Fish and Wildlife. Sept 2005. Oregon's Comprehensive Wildlife Conservation Strategy. Oregon Department of Fish and Wildlife, Salem, Oregon. HYPERLINK "http://www.dfw.state.or.us/CWCS/" http://www.dfw.state.or.us/CWCS/

Be sure to protect the following bird species of conservation concern:

Table 8. BCR 5 (Northern Pacific Forest–U.S. portions only) BCC 2002 List.

Yellow-billed Loon
Black-footed Albatross
Northern Goshawk (resident *laingi* ssp. only)
Peregrine Falcon (including resident *pealei* ssp. in Alaska)
Black Oystercatcher
Whimbrel
Long-billed Curlew
Marbled Godwit (*beringiae* ssp. only)
Black Turnstone
Surfbird
Red Knot
Rock Sandpiper
Short-billed Dowitcher
Caspian Tern
Arctic Tern
Aleutian Tern
Marbled Murrelet (except where listed as Threatened)
Kittlitz's Murrelet
Yellow-billed Cuckoo
Flammulated Owl
Black Swift
Rufous Hummingbird
Lewis's Woodpecker
White-headed Woodpecker
Olive-sided Flycatcher
Horned Lark (*strigata* ssp. only)
Vesper Sparrow (*affinis* ssp. only)

USFWS. Birds of Conservation Concern 2002. Arlington, Virginia. December 2002. HYPERLINK "http://migratorybirds.fws.gov/reports/BCC2002.pdf" http://migratorybirds.fws.gov/reports/BCC2002.pdf

Oregon-Washington Partners in Flight Conservation Strategy for Westside Coniferous Forests (Altman 1999) recommend protection and restoration of late successional coniferous forests and other habitats. See HYPERLINK "http://www.orwapif.org/pdf/western_forest.pdf" http://www.orwapif.org/pdf/western_forest.pdf. The following focal species were identified for westside coniferous forests:

Vaux's swift**
Brown creeper*
Red crossbill
Pileated woodpecker
Varied thrush**
Hermit warbler
Pacific-slope flycatcher*
Hammond's flycatcher
Wilson's flycatcher*
Winter wren*
Black-throated gray warbler
Hutton's vireo
Olive-sided flycatcher**
Western bluebird*
Orange-crowned warbler*
Rufous Hummingbird**
Band-tailed Pigeon*
American Pipit
Black Swift
Lincoln's sparrow

* significantly declining population trends in Southern Pacific Rainforest or Cascade Mountains physiographic areas. ** significantly declining population trends in Southern Pacific Rainforest and Cascade Mountains physiographic areas.

There are also species in PIF's Western Lowland Valleys Conservation Strategy that BLM should analyze and strive to conserve. HYPERLINK "http://www.orwapif.org/pdf/western_lowlands.pdf" http://www.orwapif.org/pdf/western_lowlands.pdf

BLM should consider using the five point process for designing bird conservation strategies. "The Five Elements comprise a conceptual approach through which conservation partners work together to assess current habitat conditions and ownership patterns, evaluate current species distributions and bird-habitat relationships, and determine where on the landscape sufficient habitat of different types can be delivered for

supporting bird population objectives." Will, T. C, J. M. Ruth, K. V. Rosenberg, D. Krueper, D. Hahn, J. Fitzgerald, R. Dettmers, C. J. Beardmore. 2005. The five elements process: designing optimal landscapes to meet bird conservation objectives. Partners in Flight Technical Series No. 1. HYPERLINK "http://www.partnersinflight.org/pubs/ts/01-FiveElements.pdf" http://www.partnersinflight.org/pubs/ts/01-FiveElements.pdf. This approach, as any credible approach would, requires that concrete conservation objectives have been established.

Partners in Flight Conservation Plan for the Pacific Avifaunal Biome says:

> Overall, the species in this region have relatively high breeding season threats (Fig. 5), and a high proportion of Watch List Species occur here (Fig. 10a). The main conservation issues for birds in the region are related to effects of forest management (e.g., timber harvest, fire suppression), loss of wetlands and riparian woodlands, and urban/residential/agricultural encroachment into oak, chaparral, and coastal scrub habitats.
>
> …
>
> Riparian habitats are a high conservation priority for both reasons, especially within the southern portions of the region (i.e., southwestern Oregon and all of California).
>
> …
>
> Coniferous rainforests are the flagship habitats of the Pacific Biome. These highly productive and intensively managed forests are sustained by a mild maritime climate and abundant precipitation. In old-growth forests, there are trees over 60 m tall, multi-layered canopies and subcanopies, shrubby understories, and forest floors carpeted with mosses and ferns. A figurehead species in coniferous forest, because of its endangered status and close association with old-growth forests, is the Spotted Owl. These forests also support Watch List and regional specialist species like Hermit Warbler, Band-tailed Pigeon, and Rufous Hummingbird.
>
> …
>
> Oak habitats (savannahs and woodlands) occur where people want to live. These habitats have become highly fragmented and increasingly degraded or lost due to human development (urban, residential, and agricultural), encroachment of coniferous forest and invasion of exotic species, and lack of oak regeneration. A relatively recent and dramatic threat, especially in California, is Sudden Oak Death Syndrome.
>
> …
>
> *Conservation Issues*
>
> • Loss and fragmentation of remaining mature coniferous forest through commercial forestry, especially on public lands.
> • Other forest-management issues, including fire suppression, prescribed fire, and recreation.
> • Loss of riparian forest and shrub.
> • Urban and residential development, especially in oak, chaparral, and coastal scrub habitats.
> • Forest health, especially in pine forest and oak woodlands.

• Loss and contamination of freshwater wetlands.
• Exotic species, both plants and animals.

Recommended Actions
• Incorporate scientifically sound bird conservation objectives into forest management (public and private lands) through policy and planning.
• Conduct restoration and management of riparian, pine, oak, chaparral, and coastal scrub habitats to support native conditions, processes, and species.
• Secure conservation status for highest-priority wetland, riparian, oak, chaparral, and coastal scrub habitats.
• Work with local and regional planners in designing bird-friendly human communities.
• Focus species-specific conservation efforts on specialized, declining, and regionally extirpated species such as Black Swift, Tricolored Blackbird, Olive-sided Flycatcher, Lewis's Woodpecker, and Burrowing Owl.
…
Riparian woodland and shrub habitats are perhaps the most critical habitats overall because of the diversity of birds they support and their importance to migrating birds. In the Pacific Biome, these habitats are most evident in southwestern Oregon and California where they are dominated by deciduous canopies of cottonwood, ash, willow, and/or alder. Habitat has been reduced in extent and quality from numerous factors

Rich, T. D., C. J. Beardmore, H. Berlanga, P. J. Blancher, M. S. W. Bradstreet, G. S. Butcher, D. W. Demarest, E. H. Dunn, W. C. Hunter, E. E. Iñigo-Elias, J. A. Kennedy, A. M. Martell, A. O. Panjabi, D. N. Pashley, K. V. Rosenberg, C. M. Rustay, J. S. Wendt, T. C. Will. 2004. Partners in Flight North American Landbird Conservation Plan. Cornell Lab of Ornithology. Ithaca, NY. HYPERLINK "http://www.partnersinflight.org/cont_plan/PIF3_Part2WEB.pdf" http://www.partnersinflight.org/cont_plan/PIF3_Part2WEB.pdf

The O&C Act does not prevent BLM from conserving wildlife, in fact, BLM has already committed to manage for viable populations of spotted owls, which will require significant attention to the Coast Range and Rogue Umpqua Areas of Concern. The following excerpts from the ISC Report are instructive:

A policy statement of 16 March 1983, from the Director of the BLM, interpreted the Oregon and California Railroad Grant Lands Act of 1937 as allowing consideration of Oregon's goals and objectives for State-listed threatened or endangered. species. The policy specified that timber harvest could be restricted through land-use planning to achieve habitat objectives for such species." [p 15].

The BLM also issued a proposed decision on their Coos Bay District timber management plan in 1982. The Oregon Fish and Wildlife Commission found that the proposed plan failed to meet State wildlife policies and existing Federal laws, and would not provide sufficient protection for the spotted owl. The Oregon Land Conservation and

Development Commission sustained this objection. As a result, BLM and ODFW were requested to negotiate a settlement. The negotiation culminated in a 5-year agreement signed in 1983, in which the two agencies agreed that BLM would manage habitat to maintain a population of 90 pairs of spotted owls, with appropriate distribution of pairs, as a contribution to maintaining a minimum viable population in western Oregon. [p 54] After an evaluation of spotted owl management areas, ODFW recommended in 1985 that BLM establish a minimum of 40 additional spotted owl habitat areas. This recommendation was made because many of the 90 sites that BLM was protecting at the time were characterized by poor habitat, scattered distribution, and low occupancy by owls. The BLM did not act on this recommendation until 2 years later, when they agreed to manage for an additional 20 pairs of owls (110 total) that would be jointly selected by BLM and ODFW.

In 1986, the BLM initiated a Statewide environmental assessment (EA) on the spotted owl in Oregon to determine if new information required a supplemental EIS on their existing timber management plans. After public review, the BLM decided in 1987 that a supplemental EIS was not warranted. [p 55]

A new interagency agreement was signed in August 1988 by the heads of the BLM, FS, FWS, and NPS. In that agreement, the agencies agreed to work toward a common goal of ensuring population viability for the spotted owl throughout its range. The Interagency Agreement served as the umbrella under which the Interagency Spotted Owl Scientific Committee was formed in 1989. [p 56]

The BLM's classification of the spotted owl as a special status species provides similar agency attention. [p 60]

We are particularly concerned with the survivability of the Pacific fisher under any alternative that removes or degrades this species' habitat. On April 8, 2004, the U.S. Fish and Wildlife Service issued a decision finding that the listing of the Pacific fisher is warranted under the Endangered Species Act due to its imperiled status, but deferring action due to workload constraints (a "warranted but precluded" decision). 69 Fed. Reg. 18769 (April 8, 2004). The Pacific fisher is a forest carnivore that currently inhabits dense, older forests in the southern Cascades and Klamath Mountains of Oregon, a small portion of its historic range. FWS concluded in 2004 that the West Coast population of the fisher (the "distinct population segment" or "DPS") warrants listing under the Endangered Species Act.

According to the FWS, "preliminary analyses indicate West Coast fisher populations ... may be at significant risk of extinction." Id. at 18789. The FWS cites logging as one of the primary causes of fisher decline across the U.S., particularly in Oregon. Id. at 18778. "Small size and isolation make the Oregon populations vulnerable to extirpation." Id. at 18789. The FWS ultimately concluded that: "Federal, State, and private land management activities may affect key elements of fisher habitat; reduction of any of these key habitat elements could pose a risk to the fisher. Current regulations provide insufficient certainty that conservation efforts will be implemented or that they will be

effective in reducing the level of threat to the fisher. We, therefore, believe that the existing regulatory mechanisms are not sufficient to protect the DPS as a whole from habitat pressures." Id. at 18792.

The BLM's fisher analysis is completely inadequate. The BLM needs to reissue a DEIS that actually looks at the impacts to the species and makes sense. For example, on page 699 the first sentence percentages are non-sensical. "Natal habitat would decrease under Alternative 3 from 395 to 19% in the Roseburg District and from 285 to 23 % in the Coos Bay District as shown in *Figure 244* (*Abundance of fisher natal habitat under Alternative 3*)." What does that mean?

Fishers have large home ranges associated with late-successional forests and are generally found in stands with high canopy closure, large trees and snags, large woody debris, large hardwoods, multiple canopy layers and few openings. The WOPR, particularly alternative 2, through logging of late-successional habitat, would involve the logging of potential denning, foraging and dispersal habitat for the Pacific fisher. All the alternatives in the DEIS would led to a trend toward listing the fisher under the ESA.

Additionally, FWS identified that "past timber harvest is one of the primary causes of fisher decline across the United States, and may be one of the main reasons fishers have not recovered in Washington, Oregon, and portions of California…." Id. at 18778. "Habitat fragmentation has contributed to the decline of fisher populations because they have limited dispersal distances and are reluctant to cross open areas to recolonize historical habitat." Id. "[T]he Klamath Provinces of southwestern Oregon and northwestern California have forests that are highly fragmented by timber harvest…." Id. FWS concluded that:

> habitat loss and fragmentation appear to be significant threats to the fisher. Forested habitat in the Pacific coast region decreased by about 8.5 million acres between 1953 and 1997. Forest cover in the Pacific coast is projected to continue to decrease through 2050, with timberland area projected to be about 6 percent smaller in 2050 than in 1997. Thus fisher habitat is projected to decline in Washington, Oregon, and California in the foreseeable future. -Id. at 18780.

In the 2006 Candidate Notice of Review, the FWS reiterated the concerns highlighted in the fisher's warranted but precluded determination, noting that "extant fisher populations are small and isolated from one another" and that "[m]ajor threats that fragment or remove key elements of fisher habitat include various forest vegetation management practices such as timber harvests…." 71 Fed. Reg. 53777 (Sept. 12, 2006).

Despite the listing of the fisher as a "warranted but precluded" species under the ESA the BLM has not addressed the impact of the WOPR on this species. We are not convinced with the BLM projections that they can grow more "structurally complex" in the future, that will provide habitat for the fisher. The currently protected forests, "Natal habitat in the Klamath Falls Resource Area would decline under all of the action alternatives" DEIS at 700. At least half of the existing foraging habitat goes away under all alternatives.

The WOPR admits that "BLM administered lands play a **significant** role at the provincial scale by linking the physiographic provinces and the USFS lands within them." DEIS at 701. The BLM also admits that "Decreasing patch size, mean core area size, and connectivity would lead to decreasing [Fisher] populations under Alternative 2 and 3." DEIS at 702. How can the BLM so blatantly lead to a species being listed under the ESA? Moreover, the BLM ignores short term (50 years) impacts in concluding that Fisher natal habitat would increase under all alternatives. DEIS at 698.

The WOPR's botany report does not reflect recent findings that *Fritillaria gentnerii* populations are decreasing throughout the Medford District.

Wilderness Study Areas

Through implementation of the WOPR, the BLM would fail to protect potential Wilderness Study Areas (WSA) in western Oregon. National Landscape Conservation System (NLCS) lands are also included in the WOPR planning area. The NLCS lands are those that are managed to "conserve, protect and restore the identified outstanding cultural, ecological, and scientific values." DEIS at 44. These lands include wilderness, wilderness study and instant wilderness study areas, wild and scenic rivers, national monuments, and other special areas.

In scoping, the public submitted 146 wilderness proposals. The BLM determined that only 9 areas contained relevant wilderness characteristics. However, all of the areas in fact have relevant wilderness character. The BLM is arbitrary and capricious in its application of the wilderness standards in the DEIS.

Under all action alternatives, the BLM would apply special management to maintain the wilderness characteristics on only 5 of the 9 areas. DEIS at 784. However, management to maintain wilderness characteristics would not apply to portions of these units suitable for timber production. Ibid. In other words, those areas would be logged.

Interestingly, the WOPR ignores the largest forested roadless complex in the planning area: the proposed Wild Rogue Wilderness Area. DEIS at 418. This is contrary to findings by the Medford District in its watershed analyses, which found that the Wild Rogue did indeed exhibit wilderness character:

> "The watershed analysis team did a preliminary review of the current conditions of the unroaded areas in this watershed. **There was consensus that part of the watershed may meet all or part of four criteria for wilderness consideration**:
> -the imprint of man's work should be substantially unnoticeable,
> the area should provide outstanding opportunities for solitude or primitive recreation,
> -the area should be at least 5,000 acres,
> -the area should contain ecological, geological or other features of scientific, educational, scenic or historical value." -- Wild Rogue North Watershed Analysis, Page 125. Version 2.0. December 1999.

The Watershed Analysis went on to recommend protecting the roadless area:

> "Consider maintaining all or a portion or the existing unroaded area in an unroaded condition to minimize adverse disturbance effects to wildlife."
> -Wild Rogue North Watershed Analysis, Page 140. Version 2.0. December 1999.

> "Some portion of the watershed should be managed to maintain the values of large, unroaded areas (e.g., aesthetics, solitude, undeveloped recreational opportunities, wildlife --especially wide-ranging species such as carnivores—fisheries, water quality, and the intrinsic value of having wild, undeveloped places.) This should involve maintaining largely undisturbed conditions, but maintaining the option for road construction and other treatments to prevent catastrophic fires. Some areas of GFMA lands may require new roads for management and others may be managed by excluding new roads and decommissioning others."
> - Wild Rogue North Watershed Analysis, Page 141. Version 2.0. December 1999.

The Wild Rogue roadless area is the largest *forested* roadless area managed by the BLM. While the BLM may not recognize or place value on the existence of roadless forested areas, the BLM has a duty to analyze proposals to protect the area as a WSA. No such alternative is included in the DEIS. Please note that not only the public, but also the WA recommends that "some portion of the watershed should be managed to maintain the values of large, unroaded areas." WA 141.

The BLM has refused to consider and disclose the impacts of the WOPR on the Roadless Areas in western Oreogn. The BLM cannot claim that an inventory performed decades ago constitutes an appropriate look at the wilderness characteristics today. The BLM must conduct new inventories. For example, a mere 18,000 acres (out of more than 46,000) of the Wild Rogue roadless area were inventoried for wilderness and rejected in the early 1980s. Hence the BLM cannot solely rely on that incomplete and outdated inventory. The BLM cannot claim that under Title II of FLPMA (201), the BLM has no mandate to propose and maintain inventories of public land resources (including wilderness). Section 1711 of FLPMA provides that "the Secretary shall prepare and maintain on a *continuing basis* an inventory of all public lands and their resource values (including, but not limited to, outdoor recreation and scenic values)." Further, "this inventory shall be kept current so as to reflect changes in conditions and to identify new and emerging resource and other values." Much has changed since the last roadless inventory was conducted by the BLM. Many species have been listed under the ESA, there have been fires, logging road construction and land swaps. There is a new political and social appreciation for roadless values, and the BLM has begun the WOPR planning process. Hence the BLM must abide by its duty to maintain on an ongoing basis an accurate inventory or renewable resources. 43 USC 1711.

The BLM has violated the "continuing basis" provision of the Act, instead relying on an inventory conducted a quarter century ago. This is in direct contravention of the

provision stating that the "inventory shall be kept current so as…to identify new and emerging resource and other values." The emerging public value assigned to unroaded landscapes, as demonstrated by public comments on proposed logging in roadless areas, the WOPR, and on the Clinton roadless policy, has been largely ignored by the BLM.

Ninth Circuit precedent requires that BLM disclose the major environmental impact and the irretrievable and irreversible commitment of resources involved in logging a roadless area. Smith v. U.S. Forest Service, 33 F.3d 1072 (9th 1994). In *Smith*, the 9th found that the Forest Service failed to address the impacts of a timber sale on the roadless values of an adjacent roadless area, and that this failure violated NEPA. As the ecological importance of roadless areas was described by the 9th in Kootenai Tribe of Idaho v. Veneman, 313 F.3d 1094, 1132 (9th Cir. 2002), it is clear that there are important roadless forest characteristics that will be impacted by the proposed logging and road construction contemplated in the WOPR.

The BLM must assess the wilderness qualities in the WOPR and include the information in the EIS, regardless of whether the BLM believes that the areas are exempted from wilderness review due to the presence of O & C lands. See Portland Audubon Society v. Lujan, 998 F.2d 705, 709 (9th Cir. 1993) (NEPA was "passed after the O & C Act," and it applies "to all governmental actions having significant environmental impact, even though the actions may be authorized by other legislation"); Portland Audubon Society v. Lujan, 795 F.Supp. 1489, 1507 (D. Or. 1992) ("There is not an irreconcilable conflict in the attempt of the BLM to comply with both NEPA and the O & C Act"). There is also a well-settled line of decisions that hold that proposed activities that would destroy the roadless quality of an area constitute significant impacts and must be analyzed in an EIS independent of wilderness considerations. See National Audubon Society v. United States Forest Service, 46 F.3d 1437 (9th Cir. 1993); Smith v. U.S. Forest Service, 33 F.3d 1072 (9th Cir. 1994).

"It is well established in this [9th] Circuit that logging in an unroaded area is an 'irreversible and irretrievable' commitment of resources and 'could have serious environmental consequences.'" Sierra Club v. Austin No 03-35419; DC No. CV-03-00022 DWM (9th Circ 2003), *citing* Smith v. Forest Service 33 F. 3d 1072, 1078 (9th Circ 1994). The WOPR does not adequately discuss the impacts of proposed logging, road construction, ORV use and other activities on the many significant values of roadless/unroaded forests. These legally recognized (see 36 CFR §294.11) values include:

High quality or undisturbed soil, water, and air;
Diversity of plant and animal communities;
Habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land;
Primitive, semi-primitive non-motorized and semi-primitive motorized classes of dispersed recreation;
Reference landscapes;
Natural appearing landscapes with high scenic quality;

Other locally identified unique characteristics.

On the Medford District, the Wellington Mountain/Long Gulch, Dakubetede, Wild Rogue (including the Whiskey Creek area) and the Enchanted Forest roadless areas are all over 5,000 acres in size and deserve to be protected as WSAs like the Soda Mountain WSA. Failure to consider these areas as WSAs violates FLPMA. Moreover, there are many 1,000 to 5,000 acre areas that the BLM has entirely ignored in the DEIS, yet deserve preservation of their wilderness character.

Even when the BLM admits a wilderness area is eligible for maintaining wilderness character, these acres areas would be get logged. Alternative 2 would log 13 thousand out of 26 thousand of wilderness eligible lands across all districts. In other words, the BLM is unwilling to have 26,000 out of 2,500,000 acres remain undisturbed… DEIS at 785

Clean Water Act

The WOPR will violate the Clean Water Act, since the BLM lands, as managed by the S&Gs of the Northwest Forest Plan, are the basis of many of the Water Quality Management Plans and Total Maximum Daily Loads. Pasted below are some quotes from some water quality management plans for the Rogue Basin which rely on the ACS and Riparian Reserves (if the WOPR removes the ACS and RRs it would violate the CWA and the WQMPs are no longer valid)

For example, the BLM manages 5,800 acres in the Sucker Creek Watershed. The State of Oregon has prepared a Water Quality Management Plan, Rogue River Basin, Illinois River Sub Basin, Siskiyou National Forest, Oregon Department of Environmental Quality, Medford Office, March 1, 1999. It states:

> "This WQMP is a procedural step that focuses on Water Quality using elements of the Northwest Forest Plan (NWFP). It tiers to and appends the Grayback Sucker Watershed Analysis. Watershed analyses are a required component of the Aquatic Conservation Strategy under the NWFP. The Record of Decision (ROD) for the NWFP was signed in April of 1994, following extensive public review. Upper Sucker Creek TMDL at 11.
>
> "The recovery of habitat conditions in Grayback Creek and Sucker Creek will be dependent on implementation of the Siskiyou National Forest Land and Resource Management Plan and BLM Medford Resource Management Plan, as amended by the Northwest Forest Plan (NWFP). Paramount to recovery is adherence to the Standards and Guidelines of the NWFP to meet the Aquatic Conservation Strategy (ACS). This includes protection and culture of riparian areas as reserves and some silvicultural work to reach vegetative potential most rapidly. Some instream large tree placement may be beneficial where there exists conducive channel and riparian conditions. Upper Sucker Creek TMDL at 31.

> “Monitoring has indicated that water quality in Lower Sucker Creek often does not meet state water quality standards. As a result of water quality standards (WQS) exceedances (sic) for temperature, habitat modification and flow modification, three stream segments in the Lower Sucker Creek Watershed are included in Oregon’s 1998 §303(d) list..” Lower Sucker Creek TMDL at 14.
>
> “The Lower Sucker Creek TMDL/WQMP is based on the Clean Water Act, the Northwest Forest Plan, the Oregon Forest Practices Act, ODOT Best Management Practices, and the Rogue Basin Agricultural Water Quality Management Plan. -Lower Sucker Creek TMDL at 41.
>
> The Applegate subbasin TMDL tiers to the Northwest Forest Plan (Page 4) and the subbasin may experience negative effects from the logging and roadcostruction contemplated under the WORP. For example: “Pollutant*:* Solar Flux (Heat Energy), expressed as British Thermal Units per square foot of stream surface per day (BTU/ft2/day). Anthropogenic Contribution*:* Excessive solar energy input from changes in riparian vegetation.” – Applegate Subbasin TMDL, December 2003 at 72.

Late-Successional Habitat and Wildfire

Because they take so long to replace, careful consideration should be given before habitat elements such as big trees and interior habitat are removed. Big trees, interior older forest habitat, meadows, and deciduous oak/pine savannas have the greatest need for maintenance and restoration because they are the farthest outside the average natural range of variability.

The WOPR would clearcut tens of thousands of acres of late-successional habitat per decade, the loss of which would have enormous impacts on connectivity for wildlife and on natural processes such as wildlife. The BLM needs to define, quantify and analyze what it means by "strongly dichotomous landscapes may pose a risk to species and ecological processes." DEIS at 499.

By implementing the WOPR you are increasing the risk of uncharacteristic fire on older forest. The BLM has admitted in many areas, such as in the Kelsey Whisky project, that, "Partial cuts in East Fork Kelsey Creek and Quail Creek areas have substantially increased the brush component, placing these areas at greater risk of stand replacing fire. Past clear cutting in areas of Mule Creek, East Fork Mule Creek and North Fork Kelsey Creek has created additional risk of stand replacement fire through both brush invasion and new young plantations." -2002, *Kelsey Whisky Draft Environmental Impact Statement* at 3-11.

We do not wish to see these impacts replicated throughout the WOPR planning area.

The BLM admits that the No Action Alternative would result in the most decrease [in fire hazard] reducing the acres of high severity fire when wildfires occur and fire hazard to

less than one half of the current condition in 100 years. Alternative 2 would have the least decrease maintaining the acres of high severity fire when wildfires occur and fire hazard at only slightly less than the current condition." DEIS at 769.

The widespread logging and tree planting contemplated in the WOPR would establish even-age plantations containing unnaturally combustible fuel complexes, further increasing the severity and difficulty of control of the next fire. Plantations are far more susceptible to severe fire effects than unmanaged forests (DellaSala et al. 1995), especially where logging slash remains untreated (Weatherspoon and Skinner 1995). The elevated susceptibility of plantations to severe fire is due to:

Structural characteristics that promote high heat energy output by fire (Sapsis and Brandow 1997).

Warm, windy and dry microclimates compared to what would exist in an unlogged forest that possessed more structural diversity and ground shading (Countryman 1955, van Wagtendonk 1996).

Accumulations of fine logging debris on the ground surface (Weatherspoon and Skinner 1995).

The number and distribution of even-aged plantations has altered fire behavior and effects at both stand and landscape scales (Hann et al. 1997, Huff et al. 1995). The existence of very combustible even-age tree patches on a forest landscape creates the potential for “a self-reinforcing cycle of catastrophic fire” that the project would perpetuate (Perry 1995). Most plantations occur next to roads, which spread invasive and exotic plants with poor resistance to fire (DellaSala and Frost 2001), and increase the risk of human-caused ignitions (USDA 2000). WOPR would exacerbate this problem.

Effects of even-age plantation establishment on the local fire regime require disclosure and assessment in the EIS because the project threatens public health and safety in a rural interface area, is likely to be highly controversial, and presents unique and unknown risks that are significant (40 C.F.R. 1508.27(b)(2), (4) and (5)).

The BLM should be aware that the Timber Rock Fire burned through 27,000 acres in the Elk Creek Watershed on the Upper Rogue River. The Damage Appraisal Report by the Oregon Department of Forestry found that of the forests 200 years and older that burned only 10% burned high intensity, while 100% of the tree farms less that 35 years old burned so intense that all the trees died. Similarly, both BLM fiber plantations impacted by the Deer Creek fire burned at stand replacement intensity.

The BLM should also be aware that portions of the Wasson fire that occurred on BLM lands in previously thinned stands burned at a higher severity than those BLM lands than had not been thinned.

The BLM may be less familiar with the findings of the March 2003 *Wildfire Effects*

Evaluation Project conducted by the adjacent Umpqua NF. This report found that:

> "The young vegetation, including plantations, experienced a disproportionately high amount of stand replacement mortality caused by crown fires as compared to older, unmanaged forests. Seventy four percent of the plantations that were less than 20 years old were lost. Plantations had a tendency to increase the rate of fire spread and increased the overall area of stand-replacement fire effects by spreading to neighboring stands." Page 4
>
> "Fire burned most plantations with high intensity and spread rapidly through the canopy of these young stands." page 20.
>
> "Plantation mortality is disproportionately high compared to the total area that plantations occupied within the fire perimeter. In fact, mortality in plantations accounted for 41 percent of all mortality on the fires, while the plantation area represented only 22 percent of the total area within the fire perimeter." page 26-27.
>
> "As noted previously, these early seral stands cover a greater portion of the landscape today than occurred historically. Crown fire spreads readily through these young stands: rates of fire spread can be high, and significant areas or mortality can occur in and adjacent to these stands." page 32.
>
> "The extent, and dispersed pattern, of managed, regenerated stands prior to the fire was outside the range of natural variability in most landscape areas. This early-seral vegetation pattern, and the types and arrangement of fuels present, increased the fire's rate of spread and the area of stand-replacement fire effects." page 64.

And finally the report says that the fire behavior in the old growth was normal--

> "The pattern of mortality in the unmanaged forest resembles historic stand-replacement patch size and shape." page 64.

Fire Management

Effective hazardous fuel management starts small

Fire behavior and severity depend on fuel properties and their spatial arrangement. Fuel bed structure plays a key role in fire ignition and spread, and is central to developing an effective fuel management strategy (Graham et al. 2004). The bulk density (weight within a given volume) of *surface fuels* consisting of grasses, shrubs, litter and dead woody material in contact with the ground are critical frontal surface fire behavior (heat output and spread rate – intensity) compared to simple fuel loading (weight per unit area) (Agee 1996, Sandberg et al. 2001). High surface fire intensity usually increases the likelihood of overstory canopy ignition and torching (Scott and Reinhardt 2001).

The shrub and small tree fuel stratum also is important to crown fire ignition because it supports surface fire intensity and serves as *ladder fuel* that facilitates vertical movement of fire from the ground surface into the canopy. The size of the gap between the ground and tree canopies is critical to ignition of crown fire from a surface fire (Van Wagner 1977, Graham et al. 2004). Van Wagner (1977) reports that crown fires are ignited after a surface fire reaches critical fire line intensity relative to the height of the base of aerial fuels in the crown. This crown ignition can become a running crown fire if its spread rate surpasses a certain canopy density threshold. Agee (1996) suggests a *canopy bulk density* threshold of 0.1 kg/ha as a general determinant for crown fire activity under extreme weather conditions. However, Keyes and O'Hara (2002) note the incompatibility of such open forest conditions with key forest management objectives including wildlife conservation and prevention of understory initiation and ladder fuel development, especially in the absence of an institutional commitment to stand maintenance.

The types of treatments proposed in the WOPR would dramatically increase uncharacteristic wildfire. The BLM only admits this in sections of the DEIS, but fails to describe the impacts this would have on habitats and resources of concern. See page 769 of the DEIS which described the increase of fire hazard in the Klamath Falls Resource Area Fire under Alternative 1 and 2.

Omi and Martinson (2002) sampled wildfire areas to describe the effectiveness of fuel treatments on subsequent fire severity. The strongest correlation they found was that between crown base height and "stand damage," which they used as a measure of severity. Importantly, canopy bulk density was not strongly correlated to fire severity. Instead,

> height to live crown, the variable that determines crown fire initiation rather than propagation, had the strongest correlation to fire severity in the areas we sampled... [W]e also found the more common stand descriptors of stand density and basal area to be important factors. But especially crucial are variables that determine tree resistance to fire damage, such as diameter and height. Thus, "fuel treatments" that reduce basal area or density from above (i.e., removal of the largest stems) will be ineffective within the context of wildfire management (p. 22).

The Omi and Martinson (2002) study failed to collect information about fuel profiles before the fires, and the scale of events considered confounds replication. However, the authors claim that their results can be extrapolated widely to other sites. A key implication of the study is the importance of treating fuels "from below" in order to prevent widespread occurrence of stand replacing wildland fires. Keyes and O'Hara (2002, 107) concur that increasing a stand's crown base height is critical and argue, "pruning lower dead and live branches yields the most direct and effective impact."

Spatial distribution of actions should account for fire spread patterns

The direction of fire spread (backing, flanking, heading) is an important aspect of fire

behavior because fires interact with weather, topography and vegetation to back and flank around certain conditions or head through others as they move across a landscape (Rothermel 1983, Graham et al. 2004). Steep topography can facilitate wind-driven convection currents that drive radiant heat upward and bring flames nearer to adjacent, unburned vegetation, thus pre-heating fuels and amplifying fire intensity as it moves upslope (Agee 1993, Whelan 1995). As a result, highly severe fire effects can concentrate at upper slope positions and on ridges, whereas severe fire effects are relatively rare on the lee side of slopes that do not receive frontal wind (Finney 2001, Taylor and Skinner 1998).

Given the topographic diversity of the WOPR planning area and its unique acceptance of weather patterns during fire season, fuel treatments should be distributed with spatial patterns of fire spread in mind. Overlapping patterns of fuel treatment that reduce *vertical fuel continuity* can fragment the most extreme fire effects into smaller patches if they disrupt heading fires and increase the area burned by flanking fires (Finney 2001). Treatments on slope aspects facing away from frontal winds are a lesser priority because backing fires are most likely to exhibit mild behavior and intensity.

Implement fuel reduction first in areas where relatively little resource investment may be able to create relatively fire resilient stand conditions. This may include low-productivity sites with little encroachment of small trees (e.g., dry southerly aspects) and open stands dominated by large conifers or hardwoods (e.g., existing fuel breaks). Targeting initial work in these areas will maximize the area to be treated with available funds and personnel, and thereby provide the greatest opportunity to quickly reduce fuels and restore ecosystem function at larger spatial scales.

Mechanical canopy thinning creates fire hazards

Mechanical thinning is widely preferred over other means to manage wildland fuels because tree harvest can be profitable. Projects that utilize wood products derived from thinning are more likely to pay for themselves (Allen et al. 2002). Most federal thinning projects in the Siskiyous with a stated purpose of fire hazard reduction propose moderate-to-heavy low thinning or crown thinning (see Graham et al. 1999 for definitions) because removal and utilization of commercially valuable intermediate, co-dominant and dominant trees can determine a project's financial efficiency (Reed 2002).

Thinning in the context of commercial forestry is not new, but its usefulness as a tool to reduce fire behavior is scientifically controversial and experimental (Carey and Schumann 2003, DellaSala and Frost 2001, FEMAT 1993). The Congressional Research Service tried but failed to locate research documenting a positive relationship between timber harvest and decreased fire intensity or severity, even though the idea is "logical and widely accepted" (Gorte 2000a). It found that "other independent variables" such as weather and topography "are critical factors in determining the extent and severity of any particular fire," confirming similar findings by fire ecologists (Beaty and Taylor 2001, Odion et al. 2004).

In a mixed conifer forest in the South Fork Trinity River watershed in northwest California, partially thinned stands burned *more* intensely and suffered *higher* levels of tree mortality than unlogged areas after wildland fires burned them (Weatherspoon and Skinner 1995). In eastern Washington, thinning that was intended to reduce fire hazard had the opposite effect, as logged areas showed increased rates of fire spread and greater flame lengths (Huff et al. 1995). Thinning treatments in the Rocky Mountain Front Range failed to prevent high intensity fire from overwhelming suppression forces and threatening residential communities outside Denver, Colorado (USDA 2002). Those anecdotal findings confirm other research indicating that tree thinning and biomass removal alone are unlikely to effectively reduce fire severity in dense forest stands (Graham et al. 2004, van Wagtendonk 1996).

Thinning may reduce total fuel loads (i.e., biomass weight per unit area), but it also opens forest canopies and allows increased solar radiation and wind to reach the forest floor (Agee 1996, Countryman 1956). The net effect is to reduce subcanopy moisture and increase the flammability of surface fuels:

In the open, solar radiation impinges directly on the earth's surface. Because both the earth and the air above it are poor conductors, heat is concentrated at the surface and in the layer of air next to it. Ground fuels can thus become superheated … A mature, closed stand has a fireclimate strikingly different from that in the open. Here nearly all of the solar radiation is intercepted by the crowns … Because of the lower temperature and higher humidity, fuels within closed stands are more moist than those in the open under ordinary weather conditions … [F]irebrands that do not contain enough heat to start a fire in a closed stand may readily start one in the open. Fires starting in the open also burn more intensely and build up to conflagration proportions more quickly since less of the heat produced by the fire is used in evaporating water from the drier fuels (Countryman 1956, 15-16).

To the extent that uneven-age management in the form of commercial thinning and group selection cutting strives to create relatively open forest stand conditions, changes to fire climate and intensified fire behavior are likely to occur after timber harvest. The EA should address the potential for reduced canopy closure to increase solar radiation, ground level wind speed, surface fuel moisture and flammability to result from proposed timber harvest. Implications for fire suppression effectiveness and worker safety also should be addressed.

Mechanical thinning also generates large quantities of flammable slash by transferring branches, twigs and needles from the canopy to the ground (Allen et al. 2002, Graham et al. 2004, Stephens 1998, van Wagtendonk 1996, Weatherspoon 1996). The CRS noted:

Timber harvesting removes the relatively large diameter wood that can be converted into wood products, but leaves behind the small material, especially twigs and needles. The concentration of these "fine fuels" on the forest floor increases the rate of spread of wildfires. Thus, one might expect acres burned to be positively correlated with timber harvest volume (Gorte 2000b).

Federal land managers working in the Siskiyou Mountains routinely report that mechanical thinning projects increase fine surface fuels in the form of logging slash by 3 to 15 tons per acre, which can create faster rates of fire spread and greater flame lengths, resulting in intensified fire behavior and extended fire duration (USDI 2002a, 2002b). Indeed, the 2002 Squires Peak fire in the Middle Applegate watershed exploded past containment lines when it spread into logging slash left behind after the Spencer Lomas timber sale accomplished significantly reduced forest stand canopy bulk density (Kettler 2002a, 2002b). Ironically, the Medford District BLM framed the purpose and need for Spencer Lomas as fire hazard reduction (USDI 2001).

Other ecological effects of mechanical canopy thinning

Scientific understanding of the ecological effects of mechanical thinning is incomplete, but evidence suggests that such treatments, even when carefully implemented, can adversely affect the environment in key ways. Mechanical thinning can:

Remove large trees that are disease and fire resistant (DellaSala et al. 1995, USGAO 1999, Gorte 2000a, 2000b).

Increase mortality of residual trees due to pathogens and mechanical damage to boles and roots (Filip 1994, Hagle and Schmitz 1993).

Damage soil integrity through increased erosion, compaction and loss of litter (Harvey et al. 1994, Meurisse and Geist 1994).

Create sediment pulses in streams that harm fish (Grant and Wolff 1991, Beschta 1978).

Retain insufficient densities of large trees and woody debris to sustain viable populations of cavity nesting and woody debris dependent species (DellaSala et al. 1995).

Reduce habitat quality for sensitive species associated with cool, moist micro sites or closed canopy forests (FEMAT 1993).

Mechanical thinning proposals advanced by federal foresters in the Siskiyous routinely require incidental take permits to harass, harm or kill species listed as threatened under the Endangered Species Act. Several known pairs of northern spotted owl reside in the analysis area. To the degree that thinning opens forest canopies and eliminates multi-layered internal forest structure, it generally is not compatible with conservation of critical habitat for spotted owl or other sensitive species that exist in the analysis area.

Prescribed fire reduces fire hazard and contributes to ecological process

Prescribed fire consumes dead surface fuels and reduces the continuity of ladder fuels that carry fires from the ground into tree crowns. The amount, continuity and moisture content of fine and intermediate-sized fuels determine the rate at which a fire spreads and

the intensity with which it releases heat energy (Rothermel 1983). Prescribed burning can specify fuel moisture conditions that allow a fire to consume only the smaller fuels that present the greatest hazard (Deeming 1990). The ability of prescribed fire to consume only fine and intermediate fuel classes smaller than three inches in diameter is a unique advantage over other fuel reduction methods that target larger, less flammable fuels. Another advantage to prescribed fire is that, unlike mechanical logging, it is a viable fuels treatment option on all terrain regardless of steepness or accessibility (Weatherspoon 1996).

Mechanical thinning is more widely used, but the Medford District BLM recognizes hazardous fuel reduction through use of prescribed fire as the most effective means to calm wildland fire behavior (USDI 1998). Models run by Stephens (1998) and van Wagtendonk (1996) show significant reductions in fire intensity and rate of spread following prescribed fire. The *next* most effective method of calming fire behavior in both simulations was low mechanical thinning followed by prescribed burning over the thinned area. However, both models detected microclimatic changes resulting from mechanical thinning that elevated fire intensity and rate of spread compared to burning alone. The models assumed homogenous surface fuel loads and constant ground-to-crown heights across the sampled landscapes, which simplify actual landscape conditions where small-scale differences in topography, canopy cover and fuel continuity can affect fire behavior in unpredictable ways.

Use of prescribed fire can restore ecosystem processes that have been limited or rendered dormant by fire exclusion. Most plant communities in the Siskiyous are adapted to fire (Atzet and Wheeler 1982, Martin 1997, Martin and Sapsis 1992). Prescribed fire has been used effectively in the restoration and maintenance of wildlife habitat (McMahon and deCalesta 1990). Use of prescribed fire should vary in frequency and extent of application, depending on the natural role of fire on specific portions of the landscape (USDI 1998).

Prescribed burning costs significantly less than other fuel reduction treatments. Investments of $300 per acre may be adequate to burn several hundred acres at a time, even on topographically complex landscapes such as the analysis area. Cost increases if pre-treatment is required to reduce ladder fuels and enhance worker safety. In contrast, operating costs for mechanical fuel treatments typically start at $600 per acre and can cost much more on challenging terrain. Furthermore, the economic benefit of fire hazard reduction can be measured by savings in future suppression costs and decreased resource losses (Cleaves and Brodie 1990). Fuel modification resulting from prescribed burning can reduce wildland fire impacts and make future control efforts vastly less expensive.

Thank you for the chance to comment.

Respectfully,

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