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December 22, 2004

Re: Butte Creek Thinning

Dear Randy—

Good to see you briefly at Willamette University on the 10<sup>th</sup>. There is certainly a whole lot of lively discussion about how to manage forests in Oregon right now—and with management plans about to be written for BLM O&C lands, I'm sure that these discussions will continue.

In the future, please mail hard copies of all NEPA correspondence to ONRC's office in Eugene. Although neither Bark nor ONRC could make it out to visit these stands before the end of the comment period, we do frequently visit these units and keep complete paper files on all the projects we file comments on. A year or so from now, it will likely be difficult to find the EA online.

As you know, ONRC supports some commercial logging on public lands. ONRC supports variable density thinning in young managed stands, with some sidebars (mostly about impacts to soils, gap sizes and composition, variability in leave tree spacing, and legacy retention). As you move forward with more silvicultural planning, ONRC hopes to see projects that propose thinning in young managed stands in matrix, riparian reserve and late-successional reserve land designations. While Annie's Cabin is controversial because of the history of recreation in the Molalla and conflicts in the understanding of what those lands were for, projects like Ag47 likely received nothing but positive comments and constructive suggestions.

In recent years, ONRC have worked closely with BLM and Forest Service planners on developing thinning projects in young stands. Many emails, comments on NEPA documents, phone calls, meetings, field trips with decision-makers and stakeholders, and even coordination on unit layout and prescriptions with agency staff later, ONRC has seen large projects move into the implementation stage that have resulted or will soon result in hundreds of millions of board feet of timber produced and tens of thousand of acres of young managed stands thinned with diversity and complexity major being principle objectives.

ONRC looks to the Siuslaw National Forest as the region's best model for young stand thinning, although we have been pleased with projects on Salem BLM, Eugene BLM, Roseburg BLM, Coos Bay BLM, Willamette National Forest, and the Umpqua National Forest. The Mt. Hood National Forest has just completed planning a 1300 acre thinning project that includes the principles of variable density thinning—something that is brand-new for this forest. For the first time in many, many years, a large logging project will not be appealed on the Mt. Hood. For an organization like Bark, which has been aggressive in monitoring all timber sale projects on the Mt. Hood and supports the end of commercial logging on public lands, not appealing a project is

a big deal. To both ONRC and Bark, this signals a potential sea change that could mend some broken fences—distrust, polarization, and gridlock.

Part of the reason this has worked is the pioneering work the Siuslaw National Forest has done. Twice this year, ONRC has stood in the Green Thin with Todd Merritt from Georgia Pacific and both praised the USFS for getting out volume as a bi-product of introducing some variability to dense plantation stands. The first time, we spoke with dozens of the members of the Interagency Advisory Committee (IAC) and then just this month, with folks from around the state who are interested in stewardship contracting, including folks from the Salem BLM. There is obviously a whole lot of interest in mimicking the Siuslaw's success of producing wood fiber without controversy while using new authorities.

You may have seen recent articles about the Siuslaw's thinning program (most notably, the March 14, 2004 Oregonian story called "Cutting the Controversy") that demonstrated the broad level of support for thinning young stands for diversity and complexity. When litigious conservation organizations, community foresters, local residents, timber industry executives, and agency personnel are all excited about logging, it is clear that something very different than the usual politics and polarization is happening.

The Siuslaw recently won three major intra-agency national awards, including "Breaking the Gridlock" and "Rise to the Future" for their silvicultural program. They haven't had a timber sale appealed since 1997. ONRC negotiated on their behalf to have sales released from litigation that were tiered to illegal programmatic Biological Opinions. Members of the communities surrounding the Siuslaw have robust participation in collaborative groups. This collaborative work just was recognized on September 1 when the Siuslaw River Basin Restoration Project won the prestigious 2004 International Thiess River *prize*, beating a field of entrants from three continents. Thinning projects using stewardship authorities have produced hundreds of thousands of dollars used to award contracts for a wide variety of restoration projects on private lands in the Siuslaw watershed.

ONRC truly believes that if all the federal agencies that cut trees on public lands in the Northwest Forest Plan area would focus exclusively on thinning young stands for the next few decades, a certain supply of wood fiber could roll into mills, employment would become more stable in communities near federal lands, and the hundreds of thousands of acres of dense, mid-seral managed stands would become more structurally diverse, biologically complex, and have more possibilities for successional pathways to older forest stands. Most important, it can build trust between critical forest stakeholders and the agencies entrusted to manage the public's land.

Representative Peter DeFazio introduced a bill on July 22, the purpose of which is: "To establish management priorities for Federal forest lands in Oregon and Washington located west of the Cascade Crest that will protect old growth timber while improving the health of young managed stands, increasing the volume of commercial timber available from these lands, and providing economic opportunities in local communities, and for other purposes." A July 30 article in the Register Guard, (Cut Trees, Save Forests and Jobs <http://www.registerguard.com/news/2004/07/30/c1.cr.defazio.0730.html>) indicates support for

such a major change in forest policy from both the conservation community and the timber industry. Representative DeFazio will introduce this bill again next year.

Many people who follow management of federal public forests tied to the Northwest Forest Plan feel that eliminating logging old growth and accelerating thinning of young stands is the way out of the controversy and gridlock that has characterized the Northwest Forest Plan National Forests and BLM districts over the last few years. This isn't limited to members of the conservation community and Democratic members of Oregon's congressional delegation. Top level scientists long involved with planning in the range of the Northern Spotted owl like Jack Ward Thomas, Andrew Carey, and Jerry Franklin have advocated needing logging of old trees and transitioning to an accelerated thinning program designed to restore complexity, resiliency and diversity to managed mid seral stands across all four land designations (matrix, riparian reserves, adaptive management areas, and late-successional reserves).

At the NWFP tenth anniversary conference on April 13, 2004 in Portland, USFS PNW Regional Economist Richard Haynes said that the NW economy has "fundamentally changed" over the last ten years since the NWFP was approved. The changes include: growth and diversification of the overall economy so that the timber industry plays a much smaller role in the overall economy, structural changes in the timber industry both regionally and nationally so that few mills remain dependent upon federal old-growth log supply, and serious decline of the export market so the logs from private lands are now more available to domestic mills. This raises a significant issue about whether the NWFP should continue to log any more late-successional old-growth at all and take continued risks with population viability of late-successional old-growth dependent species.

While we certainly look at young stand thinning as the way through gridlock and controversy, we do not believe that every dense stand, whether natural or plantation, should be thinned. Patches of dense forests are important to have on the landscape, given that these stands existed in patches across the landscape historically. Unthinned forests are important for landscape variability. Thinning must be done carefully (and in some cases not done at all) in order to avoid, minimize, and mitigate logging's numerous adverse ecological effects including: (1) removal of large trees that are disease and fire resistant (Frost 1999); (2) increased levels of fine fuels and short term fire hazard (Weatherspoon 1996, Huff et al. 1995, Wilson & Dell 1971, Fahnestock 1968); (3) increased mortality of residual trees due to pathogens and mechanical damage to boles and roots (Filip 1994, Hagle & Schmitz 1993); (4) damage to soil integrity through increased erosion, compaction, and loss of litter layer (Harvey et al. 1994, Meurisse & Geist 1994); (5) creation of sediment that may eventually be delivered to streams and harm fish (Grant & Wolff 1991, Beschta 1978); (6) retention of insufficient densities of large trees and woody debris to sustain viable populations of cavity-nesting and woody debris dependent species (DellaSala et al. 1996); and (7) reduced habitat quality for sensitive species associated with cool, moist microsites or closed canopy forests (FEMAT 1993, Thomas et al. 1993).

While there is no shortage of plantations with merchantable trees across western Oregon, ONRC can appreciate the fact that there are few in the Cascades Resource Area. Given the expectations to produce volume, ONRC has been willing to accept some thinning in natural stands in the Cascades RA, with the understanding that you will be looking to thin plantations when the trees

get big enough. While the B cubed project wasn't an ideal project from ONRC's perspective given the snag and road issues, we were willing to let it go because the thinning prescriptions were well conceived and the roading was temporary. Bark takes a harder line on thinning in natural stands.

The Butte Creek project is similar in some ways but different in others. Given the stocking in these naturally regenerated stands, BLM can make a strong case that variable density thinning will have short-term timber target/economic benefits and could have some long-term ecological benefits. Retention of all the "best formed trees with well-developed crowns" (EA page 8) and relatively variable spacing (55-90 leave trees per acre) will give these stands a leg up to developing structures (e.g. large branches, large boles, deep crowns, a variety of microclimates and niches, etc) preferred by many late-seral dependent/associated species. Given the proximity to private industrial lands, there will be no shortage of early and mid seral habitats in the area.

In other ways however, the Butte Creek project is different than B cubed. According to the EA, three stands (B, L and M) have remnant old growth trees. Four stands (A, B, K and L) have at least 15 large snags per acre. In total, this project constructs 6380 feet of permanent road (the majority for units B and C) and 1700 feet of temporary road. As it currently stands, the certain costs to soils and legacy structures outweigh the prospective benefits to stand development. Unless significant reductions are made to road construction and additional precautions are put in place to protect large remnant trees, we will protest and appeal this project.

### **Retention of large old trees.**

This is the easiest one of our concerns to resolve. In the table on page 12 of the EA, the age of the oldest stand is listed as 90 years (stand G). Yet only remnant old growth trees older than 200 years will have designed retention (EA page 8). While in some cases it is entirely appropriate to cut some co-dominant trees to reduce stocking, all of the largest and best trees that are older than the dominant trees that came in after logging or fires should be retained and protected from cribbing and other damage associated with falling and yarding. It may be possible that all remnant trees are over 200 years old in units B, L and M. However, in the decision notice, provide some clarification to this issue. If there are any legacy trees less than 200 years old in these three stands or other stands, BLM must develop prescriptions and safeguards to keep these trees standing and undamaged.

On page C-42 of the Northwest Forest Plan ROD Standards and Guidelines, note that retained trees in the matrix "should include the largest, oldest live trees." Please provide clarification so that we can see that that this is being done in the case of Butte Creek.

### **Snag retention.**

One of the main reasons why thinning natural stands is so problematic is that any *prospective* benefits to complexity and diversity accomplished by thinning these stands will be negated by the *certain* loss of snags--the most important structural components of older, complex stands. BLM states on page 10 that "landing and skyline corridor locations would be designed to avoid destruction of any snags larger than 20" diameter at breast height (DBH) or remnant old growth found in the project area." Yet on page 12, we discover that the vast majority of the project will be yarded with ground-based systems (618 acres) and only a small portion will be skylined (82

acres). Therefore, this safeguard provides very little protection for snags. In addition, many valuable snags that were one very large diameter trees are less than 15 feet tall. These snags are usually the easiest to save (because they are short and therefore are less of a hazard.)

While BLM has described the measures used to minimize impacts to soils (running on top of slash on designated skid trails) no measures are discussed to protect snags. Given that the yarding corridors are 75' apart, it is very likely that this network of skid trails will impact snags greater than 19 inch snags over 15 feet tall in units A, B, K, and L.

The EA states that there are very few snags in the project area. "Some residual snags (20" DBH +) are present, but are widely scattered and in advanced decay classes. The stands are generally snag deficient (EA pg 19)." "There are snags and scattered remnant old-growth trees with bark attached that may provide suitable habitat for bats; however, this resource is very scarce in these mid-seral stands (EA pg 24)." These statements point out very clearly that there is a paucity of snags. BLM has an obligation to promote viable populations of snag dependent species. All large old snags regardless of decay class must be retained, even if that means significant modification of unit boundaries.

While "project design features reduce the risk to CWD habitat in EA pg. 7", BLM states in the EA that "existing snags and CWD habitat may be degraded" (page 25). This section of the EA suggests that project design features that reduce the risk to CWD are outlined on page 7 of the EA. There is no mention of mitigation measures to protect legacy features on page 7 of the EA (BLM refers to this page for snag retention mitigation a second time in the EA). The words "snag", "CWD", "legacy" or any other words that describe large dead material standing or laying down in the forest do not even appear on page 7 of the EA, much less measures that are designed to protect them. BLM made the identical mistake in the B cubed project, and despite ONRC pointing it out to the BLM in that case, BLM continues to refer to language that simply does not exist in the EA. Given that snag retention is always a concern to ONRC, and concerns about snags led to many problems in implementing Clear Dodger, BLM should make some token attempts to correct mistakes in your boilerplate EA.

The measures that are actually mentioned in the EA are essentially management by caveat techniques that call for the retention "greatest extent possible under standard contractual logging procedures, BMP, and OSHA requirements. If a snag is determined to be a safety hazard, after inspection by the contract administrative officer, and it is determined that it needs to be felled, the snag would remain on site for coarse woody debris." (EA pg 11). This essentially allows snags to be felled if they interfere with logging operations. In order to protect snags, BLM must make adjustments to yarding and falling operations to simultaneously protect workers and snags.

Protecting snags except where safety is an issue should no longer be used as a blanket loophole to cut existing snags. It must be noted that OSHA revised the federal Logging Standard (29 CFR 1910.266) in order to clarify its intent that danger trees and snags may be avoided, rather than being felled. The revised rule allows some discretion in determining the hazard area around a danger tree, by allowing work to commence within two tree lengths of a marked danger tree,

provided that the employer demonstrates that a shorter distance will not create a hazard for an employee (OSHA Logging Preamble, Section V).

As we have noted numerous previous comments, recent scientific studies call into question the assumptions about snag retention in the RMP and NFP. The RMP and NFP rely on outdated data that is no longer valid, especially due the presence of more thorough research and management recommendations. Legacy features of native forests are structurally the most important for habitat and the most difficult to replace if they are lost. The BLM is obligated to use the best available science to protect public resources. The Northwest Forest Plan ROD is clear that “a renewable supply of large down logs is critical for maintaining populations of fungi, arthropods, bryophytes and various other organisms... Models for computing expected numbers and sizes of logs should be developed for groups of plant associations and stand types which can be used as a baseline for managers to develop prescriptions for landscape management.” (C-40)

The ROD clearly states that the 240 linear feet of logs per acre greater than or equal to 20 inches in diameter standard is to be used until better, vegetation-type specific standards are developed. This model is currently available. BLM should use the DecAID decision support tool and consider all the many values of snags and down wood presented in Rose, C.L., Marcot, B.G., Mellen, T.K., Ohmann, J.L., Waddell, K.L., Lindely, D.L., and B. Schrieber. 2001. Decaying Wood in Pacific Northwest Forests: Concepts and Tools for Habitat Management, Chapter 24 *in Wildlife-Habitat Relationships in Oregon and Washington* (Johnson, D. H. and T. A. O'Neil. OSU Press. 2001) <http://www.nwhi.org/nhi/whrow/chapter24cwb.pdf> Of particular interest is the section entitled “Lessons learned over the last 15 years.” Note the authors call managing snags by biological potential “flawed”. Note that the authors, including a member of the “Gang of Four” and other highly respected members of the community of Pacific Northwest forest researchers frequently call out the 1979 Thomas study (which BLM relies on for this project, EA page 14) as outdated and inadequate. The 240/20 standard is based largely on 1979 Thomas et al. The authors of this very important paper state that:

Since the publication of Thomas et al. and Brown, new research has indicated that more snags and large down wood are needed to provide for the needs of fish, wildlife, and other ecosystem functions than was previously recommended by forest management guidelines in Washington and Oregon. For example, the density of cavity trees selected and used by cavity-nesters is higher than provided for in current management guidelines.

Other important research that BLM must use to develop projects is PNW Research Station, “Dead and Dying Trees: Essential for Life in the Forest,” Science Findings, Nov. 1999 (<http://www.fs.fed.us/pnw/science/scifi20.pdf>) (“Management implications: Current direction for providing wildlife habitat on public forest lands does not reflect findings from research since 1979; more snags and dead wood structures are required for foraging, dining, nesting, and roosting than previously thought.”) See also: Jennifer M. Weaken and John P. Hayes, HABITAT USE BY SNAG-ASSOCIATED SPECIES: A BIBLIOGRAPHY FOR SPECIES OCCURRING IN OREGON AND WASHINGTON, Research Contribution 33 April 2001, <http://www.fsl.orst.edu/cfer/snags/bibliography.pdf> and check out *Science Findings* Issue 57 (October 2003) Coming home to roost: the pileated woodpecker as ecosystem engineer, by Keith Aubrey, and Catherine Riley

<http://www.fs.fed.us/pnw/sciencef/scifi57.pdf>. Determining pileated woodpeckers population potential based on nesting sites alone will not provide adequate habitat for viable populations of this species, or secondarily, the habitat they provide to other cavity nesters.

BLM notes that the RMP's criteria for identifying and retaining snags does not recognize all the values of snags of different ages and decay classes. "While most of the snags and down logs do not meet the criteria set within the District RMP for cavity excavators and users, they are however a valuable habitat feature for other species groups such as herpetofauna and mollusks as well as for foraging by woodpeckers (EA pg. 23)." This reinforces my point that meeting the Northwest Forest Plan's standards is not sufficient to meet the requirements suggested by the current science. To make matters worse, BLM admits that the current snag levels are not even high enough to meet Northwest Forest Plan standards and they would just be met "over time" with "green tree retention, CWD recruitment, topping and base girdling to create snags." (EA pg 25). This is unacceptable. BLM cannot degrade a resource that is already below standards while suggesting that all is well because these stands may be set on a trajectory to meet eventually the low end of a standard that does not take into account the latest science.

BLM's argument that direct adverse impacts primary excavators, amphibians and bat species by damaging snags and CWD in logging and site preparation would be "lower due to the scarcity of this type of material" (EA pg 25) violates one of the basic laws of population ecology. This law is that rarity and scarcity couple with stress dramatically increases, not decreases the risk of extirpation. Any loss of a rare habitat type increases the risk of extirpation.

### **New roads.**

While we are very concerned with any significant new road construction, the issues with permanent new road construction are much higher than with temporary roading, even if the permanent roads are gated. This project would construct 1.2 miles of permanent new road. Most of this new roading is for units B and C. Unit B also has old growth remnant trees and high numbers of large snags. We urge the BLM to drop this unit and find ways to reduce the road construction that is associated with the other units.

Nothing is worse for sensitive wildlife than a road. Over the last few decades, studies in a variety of terrestrial and aquatic ecosystems have demonstrated that many of the most pervasive threats to biological diversity - habitat destruction and fragmentation, edge effects, exotic species invasions, pollution, and overhunting - are aggravated by roads. Roads have been implicated as mortality sinks for animals ranging from snakes to wolves; as displacement factors affecting animal distribution and movement patterns; as population fragmenting factors; as sources of sediments that clog streams and destroy fisheries; as sources of deleterious edge effects; and as access corridors that encourage development, logging and poaching of rare plants and animals. Road-building in National Forests and other public lands threatens the existence of de facto wilderness and the species that depend on wilderness.

Noss, Reed; The Ecological Effects of Roads;

<http://www.wildrockies.org/WildCPR/reports/ECO-EFFECTS-ROADS.html>

See also NRDC Report: “End of the Road: The Adverse Ecological Impacts of Roads and Logging: A Compilation of Independently Reviewed Research” (1999) which discusses the fact that roads:

1. Harm Wildlife
2. Spread Tree Diseases and Bark Beetles
3. Promote Insect Infestations
4. Cause Invasion by Harmful Non-native Plant and Animal Species
5. Damage Soil Resources and Tree Growth
6. Adversely Impact Aquatic Ecosystems

While wildlife harassment is abated by ripping the temporary roads and blocking the permanent ones, these roads still degrade soil, increase the risk of sedimentation, and provide vectors for invasive weeds to spread. The BLM states that the road construction, temporary and permanent”would displace topsoil and severely compact subsoil on less than 3.4 acres of forested land, converting it to non-forested land” (EA pg. 22). This will cause long-term reduction in soil productivity. The BLM provides no evidence to support your assertion that erosive effects would be “non-measurable”. The EA lacks analysis and quantified data of effects on soil and water from past and foreseeable timber harvest elsewhere in the watershed. The failure to include this information violates NEPA because the BLM has failed to disclose and adequately analyze the cumulative effects of new system roads given the current ecological and funding landscapes.

For factors with potential cumulative impacts on water such as erosion, compaction and sedimentation, analysis of effects of other projects in combination with the proposed project is necessary to ensure that individually minor but collectively significant effects are not overlooked. See Klamath-Siskiyou Wildlands Center, 387 F.3d at 993; 40 C.F.R. § 1508.7.

The BLM admits that roading and yarding “may lead to an increase in the invasive/non-native plant populations in project area... All known invasive/non-native species from the project area are priority III noxious weeds and are well established and widespread throughout the Cascade Resource Area... Eradication of Priority III noxious weed species is not practical using any proposed treatment methods due to their widespread infestations... Adverse effects from invasive/non-native are not anticipated” (EA pg. 28). Essentially, the BLM admits that this project will likely facilitate the spread of invasive weeds, but says that all is well because they are everywhere already and cannot be controlled.

Control of invasive weeds tops many of the most prestigious scientists lists of concerns for the future, including Jerry Franklin. BLM is currently developing an integrated strategy to control invasive weed populations. The best way to control the spread of invasive weeds is to avoid disturbing ground in the first place. According to independent scientists, the spread of both native and exotic pests and pathogens in many forest systems can be linked to the ready travel corridors provided by extensive road networks.

- Trees at forest edges created by roads had 2.4 times more gypsy moth egg masses than trees in the forest interior. Bellinger, R.G., F. W. Ravlin and M.L. McManus. “Forest Edge Effects and Their Influence on Gypsy Moth (Lepidoptera: Lymantriidae) Egg Mass Distribution.” 1989. Environmental Entomology. 18: 840-843.



- Forest edges have been found to be source populations for tent caterpillars. Roland, J. "Large-Scale Forest Fragmentation Increases the Duration of Tent Caterpillar Outbreak." 1993. *Oecologia* 93:25-30.

Federal agencies lack the funds to maintain existing roads, so it is arbitrary and capricious to build more. In Oregon alone, there are over 70,000 miles of national forest roads with more than a half billion dollars of deferred maintenance needs. Over 100 million dollars of that maintenance need is considered "critical." From 1998 to 2002, the Forest Service subsidized road construction to the tune of almost \$40,000,000.00 See Road Wrecked: Why the \$10 Billion Forest Service Road Maintenance Backlog Is Bad for Taxpayers, Taxpayers for Common Sense. March 2004. <http://www.taxpayer.net/forest/roadwrecked/>

The Forest Service has reported that forest roads have negative effects on water quality, fires, wildlife habitat, invasion by exotic species, and local economies. USDA Forest Service, "Forest Roads: A Synthesis of Scientific Information," Pacific Northwest Research Station, General Technical Report PNW-GTR-509. May, 2001. Page 4.

In conclusion, ONRC and Bark are very concerned about his project. We suggest dropping unit B in its entirety and look to minimize road construction and disturbance to snags and legacy trees in other units by modifying others. We will not accept 1.2 miles of new system roads.

Sincerely,

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