March 24, 2006

Linda Goodman
Appeal Deciding Officer
Regional Forester
Attn: 1570 Appeals
PO Box 3623
Portland, OR 97208-3623
Email: mailto:appeals-pacificnorthwest-regional-office@fs.fed.us

36 CFR 215 APPEAL
South Fork Thinning

In accordance with 36 CFR 215, I hereby appeal the Decion Notice of the **South Fork Thinning** timber sale, Clackamas Ranger District, Mt. Hood National Forest.

Title of Decision Document: Decision Memo for South Fork Thinning

Description of Project: Thin 423 acres of Matrix and 74 acres of Riparian Reserve.

Location: Clackamas Ranger District, Mt. Hood National Forest; R.4E and R.5E of T.5S

Date Decision Notice Published: February 7, 2006.

Deciding Officer Name and Title: Linda Goodman, Regional Forester, Mt. Hood National Forest.

I. APPELLANT'S INTERESTS

I have a specific interest in this sale. I have previously expressed my interest in this specific sale, and have standing to appeal this decision according to 36 CFR § 215.11 (a)(2).

My interests will be adversely affected by this timber sale. I use and enjoy the Mt. Hood National Forest, including the South Fork planning area, for recreational, educational, aesthetic and other purposes. The value of those activities will be irreparably damaged by this timber sale. I have an interest in the sound management of this area, and the right to request agency compliance with applicable environmental laws.

II. REQUEST FOR STAY

Although an automatic stay is in effect for this sale as per 36 CFR 215.10(b), I formally request a stay of **all** action on this timber sale, including sale preparation, layout, road planning, any advertising, offering for bids, auctioning, logging, road construction, or other site preparation by a

purchaser pending the final decision on this appeal.

A full stay is essential to prevent unnecessary expenditure of taxpayers' money and to prevent irreversible environmental damage. Without a stay, the federal government may waste taxpayer money preparing a sale that may later be canceled. Because I may pursue a legal challenge to this sale with or without this stay, offering this timber sale may unnecessarily expose the government to liability and the purchaser to financial losses.

III. REQUESTED RELIEF

1. That the Decision Notice for the South Fork project be withdrawn.
2. That this timber sale be modified to meet the objections presented in Appellants' Statement of Reasons.
3. Revise the project to ensure consistency with the National Environmental Policy Act (NEPA), National Forest Management Act (NFMA), Clean Water Act (CWA), Administrative Procedures Act (APA), these statutes' implementing regulations, and the Mt. Hood National Forest Land and Resource Management Plan (Mt. Hood LRMP) as amended by the Northwest Forest Plan (NFP).

IV. STATEMENT OF REASONS

General Reasons

Riparian Reserves

While I support the variable density thinning of Riparian Reserves as a method to aid in the introduction of structural complexity, the approach being promoted by the current plan is too simplistic and needlessly runs the risk of being counter-productive and inappropriate. While the plan is to "enhance" the Reserves by logging, it is not enough to thin more heavily while avoiding other easily implemented management actions that would act to further enhance the Riparian Reserves. Riparian Reserve enhancement demands a more thoughtful approach than is being applied in this project. With a few minor changes this becomes a project that has the potential to significantly enhance the diversity of the Riparian Reserves, without these few small changes what ends up being implemented is a heavy Matrix-style thin. While this single entry thin will enhance a singular aspect of the Riparian Reserves, by treating them essentially as single-entry matrix units the project is acting in a manner that retards or prevents the attainment of the ACS objectives. With minor changes this project can actively manage the Riparian Reserves in a manner that promotes the Aquatic Conservation Strategy (ACS) found in the Northwest Forest Plan (NFP).

- **The no-harvest buffer widths for intermittent streams are too small**. Significant and copious Forest Service and scientific literature exists that clearly demonstrates the need for a larger intermittent stream no-harvest buffer than is currently planned (buffer of 30'). Declaring them adequate because they are effective in limiting solar heating of the water (Appendix A) only addresses one of many issues. Findings on biological diversity 'hot spots', amphibian recovery, avian usage, intermittent stream roles for fish-bearing perennial streams, and microclimate are documented in Highlights of Science, Contributions to Implementing the Northwest Forest Plan 1994-1998; PNW Science Findings Issue 53; Pearson, Manuwal 2001; Cummins, Wilzbach 2004; The Effects of Buffer Strip Width on Air Temperature and Relative Humidity in a Stream Riparian Zone (Ledwith, 1996); Erman et al. 1977; Steinblums 1977;

Rudolph and Dickson 1990; Chen 1991; Spackman and Hughes 1994; KD Brosofske, J Chen, RJ Naiman, JF Franklin, 1997).

The concept that intermittent streams don't need as large a no-cut buffer as perennial streams is logically flawed and not supported by the projects own documentation. For example, a quick look at potential sedimentation issues demonstrates the problem. Air-borne dust, rain, and rain-on-snow events – primary non-catastrophic mechanisms for sediment transport into local streams operate equally well for both perennial and intermittent streams. Simply put, intermittent streams (streams with enough water flow that they show either annual deposition or scour) are running strongly when you get either rain or rain-on-snow and need the same level of protection as the perennial streams. Airborne dust from summer road travel on roads that are heavily used by recreational drivers, the BLM, and private timber land managers deposits in intermittent streambeds and on the surrounding vegetation – this dust will mobilize when it rains and the intermittent streams flows again. The project guardedly admits that there is an issue with the attenuated no-harvest buffers planned for intermittent streams; as noted in Appendix E, "existing surface erosion is mainly confined to exposed soil on skidtrails…" and with skidtrails that much closer to the intermittent streams this issue would be only magnified.

As noted in Appendix E, the "Matrix of Pathways and Indicators" lists both the Middle Clackamas and Lower Clackamas Riparian Reserves as being "at risk."

There is little difference in terms of sediment transport between perennial and intermittent streams and the use of the smaller no-cut buffer is problematic. The references listed above examine the issue of intermittent stream buffer size and its relationship to healthy riparian ecosystem functioning via objective, reproducible, and careful observation. They all reach the same conclusion, specifically that a stream buffer of 30' on an intermittent stream will significantly impair the proper ecosystem functioning of that stream and the riparian zone.

- **Active Management within the Riparian Reserve needs to explicitly pursue an objective of retaining native pathogens (fungus, parasitic vegetation, etc.) during thinning operations.** As clearly discussed in the EA and Appendix E, the resulting Matrix and Riparian Reserve trees will be stronger and healthier, they will be more resistant to disease. While this may be understandably desirable in the Matrix, it is undesirable in the Riparian Reserves because it acts to retard or prevent the attainment of ACS goals and objectives. The essential role of various native pathogens in healthy forest ecosystems has been well documented. No matter what occurs within the Matrix in the future (more thinning entries or even-aged management), those plantations will continue have reduced incidence of, and effects from, native pathogens. Consequently, the Riparian Reserve will need to inherit the pathogens necessary for proper ecosystem functioning from the currently infected trees. While the current plan is to try to leave trees with elements of decay, there needs to be a more clearly managed approach to protecting native pathogens.

  As noted in the Purpose section of the EA (p. 4) emphasis added:

  > This action is needed because these plantations lack certain elements of diversity. <u>They do not have the mix of tree species that were present in the original stand</u>…

  As noted in the Appendix E, the silvicultural objectives and practices are to "control stocking" and:

  > Enhance riparian reserves by accelerating the development of mature and late successional stand conditions

Native pathogens are instrumental in both enhancing species diversity (van der Kamp, B. J. 1991) and are integral components of late successional stand conditions via their role in maintaining structural diversity. An example of how a native pathogen acts to increase tree species diversity can be found by examining the effects of laminated root rot. Not only does the disease act to create canopy openings enhancing species diversity in the same manner as the gaps created during variable density thinning, the disease specifically acts to enhance the mix of tree species by targeting confers while deciduous trees are immune. A consequence of this aspect of the disease susceptibility of the conifers provides for a long-term passive management that acts to enhance the mix of tree species by favoring deciduous trees. The vital role played by deciduous trees and shrubs in enhancing biodiversity is well documented in USGS Biological Science Report USGS\BRD\BSR – 2002-0006 "Managing for Biodiversity in Young Douglas-Fir Forests of Western Oregon" (MB 2002) which clearly demonstrates the singular importance of hardwood trees for increasing biological diversity in young managed Douglas-fir forests. This style of passive long-term hardwood management is even more essential since the only active management for hardwood preservation is along stream banks (p. 26):

> No-cut areas would include any buffer of hardwood vegetation occurring along the stream bank.

Active maintenance of native pathogens within Riparian Reserves should not be limited to root rot but other types of fungus and disease such as heart rot need to be retained. http://www.fs.fed.us/r10/spf/fhp/top20/HeartRot.pdf

> Heart rot fungi may also facilitate the change from the maturing even-aged stage (i.e., understory reinitiation, to use Oliver and Larson's (1990) terminology) that is in transition to the true old- growth stage. Mortality of dominant trees may be necessary for this transition or at least it speeds the rate of change.

As noted in PNR Science Findings #20 and reinforced in PNR Science Findings #57 in a discussion regarding the ecosystem keystone[1] species the pileated woodpecker:

> Because the hollowing process is quite specific, it has to begin early in the life of a stand, and start on a living tree, according to Parks; an already dead tree not previously infected with heart-rot fungi will not become hollow. (PNR 20)

> "One of the reasons roost sites may be more limiting for pileateds than nest sites, is because hollow trees are relatively rare in forests; they are created only by the process of heartwood decay occurring in live trees over a long period of time," Raley explains. (PNR 57

The present course of active management of Riparian Reserves needs to include the retention of patches infected with native tree disease since these pathogens act to create canopy openings (Hennon, P. E. 1995), increase structural heterogeneity, increase species diversity, and provide the necessary habitat for ecosystem keystone species. Retention of native pathogens is particularly important in Riparian Reserves as the remaining trees will be more resistant to disease and the initiation of new decadent trees and snags will be delayed – even though decadent trees and snags remain vital to the proper operation of the Riparian Reserve ecosystem.

[1] **Keystone species:** A "keystone" species is functionally linked to the persistence of an array of other species, and influences the ecosystem in ways that are disproportionately large compared to its abundance or biomass. (PNR Science Findings 57)

The argument (found in Appendix A) that "totally avoiding" patches of root rot (or any other native pathogen) is an unattainable objective is irrelevant and specious. A management directive to avoid patches of native disease does not need to be 100% effective, but it does need to exist and be effectively implemented (as done with the current management directive regarding snag retention). When working within the Riparian Reserves a higher level of planning is needed and expected; this higher level allows for a stand examination that could catch areas of infection in the same manner that wetlands under 1 acre are currently managed. Claiming that it can't be done because you can't catch all the areas is extraneous to the issue of managing Riparian Reserves effectively, responsibly, and appropriately.

- **Landings in Riparian Reserves are inappropriate.** While it is good that NOAA-Fisheries have worked with the project planers on the design and placement of the landings that occur in Riparian Reserves, there are more problems associated with landings in Riparian Reserves than anadromous fish. Log landings compact the soil, which prevents healthy ecosystem functioning, and unless they are rehabilitated after their use this detrimental soil condition will act to retard or prevent the attainment of the ACS objectives. Landings also act as focal points for anti-social activity such as illegal dumping, shooting, illegal OHV use, etc. Once again, unless the landings are rehabilitated after use the consequences of this anti-social activity will directly act to retard or prevent the attainment of the ACS objectives. As with the detrimental impact of exposed soil/compacted soil which makes closing/obliterating new and temporary roads an important component of complying with the ACS objectives (Appendix E), so too is it important to obliterate any landings located within Riparian Reserves. Since the use of log landings will no longer be needed after this single-entry aspect of the project is completed, these locations (post project unneeded log landings within Riparian Reserves) of detrimental (compacted) soil and focal points of destructive anti-social behavior need to be rehabilitated.