SCHWENNESEN & ASSOCIATES LLC

Date: January 21, 2010

To: Forest Practices Board

From: Lois Schwennesen, Facilitator

Subject: Pilot Rule Making – Northern Spotted Owl Habitat Conservation

At your November meeting, the Northern Spotted Owl Policy Working Group unanimously recommended that the Forest Practices Board approve the referenced CR101. While there have been no substantive changes to the proposal since that time, more detail has been added.

The pilot will explore whether thinning in overstocked stands to improve spotted owl habitat quality is operationally and economically feasible. This pilot is intended to determine whether or not forest operations can be conducted that meet two main criteria:

- Retaining and improving existing habitat and/or creating habitat in heavily overstocked stands
- Conducting economically viable forestry operations

The proposed project will explore the potential to improve or create habitat for the northern spotted owl in forest stands with high stem densities in the Eastern Cascades. There is much concern of the susceptibility of these high density stands, that are currently serving as spotted owl habitat, to loss from insect outbreaks and catastrophic fire.

If the pilot is successful in improving habitat quality while streamlining operation costs, then one outcome may be a recommendation to the Forest Practices Board of a proposed new rule allowing beneficial management activities and providing a procedure that is less administrative work for landowners.

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PREPROPOSAL STATEMENT OF INQUIRY

CR-101 (June 2004)
(Implements RCW 34.05.310)
Do **NOT** use for expedited rule making

Agency: **Forest Practices Board**

Subject of possible rule making: Northern Spotted Owl Habitat Development and Improvement

Statutes authorizing the agency to adopt rules on this subject: The Forest Practices Board's authority to adopt forest practices rules is granted under RCW 76.09.040, .050, and .370. The pilot project process is authorized by RCW 34.05.313.

Reasons why rules on this subject may be needed and what they might accomplish:
The purpose of this proposed pilot is to explore the potential to improve or create habitat for the Northern Spotted Owl in forest stands with high stem densities in the Eastern Cascades physiographic province. There are operational, economic, and rule-based explorations involved in this pilot. In general, forest stands in the eastern Cascades of Washington may meet conditions where high stem density limits the functionality of spotted owl habitat and decreases its overall longevity due to increased water stress leading to susceptibility to insect and disease infestation, and higher risk of loss to fire. These stands may be amenable to management activities that result in stands that meet the definition of Northern Spotted Owl habitat (WAC 222-16-085), have a higher proportion of larger trees, down wood and snags, and improved variable spacing, all of which can improve functionality for spotted owls and their prey. This pilot seeks to conduct management operations with the explicit goal of improving habitat quality without the deterrence of the time and expense of SEPA compliance or development of a long-term management plan. If the pilot is successful in improving habitat quality while streamlining operation costs, then one outcome may be recommendation to the Forest Practices Board of a proposed new rule allowing beneficial management activities and providing a procedure that is less administrative work for landowners.

Identify other federal and state agencies that regulate this subject and the process coordinating the rule with these agencies:
Personnel from the Department of Natural Resources, the Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service, along with volunteers from the Conservation Caucus, will participate in planning, field visits, and layout of management activities with staff from Longview Timber. The Forest Practices Board will be briefed on the progress and results of the pilot.

Process for developing new rule (check all that apply):

- ☐ Negotiated rule making
- ☒ Pilot rule making
- ☐ Agency study
- ☐ Other (describe) See Attachment A for description.

How interested parties can participate in the decision to adopt the new rule and formulation of the proposed rule before publication:
(List names, addresses, telephone, fax numbers, and e-mail of persons to contact; describe meetings, other exchanges of information, etc.)

Mail, fax, or email comments to:
Patricia Anderson, Forest Practices Board Rules Coordinator
Department of Natural Resources
Forest Practices Division
1111 Washington Street SE, 4th floor
PO Box 47012
Olympia, WA 98504-7012
Fax: (360) 902-1428; email: forest.practicesboard@dnr.wa.gov

DATE	CODE REVISER USE ONLY
NAME (TYPE OR PRINT) Peter Goldmark	
SIGNATURE	
TITLE Chair	

Appendix A

Background

The purpose of this proposed pilot project is to explore the potential to improve or create habitat for the Northern Spotted Owl in forest stands with high stem densities in the Eastern Cascades physiographic province. There are operational, economic, and rule-based explorations involved in this pilot.

In general, forest stands in the eastern Cascades of Washington may meet conditions where high stem density limits the functionality of spotted owl habitat and decreases its overall longevity due to increased water stress leading to susceptibility to insect and disease infestation, and higher risk of loss to fire. Changes in management regimes since pre-European settlement have produced stands with generally higher stem densities than in these prior regimes (e.g., Hessberg et al., 2007). While currently serving as spotted owl habitat, there is much concern about the susceptibility of these high density stands, to loss from insect outbreaks and catastrophic fire (see literature reviews in SEI 2004 and SEI 2008). In addition, habitat definitions in the Forest Practices Rules for the eastern Cascades are based on a literature review of the characteristics of stands in which owl use was documented. Stands with stem densities above 300 trees per acre tended not to have documented use (Hanson et al., 1993). A subsequent review of the literature found one study in which owls used stands with stem densities as high as 370 trees per acre, but most research done since 1993 found values within the range described by the rule definition (Buchanan and Swedeen, 2005). Thus, it is possible that stands near or above 300 stems per acre could be thinned to improve or maintain function, while also reducing drought stress and thus susceptibility to insect outbreak and loss to fire. These stands may be amenable to thinning that results in stands that meet the definition of Northern Spotted Owl habitat (WAC 222-16-085), (i.e., stem density is at or above 100 trees per acre post-thinning) and have a higher proportion of larger trees, down wood and snags, and improved variable spacing, all of which can improve functionality for spotted owls and their prey such as northern flying squirrels (Lehmkuhl et al., 2006).

Where high stem density conditions occur in a currently occupied circle that has less than 2,605 acres of habitat within a 1.8 mile radius of the site center (WAC 222-10-041(4)), Forest Practices regulations may classify the proposed operations as Class IV-Special (WAC 222-16-080 (1)(h)) and thus require either compliance with SEPA (WAC 222-16-050(1)(b)) or a long-term management plan (a Landowner Option Plan or a Habitat Conservation Plan) (WAC 222-16-080 (6)(a) or (e)).

This pilot seeks to explore the feasibility of thinning and other habitat enhancement operations with the explicit goal of improving habitat quality while avoiding the time and expense of SEPA compliance or development of a long-term management plan. If the pilot is successful in improving habitat quality while streamlining operational costs, then one outcome may be a recommendation to the Forest Practices Board for a proposed rule allowing beneficial management activities and providing a procedure that is less costly for landowners.

Pilot Proposal

The proposed pilot project, on lands owned and managed by Longview Timber within the Entiat Spotted Owl Special Emphasis Area, would explore whether thinning in overstocked stands to improve spotted owl habitat quality is operationally and economically feasible. It should be noted that this is more of an operational and process pilot than it is a research pilot. We are seeking permission to depart from existing Forest Practices Rules in order to determine whether a better planning process for habitat enhancement is possible, in addition to seeking answers to operational and economic feasibility questions. The project planning area comprises 1,198 acres and is located in Township 25N Range 18E Sec 2&3. The thinning operations would occur on up to 640 acres, conducted under one Forest Practices Application. Barring any other requirement to classify the application as a Class IV Special, the application will be processed as a Class III (WAC 222-16-050(5)), which requires a waiver from the existing rules for Class IV special or general applications. WAC 222-16-050(1, 2).

Some stands may not meet the definition of Northern Spotted Owl habitat prior to thinning, and some likely will meet the definition. For stands that do not meet the Young Forest Marginal owl habitat definition, prescriptions will be designed by the project team (Longview Timber, DNR, WDFW, Tribes, and the Conservation Caucus) to ensure that management activities result in a trajectory to meet Young Forest Marginal and Sub-Mature as soon as is feasible given the growth potential of the stand and its starting conditions. In stands that meet at least Young Forest Marginal habitat definitions, prescriptions will be designed to enhance habitat at a future date while still meeting the definition of suitable habitat and improving forest health.

Field visits and modeling exercises will be conducted during the planning stages of the pilot to determine whether prescriptions can be designed for the application area to meet the goals of the project. If it is determined that existing habitat stands cannot be thinned while maintaining Young Forest Marginal or better habitat conditions, then the those stands will not be treated. If the pilot contains habitat improvement prescriptions in non-habitat stands, and funding has been secured to treat these stands, the pilot may proceed. Personnel from the Department of Natural Resources, the Department of Fish and Wildlife, and the U.S. Fish and Wildlife Service, and interested Tribes along with volunteers from the Conservation Caucus, will participate in planning, field visits, and thinning layout with staff from Longview Timber.

This pilot will at a minimum involve monitoring stand conditions before and after operations to test assumptions about whether the prescriptions have the intended effects on structural attributes of spotted owl habitat. Monitoring will follow standard procedures for measuring habitat attributes in forests and will occur prior to treatments, and 1, 5, and 10 years post-treatment. Sampling will be adequate to result in a sampling error of 5 percent or less at a 90 percent confidence interval. If funding is available, monitoring may be conducted on effects of thinning on spotted owl prey and on spotted owl use. Initial measurements would be taken on prey base prior to thinning. Being able to measure any

effect on owl use will require that owls are actively using the site, and a determination from the U.S. Fish and Wildlife Service that tagging or banding the birds will not have a deleterious impact on their potential for survival.

In addition, information on general economic feasibility of thinning in owl habitat will be generated in a manner that is useful to other landowners but does not compromise any proprietary data of Longview Timber.

Longview Timber, the Conservation Caucus, DNR, and WDFW will present periodic updates to the Forest Practices Board on the progress of the pilot project. An initial report will be delivered after it is determined whether the thinning projects envisioned are feasible. If the project is feasible, this report will include a detailed operational plan of proposed harvest activities, monitoring, and economic assessment criteria. If the project is not feasible, the report will describe the reasons for lack of feasibility and any lessons that could be learned for future projects. Subsequent reports will be made on an annual basis unless there is no activity to report in a given year. A report will also be made when the group designing the project determines if lessons learned would lead to recommendations that a change in Forest Practices rules to accommodate similar projects is warranted.

<u>Conditions</u>

Carrying out this pilot is contingent on the following conditions:

1) Funding is secured before operations to allow Longview Timber and its partners to carry out planning, marking, harvesting, and pre and post-harvest stand measurements. Longview may terminate the pilot if funding is not available after [2] years from 11/09.
2) The U.S. Fish and Wildlife Service evaluates the application and prescriptions and concludes that the proposed project will not likely result in a Section 9 "take" of spotted owls and issues a No Take Letter. If the USFWS cannot issue a No Take Letter, or other appropriate federal assurances, Longview may terminate the pilot. The State or Conservation Caucus may also determine that the pilot should not proceed based on unacceptable impacts to the Northern Spotted Owl.
3) Longview determines that either there is adequate financing or economic conditions for selling the resulting products.
4) The Departments of Natural Resources and Fish and Wildlife, and the Conservation Caucus agree that the proposed prescriptions will improve Northern Spotted Owl habitat quality.
5) No operations will occur during Northern Spotted Owl nesting season and limited operations will occur within habitat within 0.7 miles of a Northern Spotted Owl site center.
6) Longview maintains ownership of property for 10 years after operations are conducted and if funds are available, either conducts agreed upon monitoring or allows other agencies or agreed upon groups to conduct monitoring.
7) Longview may terminate its participation in the pilot if the pilot is challenged legally (including administrative appeals). Groups participating in the pilot agree not to challenge the project.

8) Longview is released from any and all obligations regarding the pilot in the event of catastrophic loss due to insects and/or fire. Catastrophic means death of over 80 percent of standing live trees.

Literature Cited

Buchanan, J. and P. Swedeen. 2005. Final Briefing Report to the Washington State Forest Practices Board Regarding Spotted Owl Status and Forest Practice Rules. Washington Department of Fish and Wildlife, Olympia, WA. August, 2005.

Courtney, S.P. ,J A Blakesley, R E Bigley, M L Cody, J P Dumbacher, R C Fleischer, A B Franklin, J F Franklin, R J Gutiérrez, J M Marzluff, L Sztukowski. 2004. Scientific evaluation of the status of the Northern Spotted Owl. Sustainable Ecosystems Institute, Portland, OR.

Courtney, S.P., A. B. Carey, M.L. Cody, K. Engle, et al. 2008. Scientific Review of the Draft Northern Spotted Owl Recovery Plan and Reviewer Comments. Sustainable Ecosystems Institute, Portland, OR.

Hanson, E., D. Hays, L.L. Hicks, L. Young, and J. Buchanan. 1993. Spotted Owl Habitat in Washington. Report to the Washington State Forest Practices Board. Olympia, WA.

Hessburg, P.F., K.M. James, and R.B. Salter. 2007. Re-examining fire severity relations in pre-management era mixed conifer forests: Inferences from landscape patterns of forest structure. *Landscape Ecology*. Special feature. 22(1): 5-24.

Lehmkuhl, J.F., K.D. Kistler, J.S. Begley, and J. Boulanger. 2006. Demography of northern flying squirrels informs ecosystem management of western interior forests. *Ecological Applications* 16:584-600.