NO WHISKY ENVIRONMENTAL ASSESSMENT
BIOLOGICAL EVALUATION

FOR THOSE WILDLIFE SPECIES LISTED AS THREATENED, ENDANGERED, OR PROPOSED UNDER SECTION 4 OF THE ENDANGERED SPECIES ACT & SENSITIVE SPECIES UNDER THE REGIONAL FORESTER'S LIST

DATE: March 21, 2006

Clackamas River Ranger District
Mt. Hood National Forest

Written by: /s/ *Sharon Hernandez* **Date:** 3/21/06
Sharon Hernandez, Supervisory Wildlife Biologist

EXECUTIVE SUMMARY

Forest management activities that may alter the habitat for threatened, endangered, sensitive or proposed species are required to undergo review in a Biological Evaluation (FSM 2671.44 and FSM 2670.32) as part of the National Environmental Policy Act process. The Biological Evaluation process (FSM 2672.43) is intended to document that proposed management actions will not jeopardize the continued existence or cause adverse modification of habitat for listed or proposed species, or (for sensitive species) lead towards the likelihood of Federal Listing.

The attached Executive Summary serves as documentation to display the effects of the No Whisky Commercial Thin on threatened, endangered, and Forest Service Regional Forester's sensitive species that are documented or suspected to occur within the Mt. Hood National Forest. A more detailed analysis of project effects to species can be found in the body of this biological evaluation. (Note: No wildlife proposed or endangered species exists on the Mt. Hood National Forest.)

Table 1: Executive Summary: No Whisky Commercial Thin

Listed or Regional Forester's Sensitive Species	Field Review – Presence of Potential Habitat for Species	USFWS Consultation Requirements	Preferred Alternative Effects/ Impacts Call
Threatened			
Northern Spotted Owl (threatened)	*Yes*	Consultation Required	May Affect, Not Likely to Adversely Affect
Northern Bald Eagle (threatened)	*Yes*	None Required	May Affect, Not Likely to Adversely Affect
Sensitive			
Oregon Slender Salamander (sensitive)	No	None Required	NI
Larch Mountain Salamander (sensitive)	No	None Required	NI
Cope's Giant Salamander (sensitive)	Yes	None Required	MII-NLFL
Casacade Torrent Salamander (sensitive)	No	None Required	NI
Oregon Spotted Frog (sensitive)	Yes	None Required	MII-NLFL
Painted Turtle (sensitive)	No	None Required	NI
Northwestern Pond Turtle (sensitive)	No	None Required	NI
Horned Grebe (sensitive)	No	None Required	NI
Bufflehead (sensitive)	No	None Required	NI
Harlequin Duck (sensitive)	No	None Required	NI
American Peregrine Falcon (sensitive)	Yes	None Required	MII-NLFL
Gray Flycatcher (sensitive)	No	None Required	NI
Baird's Shrew (sensitive)	No	None Required	NI
Pacific Fringe-tailed Bat (sensitive)	Yes	None Required	NI
California Wolverine (sensitive)	No	None Required	NI
Puget Oregonian*	No	None Required	NI
Columbia Oregonian*	No	None Required	NI
Evening Fieldslug*	No	None Required	NI
Dalles Sideband*	No	None Required	NI
Crater Lake Tightcoil*	No	None Required	NI

*These species are Survey and Manage Species and are currently classified as a Sensitive species on the Region 6 Regional Forester's Sensitive Species list for the Mt. Hood National Forest.

PROJECT BACKGROUND AND ALTERNATIVE SUMMARY

This timber sale is located within the Clackamas River Ranger District of the Mt. Hood National Forest. Most of the project is covered by the North Fork Clackamas River Watershed Analysis (1996) with the remaining portion of the project covered by the Lower Clackamas River Watershed Analysis (1996). Since then, these two watersheds and several others have been combined into one fifth-field watershed called Middle Clackamas. The proposed action (Alternative B) is to thin and harvest wood fiber from approximately 1633 acres of matrix land and approximately 45 acres of riparian reserves.

The purpose of this project is to thin second-growth stands ranging in age from 40 to 70 years old. The harvesting operation would utilize a variable density thinning prescription and generally remove the smaller trees, leaving a relative density (RD) of 25 to 35, which is approximately 120 to 150 square feet of basal area per acre. Legacy trees would be retained. (Legacy trees are scattered large mature trees that have survived a stand initiating wildfire or that have been retained in a plantation).

On the areas proposed for riparian reserve thinning, the prescription would also generally remove the smaller trees, leaving a relative density (RD) of 20 to 35, which is approximately 110 to 150 square feet of basal area per acre. The intention is to enhance riparian reserves by accelerating the development of mature and late-successional stand conditions.

For this project, riparian reserve widths are 180 feet for non-fish-bearing streams and 360 feet for fish-bearing streams. A design criteria within the No Whisky Environmental Assessment discusses no-harvest buffers of approximately 30 to 50 feet along streams. There are some small seeps and wet areas that would also be excluded from harvest.

Approximately 65 acres would be helicopter logged, 246 skyline logged, and 1,367 acres would be logged using a ground-based system.

There are approximately 6,225 feet of new temporary road being built and 2,550 feet of old temp road being reconstructed and re-used. These new temporary roads proposed to access landings would be obliterated and revegetated after completion of the project. Where existing decommissioned or overgrown roads are proposed to be reopened they would also be obliterated. Other roads have berms or driveable waterbars that would also be temporarily removed. Upon project completion, the roads that were opened would be returned to their pre-project condition.

The following gives a brief description of the alternatives:

ALTERNATIVE A: Under the no-action alternative, current management plans would continue to guide management of the project area. No timber harvest or associated actions would be accomplished under this proposal.

ALTERNATIVE B: Proposed Action as described above.

ALTERNATIVE C: Alternative C would be similar to B except that no roads would be constructed. Approximately 1,700 feet of old temporary road would still be reconstructed and re-used. The units that have changed logging systems or roads are 1, 24 and 25. Helicopter or other systems would be used where needed. Approximately 223 acres would be helicopter logged, 92 acres skyline logged, and 1,363 acres utilizing a ground-based system.

ALTERNATIVE D: Alternative D would be similar to C except that no riparian reserves would be thinned. The units with these changes are 1, 4, 5, 12a, 13, 17, 23, 24, 25, 36, 38 and 39. Approximately 1,700 feet of old temporary road would still be reconstructed and re-used. Approximately 202 acres would be helicopter logged, 83 acres skyline logged, and 1,348 acres utilizing a ground-based system.

SPECIES SPECIFIC DISCUSSIONS

Northern Spotted Owl
(*Strix occidentalis caurina* – threatened)

A. HABITAT

Old-growth coniferous forest is the preferred habitat of spotted owls in Oregon. Old-growth habitat components that are typical for spotted owls are: multilayered canopies, closed canopies, large diameter trees, abundance of dead or defective standing trees, and abundance of dead and down woody material.

Habitat for the owl is further defined as either suitable or dispersal habitat. Suitable habitat for the northern spotted owl consists of habitat used by owls for nesting, roosting and foraging (NRF). Generally this habitat is 80 years of age or older, multi-storied and has sufficient snags and down wood to provide opportunities for nesting, roosting and foraging. The canopy closure generally exceeds 60 percent. Dispersal habitat for the owl generally consists of mid-seral stage stands between 40 and 80 years of age with a canopy closure of 40 percent or greater and an average diameter of 11". Spotted owls use dispersal habitat to move between blocks of suitable habitat; juveniles use it to disperse from natal territories. Dispersal habitat may have roosting and foraging components, enabling spotted owls to survive, but lack structure suitable for nesting.

B. FIELD REVIEW

Habitat available on the district
The last time extensive field surveys were conducted on the District was from 1979 to approximately 1994; in which the Regional protocol per Regional Forester's direction of March, 1993 was followed. During that time period there had been many documented sightings of adults and young produced on the District. (Historic records are on file at the District office). However, none of these surveys are considered current and valid for project planning effects analysis. Current management direction is to assume that all suitable (nesting/ roosting/foraging) habitat for spotted owls is currently occupied and to manage the area accordingly.

Habitat available within the project area
Yes. All of the units - approximately 1678 acres are dispersal-only habitat for the spotted owl. There is no nesting/roosting/foraging (i.e. NRF or suitable) habitat proposed for harvest.

C. ANALYSIS OF DIRECT/INDIRECT EFFECTS

Alternative A (No action)

No direct effects to the owl would be predicted with this alternative. For the short term, the units would continue to function as dispersal habitat. In the long-term (20-40 years), these stands would start to differentiate in varying degrees and show an increase in the levels of snags and down wood. Mortality would occur, improving somewhat on the dispersal habitat characteristics. The quality of dispersal habitat would improve only slightly in some stands while improving much more in others. Some of the stands may eventually become suitable habitat.

Alternatives B (Proposed Action), C and D

North Willamette Late-Successional Reserve Areas and Critical Habitat Units:
The proposed action will not occur within a Late-Successional Reserve (LSR) or Critical Habitat Unit (CHU). Many of the proposed harvest units do have boundaries that are shared with LSR RO-207. CHU OR-10 occurs within a ¼ mile south/southeast of the planning area. The entire sale occurs within the Matrix and Riparian Reserve Land Allocations of the Northwest Forest Plan.

Effects to Dispersal Habitat on a Local and Landscape Scale
The proposed action will have an affect on dispersal-only habitat. All of the proposed units (1678 acres) within the No Whisky Environmental Assessment are considered dispersal-only habitat. Dispersal habitat described below on a landscape scale is a combination of NRF and dispersal-only habitat (i.e. All NRF habitat meets the requirements of dispersal habitat).

The No Whisky analysis area contains dispersal habitat within approximately 79% (14,864 acres) of its area. The proposed action would degrade (reduce in quality) approximately 902 acres of dispersal habitat or approximately 6% of the available dispersal habitat. Although the dispersal habitat characteristics within 902 acres would be reduced in quality, they would still function as dispersal habitat for the owl. No loss of dispersal habitat would occur in these stands. These stands would again provide the same quality of habitat in approximately 10 years after harvest. The proposed action would also temporary remove 776 acres of dispersal habitat (approximately 5% of the available dispersal habitat), due to the intensity of thinning within those units. These units would become dispersal habitat again in approximately 10 years after the canopy closes.

Since current spotted owl surveys have not been completed for the area, it must be assumed that all suitable habitat has the potential to contain spotted owl activity centers. There is suitable habitat adjacent to the proposed thinning stands that are currently providing dispersal habitat.

A recent study by Meiman et al (2004) reports changes in spotted owl use following a commercial thinning in stands near core areas in Clatsop State Forest. Although sample sizes were not large, proportional use of the thinned area was significantly less during and post-harvest operations than during the pre-harvest period. The nature of this effect is not clear, but it may include an influence on prey availability, microclimate conditions, or higher vulnerability to predation. In addition, home range expansion of one spotted owl was observed, and a shift of the core use area away from the thinned stand. These effects suggest that commercial thinning in proximity to spotted owl activity centers may have a short-term effect on home-range and habitat-use patterns of individuals.

The No Whisky Project could potentially have a short-term effect on the home-range and habitat-use patterns of spotted owl individuals present in the area. In the long-term (20-40 years), the project is likely to improve the quality of dispersal habitat in some of the units.

The action alternatives would have an effects determination of "May Affect, Not Likely to Adversely Affect" because of the effect to dispersal habitat

Effects to spotted owl on a province scale (Willamette Province)
The United States Fish and Wildlife Service issued an opinion on the effects of the No Whisky Timber Sale as well as many other projects within the document titled "Biological Opinion and Letter of Concurrence for Effects to Bald Eagles, Northern Spotted Owls and Northern Spotted Owl Critical Habitat from the U.S. Department of the Interior; Bureau of Land Management, Eugene District and Salem District, the U.S. Department of Agriculture; Mt. Hood National Forest and Willamette National Forest and the Columbia River Gorge National Scenic Area Calender Years 2005-2006 Habitat Modification Activities within the Willamette Province (USDI 2005)" The conclusion they reached is the following: "After reviewing the current status of the spotted owl and bald eagle, including critical habitat, the environmental baseline for both species, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the FY 2005-2006 Habitat Modification Projects in the Willamette Province are not likely to jeopardize the continued existence of the bald eagle or spotted owl and is not likely to destroy or adversely modify designated critical habitat for the spotted owl" (USDI 2005). The Service's rationale for these conclusions can be found within the Biological Opinion noted above.

Effects to spotted owl on the entire range of the species (Washington, Oregon, and California)
The Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Project Documents within the Range of the Northern Spotted Owl established a system of land allocations and a rate of timber harvest (probable sale quantity) that is considered to be consistent with maintaining viability for the northern spotted owl across its range (USDA 1994). The No Whisky Environmental Assessment meets all the Standards and Guidelines set forth within this decision document. It was stated on page 31 of this document that implementation of the Record of Decision would "adequately provide for the continued viability of the northern spotted owl on Federal Lands as required by NFMA and would provide federal lands contribution to recovery of the northern spotted owl under ESA."

A report was published by Sustainable Ecosystems Institute of Portland Oregon (September 2004). The report is titled "Scientific evaluation of the status of the Northern Spotted Owl."(S P Courtney, J A Blakesley, R E Bigley, M L Cody, J P Dumbacher, R C Fleischer, AB Franklin, J F Franklin, R J Gutiérrez, J M Marzluff, L Sztukowski). The Biological Opinion that is associated with this project addressed the items brought up by this report. The report is a review and synthesis of information on the status of the Northern Spotted Owl. The report was prepared to aid the United Stated Fish and Wildlife Service in their 5-year status review process, as set out in the Endangered Species Act. The report did not make recommendations on listing status, or on management, and focused on identifying the best available science, and the most appropriate interpretations of that science. The focus is on information developed since the time of listing in 1990. The report relied on demography studies summarized in a report titled "Status And Trends In Demography Of Northern Spotted Owls, 1985–2003", Anthony et al.

The following excerpt is from the executive summary of the SEI report. The italicized portion below each paragraph gives project specific information on that topic.

> Central to understanding the status of the subspecies is an evaluation of its taxonomic status. The panel is unanimous in finding that the Northern Spotted Owl is a distinct subspecies, well differentiated from other subspecies of Spotted Owls. *This information was considered and incorporated when developing the assessment of effects for the No Whisky project.*
>
> The panel did not identify any genetic issues that were currently significant threats to Northern Spotted Owls, with the possible exception that the small Canadian population may be at such low levels that inbreeding, hybridization, and other effects could occur. *This information was considered and incorporated when developing the assessment of effects for the No Whisky project. The No Whisky project would not affect Canadian owls.*
>
> The use of habitat and of prey varies through the range of the subspecies. These two factors interact with each other and also with other factors such as weather, harvest history, habitat heterogeneity etc, to affect local habitat associations. While the general conclusion still holds that Northern Spotted Owls typically need some late-successional habitat, other habitat components are also important (at least in some parts of the range). *This information was considered and incorporated when developing the assessment of effects for the No Whisky project.*
>
> The available data on habitat distribution and trends are somewhat limited. Development of new habitat is predicted under some models. However our ability to evaluate habitat trends is hampered by the lack of an adequate baseline. Given these caveats, the best available data suggest that timber harvest has decreased greatly since the time of listing, and that a major cause of habitat loss on federal lands is fire. In the future, Sudden Oak Death may become a threat to habitat in parts of the subspecies' range. *This information was considered and incorporated when developing the assessment of effects for the No Whisky project. There have been no large fires in the No Whisky area in recent years. Sudden Oak Death has not been found in the No Whisky area.*
>
> Barred Owls are an invasive species that may have competitive effects on Northern Spotted Owls (as was recognized at the time of listing). Opinion on the panel was divided on the effects of Barred Owls. While all panelists thought this was a major threat, some panelists felt that the scientific case for the effects of Barred Owls remained inconclusive; other panelists were more certain on this issue. *This information was considered and incorporated when developing the assessment of effects for the No Whisky project. Barred owls are discussed in this Biological Evaluation within the cumulative effects section below.*
>
> The demography of the Northern Spotted Owl has been recently summarized in a meta-analysis (Anthony et al 2004), which is the most appropriate source for information on trends. Although the overall population, and some individual populations show signs of decline, we cannot determine whether these rates are lower than predicted under the Northwest Forest Plan (since there is no baseline prediction under that plan). However the decline of all four Washington state study populations was not predicted, and may indicate that conditions in that state are less suitable for Northern Spotted Owls. Several reasons for this pattern are plausible (including harvest history, Barred Owls, weather). *The No Whisky project area was not part of the demographic studies summarized by Anthony et al. (2004). Of the 14 study areas, one is nearby. The nearest is the H.J. Andrews study area. The estimated spotted owl population on the H.J. Andrews study area is 70-80% of the 1987 initial population size. The data from the report suggested that populations over all of the 14 study areas*

were declining about 4% per year during the study. It also was suggested that owl populations on federal lands had better demographic rates than elsewhere and that populations were doing poorest in Washington.

This information was considered and incorporated when developing the assessment of effects for the No Whisky project.

There is currently little information on predation on Spotted Owls, and no empirical support for the hypothesis, advanced at the time of listing, that fragmentation of forest after harvest increases predation risk. *This information was considered and incorporated when developing the assessment of effects for the No Whisky project.*

West Nile Virus is a potential threat, but of uncertain magnitude and effect. *This information was considered and incorporated when developing the assessment of effects for the No Whisky project. West Nile Virus has not been identified in the No Whisky project area.*

In general, conservation strategies for the Northern Spotted Owl are based on sound scientific principles and findings, which have not substantially altered since the time of listing (1990), the Final Draft Recovery Plan (1992) and adoption of the Northwest Forest Plan (1994). Nevertheless we identify several aspects of conservation and forest management that may increase both short and medium term risks to the species. These are typically due to failures of implementation.

A full evaluation of the uncertainties of the data, the conclusions that can be drawn from them, and of the perceived threats to the subspecies, are shown in the summary of individual panelist responses to a questionnaire.

Major threats to Northern Spotted Owls at this time include: the effects of past and current harvest; loss of habitat to fire; and competition from barred owls. Other threats are also present. Of threats identified at the time of listing, only one (predation linked to fragmentation) does not now appear well supported.

D. ANALYSIS OF CUMULATIVE EFFECTS

The spotted owl analysis area has abundant dispersal habitat for spotted owls. In this area, the more likely limiting factor for spotted owl occupancy of the area is the lack of spotted owl suitable habitat and the lack of connectivity between these suitable habitat blocks. Foreseeable future actions would likely degrade or remove dispersal habitat within the analysis area, but they would not modify suitable spotted owl habitat. The cumulative effects on dispersal habitat would be minor, mainly because dispersal habitat is not the limiting factor for owls in the area. There would be no cumulative effects on suitable owl habitat because this project does not impact this habitat.

The barred owl has been expanding into northern spotted owl territory from northeastern Canada since about 1900, moving into Washington, Oregon and Northern California and in some cases has been displacing spotted owls. Barred owls are known to be present on the District Barred owls may be expanding their range because of changes to forest structure from logging, wildfire or climate change. By casual observation and incidental surveying since 1994, barred owls do appear to be more common on the district than they were since surveying began on 1979. Since routine surveys have not been completed for owls since approximately 1994, it is unknown as to what extent there presence has affected the population of spotted owls on the district.

Current Condition and Effects of Project on Spotted Owl Dispersal and Suitable Habitat as Compared to Historical Conditions.

Analysis Scale	**Dispersal Habitat**			**Suitable Habitat**		
	Historic Level (1920)	Current Condition (2006)	Level After Proposed Timber Harvest	Historic Level (1920)	Current Condition (2006)	Level After Proposed Timber Harvest
No Whisky Spotted Owl Analysis Area (18,770 acres)	7%	79%	74%	90%	20%	20%

E. CONFLICT DETERMINATION (all alternatives):

All action alternatives for the No Whisky Commercial Thinning Project **"May Affect, and is not Likely to Adversely Affect,"** the spotted owl or its habitat.

F. COMMUNICATION WITH U.S. FISH AND WILDLIFE SERVICE:

The northern spotted owl is listed as threatened throughout its range under the endangered species act (55 CFR 26114) on June 22, 1990. Any action that would result in a beneficial effect or could result in an adverse impact to the spotted owl would result in a may effect determination and would require consultation with the U.S. Fish and Wildlife Service.

Consultation with the U.S. Fish and Wildlife Service was initiated on the "No Whisky Timber Sale" in August of 2004 through the document titled "The Programmatic Biological Assessment for Projects with the Potential to Modify the Habitats of Northern Spotted Owls and/or Bald Eagles or Modify Critical Habitats of the Northern Spotted Owl - Willamette Province FY 2005-2006." The Fish and Wildlife Service issued the Biological Opinion in March 2005. More information on the Biological Opinion is found about under the Effects to spotted owl on a province scale.

Northern Bald Eagle

(*Haliaeetus leucocephalus* – threatened)

A. HABITAT

The bald eagle is a permanent resident in Oregon. Their nests are usually located in multi-storied stands with old-growth components, and are near water bodies that support an adequate food supply. Nests, which usually consist of a bulky platform of sticks, are usually located in the super-canopy of trees, or even on a cliff. Nest sites are usually within ¼ mile of water in the Cascades.

Adequate forage sources are possibly the most critical component of bald eagle breeding and wintering habitat. Fish, waterfowl, rabbits, and various types of carrion comprise the most common food sources for eagles in the Pacific Recovery Plan area. Wintering bald eagles perch on a variety of substrates, proximity to a food source being the most important factor influencing perch selection. Eagles tend to use the highest perch sites available that provides a good view of the surrounding area. These perch sites typically are snags and trees with exposed lateral limbs or dead tops (USFWS 1986). Communal roosts are invariably near a rich food source and in forest stands that are multi-storied and have at least a remnant old-growth component.

B. FIELD REVIEW

Habitat available on the district

Bald eagles are observed occasionally on the District. Due to low numbers and sporadic use, no communal roost areas are known to exist on the District. There has been consistent use by adults in two areas of the Clackamas River Ranger District, one of which has had recent nesting success by a bald eagle pair. These areas are greater than 20 miles away from the proposed project site.

Habitat available within the project area (proposed harvest units) and surrounding area:

Yes. The project area is in close proximity to the Lower Clackamas River, an area that bald eagles are commonly observed during the spring/summer period. Although there have been no documented nesting eagles in the area, there is suitable nesting and roosting habitat along this River. The nesting quality is considered fair, with prey availability being the likely limiting factor.

Habitat for bald eagles is described in terms of foraging, nesting, roosting, and perching. Many of the proposed harvest units occur within ½ mile of this river, a potential foraging source. None of the proposed harvest units have the structural components necessary for potential bald eagle nesting or communal roosting habitat. The units lack a mature multi-story structure with old-growth or old-age second-growth trees. However, a few of the units may provide potential perching habitat due to their proximity to the Lower Clackamas River.

However, this potential perching habitat is considered fair/poor quality due to the minor amounts of snags and trees providing a good view of the surrounding area. In addition, several of the proposed harvest units are directly adjacent to potential bald eagle nesting habitat (i.e. late-seral stands that are adjacent to the Lower Clackamas River).

C. ANALYSIS OF DIRECT/INDIRECT EFFECTS:

Alternative A (No Action)

No effect to the bald eagle or its habitat would occur with implementation of this alternative. Some of the units would continue to provide poor/fair quality potential perching habitat.

Alternative B (Proposed Action), C & D

Effects to Habitat

There will no effects to potential foraging, nesting or roosting bald eagle habitat due to the lack of these habitats within the proposed harvest units. A few of the units have potential perch trees that could be negatively affected by project implementation. Although it is unlikely that any potential perch trees would be proposed for harvest, it is possible a few, mainly snags, would need to be cut down due to safety concerns during harvest operations. It is also possible that a few potential perch trees would blow down as a result of "opening up the stands."

Perch trees along the Lower Clackamas River are currently abundant and have high densities of relatively large trees with irregular crowns. Because there is currently abundant high quality perch trees present within this area along the Lower Clackamas River, the loss of a few perch trees as a result of project implementation is not predicted to impact the quality of perching habitat for bald eagles within the area.

The No Whisky Timber Sale could result in a loss of a few potential perch trees. It is unlikely that this loss of perch trees would measurable lower the availability of potential bald eagle habitat being provided in the area.

Effects to Individuals

If a bald eagle were present in any of the units during project implementation, it would have the ability to quickly move to adjacent habitat. No harm would come to the individuals. Several of the proposed harvest units are directly adjacent to potential nesting, communal roosting and perching habitat. Disturbance caused by project implementation could cause these potential habitats to be temporary unavailable to bald eagles. Since the availability of a high quality foraging source is the limiting factor for bald eagle in the area and not the habitat components comprising roosting, nesting and perching habitats, the temporary unavailability of a small percentage these habitats is not predicted to impact bald eagles. Because of the high visibility of bald eagles, it is unlikely that this project would be implemented in an area with an undiscovered bald eagle nest or roost. If a new bald eagle nest or roost is discovered, this project activity within 0.25 miles or 0.5-mile sight distance of the nest or roost would be evaluated by the unit district biologist for potential effects on bald eagles and mitigated to prevent disturbances.

Effects to Population

None expected since the effects to bald eagles and their habitat would be minor.

Cumulative Effects

The occasional removal of hazard trees along Hwy 224 and other roads within the area has the potential of causing the loss of a few potential perch/nest/roost trees. Due to the abundance of suitable trees for bald eagles in the area, the cumulative effect of this action is predicted to have a minimal impact on bald eagles and their habitat.

E. CONFLICT DETERMINATION

All action alternatives of the No Whisky Timber Sale would have a "**May Affect, not Likely to Adversely Affect**" on the bald eagle and its habitat.

G. COMMUNICATION WITH U.S. FISH AND WILDLIFE SERVICE

The northern bald eagle is listed as threatened throughout its range under the endangered species act (55 CFR 26114) on June 22, 1990. Any action that would result in a beneficial effect or could result in an adverse impact to the bald eagle would result in a may effect determination and would require consultation with the U.S. Fish and Wildlife Service.

Consultation with the U.S. Fish and Wildlife Service was initiated on the "No Whisky Timber Sale" in August of 2004 through the document titled "The Programmatic Biological Assessment for Projects with the Potential to Modify the Habitats of Northern Spotted Owls and/or Bald Eagles or Modify Critical Habitats of the Northern Spotted Owl - Willamette Province FY 2005-2006." The Fish and Wildlife Service issued the Biological Opinion in March 2005. Their effects determination for the Bald Eagle was as follows: "Based on the above effects determinations, the proposed CY 2005-2006 activities are anticipated to affect bald eagles through the harvest of suitable habitat and the removal of individual potential nest trees, but activities are not likely to adversely affect bald eagles…..The loss of individual bald eagles due to injury or death is not anticipated due to the high visibility of bald eagles, the intensive survey efforts for the species, and the implementation of the standards common to all actions. The conclusion they reached is as follows: "After reviewing the current status of the spotted owl and bald eagle, including critical habitat, the environmental baseline for both species, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the CY 2005-2006 Habitat Modification Projects in the Willamette Province are not likely to jeopardize the continued existence of the bald eagle or spotted owl and is not likely to destroy or adversely modify designated critical habitat for the spotted owl."

Larch Mountain Salamander

(*Plethodon larseli* – Sensitive**)**

A. HABITAT

Habitat is mainly restricted to the talus slopes of the Columbia River Gorge, although the species is now known to occur at several locations in the Cascade Mountains of Washington. This salamander can be found near the surface under rocks during wet weather, but it retreats to considerable depths in the talus during cold and dry weather. Individuals can occur far from streams and seepages and seem to be less common in perpetually wet talus than in talus that varies from wet to dry with seasonal rainfall.

B. FIELD REVIEW

Habitat available within the project area (proposed harvest units) and surrounding area:
No. The No Whisky Thin occurs just south of the identified Larch Mountain salamander distribution range as defined in the Northwest Forest Plan. Although 163 and 1009 acres of rock/talus with scattered conifers exist within the North Fork Clackamas River and Lower Clackamas Watersheds, respectively, it is not located in the steep, wooded areas preferred by the Larch Mountain Salamander (USDA 1996 1 & 2). In addition, all of the proposed harvest units do not occur within or directly adjacent to any talus slopes.

No further analysis needed due to lack of habitat.

Oregon Slender Salamander
(*Batrachoseps wright* - Sensitive)

A. HABITAT
The only amphibian endemic to Oregon, this species is found predominantly on the west slope of the Cascade Range from the Columbia River south to southern Lane County. Sites have been found in Lane, Linn, Clackamas, and Multnomah counties as well as a few sites on the eastern slopes of the Cascades in Hood River and Wasco counties. Sites are generally scarce, occurring in scattered and often widely separated colonies, but sometimes locally common. It is known to occur at only a few dozen localities.

The Oregon Slender salamander is found in moist woods consisting of Douglas fir, maple, hemlock, and red cedar. It is most common in mature Douglas-fir forests and appears to be dependent on mature and old-growth stands. Individuals are found under rocks, wood, or bark and wood chips at the base of stumps as well as under the bark and moss of logs. They are also found in rotting logs, in holes and crevices in the ground, and in termite burrows. Nests that have been located were found under bark and in rotten logs.

B. FIELD REVIEW

Habitat available within the project area (proposed harvest units) and surrounding area:
No. All the proposed harvest units occur within second-growth stands, the oldest being 77 years. Although all the proposed harvest units occur within moist Douglas-fir forests, they do not contain sufficient amounts of some habitat components, such as large snags and down wood, common in older stands and necessary for habitation by the Oregon Slender Salamander.

No further analysis required due to lack of habitat.

Cope's Giant Salamander (*Dicamptodon copei* - Sensitive) & Oregon Spotted Frog (*Rana pretiosa* – Sensitive)

A. HABITAT

Cope's Giant Salamander: Cope's Giant salamander prefers streams and seepages in moist coniferous forests. They limit their occurrence to waters with temperatures in the 8 to 14 degrees Celsius range. They will also inhabit cold clear mountain lakes and ponds. They occur in suitable areas from sea level up to 1,350 meters elevation. The Cope's salamander breed and rear its young within the cracks and crevices of the rocky substrates within the stream course. They sometimes leave streams on wet rainy nights but remain on wet rocks and vegetation near the stream. This salamander is most frequently found on pieces of wood in streams, under logs, bark, rocks or other objects near streams.

Oregon Spotted Frog: The range of this species is from Northern British Columbia and coastal southern Alaska south to the Rocky Mountains of Idaho, Montana, and Utah. Populations are also present in both the interior and coastal mountains of the Pacific Northwest.

The Oregon Spotted Frog is a highly aquatic species that is rarely found far from permanent water. This species frequents waters and associated vegetated shorelines of ponds, springs, marshes, and slow-flowing streams and appears to prefer waters with a bottom layer of dead and decaying vegetation. They are found in aquatic sites in a variety of vegetation types, from grasslands to forests. Individuals may disperse into adjacent non-aquatic areas during wet weather.

B. FIELD REVIEW

Habitat available on the district
Cope's Giant Salamander: This species' range is predominantly west of the Cascade Range. Potential habitat for this species does exist within the Clackamas River Ranger District. The Cope's Giant Salamander is difficult to identify and can be easily confused with the Pacific Giant Salamander (Dicamptadon tenebrosus). There have been numerous sightings reported from streams on the Clackamas River Ranger District, many of which have not been positively confirmed.

There have been documented sightings of the species within the Lower Clackamas and North Fork Clackamas River Watersheds (USDA 1996 1 & 2), although sighting reliability is questionable due to the reason stated above.

Oregon Spotted Frog: This species is highly aquatic and needs a permanent water source to survive. Potential habitat for this species does exist within the Clackamas River Ranger District.

Habitat available within the project area (proposed harvest units) and surrounding area:
Yes. Fourteen of the units (4, 5, 10, 12a, 13, 17, 19, 21, 23, 25, 35, 36, 38 and 39) within the No Whisky Thin include perennial streams that have potential habitat for the Cope's Giant Salamander and Oregon Spotted Frog.

C. ANALYSIS OF DIRECT/INDIRECT EFFECTS

Alternative A (No Action)
No effects to the Cope's Giant salamander or Oregon Spotted frog would occur with implementation of this alternative. The streams and wet areas within the stands would continue to provide potential habitat for the species.

Alternative B (Proposed Action)

Effects to Individuals
There are short segments of perennial streams occurring within fourteen of the No Whisky units. The approximately 45 acres of riparian reserves will have active management occurring within them except for the no-cut buffers described below. A minimum of a 50-foot no-harvest buffer will be established along the active channel of all perennial streams. Larger buffer widths may be needed on a site-specific basis to prevent any increase in sediment delivery rates or a decrease in stream shading. Smaller buffer widths would be allowed if it is determined on a site specific basis that there would be no increase in sediment delivery rates or decrease in stream shading.

These buffers described above would be in place during the length of the timber sale and post-sale activities, including road construction. It is likely that the potential habitat for the Cope's Giant Salamander and Oregon Spotted frog would be present within these buffers. These no-cut areas should prevent any un-intentional extirpation or injuring of individuals that may be present near the water sources during on-the-ground activities.

Effects to Habitat
The Oregon Spotted frog and Cope's Giant salamander has the potential to be negatively affected by increased sedimentation resulting from timber sale activities adjacent to or intersecting streams and water sources. Sediment deposition within the substrate could impair preferred habitat characteristics. Also, sedimentation of streams can lead to asphyxiation of embryos and larvae as well as a degradation of overwintering habitat that may result in local extinctions.

Ground disturbing activities associated with approximately 2.0 miles of temporary road building and reconstruction has been designed to minimize the risk of erosion and the potential for sediment into streams. Road construction would be restricted to the dry season between June 1 and October 31. This restriction would reduce the risk of any surface erosion due to ground disturbance. The proposed temporary roads are located on dry ground, would not cross any stream channels, and would have no hydrological link to any water source. The closest any proposed temporary road is to a stream is over 325 feet from an intermittent channel and over 550 feet from a perennial channel. These roads would be constructed on relatively flat terrain along ridgetops, which would not cause an increase in roads within the drainage network. Because of the distance of the proposed temporary roads to any water source and that these roads do not cross any perennial or intermittent streams, vegetative buffers would act as an effective barrier to any sediment

being transported into stream channels by surface erosion or runoff. All temporary roads would be obliterated and revegetated following completion of harvest operations to help reduce compaction and increase infiltration rates.

Impacts to the habitats for the Cope's Giant Salamander and Oregon Spotted Frog caused by sedimentation from road construction or obliteration, if any, would be short-term and minor. There is only a minimal chance for degradation of habitat to occur with this temporary road building, reconstruction and obliteration.

Thinning within the riparian reserves is a ground disturbing activity that has the potential to allow sediment to enter the stream channel from surface erosion or run-off. No-cut buffers described above have been established within the No Whisky Project. Buffer width design would take into account the stream influence zone, steepness of slope, size and location of trees, aspect, slope stability, and stream bank stability. No-cut areas would include any hardwood vegetation occurring along the stream bank. These 30-50 foot minimum vegetative buffers on either side of the streams would act as an effective barrier and likely retain any displaced and eroded soil before it is transported to the stream channel. Seasonal restrictions on ground-based operations would further reduce the risk of soil disturbance and run-off. Impacts to the habitats for the Cope's Giant Salamander and Oregon Spotted Frog caused by sedimentation from thinning in riparian reserves, if any, would be short-term and minor. There is only a minimal chance for degradation of habitat to occur with this proposed silvicultural treatment.

Log hauling would not measurable increase the amount of fine sediment in streams. The roads along the haul route are rocked or paved at stream crossings and road ditches are well vegetated. Any sediment that would enter a stream during haul activities would be at crossings along aggregate surfaced roads. The majority of these crossings are at small streams that would not be flowing, or would have very little flow during the normal season of operation (June 1 to October 31). Any sediment that leaves the road surface due to run-off is expected to disperse over land or be stored within these small channels. It is very unlikely that any measurable amount of sediment produced during log haul would be transported to stream channels that have potential habitat for the Cope's Giant Salamander and Oregon Spotted Frog. Impacts to the habitats for the Cope's Giant Salamander and Oregon Spotted Frog caused by sedimentation from log haul, if any, would be short-term and very minor. There is only a minimal chance for degradation of habitat to occur with the log haul.

The no-cut buffers along these streams would insure that the majority of shade producing vegetation would remain. Since the majority of the streams within the project area are relatively small, the no-cut buffers would provide adequate canopy cover to maintain existing shade components, thus maintaining stream temperatures. The Riparian Reserves along the larger streams within the No Whisky Project Area such as North Fork Clackamas, Bedford Creek, Boyer Creek and Winslow Creeks have a hardwood component within the stream influence zone (one site potential tree height) that will provide adequate buffer width to maintain stream shading. There is a low probability that implementation of the project would increase solar radiation. Current stream temperatures in all streams within the project area are expected to be maintained. Although there is the potential that very small micro-climate changes would occur with implementation of this project, the change is not predicted to be substantial enough to affect habitation of the areas by Cope's Giant Salamander and Oregon Spotted Frog.

Alternative C

Effects similar to alternative B except that no new temporary roads would be built. There would be no risk of erosion or sediment entering streams due to the construction of temporary roads. There would be slightly less risk of erosion from harvest operations under this alternative since helicopter logging would be used instead of ground based or skyline yarding in parts of units 1, 24, and 25. On units where temporary access roads would not be built, longer skidding distances may be used. This would result in many passes of equipment over a mainline skid trail that when completed would have a very similar effect to that of a temporary road. Because of less ground disturbance, the chance of sediment reaching the stream channel and impacting potential habitat for the Cope's Giant Salamander and Oregon Spotted Frog is even less than in alternative B. There is only a minimal chance for degradation of habitat to occur with this project implementation.

Alternative D

Effects similar to alternative C except that in addition to no new temporary roads being built, there would be no harvest occurring within riparian reserves. In this alternative there would be no risk of erosion entering streams due to the construction of temporary roads or harvesting within riparian reserves. This alternative has the least chance of sediment reaching the stream channel and impacting potential habitat for the Cope's Giant Salamander and Oregon Spotted Frog. No degradation of habitat would occur.

D. CONFLICT DETERMINATION

Action alternative B and C of the No Whisky Thin will have a **"May Impact but not Likely to Cause a Trend Toward Listing or Loss of Viability"** to the Cope's Giant salamander and Oregon Spotted frog or their habitat. Action alternative D will have a "**No Impact.**"

Cascade Torrent Salamander

(*Rhyacotriton cascadae* – Sensitive)

A. HABITAT

The range of this species is from the coastal mountains on the Olympic Peninsula in Washington south to Mendocino County, California. It also has a known population in the Cascade Mountains of southern Washington and northern Oregon, with a local disjunct population in the southern Oregon Cascades.

The torrent salamander is most abundant in rocks bathed in a constant flow of cold water, but also occurs in cool rocky streams, lakes, and seeps. Individuals from this species require microclimatic and microhabitat conditions generally found only in older forests.

The diet of this salamander consists of aquatic and semi-aquatic invertebrates, including amphipods, springtails, fly larvae, worms, snails, and spiders. They search for prey under rocks and other objects in streams. Adults occasionally are found under surface objects a few meters from water after heavy rains, but they are the most aquatic of our metamorphosed salamanders and should be expected only in saturated stream-side talus and in streams. Experiments have shown that this species are among the most sensitive of all terrestrial northwestern salamanders to loss of body water and will die quickly in a desiccating environment.

B. FIELD REVIEW

Habitat available within the project area (proposed harvest units) and surrounding area:
No. All the proposed harvest units consist of second-growth stands, the oldest being 77 years. None of these units have the habitat components necessary for occupancy by the Cascade Torrent Salamander.

No further analysis needed due to lack of habitat

Gray Flycatcher

(Empidonax wrightii – Sensitive)

A. HABITAT

The Gray Flycatcher is a bird of the arid interior West. It prefers relatively treeless areas with tall sagebrush, bitterbrush, or mountain mahogany communities. It will also occupy these communities within open forests of ponderosa or lodgepole pine. It also lives in juniper woodland with a sagebrush understory.

B. FIELD REVIEW

Habitat available within the project area (proposed harvest units) and surrounding area:
No. There is no habitat for this species on the Clackamas River Ranger District

No further analysis needed due to lack of habitat.

American Peregrine Falcon

(Falco peregrinus anatum – Sensitive)

A. HABITAT

The most critical habitat components for Peregrine Falcons are suitable nest sites, usually cliffs, and overlooking fairly open areas with an ample food supply. They nest along seacoasts, near marshes, and even in cities, but are not well suited to life in interior forests. They usually nest or roost near a marsh, lake, or coast where water birds are plentiful.

B. FIELD REVIEW

Habitat available within the project area (proposed harvest units) and surrounding area:
Yes. There is an active peregrine falcon eyrie within close proximity to the project area. All harvest units fall outside of Peregrine Falcon Zone Protection Zone 1 but many units fall within Zone 2 and 3.

C. ANALYSIS OF DIRECT/INDIRECT EFFECTS

Alternative A (No Action)

No effects to the Peregrine Falcon would occur with implementation of the no action alternative. Although for other reasons peregrines could stop using this nest site, the cliff would continue to provide potential habitat for the species.

Alternative B (Proposed Action), C & D

Effects to Individuals

The Draft Peregrine Falcon Management Direction Document for this eyrie provides direction for the management of this site. None of the harvest units or related management activities occurs within the primary nest protection zone for the species. However, four units (6, 7, 8 and 9) occur within the secondary nest protection zone. Units #1, 2, 3, 4, 5, 10, 11, 12a, 12b, 13, 14, 34, 35, 36, 37, 38, 39 and 40 occur within the tertiary habitat management zone. The remainder of the units fall outside any management zone designated for this nest site.

To minimize potential disturbance to the active eyrie, no mechanized slash piling, site preparation, road building or obliteration, log loading, yarding, helicopter use, or other management activities that produce sound above the ambient noise level of the area would be permitted in units 6, 7, 8 and 9 from January 15th to July 31st. These restrictions may be waived if the site is unoccupied or if nesting effort(s) fail and there is not possibility of re-nesting. Documentation of nesting failures can be finalized no earlier than June 30th due to the possibility of re-nesting. Units #1, 2, 3, 4, 5, 10, 11, 12a, 12b, 13, 14, 34, 35, 36, 37, 38, 39 and 40 occur within the tertiary habitat management zone and only need a seasonal restriction for helicopter use. Helicopter use is restricted below 1500 feet Above Ground Level anywhere within the primary, secondary and tertiary management zones during this time period as well.

The above seasonal restrictions have been incorporated into the Design Criteria for this project. For this reason, project activities are predicted to have a reduced impact to the known peregrine falcons in the area. Although the potential for disturbance is still present, the seasonal restrictions have been incorporated into the Design Criteria for project and are predicted to prevent any adverse affects.

Effect to Habitat:

None of the proposed harvest units or associated project are within or adjacent to any cliff sites. As a result, there will be no effect to the known peregrine falcon nest site (i.e. eyrie) or other potential falcon nest sites with project implementation.

There are many units stated above that fall within the secondary and tertiary habitat management zone of the known peregrine falcon eyrie. Because of these stands proximity to the nest site, they are providing prey habitat for the species. The proposed timber harvest that occurs within foraging distance of the eyrie site could increase the potential prey base being provided to the nesting pair. As peregrines are not forest-dwelling birds but hunt in forest openings or above the canopy, a mixture of successional stages would provide hunting opportunities near the eyrie. Thinning within the riparian reserves could also be beneficial since riparian corridors are often favored hunting location for

peregrine falcons. Overall, increased habitat diversity means an increase in prey diversity and availability of prey for the peregrine falcon.

Since the overall landscape in the area is comprised of somewhat homogeneous second-growth stands less than 80 years old, the proposed timber harvest that occurs within foraging distance of the eyrie site should increase habitat diversity in the area.

Providing large diameter snags within the secondary and tertiary zones of this active eyrie would also maintain or improve on the existing prey base for foraging falcons. Direction is given within the Draft Peregrine Falcon Management Plan that snags will be managed at the 100% biological potential level to provide for cavity-nesting birds. It also states that course woody debris will be maintained at levels totaling a minimum of 240 linear feet per acre. Although the proposed harvest units present within these areas are managed plantations and have few large diameter snags and course woody debris, there is the potential to create snags and down wood through restoration projects connected with this project. If any money becomes available for snag creation and down woody debris, priority will be given to units 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12a, 12b, 13, 14, 34, 35, 36, 37, 38, 39 and 40 of the timber sale due to their location within the secondary and tertiary peregrine falcon management zones.

E. CONFLICT DETERMINATION

The action alternatives of the No Whisky Timber Sale will have "**May Impact Individuals but not Likely to Cause a Trend Toward Federal Listing or Loss of Viability"** to the peregrine falcon or its habitat.

Northern Painted Turtle (*Chrysemys picta* -Sensitive)**, Western Pond Turtle (***Clemmys marmorata marmorata*- Sensitive*)*, **Horned Grebe** (*Podiceps auritus* – Sensitive), & **Bufflehead** *(Bucephala albeola* – Sensitive*)*

A. HABITAT

Painted Turtle: An aquatic turtle that frequents ponds, marshes, small lakes, ditches and streams where the water is quiet or sluggish and the bottom is sandy or muddy, and there is considerable vegetation. Mudbanks, logs, partially submerged branches and rocks are preferred for sunning.

Western Pond Turtle: The western pond turtle inhabits ponds, marshes, and the slow-moving portions of creeks and rivers that have rocky or muddy bottoms. Partially submerged logs, vegetation mats, mudbanks, rocks and tree branches provide areas for sunning. Western pond turtles have been found to occur from sea level up to around 2000 feet. During the winter months these turtles usually hibernate in bottom mud.

Horned Grebe: The Horned Grebe breeds throughout most of Alaska and Canada and, locally, just south of the Canadian border. It also breeds in northern Eurasia. Its habitat consists of areas with much open water surrounded with emergent vegetation.

Bufflehead: The Bufflehead is a northern species that breeds from Alaska across Canada, and south to Oregon, northern California, and Wisconsin. This species nests near mountain lakes surrounded by open woodlands containing snags. In many areas, the preferred nest trees are aspen, but it will also nest in ponderosa pine or Douglas-fir.

B. FIELD REVIEW

Habitat available within the project area (proposed harvest units) and surrounding area:
Painted turtle and Western Pond turtle: No. All of the units are situated within dense forested environments. Although many of the units contain riparian areas, they do not consist of relatively large open sites for sunning and abundant riparian and aquatic vegetation that is usually associated with the habitat for the species. There are no known sightings of these species on the Clackamas River Ranger District. The Region 6 Regional Forester's Sensitive Species list only has them as suspected to occur on the Mt. Hood National Forest.

Horned Grebe and Bufflehead: No. There are no lakes or ponds within the project area of the required size to provide habitat for these species.

No further analysis needed due to lack of habitat.

Harlequin Duck
(Histrionicus histrionicus – Sensitive)

A. HABITAT

Harlequin Duck: This species occurs from Iceland and Greenland west to eastern Canada. It is absent from the central part of North America, and the "western" population ranges from eastern Siberia east through Alaska and south to the Sierra Nevada of California and the mountains of southwestern Colorado. In the Northwestern United States, the Harlequin duck breeds along relatively low-gradient, slower-flowing reaches of mountain streams in forested areas.

B. FIELD REVIEW

This species is highly aquatic and needs a permanent water source to survive. Potential habitat for this species does exist within the Clackamas River drainage and within some of the potential harvest units. Harlequin ducks are occasionally sighted within Clackamas River Ranger District.

Habitat available within the project area (proposed harvest units) and surrounding area:
No. Although several of the units contain perennial streams, none of them include any potential habitat for the harlequin duck. Several of the streams that are within or adjacent to the proposed harvest units such as Boyer, Bedford, and North Fork Clackamas have too high of a gradient and are too fast-flowing in this area to be considered potential habitat for the species. All the other streams in the proposed harvest units are tributaries to the above-named streams. Due to their very small size and headwater characteristics, they are also not considered potential habitat for the species.

No further analysis needed due to lack of habitat.

Wolverine
(***Gulo lyscus*** – Sensitive)

A. HABITAT

Populations in the Cascade Mountains are small and scattered. Wolverines are usually found in high temperate coniferous forests, from mid-elevation (around 4000 feet) to moderately high elevation (above timberline), depending on the season. Common tree species are subalpine fir and lodgepole pine. They prefer to feed along rivers and streams and in wet meadows. The den is usually in a rock crevice, cave, or beneath a talus slope. Territories may encompass 10 to 80 square miles. Wolverines are believed to prefer areas of minimal people presence and high levels of solitude and seclusion. They are usually associated with wilderness, chiefly because they are so vulnerable to the activities of humans.

B. FIELD REVIEW

Habitat available within the project area (proposed harvest units) and surrounding area:
No. Elevation within the project area ranges from approximately 1600 to 3100 feet in elevation. All of the proposed harvest units occur well below 4000 feet in elevation, which is generally considered too low for occupation by the wolverine. All of the units are located within areas that lack solitude and seclusion qualities due to the open road densities, management activities, and recreational activities occurring in the area. For these reasons, it is unlikely that a wolverine would be present in the project area.

Recent field surveys have not been accomplished. The last time broad based surveys were conducted on the Forest was during the winter of 1993-1994 and 1994-1995. There were no sightings of wolverine or sign of their presence.

No further analysis needed due to lack of habitat

Baird's Shrew
(Sorex bairdii permiliensis – Sensitive)

A. HABITAT

This species is endemic to Oregon. Its range is from northwestern Oregon from the Pacific coast east to the Cascades, and from the Columbia River south to Benton and Lane Counties.

Little published information exists that assigns with certainty habitat characteristics to the Baird's Shrew. In 1986 two specimens were collected in an open Douglas-fir forested area with numerous rotting logs in Polk County. The habitat of the Baird's shrew can be described as moist coniferous forests with a shrubby understory. Individuals of the species tend to forage near logs and rocks.

B. FIELD REVIEW

Habitat available within the project area (proposed harvest units) and surrounding area:
No. All the proposed harvest units consist of second-growth stands, the oldest being 77 years. Although all the proposed harvest units occur within moist coniferous forests, they do not contain sufficient amounts of some habitat components, such as large snags and down wood, common in older stands and necessary for habitation by the Baird's Shrew.

No further analysis needed due to lack of habitat

Pacific Fringe-tailed Bat
(Myotis thysanodes vespertinus – Sensitive)

A. HABITAT

Little to nothing is known about this subspecies of the Fringed Myotis (Myotis thysanodes). There appears to be only one source of information for the Pacific Fringe-tailed bat. The distribution of this species is in California, Oregon, and Washington. No habitat data could be found on the Pacific Fringe-tailed bat so habitat information and the following analysis are based on what is known for the Fringed Myotis.

Although the Fringed Myotis is found in a wide variety of habitats throughout its range, it seems to prefer forested or riparian areas. Most Oregon records are west of the Cascade Mountains. Its nursery colonies and roost sites are established in caves, mines, and buildings. The species is thought to forage by picking up food items from shrubs or the ground. It consumes beetles, moths, harvestmen, crickets, craneflies, and spiders.

B. PRE-FIELD REVIEW

Habitat available within the project area (proposed harvest units) and surrounding area:
Yes. No breeding or roosting sites are available within the project area. There is the potential for the project area to contain foraging habitat, although foraging usually occurs near the species' breeding and roosting sites. Species would only occur in area during dispersal or possibly foraging.

C. ANALYSIS OF DIRECT/ INDIRECT EFFECTS & CUMULATIVE EFFECTS

No effects in any alternative due to lack of nesting or roosting habitat. In the event that individuals were dispersing or foraging through the area, they would likely be able to quickly disperse from the area during project implementation. Foraging habitat is not limiting and if individuals happened to be displaced, they could easily find other areas to forage within nearby. In addition, it is likely that the thinned units would still provide foraging habitat after project implementation.

D. CONFLICT DETERMINATION

The action alternatives of the No Whisky Thin will have a "**No Impact**" to the Pacific Fringe-tailed bat or its habitat.

Puget Oregonian

(Cryptomastix devia - Sensitive)

A. HABITAT

The Puget Oregonian may be found in mature and old-growth forest habitat, typically on or under hardwood logs and leaf litter. These snails are also found on or in the litter under sword ferns growing under hardwood trees and shrubs, especially big leaf maples.

B. PRE-FIELD REVIEW

Habitat available within the project area (proposed harvest units) and surrounding area:
No. All the proposed harvest units consist of second-growth stands, the oldest being 77 years. Although some of these proposed harvest units occur within older stands, they do not contain sufficient amounts of snags and course woody debris, the habitat components necessary for habitation by the Puget Oregonian.

No further analysis needed due to lack of habitat

Columbia Oregonian

(Cryptomastix hendersoni - Sensitive)

A. HABITAT

In the Western Cascades, this species can be found in mature forested habitats outside of riparian areas. Individuals have been found in damp situations under relatively closed canopies in mature western hemlock forests that include some Douglas-fir, cedar, vine maple, and alder.

B. PRE-FIELD REVIEW

Habitat available within the project area (proposed harvest units) and surrounding area:
No. None of the units have the sufficient habitat components necessary for habitation by the Columbia Oregonian.

No further analysis needed due to lack of habitat.

Evening Fieldslug

(Deroceras hesperium - Sensitive)

A. HABITAT

This species has been reported to be associated with wet meadows in forested environments in a variety of low vegetation, litter and debris; rocks may also be used. Little is known about this species or its habitat. It is possible that individuals may be confined to moist surface vegetation and cover objects within 30 meters (98 feet) of perennial wetlands, springs, seeps and riparian areas.

B. PRE-FIELD REVIEW

Habitat available within the project area

No. This species is usually found within non-forested meadow habitats. None of this habitat is found within the project area.

No further analysis needed due to lack of habitat.

Dalles Sideband

(Monadenia fidelis ochromphalus - Sensitive)

A. HABITAT

The Dalles Sideband has been located in steep situations on both sides of the Columbia Gorge near and below where springs are located and in upland locations where moisture conditions allow. This species is usually found associated with basalt talus, within 200 m. of streams, seeps or springs, in steppe or dry forest plant communities. It may be found among rocks, shrubs, or other vegetation and under down wood.

B. PRE-FIELD REVIEW

Habitat available within the project area

No. No locations of this species have been found or are suspected to occur on the Clackamas River Ranger District. It's habitat in the surrounding area is expected to occur within the Columbia Gorge National Scenic Area as well as Hood River and Barlow Ranger Districts.

No further analysis needed due to lack of habitat.

Crater Lake Tightcoil

(Pristiloma arcticum crateris - Sensitive)

A. HABITAT

This species is found in perennially wet situations in mature conifer forests, among rushes, mosses and other surface vegetation or under rocks and woody debris within 10 m. of open water in wetlands, springs, seeps and riparian areas, generally in areas which remain under snow for long periods in the winter. It is found within moderate to high elevations (2000 to 7000 feet).

B. PRE-FIELD REVIEW

Habitat available within the project area
None. Although the project area occurs within the lower end of the elevational band known for the species, this area does not remain under snow for long periods in the winter. It is unlikely the species would be found in the area.

No further analysis needed due to lack of habitat

LITERATURE CITED

Anthony, R.G., E.D. Forsman, A.B. Franklin, D.R. Anderson, K.P. Burnham, G.C. White, C.J. Schwarz, J. Nichols, J. Hines, G.S. Olson, S.H. Ackers, S. Andrews, B.L. Biswell, P.C. Carlson, L.V. Diller, K.M. Dugger, K.E. Fehring, T.L.Fleming, R.P. Gerhardt, S.A. Gremel, R.J. Gutierrez, P. Happe, D.R. Herter, J.M. Higley, R.B. Horn, L.L. Irwin, P.J. Loschl, J.A. Reid, and S.G. Sovern. 2004. Status and Trends in Demography of Northern Spotted Owls. A Draft Report to the Interagency Regional Monitoring Program. Portland, Oregon.

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 Gutierrez, J M Marzluff, L Sztukowski. 2004. Scientific evaluation of the status of the Northern Spotted Owl. Sustainable Ecosystems Institute of Portland Oregon. September 2004.

Meiman, S., R. Anthony, E. Glenn, T. Bayless, A. Ellingson, C.Smith, M.C. Hansen. In Press. JB: 2004. Effects of commercial thinning on home range and habitat use patterns of a male spotted owl: a case study. Oregon Cooperative Fish and Wildlife Research Unit, Department of Fisheries and Wildlife, Oregon State University, Corvallis, OR. Wildlife Society Bulletin 31 (4): 1254-1262.

USDA Forest Service, USDI Bureau of Land Management. 1994. Record of Decision for Amendments to Forest Service and Bureau of Land Management Project Documents within the Range of the Northern Spotted Owl; Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest related Species within the Range of the Northern Spotted Owl. Pacific Northwest Region.

USDA Forest Service, Pacific Northwest Region, Mt. Hood National Forest, 1996. North Fork Clackamas River Watershed Analysis, Final Report.

USDA Forest Service, Pacific Northwest Region, Mt. Hood National Forest, 1996. Lower Clackamas River Watershed Analysis, Final Report.

USDA Forest Service, Pacific Northwest Region, USDI Bureau of Land Management, 1998. North Willamette LSR Assessment, Mt. Hood National Forest & Cascade Resource Area, Salem BLM. Portland, Oregon.

USDI, Fish and Wildlife Service, 2005. The Biological Opinion and Letter of Concurrence for Effects to Bald Eagles, Northern Spotted Owls and Northern Spotted Owl Critical Habitat from the U.S. Department of the Interior; Bureau of Land Management, Eugene District and Salem District, the U.S. Department of Agriculture; Mt. Hood National Forest and Willamette National Forest and the Columbia River Gorge National Scenic Area Calender Years 2005-2006 Habitat Modification Activities within the Willamette Province (FWS Reference Number 1-7-05-F-0228).