REVISED

ENVIRONMENTAL ASSESSMENT

FOR THE

CONTINUATION OF INTERIM MANAGEMENT DIRECTION

ESTABLISHING RIPARIAN, ECOSYSTEM AND WILDLIFE

STANDARDS FOR TIMBER SALES

U.S.D.A., Forest Service
Region 6
Pacific Northwest Region

Colville, Deschutes, Fremont, Malheur, Ochoco
Okanogan, Umatilla, Wallowa-Whitman and Winema
National Forests in Oregon and Washington
June 1995

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I. INTRODUCTION

This revised Environmental Assessment considers whether to revise the vegetative structural stages of the interim ecosystem standard and to clarify the interim wildlife standard portions of the May 1994 interim management direction (hereinafter 1994 interim direction) for timber sale planning on the National Forests on the east side of the Cascade Mountain Range in Oregon and Washington -- the Eastside Forests.[1] No other portions of the 1994 interim direction are under consideration here, that is the interim riparian standard, the requirements of the interim wildlife standard, and the Historic Range of Variability (HRV) process portion of the interim ecosystem standard remain intact.

The May 20, 1994, environmental assessment and decision notice remain in effect as to all analyses, conditions and requirements, except as to the narrow revision of the vegetative structural stage classification. This environmental analysis revises only those parts of the 1994 environmental assessment pertaining to the vegetative structural stages. The clarification of the interim wildlife standard requires no environmental disclosure.

The 1994 interim direction which amended the eastside forest plans on May 20, 1994, established a three-step analysis

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[1] For the purposes of this interim direction, the Eastside Forests are the Colville, Deschutes, Fremont, Malheur, Ochoco, Okanogan, Umatilla, Wallowa-Whitman and Winema National Forests.

during timber sale preparation to defer harvest of certain Late and Old structure timber stands unless certain conditions were met. Specifically, timber harvesting is deferred in riparian areas and limited in areas of Late and Old structure stands. The 1994 interim direction is intentionally restrictive, reflecting a conservative interpretation of riparian, wildlife and ecosystem needs for the short-term. Concern about the adequacy and propriety of the HRV process and the rigidity of the complete deferral of timber harvest in the riparian areas existed before and after the adoption of the 1994 interim direction.

A regional review team has monitored the effectiveness and understanding of implementing the 1994 interim direction since its adoption, primarily through field trips to the National Forests since May 1994 and forest reports to the Regional Forester. App. C. Administrative appeals of the 1994 interim direction reflected the controversy over some of the components. App. E. Additionally, the expected preparation time for the Eastside EIS,[2] prepared by the Interior Columbia Basin Ecosystem Management Project, formerly eighteen to twenty-four months, or November 1994, grew to 1996.

In response, Regional Forester John E. Lowe directed the regional review team to report on available options to correct ineffectiveness, misperceptions of implementation and the expanded timeframe. App. C. The review team produced a monitoring report with seven findings.[3] From the findings, the Regional Forester directed an analysis be done to revise the 1994 interim direction, as necessary, and focus on Findings 1 and 2: revision of the Historic Range of Variability classification method and the options of relieving stress on old growth stands, respectively. See, Regional Forester's letter to Directors, March 14, 1995. Revisions to the interim riparian standard will not be considered

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[2] On February 1, 1994, the Forest Service and Bureau of Land Management published their notice of intent to prepare an environmental impact statement to adopt a coordinated ecosystem management strategy for forest and public lands east of the Cascade Mountains in Oregon and Washington. The selected alternative will amend National Forests' forest plans, including the eastside forest plans proposed to be amended here and will, in fact, replace the 1994 interim direction in its entirety.

[3] Finding 1: Some HRV stand descriptions are in conflict with eastside vegetative types; Finding 2: Some old-growth features are at risk under the interim direction; Finding 3: Fixed riparian widths are not appropriate on dynamic systems; Finding 4: Wildlife requirements are not appropriate in all situations; Finding 5: New and ongoing research cannot be implemented under the interim direction; Finding 6: Other timber sale preparation issues; and Finding 7: Successful methods of implementing interim direction.

at this time. However, clarifying language has been added to the interim wildlife standard to respond to Finding 4 of the monitoring report (misunderstanding of various wildlife habitat requirements).

Although the review team's report indicated implementation of the conservative approach inherent in the 1994 interim direction warrants re-evaluation, the original intent has not been altered, i.e. to preserve future planning options until completion of the Eastside EIS. No change in forest plan land allocation for management areas is proposed. Current risks to species, ecological groupings of species, and habitats will be assessed in the Eastside EIS which will provide long term direction for ecosystem management.

Therefore, this revised Environmental Assessment will disclose the impacts of revising only the vegetative structural stages of the interim ecosystem standard to respond to the Findings 1 and 2 of the monitoring report through amendments to the Eastside forest plans and determine the significance of those impacts.

II. PURPOSE AND NEED

Region 6 of the Forest Service continues to have a short-term need to maintain future management options for consideration in the Eastside EIS. In particular, there is a need to review the balance of timber harvest for forest health and fuels reduction with the need to maintain the abundance and distribution of old-forest structure. In addition, there is an economic need to continue some timber production. The Forest Service proposes to meet these needs through revising a portion of the 1994 interim management direction originally designed to offer conservative protection to riparian, ecosystem and wildlife values in the short-term.

The primary purpose is to conserve those components of the landscape -- old forest abundance, wildlife habitat in Late and Old structural stages -- in relation to larger ecosystem management to protect habitat for certain species of wildlife and to promote the vigor and health of the forests.

The underlying purpose is to more accurately describe the eastside forests' vegetative structural stages, which monitoring showed to be inaccurate, for the purposes of determining the Historic Range of Variability (HRV). HRV is the baseline by which timber sales may or may not be prepared, in accordance with the 1994 interim wildlife standard.

III. PROPOSED ACTION

The proposed action is to revise the vegetative structural stage portion of the interim ecosystem standard and to clarify the interim wildlife standard of the 1994 interim

direction for timber sale planning to respond to Findings 1, 2 and 4 of the regional review team's monitoring report, Appendix C, and to amend the eastside forest plans accordingly. No site-specific timber sale or associated activity is proposed as part of this action. The affected forests are the Colville, Deschutes, Fremont, Malheur, Ochoco,[4] Okanogan, Umatilla, Wallowa-Whitman, and Winema National Forests.

The text of the 1994 interim direction is set forth at Appendix A. The text of the revised interim direction including the revised vegetative structural stage portion of the ecosystem standard and the clarified wildlife standard is set forth in Appendix B. A summary of the revision and clarification is set forth below. See Alternative 2 for a complete description.

A. Revised Interim Ecosystem Standard

The existing vegetative structural stages descriptions in the interim ecosystem standard would be revised to better represent eastside conditions. The revision would establish seven categories of structural stages rather than the existing four categories in the 1994 interim direction.[5] The proposed seven categories would require HRV to be determined based on the following structural stages:

1. Stand Initiation
2. Stem Exclusion; open canopy
3. Stem Exclusion; closed canopy
4. Understory Reinitiation
5. Multi-strata without Large Trees
6. Multi-strata with Large Trees; and
7. Single-stratum with Large Trees.

The latter two structural stages, Multi-strata with Large Trees and Single-stratum with Large Trees, will be comprised of timber stands previously classed as Late and Old.

B. Clarification of Interim Wildlife Standard

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[4] The action proposed herein does not apply to those portions of these forests to which the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl, April 1994, applies.

[5] The 1994 interim ecosystem standard currently requires the Historic Range of Variability to be determined using the following four categories: 1) EARLY: early seral stages; 2) MIDDLE: An understory re-initiation phase and beginning of old-growth phase; 3) LATE: late seral stages; overstory vigor declines; and 4) OLD: old structure stage, overstory decadent, some decay and top breakage. See App. A for the complete description.

The down logs, snags, green tree replacements, connectivity corridors and non-fragmentation requirements are not applicable in all situations and the specific habitat and habitat needs vary from forest to forest. Therefore, these requirements have been clarified[6] and intent statements added to the interim wildlife standard.

Decision To Be Made

The Deciding Official will be John E. Lowe, Regional Forester, Region 6. The decision to be made is whether to revise the vegetative structural stages of the interim ecosystem standard and to clarify the interim wildlife standard for timber sale preparation on the eastside forests, as set forth in full in Appendix B, through amendments to the eastside forest plans during the interim period while the Eastside EIS is being completed.

IV. REGIONAL REVIEW TEAM MONITORING REPORT, February 8, 1995

A. Implementation of May 20, 1994 Interim Direction

From the time of adoption of the 1994 interim direction, the eastside forests have prepared FY 1994 and FY 1995 timber sales in accordance with the 1994 interim direction. By September 1994, forest silviculturists, ecologists and biologists became aware if two major difficulties: 1) the structural stand description in the interim ecosystem standard classified some stands of large, old Ponderosa pine, larch or Douglas fir as Middle, and therefore available for harvest because Middle structures tend to at or above the HRV, and 2) stands of large and old Ponderosa pine, larch or Douglas fir, filled in with dense understory in the absence of natural wildfire, were classed as Late and Old structure, a category usually below HRV and therefore not generally available for harvest.

The ability to harvest the open, park-like stands appeared incongruent with the intent of the 1994 interim direction because these types of stands provide the old-forest habitat and the desired component of eastside ecosystems that was intended to be conserved.

Similarly incongruent was the inability to remove, or at least thin, the dense understory in the stands of large trees, often stressed and threatened with fire, insect and disease risk. The 1994 interim direction intended that harvest, specifically thinning, should occur in these types of stands. Clearly, the

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[6] See Appendix C, Eastside Interim Management Direction, Regional Forester's Forest Plan Amendment No. 1, Monitoring Report; Finding 4.

structural stages in the 1994 interim direction did not accurately portray the eastside forest settings.

In addition, the Eastside EIS and Scientific Assessment Team Leaders at the Interior Columbia Basin Ecosystem Management Project announced significant delays in completion of both the Assessment and the EIS. The anticipated completion date now lay in 1996, rather than 1994.

B. Regional Forester's Review Team

Coupled with structural stage classification problem, the announced delay in the EIS prompted Regional Forester Lowe to charter a regional review team in September 1994, to determine what proposed timber sales represented good ecosystem management but were precluded from implementation by the 1994 interim direction and to recommend necessary steps to remedy the situation.[7] Forests provided summaries of issues surrounding the interim direction, as well as site-specific concerns, such as inability to remove insect or diseased trees and limitations on timber harvest to reduce stress to old Ponderosa pine, larch and Douglas fir stands. See App. C. The review team visited sites on the Deschutes, Malheur, Ochoco and Colville National Forests. The results of their review is the Monitoring Report for Eastside Interim Management Direction, Regional Forester's Forest Plan Amendment No. 1. App. C.

The Monitoring Report resulted in seven Findings:

Finding 1: The descriptions provided in the direction for Historic Range of Variability (HRV) seem to be in conflict with some ecological vegetation types on the eastside. HRV may be difficult to describe in some areas and the appropriate scale of application is not uniformly understood.

Finding 2: The Interim Direction as written may put at risk some important old-growth features in some environments.

Finding 3: The Eastside Interim Management direction assigns fixed riparian widths, and does not permit timber harvest (including salvage) within riparian buffers for any reason. Broad, fixed direction is difficult to apply to dynamic systems. Some flexibility should be considered.

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[7] The Regional review team consisted of Lisa Norris, Wildlife Program Manager; Ken Denton, Regional silviculturist; Mike Hillbruner, Fuels specialist; Mary Erickson, Chemult District Ranger, Winema NF; Miles Hemstrom, Regional Ecologist; and Jim Schuler, Regional Appeals Coordinator.

Finding 4: Interim Standards and Guidelines for down logs, snags, green tree replacements, connectivity corridors, and non-fragmentation are not universally applicable to all lands and all situations. In addition, implementation of these S&G's is not consistent between the Forests. Additional clarification would be useful.

Finding 5: The Eastside Interim Management Direction does not contain an exception for ongoing or new research.

Finding 6: This section includes issues brought up by Forests that are not directly related to application of the Eastside Interim Management Direction in most cases. While all issues brought were real, their solution is not necessarily affected by modifying the existing direction.

Finding 7: Some Forests have been more successful than others in being able to generate a timber sale program that is responsive to the Interim Direction and puts timber on the market.

Supplementing Finding 2 was an estimation of acres at risk of losing Late and Old structural characteristics on the eastside forests with and without the 1994 interim direction. App. C, Nov. 29, 1994, M. Ollieu letter to J. Lowe, Regional Forester.

Based on these Findings, the Regional Forester determined a revision to the Interim Direction was necessary and the interdisciplinary team was assembled on March 14, 1995.

V. SCOPING

A. Public Involvement

Since the issuance of the 1994 interim direction on May 20, 1994, various segments of the public have debated its propriety. The Forest Service received three administrative appeals of the 1994 Decision Notice, adopting the interim direction. App. E. Issues in the appeals focused on 1) whether HRV adequately protects old-growth forest components; 2) whether the 1994 interim riparian standard provides adequate protect of upland areas; 3) whether prescribed management will violate National Forest Management Act viability regulations; 4) whether the 1994 interim direction represents a significant amendment to the forest plans; 5) whether the effects to community stability represents significant effects under National Forest Management Act and National Environmental Policy Act; and 6) whether the range of alternatives was adequate.

On March 31, 1995, the Chief of the Forest Service rendered a decision on the Malheur Timber Operators, Inc. appeal, affirming the Regional Forester's decision. App. E. The Natural Resources Defense Council's and the Kettle Range Conservation

Group's appeals were decided on April 14, 1995, also affirming the decision.

Beyond the administrative appeals, adoption of the 1994 interim direction gained the attention Congressmen Bob Smith, James Hansen, Craig Thomas, John T. Doolittle, Ken Calvert, Richard Pombo, Wayne Allard Richard Baker, Congressman Wes Cooley (in 1995) and from Senator Larry Craig in early 1994. The Administration's interest has resulted in former USDA Secretary Mike Espy and Assistant Secretary Jim Lyons inquiry into the intent and effect of the 1994 interim direction.

Additionally, the Oregon Governor John Kitzhaber has shown renewed interest in an environmentally sound timber harvest in Eastern Oregon, pointing to a scientific panel's conclusion that "active management of the forests in Eastern Oregon is desirable to reduce the risk of loss from insects and fire." April 11, 1995 Kitzhaber ltr to Senator Mark Hatfield.

The predecessor of the 1994 interim direction, the August 18, 1993, screening process was challenged in court by Prairie Woods Products and others. On October 19, 1994, the United States District Court for Oregon in Prairie Woods Products, et al v. Espy, et al, 93-6288, found that the Forest Service failed to prepare at a minimum an environmental assessment of the screening process proscribed in an August 18, 1993 letter from Regional Forester John Lowe, for prepared FY 1993 timber sales. The court did take note, however, that the Forest Service did prepare an environmental assessment for 1994 and future sales, formally amending affected forest plans.

B. Scoping Period

On March 10, 1995, the Forest Service circulated a letter inviting comment on this Proposed Action to revise a portion of the 1994 interim ecosystem standard to over seventy-five addressees. The scoping period ended April 10, 1995.

Twenty-nine response letters were received. Commentors included, among others, Malheur Lumber, Boise Cascade and Vaagen Brothers Lumber Company, Natural Resources Defense Council, Sierra Club Legal Defense Fund, and Concerned Friends of the Winema. Ten individuals offered their views. No local or county governments commented on the proposal.

Many of the comments centered on riparian area management, either supporting or questioning the lack of the flexibility in the 1994 interim riparian standard (not under consideration here). Many comments reflected a concern for the socio-economic conditions in eastern Oregon.

Responses to the comments are addressed throughout the EA and are discussed in Section VIII. SIGNIFICANT ISSUES CONSIDERED IN THIS ANALYSIS and Appendix D.

C. Other Related Events

1. Eastside EIS, prepared by Interior Columbia Basin Ecosystem Management Project

On February 1, 1994, the Forest Service and Bureau of Land Management published their notice of intent to prepare an environmental impact statement to adopt a coordinated ecosystem management strategy for forest and public lands east of the Cascade Mountains in Oregon and Washington. 59 Fed. Reg. 4680 (February 1, 1994). The strategy to be adopted will include direction for protection and enhancement of aquatic ecosystems for anadromous fish and bull trout and terrestrial ecosystems. The selected alternative will amend National Forests' forest plans, replacing the existing 1994 interim direction for timber sale planning, the February 1995 PACFISH amendment (see discussion below under Salmon Habitat), the proposed Inland Native Fish Strategy (see discussion below), and the Proposed Action under consideration in this environmental assessment. Originally slated to be available in November 1994, the environmental impact statement is now expected in 1996.

2. Inland Native Fish Strategy

On March 14, 1995, the Forest Service announced its intent to prepare an environmental assessment to establish interim riparian direction for native inland fisheries in the interior and upper Columbia River basins. 40 Fed. Reg. 13697 (March 14, 1995). The result of this environmental assessment and future decision will amend Region 6 eastside forests' plans, as well as forest plans in the Northern Rocky Mountain Region (Region 1) and the Intermountain Region (Region 4) to include riparian management objectives, standards and guidelines and monitoring requirements for non-anadromous fisheries habitat. This will replace the 1994 interim riparian standard now in place for the eastside forests.

3. Salmon habitat (anadromous fisheries)

Although the salmon protection issues are outside the scope of this environmental assessment, it was instrumental in the a recent amendment to most of the eastside forests' plans. The importance of streamside vegetation has been well-recognized by the federal agencies with oversight responsibility for salmon habitat. Culminating that recognition was a February 24, 1995, joint Decision Notice/Decision Record by the Forest Service and the Bureau of Land Management establishing "Interim Strategies for Managing Anadromous Fish-Producing Watersheds in Eastern Oregon and Washington, Idaho and Portions of California", commonly referred to as "PACFISH."

This action amended five of the eastside forest plans under consideration here: Malheur, Ochoco, Okanogan, Umatilla, and Wallowa-Whitman NFs. PACFISH established a series of interim

standards for all land management activities in riparian areas that support anadromous fisheries. This PACFISH amendment replaces the 1994 interim riparian standard, as to anadromous fisheries habitat ONLY. The 1994 interim riparian standard remains in effect for timber sale planning in non-anadromous fisheries habitat on the above five forests as well as the remaining three eastside forests, Colville, Deschutes, and Winema.

VI. SIGNIFICANT ISSUES CONSIDERED IN THIS ANALYSIS

A. Issues within the Scope of this Assessment

1. Economic effects

Many local communities in the vicinity of the eastside forests are dependent on a flow of products from the National Forests to help ensure economic and social stability. In addition, county governments receive a portion of the National Forest timber receipts to support schools and roads, through out each county. These timber receipts have declined in recent years, due to a number of factors, with resulting negative effects on the economies of local communities and county budgets.

2. Habitat Needs of Late and Old Forest-Associated Species

Each eastside forest plan identified management indicator species for late and old forest habitats. These species include the northern goshawk, pileated, white-headed, and three-toed woodpeckers and the pine marten. The National Resources Defense Council in its March 30, 1993, petition to the Regional Forester to halt all logging of old-growth timber stands, contended that recent research results from the Forest Service and other entities indicated that current forest plan management requirements for these species and other old forest associated species might not be adequate to insure long-term species viability. The issue of old-forest habitat needs for these species continues to be a primary issue.

3. Forest Health/Restoration/Catastrophic Wildfire Potential

Forest health and restoration of healthy ecosystems are important issues. Even though there is debate over what constitutes a healthy ecosystem, the current forest conditions on the eastside forests are generally considered out of balance.

The historic suppression of fire has permitted abnormally high densities of trees to accumulate. This places entire stands under high stress making them more vulnerable to the combined effects of drought, insects, and disease. While fires historically played a major role in the health of these forests, they were light, frequent ground fires rather than the hot, stand replacement fires which are likely to occur under present

conditions. The issue of the role of fuel removal to reduce ladder fuels and other fuel loading to help avoid a catastrophic wildfire, reduce stress on large trees, and limit the opportunity for insect and disease infestations remains pertinent to this analysis.

4. Adequate provision of old-forest habitat components

The issue is whether the theory and methods used to conserve the components of old-forest habitat, such as green tree replacement, forest fragmentation and wildlife travel corridors are adequate. Although the proposed action under consideration in this environmental assessment does not include any revision to the 1994 interim wildlife standard, this issue is addressed by the clarification of the interim wildlife standard.

B. Issues Outside the Scope of the Assessment

1. Riparian Area Management

The largest single category of comments pertained to the fish habitat and riparian management concerns about restriction or lack of flexibility of options in the riparian areas. This issue is outside the scope of this environmental assessment because no revision is proposed to the 1994 interim riparian standard which currently precludes any green or salvage timber sale in riparian areas.

In general, perennial and intermittent fish-bearing streams are protected by at least a 300 feet buffer on each side. Perennial non-fish-bearing streams are protected by a buffer of at least 150 feet on each side. Intermittent non-fish-bearing streams are protected by a buffer of at least 100 feet on each side. Ponds, lakes, reservoir, seeps and springs, bogs, and wetlands are protected by at least 150 feet from the edge of the maximum pool elevations or edge of wetland, pond or lake. The 1994 interim riparian standard is in Appendix A.

Furthermore, the PACFISH amendment to the eastside forest plans in Feb. 1995, extends similarly restrictive interim standards to all management activities (not just timber sale preparation) in salmon habitat.

2. Validity of Historic Range of Variability (HRV)

Some concern remains among the public commenters on the propriety of the Historic Range of Variability (HRV), as a valid planning concept because of the timeframe selected as historic and the descriptions of structural stages as "present" rather than "should be". As to the specific proposed revisions, a few commenters expressed fear that the new structural stages would allow unsound timber sales to go forward; yet others believed the

proposed revisions made no significant change in the opportunity to harvest timber.

As currently described in the 1994 interim direction, HRV represents a range of conditions using pre-settlement conditions, as a reference point. Under HRV, the variability for any site, and sites just like it in structure, composition and function, is what would have been observed during that period. Pre-settlement is the selected timeframe because literature indicates that biological, physical conditions, and climate were comparable to today. See, Eastside Forest Ecosystem Health Assessment (Everett Report), Volume II.

It is a reference point to be used in the short-term to maintain future planning options. Thus, in the interim, the determination of HRV and whether a particular biophysical environment is above or below the HRV will avoid management activities which move conditions away from the historical range of variability. In the long term, ecosystems will be managed based the analysis and direction resulting from the Eastside EIS.

This environmental assessment does not propose to alter the method by which HRV is determined, nor does it re-examine the validity of the HRV process. Therefore, this issue is beyond the scope of the analysis.

VII. ALTERNATIVES

A. Alternatives Developed

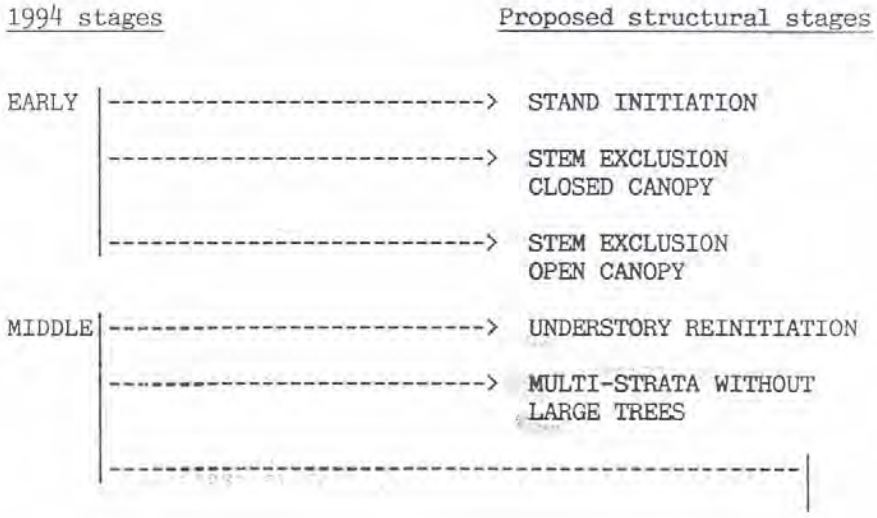
1. Alternative 1 - No Action.

This alternative would keep in place all facets of the May 20, 1994, interim direction until superseded by the Eastside EIS prepared by the Interior Columbia Basin Ecosystem Management Project, slated to occur in 1996. The 1994 interim direction has already been replaced in part by the PACFISH amendment to eastside forest plans and others in February 1995. PACFISH established interim standards for all forest activities in salmon (anadramous fisheries) habitat. The Inland Native Fish (all activities in non-anadramous fisheries habitat) environmental assessment is slated to be completed in early summer of 1995 and will replace the remaining 1994 interim riparian standard, not already replaced by the February 1995 PACFISH interim standards.

2. Alternative 2 (Proposed Action)- Revise the structural stages classification for the 1994 interim ecosystem standard and clarify the 1994 interim wildlife standard.

This alternative proposes a revised stand structural classification to better represent eastside forest settings and to allow field silviculturists and ecologists to more accurately apply the classifications to individual landscape-scale areas. The process through which Historic Range of Variability is determined is not proposed for revision.

Translating the 1994 interim ecosystem standards structural stages to the proposed classifications is as follows:



The definitions and description of each proposed structural stage[8] to be used with Historic Range of Variability (HRV) analysis is as follows:

1. STAND INITIATION

a. Definition: Growing space is reoccupied following a stand replacing disturbance, typically by seral species.

b. Description: One canopy stratum (may be broken or continuous), one dominant cohort[9] of seedlings or saplings. Grass, forbs, or shrubs may also be present with early seral trees.

2. STEM EXCLUSION: OPEN CANOPY

a. Definition: Occurrence of new tree stems is excluded (moisture limited). Crowns are open grown. Canopy is discontinuous. This structure can be maintained by frequent underburning or management.

b. Description: One discontinuous canopy stratum. One cohort of trees. New tree stems excluded by competition. Trees[10] may be poles or of small or medium diameter. Understory shrubs, grasses, or forbs may be present.

3. STEM EXCLUSION: CLOSED CANOPY

a. Definition: Occurrence of new tree stems is excluded (light and moisture limited). Crowns are closed and abrading.

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[8]Adapted from an unpublished report by K. O'Hara, Assistant Professor of Silviculture, University of Montana, Missoula, MT, under contract to the Interior Columbia Basin Ecosystem Management Project, preparing the Eastside EIS. Modifications developed by Miles Hemstrom, Regional Ecologist, USFS Regional Office, Portland, OR, with input from Paul Hessburg, USFS/PNW Research Station, Wenatchee Lab, Wenatchee, WA.

[9]A cohort is a class of trees arising after a common natural or artificial disturbance.

[10]"Trees" refers to live trees, not snags or other dead trees.

b. Description: Canopy layer is closed and continuous. One or more canopy strata may be present. Lower canopy strata, if present, is the same age class as the upper stratum. Trees may be poles or of small or medium diameter. Understory shrubs, grasses, or forbs may be present.

4. UNDERSTORY REINITIATION

a. Definition: A second cohort of trees is established under an older, typically seral, overstory. Mortality in the overstory creates growing space for new trees in the understory. Large trees are uncommon.

b. Description: The overstory canopy is discontinuous. Two or more canopy layers are present. Two or more cohorts of trees are present. Overstory trees may be poles or of small or medium diameter. Understory trees are seedlings, saplings, or poles.

5. MULTI-STRATA, WITHOUT LARGE TREES

a. Definition: Several cohorts of trees are established. Large overstory trees are uncommon. Pole, small and medium sized trees dominate.

b. Description: The overstory canopy is discontinuous. Two or more canopy layers are present. Two or more cohorts of trees are present. Large trees are uncommon in the overstory. Horizontal and vertical stand structure and tree sizes are diverse. The stand may be a mix of seedlings, saplings, poles, or small or medium diameter trees.

6. MULTI-STRATA, WITH LARGE TREES

a. Definition: Several to many cohorts and strat of trees are present. Large trees are common.

b. Description: The overstory canopy is broken or discontinuous. Two or more canopy layers are present. Two or more cohorts of trees are present. Medium and large sized trees dominate the overstory. Trees of all sizes may be present. Horizontal and vertical stand structure and tree sizes are diverse.

7. SINGLE-STRATUM, WITH LARGE TREES

a. Definition: A single stratum of large trees is present. Large trees are common. Young trees are absent or few in the understory. Park-like conditions may exist.

b. Description: The single dominant canopy stratum consists of medium sized or large trees. One or more cohorts of trees may be present. An understory may be absent or

consist of sparse or clumpy seedlings or saplings. Grasses, forbs, or shrubs may be present in the understory.

B. Clarification of the Interim Wildlife Standard (Finding 1, 2, and 4 of the Monitoring Report)

The intent, objectives, and assumptions used and applied to the interim wildlife standard are not proposed for revision. However, the need to clarify the interim wildlife standards intent and applicability were revealed by the regional review team's monitoring report. See Finding 1, 2, and 4 in App. C.

Intent statements were added to the connectivity requirements, snags, green tree replacements, and down logs requirements, and the goshawk requirements in Scenario A and for Scenario B, generally. The statements are intended to assist in implementing the interim standard, not revise it. See App. B.

Because the structural stages, upon which HRV is determined, are proposed to be revised, it is necessary to explain the relationship of the new structural stages, particularly Multi-strata with Large Trees and Single-stratum with Large Trees, to the terms "late and old structural stages" or "LOS" used throughout the interim wildlife standard. For the purposes of implementing the interim wildlife standard, Late and Old structural stages can be either Multi-strata with Large Trees or Single-stratum with Large Trees. These are both LOS classes and can occur separately or together within any given biophysical environment. Further instruction is provided in the interim wildlife standard on how to translate the HRV analysis to either Scenario A or B in the interim wildlife standard.

None of the clarifying statements in the interim wildlife standard changes the availability of or deferral of important Late and Old-forest associated wildlife habitat to timber harvest.

VIII. ENVIRONMENTAL CONSEQUENCES

Because this environmental analysis is programmatic and does not approve, require or mandate any particular sale or associated activity, the evaluation of environmental consequences is appropriately broad in scope and approach. Site-specific NEPA compliance that discloses the specific environmental effects will be prepared for all timber sales. The environmental effects disclosed herein are only those expected due to the change in the classification of stands during the short time the interim direction will be in place.

A biological evaluation was completed for this proposed action on March 16, 1995, tiered to the biological evaluation prepared January 7, 1994.[11]

Both the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) reviewed the 1994 proposed action and the accompanying Biological Evaluation pursuant to an endangered Species Act Section 7 Consultation. In its February 16, 1994, reply, FWS concurred with the Forest Service finding of "not likely to adversely affect" the Oregon Lost River sucker, shortnose sucker, McFarlane's four o'clock, American peregrine falcon, and northern bald eagle, as well as the Washington American peregrine falcon, northern bald eagle, grizzly bear, gray wolf, and woodland caribou.

NMFS responded on March 9, 1994, concurring with the Forest Service finding that the proposed action (Alternative 3) was "not likely to adversely affect" listed Snake River spring/summer chinook salmon or Snake River fall chinook salmon or their critical habitat. The biological evaluation for the proposed revision of the vegetative structural stages concluded "no effect" would result to the listed species on the eastside forests and consultation was not sought. See Appendix F for the Biological Evaluations and 1994 concurrence letters.

A. Alternative 1 - No Action

In general, the environmental consequences of Alternative 1 are those already disclosed in the May 1994 Environmental Assessment for the interim standards because Alternative 1 continues existing forest plan direction which was amended with the 1994 interim standards. However, the implementation monitoring by the regional review team revealed some specific consequences and are generally described below:

1. Economic effects

Under Alternative 1, the deferral of timber sales in all stands currently classified a Late and Old structure if below HRV will continue. The expected harvest level and return of timber sale receipts will be unchanged. Industries dependent on National Forest timber products cannot expect any increase in supply.

2. Effects on Late and Old (LOS) Forest Stands

This alternative will result in some reduction in total LOS stands, but only if the LOS within a certain biophysical

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[11]Although the biological evaluation is dated January 7, 1993, it was actually prepared January 7, 1994. The error is simply typographical.

environment is at or above HRV. Generally, the LOS structure as currently described is not in abundance on the eastside forests.

As discovered during the regional review team's monitoring, implementation of the 1994 interim ecosystem limited the opportunity to harvest in stressed stands of large Ponderosa pine, larch or Douglas fir (seral species) with dense understories because the complexity of the stands qualified a LOS under the existing classification system. Most of these stands are artifacts of fire suppression and previous timber harvesting activities and do not represent typical eastside forest LOS. No harvesting is allowed unless the LOS in the biophysical environment is above HRV. This results in some mortality among the large, older trees and a loss of an important component of stand structure. Therefore, moving these stands toward a more natural structural condition, i.e. open and park-like, without a dense understory, is unlikely and some loss of the largest trees will continue.

There is an opportunity under Alternative 1 to prepare timber sales in large Ponderosa pine or other seral species with an open, park-like structure because the stands qualify as Middle structure, not LOS. These stands developed under natural disturbance regimes in warm/dry and hot/dry environments typical of the eastside forests and usually lack the structural complexity required under the existing interim ecosystem standard to qualify as LOS. Thus, these kinds of stands, major contributors to old-forest dependent wildlife and the ecosystems of the eastside forest, is not necessarily deferred from timber harvest under Alternative 1 and could be harvested within the parameters of the existing interim wildlife standard.

3. Effects on Forest Health and Catastrophic Wildfire Potential

Some removal of dead and dying timber could occur in LOS stands under Alternative 1, if the abundance of LOS in the biophysical environment is at or above the HRV. If below, the risk of insect infestations, spread of disease, and risk of wildfire in the Late and Old structure stands, as currently classified, would continue and likely increase because the environment conducive to these forest health threats is left untreated. The monitoring team report concluded that this risk was prevalent across the eastside forests.

Deferral of timber harvest in many LOS stands leaves in place many stands with high tree densities, multi-layered canopies, and high tree mortality. These characteristics increase the chances that a fire in these stands will burn into the tree crowns instead of remaining a ground-level fire. Crown-burning fires tend to spread more rapidly, consuming more fuel and defying control efforts.

Although a common tool to reduce fuel and the risk of catastrophic wildfire, prescribed fire will not be effective in many of the LOS stands because of the large amount of existing fuel within the stands, which make a prescribed fire burn too hot and more difficult to control than if the existing fuel load was reduced. Some fuel removal, generally through harvesting, must precede a prescribed fire to avoid excessive mortality in the remaining stands. Alternative 1 limits the ability to remove fuels in the LOS stands.

4. Effects on Late and Old Forest Associated Wildlife

As originally intended, Alternative 1 maintains moderately high levels of late and old-forest habitat because all Late and Old structure (LOS) stands are deferred from timber management, if not at or above the HRV. Additionally, Late and Old live remnant trees, high levels of snags, moderately high levels of down logs and goshawk nesting and post-fledging habitat must be retained if timber harvest is proposed in younger stands. These major components of the interim wildlife standard provide significant protection to the habitat for Late and Old forest associated wildlife.

In the event stands meeting the existing description of LOS are above the HRV in their biophysical environment and timber harvest can be proposed, old forest structural habitat is maintained nonetheless at moderately high level by the requirement to maintain connectivity, limit fragmentation of large old stands, and preserve wildlife travel corridors. Connectivity is maintained by providing at least two corridors in different directions between LOS stands, the corridors must be at least 400 feet wide at the narrowest point and as short as possible. Fragmentation of late and old forest habitat is minimized by limiting the type of timber management of non-LOS stands that are within or are surrounded by blocks of LOS stands to non-regeneration or single-tree selection only and only when such an activity would move the non-LOS stand toward LOS conditions as soon as possible.

This alternative maintains a moderately high level of protection for the indicator species' habitat associated with eastside old forest habitats: northern goshawk, pine marten, and pileated, and three-toed woodpeckers. The one exception, the indicator species white-headed woodpecker, has a moderate level of habitat protection in Alternative 1 because its preferred habitat, i.e. more open stand conditions, is being invaded by dense understory in the absence of natural wildlife or understory removal by timber harvest. All known goshawk nests remain protected in Alternative 1

Two risks remain to old-forest habitats under Alternative 1: 1) the risk of losing to mortality, disease, insects or fire the large old-forest Ponderosa pine, where a dense understory has invaded, and 2) the risk of open, park-like

old-forest Ponderosa pine, larch or douglas fir stands classed as Middle structure not benefitting from the required deferral of timber harvest by the interim wildlife standard.

As to the first risk, the structural stages in Alternative 1 classify old-forest Ponderosa pine, larch or douglas fir stands with invading understory as Late or Old structure (LOS); thus generally deferred from timber harvest under the 1994 interim standards. The unfettered invasion of dense understory, in the absence of wildfire or understory timber harvest, has exceeded sustainable levels and in some cases appear to need timber harvest to reduce the stress, competition and risk of mortality. Unless these types of stands occur in a biophysical environment in which LOS is at or above HRV, no harvest can be proposed.

As to the second risk, under the structural stages in Alternative 1, the old-forest Ponderosa pine, larch, and Douglas fir stands were classed as Middle structure, when the understory is insufficient to meet the LOS description. The Middle structure stands are not deferred from timber management in Alternative 1 to the same degree as are LOS stands. As Middle structure, these stands were not deferred from timber harvest to the same degress as were LOS stands, as prescribed by the interim wildlife standard. As such timber harvest could be proposed in some the old-forest Ponderosa pine, larch, or Douglas fir stands that could remove the important "old forest" structure.

As for the threatened, endangered, and sensitive species[12], Alternative 1 will have no effects that have not already been disclosed in the January 10, 1993 [sic] Biological Evaluation of the Alternatives Considered for Timber Sale Planning and Interim Forest Plan Amendments for Nine East-side National Forest in the Pacific Northwest Region of the Forest Service and incorporated into the May 1994 environmental assessment. See, Appendix F. Consultation at that time was concluded when a letter of concurrence with a determination that the screening processes were not likely to adversely affect listed species or critical habitat were provided by the National Marine Fisheries Service and Fish and Wildlife Service. No consultation was sought for Alternative 1.

B. Alternative 2 - Revised Vegetative Structural Stages

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[12]Threatened species for the Eastside forests are: snake river basin fall run chinook, Snake River Basin spring/summer run chinook, northern spotted owl, grizzly bear, and bald eagle. Endangered species for the eastside forests are: Lost River sucker, shortnose sucker, American peregrine falcon, gray wolf, woodland caribou, and McFarlane's 4 O-Clock. The Biological Evaluation, January 10, 1993 [sic], in Appendix F, lists 176 sensitive plants documented or suspected to occur on one or more of the Eastside forests.

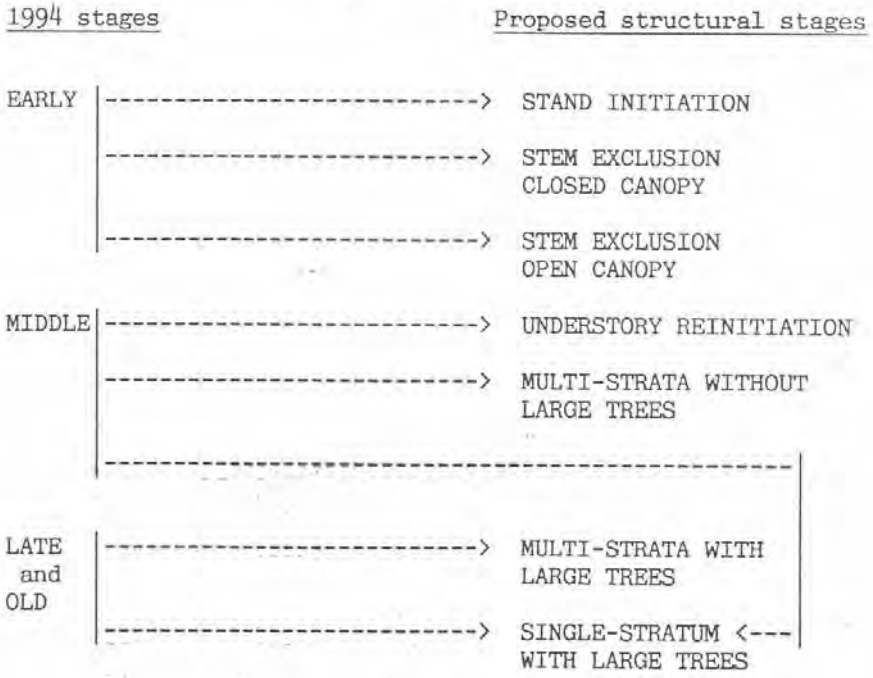
1. Economic Effects

It is largely unknown how much change will occur in timber receipts based on the revised structural stages in Alternative 2. However, it is known that the timber stands previously classed as LOS will now be classed as Multi-strata with Large Trees or Single-stratum with Large Trees and be assessed against an HRV of each of these stages in the biophysical environment, rather than a combined HRV for LOS as in Alternative 1. Because the Multi-strata with Large Trees is expected to be in greater abundance than historically, understory thinning timber sales ought to be prepared in areas previously deferred from timber harvest. This opportunity ought to generate supply to the timber industry and returns to the counties.

2. Effects on Late and Old (LOS) Forest Stands

Under Alternative 2, the revised structural stages in the interim ecosystem standard reflect the warm/dry and hot/dry environments of the eastside forests. The existing four categories of structural stages are replaced with seven. See Figure 1 below.

Figure 1



Two new categories, Single-stratum with Large Trees and Multi-strata with Large Trees, make an important change to the LOS in Alternative 1.

The Single-stratum with Large Trees recognizes one type of existing LOS, open and park-like in nature, naturally occurring under native disturbance regimes in warm/dry and hot/dry environments. These stands occur less frequently across the landscape primarily due to past management activities and suppression of wildfire than historically. The Multi-Stratum with Large Trees category recognizes another LOS where large trees are common, but two or more canopy layers are present. Stands of this type occur frequently across the eastside forests, usually artifacts of fire-suppression. When this structure stage is compared to its HRV, it is likely to be in greater abundance now than in the past.

Consequently, timber harvest in the Multi-strata with Large trees, like a thinning from below, can be implemented, consistent with the interim wildlife standard. Such a treatment reduces stress to the large trees, as well as competition and risk of mortality. Such a thinning would establish a balance between the Multi-stata and Single-stratum more reflective of historic abundance. No net loss of the LOS would occur in areas where either LOS class (Multi-strata with Large Trees or Single stratum with Large Trees) was below HRV because of the requirements of the interim wildlife standard.

3. Effects on Forest Health and Catastrophic Wildfire Potential

Alternative 2 offers the opportunity to harvest in some Multi-strata with Large Trees or Single-strata with Large Trees if the stage is at or above the HRV for the biophyical environment as a preventive measure to deter the progression of mortality in these LOS stands. Removing understory species will help to preserve LOS characteristics by retaining vigor of the old large trees, i.e. reducing stress of competition from dense understories, which in turn will enable the old and large trees to withstand bark beetle infestations and remove the food supply for many of the defoliators in the understory.

Similarly, the timber removal permitted in Alternative 2 reduces fuels in some stands that are currently highly susceptible to crown consuming wildfires. Reducing the amount of fuel, increasing the spacing between trees, and reducing the layering in the tree crowns will lower the intensity of wildfires in the treated stands. The lower density will enhance wildfire suppression effectiveness and reduce the tendency for fires to burn through the crowns of trees remaining after treatment. This removal, in conjunction with other fuel treatment options where necessary, will reduce the chances of high intensity fires within the LOS stands; thus providing a measure of protection to the remaining trees.

4. Effects on Old-Forest Associated Wildlife

The proposed revision of the vegetative structural stages requires an interpretation of the interim wildlife standard. Initially, Multi-strata with Large Trees and Single-Stratum with Large Trees both provide the Late and Old structure required by the old-forest associated wildlife, whosehabitat is under consideration here. Secondly, the intent of Scenario A needs to be clarified.

Under Alternative 2, when Multi-strata with Large Trees and Single-stratum with Large Trees occur in the same biophysical environment and one category is at or above HRV, timber harvest can be planned, as along as it meets the remaining interim wildlife standard requirements for connectivity, fragmentation, and green tree replacement. In addition, the proposed timber harvest can only be a non-regeneration harvest. This differs from Alternative 1 where if either Late or Old structure (LOS) within the same biophysical environment was below HRV, no harvest could be proposed regardless of adherence to other interim wildlife requirements.

This will increase the level of habitat maintenance of pine-associated wildlife habitats, benefitting all species, especially the white-headed woodpecker which prefers an open, park-like Ponderosa pine stands. The increase of protection occurs because the existing open, park-like stands can now be more appropriately classed as Single-stratum with Large Trees, a Late and Old structure, rather than a Middle structure, as in Alternative 1. Timber harvest is deferred on Single-stratum with Large Trees, unless the Single-stratum with Large Trees is found to be within or above the HRV for Single-stratum with Large Trees.

In addition, the Multi-strata with Large Trees stage, by recognizing the existence and most likely abundance of this structure, offers more opportunities to enhance and maintain LOS because non-regeneration harvests[13], such as thinning the understory, can reduce stress to the Late and Old structure, lower risks of stand-replacing wildfire by reducing fuels load, and can return multi-strata stands to open, park-like settings. This manipulation of LOS stands can only occur when the Multi-strata with Large Trees category is at or above HRV levels in the biophysical environment.

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[13] The interim wildlife standard continues to retain old-forest habitat connectivity and fragmentation by restricting harvest method to only non-regeneration activities, such as thinning, group or single-tree selection, within the interior of LOS stands $\geq$ 100 acres. Furthermore, group selection removal is allowed only when the openings created either mimic the natural forest pattern and do not exceed one-half acre in size.

Overall, the more accurate vegetative structural stages proposed in Alternative 2 better represent the eastside forest settings. The risk of losing to mortality, disease, insects, or fire the large old-forest structure, where a dense understory has invaded, is limited by the determination of the HRV for the Multi-strata with Large Trees. The open, park-like old-forest structural stands now claim a separate stage, Single-straum with Large Trees, can be compared with its own HRV, and subject to the requirements of the interim wildlife standards as appropriate. Therefore, old-forest associated wildlife and their habitat receive a somewhat higher level of overall protection in Alternative 2 than in Alternative 1.

As to the threatened, endangered, and sensitive species' habitats, the proposed revised classifications have no effect that has not been previously accounted for in the January 10, 1993 [sic] Biological Evaluation, App. F, because the revision is a more accurate description in the interim ecosystem standard and a clarification of the intent of the interim wildlife standard. No substantive change in the implementation of the interim standards, as revised, has been made that would affect the threatened, endangered, and sensitive species. As in Alternative 1, consultation has previously been completed for the 1994 interim standards and letter of concurrence from the regulatory agencies have been issued.

APPENDIX A

1994 Interim Management Direction Establishing Riparian, Ecosystem, and Wildlife Standards for Timber Sales

Regional Forester's Eastside Forest Plans Amendment No. 1
May 20, 1994

1. All timber sales, except as identified below, will be designed to incorporate the interim riparian, ecosystem and wildlife standards.

2. The following types of sales will not be subject to the interim standards: personal use firewood sales; post and pole sales; sales to protect health and safety; and sales to modify vegetation within recreation special use areas. NEPA and required consultation under Section 7 of the Endangered Species Act must be completed.

3. Five other types of sales are exempt from the interim ecosystem standard, but must apply the interim riparian and wildlife standards: precommerical thinning sales; sales of material sold as fibre; sales of dead material, less than sawlog size (7-inch dbh), with incidental green volume (ref. RO 2430 ltr. 8/16/93); salvage sales, with incidental green volume, located outside currently mapped old growth (ref. RO 2430 ltr. 8/16/93); and commercial thinning and understory removal sales located outside currently mapped old growth.

4. Interim riparian standard: Timber sales (green and salvage) will not be planned or located within riparian areas as described below:

a. Perennial and intermittent fish-bearing streams: consists of the stream and the area on either side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of two site-potential trees, or 300 feet slope distance (600 feet including both sides of the stream channel), whichever is greatest.

b. Perennial nonfish-bearing streams: consists of the stream and the area on either side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the out edges of riparian vegetation, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance (300 feet, including both sides of the stream channel), whichever is greatest.

c. Intermittent non-fish bearing streams: consists of the stream channel from the edges of the stream channel to the top of the inner gorge, or to the outer edges of the riparian vegetation, or to the extent of landslides or landslide-prone area, or to a distance of 100 feet slope distance (200 feet, including both sides of the channel), whichever is greatest.

See FSM 2526 9/80 R-6 Supp 42 for definitions of Perennial and Intermittent stream

d. Ponds, lakes, reservoirs, seeps amd springs, bogs and wetlands consist of the body of water or wetland and/or seeps/spring source and the area to the outer edges of the riparian vegetation, or to the extent of the seasonally saturated soil, or to the extent of moderately and highly unstable areas, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance from the edge of the maximum pool elevation of constructed ponds and reservoirs or from the edge of the wetland, pond or lake, whichever is greatest.

4. Interim Ecosystem Standard:

a. Characterize the proposed timber sale and its associated watershed for the major ecosystem pattern and compare to the Historic Range of Variability (HRV). The HRV should be based on conditions in the presettlement era; however, early 1900 photography may be acceptable.

b. The ecosystem characterization steps to determine HRV:

1) Describe the dominant historical disturbance regime (i.e., the disturbance type and its magnitude and frequency),

2) Characterize the landscape pattern and abunance of structural stages maintained by the disturbance regime (consider biophysical environmental setting across multiple watersheds to make this determination),

3) Describe each biophysical environmental setting in a watershed and its importance as a corridor for species migration, or as critical habitat, see Table 1,

4) Describe spatial pattern and distribution of structural stages under historical disturbance influences, and

5) Map the current pattern of structural stages and calculate their abundance by biophysical environmental setting.

c. Characterize the difference in percent composition of structural stages between historical and current conditions, see Table 2; identify biophysical environments that are outside the range of historical variability to set priorities for treatment. Use the descriptions in Table 3 to define structural stages for the analysis watershed(s).

Table 1. Example Biophysical Environment Characteristics Matrix

Biophysical Environments	Dominant Disturbance Factors	Disturbance Regimes	Average Disturbance Patch	Typical Landform Setting	Typical Elevation Range	Aspects
hot, dry PIPO, PSME-PIPO plant assocs.	1) Fire 2) I&Ds	Low[1]	< 1 ac	Ridgetops Steep Sideslopes	2500-4000 feet	S,SW
warm, dry PSME, ABGR, plant assocs.	1) Fire 2) I&Ds	Low	< 5 ac	Sideslopes	3000-4400 feet	S,SW
cool, mesic PSME, ABGR, ABLA2, PIEN plant assocs.		Moderate	80-120 ac		3000-5000 feet	
cool, wet ABGR, ABLA2,TSME plant assocs.		High	200-1000 ac			
cold ABLA2 PICO, TSME plant assocs.		High				
wet TSHE, ABAM, THPL plant assocs.						
grassland						
shrubland						
meadow						
nonforest riparian						

[1] Agee 1990; The historical role of fire in Pacific Northwest forests. In: Natural and Prescribed Fire in Pacific Northwest Forests. Oregon State University Press.
Low severity regime: 1-25 yr. return interval, 0-20% tree killing
Moderate severity regime: 26-100 yr. return interval, 26-70% tree killing
High severity regime: >100 yr. return interval, >70% tree killing.

Table 2. Example Biophysical Environment--Structural Stage Matrix

Biophysical Environments	Early H%[1] C% %D	Middle H%[1] C% %D	Late H%[1] C% %D	Old H%[1] C% %D
hot, dry PIPO, PSME plant assocs.				
warm, dry PSME, ABGR, plant assocs.				
cool, mesic PSME, ABGR, ABLA2, PIEN plant assocs.				
cool, wet ABGR, ABLA2, TSME plant assocs.				
cold ABLA2, PICO, TSME plant assocs.				
wet TSHE, ABAM, THPL plant assocs.				
grassland				
shrubland				
meadow				
nonforest riparian				

[1] H% is the estimated percentage of the watershed area in this structural stage under historical conditions; C% is the estimated percentage of the watershed area in this structural stage currently, based on stand exam or other data, or field knowledge; %D is the estimated difference C%-H%=%D; negative numbers indicate a reduction from historical conditions.

Table 3. Structural stages and their relationship to the stand dynamics phases of Oliver and Larson (1990).

Early	The early structural stage corresponds with early seral stages of stands. Stands have been regenerated predominantly to seral species by a stand replacement disturbance, and new stands develop and function for the most part, as a single cohort. The early structural stage combines Oliver's first two phases, Stand Initiation and Stem Exclusion, into a single stage (see figure below). Stands in this first stage are even-aged and range from seedling/sapling to small saw timber size, but lack an understory.
Middle	The middle structural stage corresponds with Oliver's Understory Re-Initiation phase and the beginning of the Old Growth phase. Understory seedlings and saplings (shade tolerant or intolerant) are beginning to appear in minor abundance, but only suppressed and overtopped crown classes are evident. Understory trees are small and thin-barked, and quite susceptible to low-intensity fire. The seral overstory matures, and comprises the dominant cover. Growth rate and vigor of the seral overstory has slowed but not yet begun to decline; understory growth rate begins to accelerate by the end of this stage. Stands in this stage are often two-layered, and understory species are often shade-tolerant. Overstory size classes are typically saw timber and larger, and understories are typically seedling/sapling to small pole.
Late	The late structural stage corresponds with late-seral stages wherein understory trees begin to occupy codominant and eventually dominant positions in the canopy, and understory species can be found in all canopy layers. Overstory tree vigor begins to decline in this stage, as does tolerance or resistance to native pathogens and insects. Most standing dead and down woody material is small to medium-sized, but some mature and overmature overstory trees have recently died and are developing as snags. The late structural stage corresponds with the first half of Oliver's Old Growth phase. The understory has now become the dominant cover and the overstory is beginning to decline and collapse.
Old	The old structural stage corresponds with the latter half of Oliver's Old Growth phase. Overstory seral species are now quite decadent, with considerable stem decay and top breakage. Many seral overstory trees have died and there is ample large woody debris on the ground. The second forest tier has replaced the first, and the stand would be interpreted now as having a scattered overmature seral overstory. The former understory would now be interpreted as the dominant cover.

5. Interim Wildlife Standard:

The interim wildlife standard has two possible scenarios to follow based on the HRV for each biophysical environment within a given watershed:

a. SCENARIO A: If watershed conditions for the old and late structural stage in a particular biophysical environment falls BELOW the Historic Range of Variability, DO NOT allow harvest activities to occur within old and late structural stage stands, and ENHANCE old and late structural conditions in "younger" stands as much as possible.

1) Activities are allowed outside of old and late structural stage stands ONLY IF THEY ARE DESIGNED TO MAINTAIN AND ENHANCE EXISTING OLD AND LATE STRUCTURAL COMPONENTS. Silvicultural systems and cutting methods should be consistent with the principal features of historical disturbance regimes.

a) Maintain all reminant old and late seral structural live trees ≥21" dbh that currently exist within stands proposed for harvest activities.

b) Manipulate vegetative structure that does not meet old and late structural conditions in a manner that moves it towards these structural conditions as soon as possible.

c) Maintain open, parklike stands (average canopy density <30%) of ponderosa pine with average tree diameters of ≥15". Do not manipulate the dominant overstory that creates this structure, but manipulate the understory, if needed, to encourage the maintenance of the large diameter, open canopy ponderosa pine structure. However, some amount of pine seedlings, saplings, and poles should be present as an understory.

d) Treatment methods will mimic historical disturbance regimes as much as possible.

2) MAINTAIN connectivity and reduce fragmentation of old and late structural stage stands because wildlife species associated with late and old structural conditions DEPEND on the connectivity of these habitats to allow free movement and interaction of adults and dispersal of young. Connectivity is one of the key habitat components needed to insure species viability. Until a full conservation assessment is completed that describes in more detail the movement patterns and needs of various species and communities of species in east-side ecosystems, it is critical to insure that blocks of habitat maintain a high degree of connectivity between them, and that blocks of habitat do not become fragmented in the short-term.

a) Maintain or enhance the CURRENT LEVEL of connectivity between old and late structural stage stands and between all Forest Plan designated "old growth/MR" habitats.

b) Connectivity is considered "adequately met" when all four of the following items are met:

(1) old and late structural stage stands and MR habitats are connected with other like stands inside the watershed and to adjacent watersheds in a netwo4k pattern, and

(2) each old and late structural stand and MR area should be connected with others at least 2 different ways, (3 ways are preferred), and

(3) "connection corridors" between these habitats need to be made by stands of trees with ≥ 9" dbh and canopy closures ≥50%. If site potential does not allow canopy closure of ≥50%, maintain canopy closures within the top 1/3 of site potential. The intent is to maintain canopy closure as dense as possible. Stand widths must be at least 400 ft. wide at their narrowest point. For those lodgepole pine stands that are not capable of meeting the ≥9" dbh size, utilize the best available mature and stocked stands as "connection corridors." Seedling/sapling dbh's should not be included in the average dbh calculations.

(4) the distance between old and late structural stands and MR habitats that are connected through corridors should be ≤ 1.5 miles.

c) To insure connectivity as described above is maintained, use the following process:

(1) Do suitable network linkages between old and late structural stands and MR-designated habitats occur, according to the previous description? If so, will the proposed project isolate any area or group of areas by reducing any one of the parameters below acceptable levels? If not, the project can continue. If so, the project must be deferred or re-designed to meet connectivity parameters described above.

(2) Do suitable network linkages between old and late structural stands and MR-designated habitats NOT OCCUR under current conditions, as described above? If areas are already isolated, or partially isolated by not meeting the connectivity description above, will the proposed presciption promote linkage sooner than if left alone? If so, the project should continue. If the project is designed in a manner that would further increase isolation, the project must be deferred or re-designed to enhance connectivity parameters.

d) To reduce fragmentation, or at least not increase it from current levels, stands in earlier seral conditions that are located within larger blocks of old and late structural stands should not be considered for even-aged regeneration at this time. Non-regeneration activities in these areas should only proceed if the prescription moves the stand towards old and late structural conditions as soon as possible.

3) ADHERE to the following specific wildlife prescriptions in order to maintain options for species conservation in the future. These standards are set at MINIMUM levels of consideration. Follow Forest Plan standards and guidelines when they EXCEED the following prescriptive levels:

a) Snags and Down Logs: Most (if not all) old forest associated species rely on moderate to high levels of snags and down logs for nesting, roosting, denning and feeding. Large down logs are a common and important component of old and late structural, un-managed stands. Past management practices have greatly reduced the number of LARGE snags and down logs in managed stands.

(1) All sale activities (including regeneration, select cutting, thinning, or salvage) will maintain snags and green replacement/roost trees of ≥ 15 inches dbh at 100% potential population levels of primary cavity

excavators. (This should be determined using the best available data on species requirements as applied through current snag models or other documented procedures.)

For lodgepole pine stands, all sale activities will maintain snags and green replacement/roost trees of ≥ 10 inches dbh at 100% potential population levels of cavity excavators. The largest available trees should be left to meet this requirement. These requirements should be determined using the best available data on species requirements as applied through current snag models or other documented procedures.

(2) For all stands, snags ≥ 20 inches dbh are preferred and should be left whenever possible, with snags down to the 15 inch category being left when larger snags are not available.

(3) Live reminant trees ≥21" dbh should be left and considered part of the green tree "replacement" tree and roost tree requirement.

(4) Leave pre-activity (currently existing) levels of down logs, unless they exceed the quantities listed below. Harvest activities shouldsupplement pre-activity levels of down logs up to the maximum level shown below. Exceptions can be made where fire protection needs for life and property cannot be accomplished with this quantity of debris left on site.

This down log criteria is not intended to preclude the use of prescribed burning as an activity fuels modification treatment. Fire prescription parameters will ensure that consumption will not exceed 3 inches total (1 1/2 inch per side) of diameter reduction in the featured large logs (sizes below). Tools such as the CONSUME and FOFEM computer models, fire behavior nomograms, and local fire effects documentation can aid in diameter reduction estimates.

SPECIES	PCS. PER ACRE	DIA. SMALL END	PIECE LENGTH & TOTAL LINEAL LENGTH
Ponderosa Pine	3-6	12"	>6 ft. 20-40 ft.
Mixed Conifer	15-20	12"	>6 ft. 100-140 ft.
Lodgepole Pine	15-20	8"	>8 ft. 120-160 ft.

b) Goshawks: The following standards are MINIMUM levels of consideration. Forest Plan standards and guidelines that EXCEED the levels described below should be used instead of the following:

1) Protect every known active and historically used goshawk nest-site from disturbance. "Historical" refers to known nesting activity occurring at the site in the last 5 years. Seasonal restrictions on activities near nest sites will be required for activity types that may disturb or harrass pair while bonding and nesting.

2) 30 acres of the most suitable nesting habitat surrounding all active and historical the nest tree(s) will be deferred from harvest.

3) A 400 acre "Post Fledging Area" (PFA) will be established around every known active nest site. While harvest activities can occur within this area, retain the old and late structural stands and enhance younger stands towards this condition, as possible.

c) Other Forest Plan Standards and Guidelines: Meet all additional wildlife standards and guidelines in Forest Plans as applicable.

b. SCENARIO B. If the wastershed conditions for the old and late structural stage in a particular biophysical environment is WITHIN or ABOVE THE HRV, maintain old and late structural stage conditions within the HRV and enhance old and late structural conditions and attributes as much as possible.

1) Harvest activities can occur in the following stand types in order of priority:

a) within earlier seral stage stands (not old and late structural stands)
b) within earlier seral stage stands that occur as isolated pieces within blocks of old and late structural stands
c) within small isolated old and late structural stands ($\leq$ 40 acres, more than 1/4 mile from larger blocks of old and late structural stands, and/or at least 1/2 of edge is bordered by stands with average dbh of < 9 inches dbh)
d) within old and late structural stands $\leq$ 100 acres in size
e) at the edges (within 300 ft) of larger blocks of old and late structural stands.

While in this SCENARIO, harvest activities are allowed within old and late structural stands, consider that a species viability assessment has not been completed for the eastside ecosystems. Due to current population declines in some wildlife species, it may be necessary to maintain old and late structural conditions above HRV in the short-term in certain areas until the broader ecosystem components are restored to handle a more natural dispersal and distribution of wildlife species. This potential "need" to maintain levels above HRV can only be determined through a more thorough conservation and viability assessment.

2) Maintain connectivity as directed in SCENARIO A above.

3) Hold fragmentation to an absolute minimum to maintain options for wildlife species conservation by not utilizing regeneration harvest methods for harvest activities planned in blocks of old and late structural stands $\geq$ 100 acres occurring within the "interior" of the block (beyond 300 ft from the edge).

4) Adhere to wildlife prescriptions given in SCENARIO A above with the following exception for goshawk post fledging areas:

A 400 acre "Post Fledging Area" (PFA) will be established around every active nest site. While harvesting activities can occur within this area, up to 60% of the area should be retained in an old and late structural stag. (i.e., if 35% of the area is in old and late structural stage stands, then it all needs to be retained; if 75% of

the area is in old and late structural stage stands, then some can be harvested, as long as this late and old stand structure does not drop below 60% of the area).

APPENDIX B

REVISED

INTERIM MANAGEMENT DIRECTION ESTABLISHING RIPARIAN, ECOSYSTEM AND WILDLIFE STANDARDS FOR TIMBER SALES

REGIONAL FORESTER'S FOREST PLAN AMENDMENT #2

REGIONAL FORESTER'S EASTSIDE FOREST PLAN AMENDMENT NO. 2
ALTERNATIVE 2, as adopted

1. All timber sales, except as identified below, will be designed to incorporate the interim riparian, ecosystem and wildlife standards.

2. The following types of sales will not be subject to the interim standards: personal use firewood sales; post and pole sales; sales to protect health and safety; and sales to modify vegetation within recreation special use areas. NEPA and required consultation under Section 7 of the Endangered Species Act must be completed.

3. Five other types of sales will not be subject to the interim ecosystem standard, but must apply the interim riparian and wildlife standards: precommercial thinning sales; sales of material sold as fiber; sales of dead material less than 7-inch dbh, with incidental green volume (ref. RO 2430 ltr, 8/16/93); salvage sales, with incidental green volume, located outside currently mapped old growth (ref. RO 2430 ltr. 8/16/93); and commercial thinning and understory removal sales located outside currently mapped old growth.

4. Interim riparian standard: Timber sales (green and salvage) will not be planned or located within riparian areas as described below:

a. Perennial and intermittent fish-bearing streams: consists of the stream and the area on either side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of two site-potential trees, or 300 feet slope distance (600 feet including both sides of the stream channel), whichever is greatest.

b. Perennial nonfish-bearing streams: consists of the stream and the area on either side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the out edges of riparian vegetation, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance (300 feet, including both sides of the stream channel), whichever is greatest.

c. Intermittent non-fish bearing streams: consists of the stream channel from the edges of the stream channel to the top of the inner gorge, or to the outer edges of the riparian vegetation, or to the extent of landslides or landslide-prone area, or to a distance of 100 feet slope distance (200 feet, including both sides of the channel), whichever is greatest.

See FSM 2526 9/80 R-6 Supp 42 for definitions of Perennial and Intermittent stream

d. Ponds, lakes, reservoirs, seeps amd springs, bogs and wetlands consist of the body of water or wetland and/or seeps/spring source and the area to the outer edges of the riparian vegetation, or to the extent of the seasonally saturated soil, or to the extent of moderately and highly unstable areas, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance from the edge of the maximum pool elevation of constructed ponds and reservoirs or from the edge of the wetland, pond or lake, whichever is greatest.

5. Interim ecosystem standard:

a. Characterize the proposed timber sale and its associated watershed for patterns of stand structure by biophysical environment and compare to the Historic Range of Variability (HRV). The HRV should be based on conditions in the pre-settlement era; however 1900's photography may be acceptable. HRV should be developed for large landscapes across which forest types , environmental settings, and disturbance regimes (fire and insects/disease) are relatively uniform. Each component watershed should not be expected to reflect the average conditions for the larger landscape, but the sum of conditions across watersheds within the area for which HRV is developed should refelct rnages of conditions determined in the HRV evaluation. Note: LOS, a term used in the interim wildlife standard, refers to the structural stages where large trees are common, i.e. Multi-stratum ith Large Trees and Single-stratum with Large Trees. See Table 1.

b. Ecosystem characterization steps to determin HRV:

1) Described the dominant historical disturbance regime, i.e. the disturbance types and their magnitudes and frequencies.
2) Characterize the landscape pattern and abundance of structural stages (Table 1) maintained by the disturbance regime. Consider biophysical environmental setting (Table 2) across the large landscape to make this determination.
3) Describe spatial pattern and distribution of structural stages under the HRV disturbance regime, and
4) Map the current pattern of structural stages and calculate their abundance by biophysical environmental setting.

c. Characterize the difference in percent composition of structrual stages between HRV and current conditions (Table 3). Identify structural conditions and biophysical environment combinations that are outsdie HRV conditions to determine potential treatment areas.

Table 1. Structural stages for use with HRV analysis[1]. Structural stage is not necessarily associated with stand age or to seral (species composition) development.

Structural Stage	Definition	Description
Stand Initiation	Growing space is reoccupied following a stand replacing disturbance, typically by seral species.	One canopy stratum (may be broken or continuous), one dominant cohort[2] of seedlings or saplings. Grass, forbs, or shrubs may also be present with early seral trees.[3]
Stem Exclusion: Open Canopy	Occurrence of new tree stems is excluded (moisture limited). Crowns are open grown. Canopy is discontinuous. This structure can be maintained by frequent underburning or management.	One discontinuous canopy stratum. One cohort of trees. New tree stems excluded by competition. Trees*** may be poles or of small or medium diameter. Understory shrubs, grasses, or forbs may be present.
Stem Exclusion: Closed Canopy	Occurrence of new tree stems is excluded (light or moisture limited). Crowns are closed and abrading.	Canopy layer is closed and continuous. One or more canopy strata may be present. Lower canopy strata, if present, is the same age class as the upper stratum. Trees may be poles or of small or medium diameter. Understory shrubs, grasses, or forbs may be present.
Understory Reinitiation	A second cohort of trees is established under an older, typically seral, overstory. Mortality in the overstory creates growing space for new trees in the understory. Large trees are uncommon.	The overstory canopy is discontinuous. Two or more canopy layers are present. Two or more cohorts of trees are present. Overstory trees may be poles or of small or medium diameter. Understory trees are seedlings, saplings or poles.
Multi-stratum, without	Several cohorts of trees are established. Large overstory trees are uncom-	The overstory canopy is discontinuous. Two or more canopy layers are present. Large trees are uncommon

[1] Adapted from an unpublished report by K.O'Hara, Assistant Professor of Silviculture, University of Montana, under contract to the Interior Columbia Basin Ecosystem Project for the Eastside EIS. Modifications developed by Miles Hemstrom, USFS Regional Office, Portland, Oregon, with input from Paul Hessburg, USFS/PNW Research Station, Wenatchee Lab, Wenatchee, Washington.

[2] A cohort is a class of trees arising after a common natural or artificial disturbance.

[3] "Trees" refers to live trees, not snags or other dead trees.

large trees	mon. Pole, small, and medium sized trees dominate.	in the overstory. Horizontal and vertical stand structure and tree sizes are diverse. The stand may be a mix of seedlings, saplings, poles, or small or medium diameter trees.
Multi-stratum, with large trees	Several to many cohorts and strata of trees are present. Large trees are common.	The overstory canopy is broken or discontinuous. Two or more canopy layers are present. Two or more cohorts of trees are present. Medium and large sized trees dominate the overstory. Trees of all sizes may be present. Horizontal and vertical stand structure and tree sizes are diverse.
Single stratum, with large trees	A single stratum of large trees is present. Large trees are common. Young trees are absent or few in the understory. Park-like conditions may exist.	The single dominant canopy stratum consists of medium sized or large trees. One or more cohorts of trees may be present. An understory may be absent or consist of sparse or clumpy seedlings or saplings. Grasses, forbs, or shrubs may be present in the understory.

Table 2. Example biophysical environments matrix. Analysis areas may have more or fewer kinds of biophysical environments and characteristics of each environment may differ from those shown. This table is only provided as an example. The biophysical environments listed are not comprehensive. Each landscape area may have these or different environments.

Biophysical Environment[4]	Dominant Disturbance Factors	Disturbance Regime[5]	Average Disturbance Patch	Typical Landform Setting	Typical Elevation Range	Typical Aspects
Hot, Dry PIPO, ABGR	Fire, insects, and disease	Low	<1 acre	Ridge tops and steep side slopes	2500-4000 feet	S, SW
Warm, Dry PSME, ABGR	Fire, insects, and disease	Moderate	<5 acres	Side slopes	3000-5000 feet	S, SW
Cool, Mesic PSME, ABGR, ABLA2, PIEN	Fire, insects, and disease	High	80-120 acres	Various	3000-5000 feet	Various
Cool, Wet ABGR, ABLA2, TSME	Insects and disease, fire	High	>250 acres	Bottom lands	3000-5000 feet	NE, N, NW, Flat

[4] Temperature and moisture regime, characteristic late seral species, first two letters of genus and species.

[5] Agee (1990). "The historical role of fire in Pacific Northwest forests", Natural and Prescribed Fire in Pacific Northwest Forests, Oregon State University Press.

Low severity regime: 1-25 year return interval, 0% to 20% mortality of large trees.

Moderate severity regime: 26-100 year return interval, 26% to 70% mortality of large trees.

High severity regime: >100 year return interval, >70% mortality of large trees.

Table 3. Example biophysical environment by structural stage matrix. This is only an example. The number and kind of biophysical environments and the historic and current distribution of structural conditions vary by the landscape. H% is the estimated range of the percent extent of each condition from HRV assessment. C% is the estimated percent extent of each condition at present in the watershed under examination. D% is a range indicating the difference between H% and C%; D% = C%-H%. Negative values indicate a reduction from historical conditions. This table is only provided as an example. The biophysical environments listed are not comprehensive. Each landscape area may have these or different environments.

	Stand Initiation			Stem Exclusion: Open Canopy			Stem Exclusion: Closed Canopy			Understory Reinitiation			Multi-stratum without large trees			Multi-stratum with large trees			Single-stratum with large trees		
Envt	H%	C%	D%	H%	C%	D%	H%	C%	D%	H%	C%	D%	H%	C%	D%	H%	C%	D%	H%	C%	D%
Hot,	5 to 15	15	0 to 10	5 to 20	20	0 to 15	NA	NA	NA	NA	NA	NA	5 to 10	30	20 to 25	2 to 15	20	5 to 18	20 to	15	-5 to
Warm, Dry	1 to 15	5	4 to -10	5 to 20	20	0 to 15	1 to 10	10	0 to 9	1 to 10	10	0 to 9	5 to 25	25	0 to 20	5 to 20	35	15 to 30	15 to 55	5	-10 to -50
Cool, Mesic	1 to 5	2	1 to -3	NA	NA	NA	5 to 25	5	0 to -20	5 to 25	5	0 to -20	50 to 70	65	15 to -5	5- 25	24	19 to -1	NA	NA	NA
Cool, Wet	1 to 10	1	0 to -10	NA	NA	NA	1 to 10	3	2 to -7	5 to 25	10	5 to 15	20 to 50	40	20 to -10	30 to 60	46	16 to -14	NA	NA	NA

6. Interim wildlife standard:

a. The interim wildlife standard has two possible scenarios to follow based on the Historical Range of Variability (HRV) for each biophysical environment within a given watershed. For the purposes of this standard, late and old structural stages (LOS) can be either "Multi-strata with Large Trees", or "Single Strata with Large Trees", as described in Table 1 of the Ecosystem Standard. These LOS stages can occur separately or in some cases, both may occur within a given biophysical environment.

b. LOS stages are calculated separately in the interim ecosystem standard. Use Scenario A whenever any one type of LOS is below HRV. If both types occur within a single biophysical environment and one is above HRV and one below, use Scenario A. Only use Senario B when both LOS stages within a particular biophysical environment are ar or above HRV.

c. The following sale types were exempted from consideration of HRV through the interim ecosystem standard, but must still meet the intent of the wildlife standards by following the direction provided in Scenario A, 1) through 4), as applicable to the type of sale being proposed, and regardless of whether the stand is LOS or not:

1) precommercial thinning sales,
2) sales of material sold as fibre,
3) sales of dead material less than sawlog size (7-inch dbh) with incidental green volume,
4) salvage sales with incidental green volume located outside currently mapped old growth,
5) commercial thinning and/or understory removal sales located outside currently mapped old growth.

The interim wildlife standard only altered portions of current Forest Plans. All additional Forest Plan wildlife standards and guidelines not altered in this direction still apply.

d. Scenario A

If either one or both of the late and old structural (LOS) stages falls BELOW HRV in a particular biophysical environment within a watershed, then there should be NO NET LOSS OF LOS from that biophysical environment. DO NOT allow timber sale harvest activities to occur within LOS stages that are BELOW HRV.

1) Some timber sale activities can occur within LOS stages that are within or above HRV in a manner to maintain or enhance LOS within that biophysical environment. It is allowable to manipulate one type of LOS to move stands into the LOS stage that is deficit if this meets historical conditions.

2) Outside of LOS, many types of timber sale activities are allowed. The intent is still to maintain and/or enhance LOS components in stands subject to timber harvest as much as possible, by adhering to the following standards:

a) Maintain all remnant late and old seral and/or structural live trees ≥21" dbh that currently exist within stands proposed for harvest activities.

b) Manipulate vegetative structure that does not meet late and old structural (LOS) conditions, (as described in Table 1 of the Ecosystem Standard), in a manner that moves it towards these conditions as appropriate to meet HRV.

c) Maintain open, parklike stand conditions where this condition occurred historically. Manipulate vegetation in a manner to encourage the development and maintenance of large diameter, open canopy structure. (While understory removal is allowed, some amount of seedlings, saplings, and poles need to be maintained for the development of future stands).

3) Maintain connectivity and reduce fragmentation of LOS stands by adhering to the following standards:

INTENT STATEMENT: While data is still being collected, it is the best understanding of wildlife science, today, that wildlife species associated with late and old structural conditions, especially those sensitive to "edge", rely on the connectivity of these habitats to allow free movement and interaction of adults and dispersal of young. Connectivity corridors do not necessarily meet the same description of "suitable" habitat for breeding, but allow free movement between suitable breeding habitats. Until a full conservation assessment is completed that describes in more detail the movement patterns and needs of various species and communities of species in eastside ecosystems, it is important to insure that blocks of habitat maintain a high degree of connectivity between them, and that blocks of habitat do not become fragmented in the short-term.

a) Maintain or enhance the current level of connectivity between LOS stands and between all Forest Plan designated "old growth/MR" habitats by maintaining stands between them that serve the purpose of connection as described below:

(1) Network pattern - LOS stands and MR/Old Growth habitats need to be connected with each other inside the watershed as well as to like stands in adjacent watersheds in a contiguous network pattern by at least 2 different directions.

(2) Connectivity Corridor Stand Description - Stands in which medium diameter or larger trees are common, and canopy closures are within the top one-third of site potential. Stand widths should be at least 400 ft. wide at their narrowest point. The only exception to stand width is when it is impossible to meet 400 ft with current vegetative structure, AND these

"narrower stands" are the only connections available; (use them as last resorts). In the case of lodgepole pine, consider medium to large trees as appropriate diameters to this stand type.

If stands meeting this description are not available in order to provide at least 2 different connections for a particular LOS stand or MR/Old Growth habitat, leave the next best stands for connections. Again, each LOS and MR/Old Growth habitat must be connected at least 2 different ways.

(3) Length of Connection Corridors - The length of corridors between LOS stands and MR habitats depends on the distance between such stands. Length of corridors should be as short as possible.

(4) Harvesting within connectivity corridors is permitted if all the criteria in (2) above can be met, and if some amount of understory (if any occurs) is left in patches or scattered to assist in supporting stand density and cover. Some understory removal, stocking control, or salvage may be possible activities, depending on the site.

b) To reduce fragmentation of LOS stands, or at least not increase it from current levels, stands that do not currently meet LOS that are located within, or surrounded by, blocks of LOS stands should not be considered for even-aged regeneration, or group selection at this time. Non-regeneration or single tree selection (UEAM) activities in these areas should only proceed if the prescription moves the stand towards LOS conditions as soon as possible.

4) Adhere to the following specific wildlife prescriptions. These standards are set at MINIMUM levels of consideration. Follow Forest Plan standards and guidelines when they EXCEED the following prescriptive levels:

a) Snags, Green Tree Replacements and Down Logs:

INTENT STATEMENT - Most (if not all) wildlife species rely on moderate to high levels of snags and down logs for nesting, roosting, denning and feeding. Large down logs are a common and important component of most old and late structural forests. Past management practices have greatly reduced the number of large snags and down logs in managed stands.

(1) All sale activities (including intermediate and regeneration harvest in both even-age and uneven-age systems, and salvage) will maintain snags and green replacement trees of $\geq$ 21 inches dbh, (or whatever is the representative dbh of the overstory layer if it is less than 21 inches), at 100% potential population levels of primary cavity excavators. This should be determined using the best available science on species requirements as applied through current snag models or other documented procedures. NOTE: for Scenario A, the live remnant

trees (≥21" dbh) left can be considered for part of the green replacement tree requirement.

(2) Pre-activity (currently existing) down logs may be removed only when they exceed the quantities listed below. When pre-activity levels of down logs are below the quantities listed, do not remove downed logging debris that fits within the listed categories. It is not the intention of this direction to leave standing trees for future logs in addition to the required snag numbers, nor to fall merchantable material to meet the down log requirements. The snag numbers are designed to meet future down log needs in combination with natural mortality. Exceptions to meeting the down log requirement can be made where fire protection needs for life and property cannot be accomplished with this quantity of debris left on site.

The down log criteria are not intended to preclude the use of prescribed burning as an activity fuels modification treatment. Fire prescription parameters will ensure that consumption will not exceed 3 inches total (1 1/2 inch per side) of diameter reduction in the featured large logs (sizes below). Tools such as the CONSUME and FOFEM computer models, fire behavior nomograms, and local fire effects documentation can aid in diameter reduction estimates.

Leave logs in current lengths; do not cut them into pieces. Longer logs may count for multiple "pieces" without cutting them. Cutting them may destroy some habitat uses and also cause them to decay more rapidly. It is also not expected that the "pieces" left will be scattered equally across all acres.

SPECIES	PCS. PER ACRE	DIA. SMALL END	PIECE LENGTH & TOTAL LINEAL LENGTH
Ponderosa Pine	3-6	12"	>6 ft. 20-40 ft.
Mixed Conifer	15-20	12"	>6 ft. 100-140 ft.
Lodgepole Pine	15-20	8"	>8 ft. 120-160 ft.

5) GOSHAWKS:

INTENT STATEMENT: Goshawks are known to use interior forest habitats of mature/old growth structure. Habitat uses, nesting stand characteristics, and key habitat structural components in eastern Oregon/Washington are currently being studied. Until further information is known and management plans approved to insure species viability, the following standards are to be met as a minimum. Forest Plan standards and guidelines that EXCEED the levels described below should be used instead of, or in addition to the following:

a) Protect every known active and historically used goshawk nest-site from disturbance. "Historical" refers to known nesting activity occurring at the site in the last 5 years. Seasonal restrictions on activities near nest sites will be required for activity types that may disturb or harass pair while bonding and nesting.

(b) 30 acres of the most suitable nesting habitat surrounding all active and historical nest tree(s) will be deferred from harvest.

c) A 400 acre "Post Fledging Area" (PFA) will be established around every known active nest site. While harvest activities can occur within this area, retain the LOS stands and enhance younger stands towards LOS condition, as possible.

e. Scenario B

Within a particular biophysical environment within a watershed, if the single, existing late and old structural (LOS) stage is WITHIN OR ABOVE HRV, OR if both types of LOS stages occur and BOTH are WITHIN OR ABOVE HRV, then timber harvest can occur within these stages as long as LOS conditions do not fall below HRV. Enhance LOS structural conditions and attributes as possible, consistent with other multiple use objectives.

The intent of the following direction is to maintain options by impacting large and/or contiguous stands of LOS as little as possible, while meeting other multiple use objectives.

1) Harvest activities, (any and all types being considered), can occur in the following stand types in order of priority:

a) Activities should occur within stands other than LOS as a first priority.

b) Second priority for harvest activities is within smaller, isolated LOS stands <100 acres in size, and/or at the edges (first 300 ft) of large blocks of LOS stands ($\geq$ 100 acres).

c) Some harvesting can occur, but only as a last priority, within the interior of large LOS stands ($\geq$100 acres); REGENERATION AND GROUP SELECTION ACTIVITIES ARE NOT ALLOWED. REFER TO NON-FRAGMENTATION STANDARDS, 3), BELOW.

2) Maintain connectivity as directed in Scenario A, 3)

3) Non-fragmentation standards - Within the interior of large LOS stands $\geq$ 100 acres, (beyond 300 ft from edge), harvest activities are limited to non-fragmenting prescriptions such as thinning, single-tree selection (UEAM), salvage, understory removal, and other non-regeneration activities. Group selection (UEAM) is only allowed when openings created either mimic the natural forest pattern, and/or do not exceed 1/2 acre in size.

4) Adhere to wildlife prescriptions provided in SCENARIO A, 4) a) for snags, green tree replacements, and down logs; and 5) for goshawks with the following exception for goshawk post fledging areas in 5) c):

A 400 acre "Post Fledging Area" (PFA) will be established around every active nest site. While harvesting activities can occur within this area, up to 60% of the area should be retained in an LOS condition, (i.e., if 35% of the area is now in LOS stands then it all needs to be retained; if 75% of the area is now in LOS stands then some can be harvested, as long as this late and old stand structure does not drop below 60% of the area).

APPENDIX C

EASTSIDE INTERIM MANAGEMENT DIRECTION
REGIONAL FORESTER'S FOREST PLAN AMENDMENT NO. 1

MONTORING REPORT

February 10, 1995

United States Department of Agriculture | Forest Service | R-6

Reply to: 1920 Date: February 8, 1995

Subject: Monitoring Report for Eastside Interim Management Direction

To: Chief

Enclosed is a monitoring report on the implementation of the Eastside Interim Management Direction. That direction, commonly called the eastside screens, is Regional Forester's Amendment No. 1 for Eastside Forest Plans. The Decision Notice is entitled "Continuation of Interim Management Direction Establishing Riparian, Ecosystem and Wildlife Standards for Timber Sales."

As noted in the cover letter transmitting the report to Forest Supervisors, I intend to revisit the NEPA analysis for that decision. The outcome may be revised interim direction, particularly in the areas of calculating Historic Ranges of Variability and thinning from below in certain stand types.

The current decision is under appeal by Kettle Range Conservation Group (94-13-00-0033), Natural Resources Defense Council (94-13-00-0034), and Malheur Timber Operators (94-13-00-0038). No decision has been issued on those appeals.

/s/ John E. Lowe
JOHN E. LOWE
Regional Forester

Enclosure

United States Department of Agriculture | Forest Service | RO

Reply to: 1920 | Date: February 8, 1995

Subject: Monitoring Report for Eastside Interim Management Direction for Preparation of Timber Sales

To: Forest Supervisors, Okanogan, Colville, Wallowa-Whitman, Malheur, Ochoco, Deschutes, Fremont, Umatilla, and Winema NF's

The Monitoring Report for Regional Forester's Forest Plan Amendment No. 1 for Eastside Forest Plans is enclosed, and analyzes implementation over the past 8 months. The objective of this interim direction was to preserve options for long-term management strategies being considered by the Interior Columbia Basin Ecosystem Management Project (ICBEMP). Providing habitat for old-growth associated wildlife species was a major concern.

In general, you have done an excellent job implementing the interim direction. However, the review team found that some elements are not working as well as I had hoped. I will revise those elements needing improvement. As adaptive management requires, these actions are being taken to ensure that our goals of improving forest health while preserving options for the future are maintained.

I am developing a Regional Amendment to the interim direction focusing on two elements: the Historic Range of Variability (HRV), including its application; and, silvicultural treatments to assist in maintaining the health of old-growth stands, particularly in stands in areas below the HRV for that species. The amendment should be completed by late March.

The interim riparian standard and the green tree replacement element of the wildlife standard also appear to need additional review. I will convene an interdisciplinary team, including research scientists, to look at these two issues. This group will consider the role of watershed assessment in implementing the riparian standard. In the meantime, site-specific Forest Plan amendments are necessary where a proposed action needed to maintain options or improve the health of stands may not be consistent with the interim standards. I expect to provide any additional guidance by May 1, 1995.

The Monitoring Report provides additional clarification in several areas. Much of the clarification is contained in Finding 4 and deals with the wildlife portion of the interim direction. Down logs, snags, green tree replacements, connectivity corridors, and non-fragmentation direction are all discussed.

Please ensure that you consider both the long- and short-term consequences of anticipated actions. This is particularly important when you are considering deferring actions. I expect the regional amendment to provide sufficient

decision space while preserving our options under ICBEMP. My changes in direction should not invalidate nor change any work in progress; they should, however, expand your opportunities to improve the health of forest conditions. It is important that you not defer timber sales pending completion of the ICBEMP.

/s/ John E. Lowe
JOHN E. LOWE
Regional Forester

Enclosure

cc:
Westside Forest Supervisors
J.Schuler

DDP

Eastside Interim Management Direction
Regional Forester's Forest Plan Amendment No. 1

Monitoring Report

Review Team:

Jim Schuler
Lisa Norris
Ken Denton
Mike Hilbrunner
Mary Erickson
Miles Hemstrom

February 1, 1995

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Introduction

On May 20, 1994, Regional Forester John Lowe signed the Decision Notice and FONSI for Amendment No. 1 to Forest Plans on the Eastside of Washington and Oregon. Forest Plans subject to the amendment are those outside of the range of the Northern Spotted Owl and include the Colville, Okanogan, Wallowa-Whitman, Umatilla, Ochoco, Malheur, Deschutes, Fremont, and Winema.

The amendment titled "Continuation of Interim Direction Establishing Riparian, Ecosystem, and Wildlife Standards for Timber Sales", is commonly referred to as "the screens" by the public and employees. Two important parameters helped form the interim direction. The Interim Direction was intended to preserve options for decisions that might result from the Eastside Ecosystem Assessment in Walla Walla. It was intended to be of short duration and be replaced by whatever direction resulted from the Eastside Assessment.

In September 1994, after the amended Forest Plans had been in place for about 5 months, the Regional Forester chartered a group of employees to review the application of the direction. The need to review was based on several circumstances. The Eastside Ecosystem Management Plan (EEMP), originally scheduled for completion in 12 to 18 months had the timeline extended. The extended time frame caused concerns from a forest health standpoint. And, there was confusion over application of a several of the standards and guidelines that led to less than expected timber outputs.

The review team consisted of Lisa Norris, Wildlife Biologist; Ken Denton, Silviculturalist; Mike Hilbrunner, Fuels Specialist; Mary Erickson, Chemult District Ranger; Miles Hemstrom, Regional Ecologist; and Jim Schuler, Regional Appeals Coordinator.

Background

The original screening process and current interim direction are the result of the Region's response to a petition filed by environmental groups in March 1993. The petition sought to halt logging of all old growth on eastern Oregon and Washington National Forests on the premise that habitat for certain old-growth associated species was not being provided. Given the high probability of litigation and the possibility of an injunction affecting all logging east of the Cascades, Regional Forester John Lowe developed a strategy that would defer logging in the most valuable wildlife habitat for the species listed in the petition while harvesting in other areas. These standards used to evaluate timber sales are generally called the screens.

In August 1993, the Regional Forester issued a letter to eastside forests containing the interim direction. The August 1993 direction contained three three general types of standards; riparian, ecosystem, and wildlife.

On May 20, 1994, John Lowe signed the Decision Notice for the Continuation of the Interim management Direction Establishing Riparian, Ecosystem and Wildlife Standards for Timber Sales. The decision amended all eastside Forest Plans to

include the interim management direction as standards and guidelines. These amended standards and guidelines are the subject of the review.

Objectives

The objectives for the review were as follows:

1. Given that the Eastside Assessment may not be completed for 2 to 3 years, review the interim management direction. Identify those elements that prevent timber sales that are consistent with good ecosystem management.

2. Determine what action might be taken to meet the intent of the screens (i.e., preserving options, providing habitat for old-growth associated species, etc.) but allow additional sales to move forward.

3. Determine why some forests have been more successful in meeting both the intent of the screening process and sale objectives. Identify the elements that have allowed that success.

Process

The Review Team solicited and received information from each of the eastside forests in Washington and Oregon relative to their experience implementing the interim direction. The information was used to formulate discussion points needed during the field visits. The initial information indicated there were several areas of concern, in particular, the applicability of the Historic Range of Variability (HRV) and its use of the Oliver and Larson descriptions of structural stages; the inability of Forests to enter old and late-structural stands that were below the HRV, particularly Ponderosa Pine, to improve the overall health of the stands; the width and lack of treatment opportunities in riparian buffers as defined in the interim guidelines; and the understanding and application of the wildlife standards.

Additional information on the effects of the screens on insect, disease, and fire concerns was provided by forest entomologists and pathologists. The data showed a need to modify direction in the short term with respect to late and old-structural stands.

The Malheur, Umatilla, Colville, and Deschutes were visited between October 17-20. In addition, other forests sent representatives on the field trips in their area. A full day was spent at each of the four forests, and in most cases involved a briefing followed by field visits to the affected sites.

Summary

Given the objectives stated above, a majority of the field discussions centered around those elements of the interim direction that were not functioning as originally envisioned. It was apparent during the review, however, that the screens were functioning as envisioned in a great many areas. Habitat for the species of concern was being protected, especially from the fragmentation perspective. Options were being preserved. In many cases, the very stands that represent a problem from a disease or fire perspective provide excellent habitat for the American marten and most of the woodpecker species. Eastside forest health problems are the result of many years of weather conditions and

past management, not the result of implementing the interim direction. If the interim standards and guidelines were to be replaced in the 12 to 18 months, as originally anticipated, the review team believes they would have worked to preserve options without the need for adjustment.

Each of the findings of the review team is described in the following section. The discussion provides insights into the problems as they occur on the eastside forests and, in some cases, clarifies implementation of the interim direction pending completion of the Eastside Ecosystem Management Plan.

FINDING 1

FINDING: **The descriptions provided in the direction for Historic Range of Variability (HRV) seem to be in conflict with some ecological vegetation types on the eastside. HRV may be difficult to describe in some areas and the appropriate scale of application is not uniformly understood.**

1a. Conflicting Late and Old Structure Descriptions. Late and old-structure (LOS) descriptions in the eastside interim management direction do not match the definitions of old-growth structural descriptions currently in use for much of the eastside. This leads to concern and confusion. Questions arise such as: Why were the definitions of structural stages taken from Oliver and Larson which relates more to westside structure? Why is it necessary to maintain late and old-structural conditions as defined in the interim direction in ecosystems where the HRV indicates quite different conditions (e.g. open, park-like pine stands) were present under the native disturbance regimes?

Benefits/Impacts - Some important structural components of late and old-seral stages are being lost as a consequence of using inappropriate LOS descriptions on some kinds of sites (hot/dry and warm/dry). For example, large, old ponderosa pine are being stressed by mid-canopy and smaller trees that have filled in as a result of fire suppression and past silvicultural treatment. The resulting stands often will not contain large ponderosa pine and other early seral trees, as would be the case under native fire regimes. However, the use of the existing set of vegetation descriptions (Oliver and Larson) is providing short-term retention of structurally complex stands for some wildlife species which find optimum habitat conditions in those stands. In the longer term, there is a concern that important structural elements (i.e. large, old ponderosa pine) may disappear.

Fire suppression may be more difficult in these denser stands, resulting in loss of important structural components.

This issue seems to have moderate ecological consequences over the short term. Natural stand structure change is a relatively slow process in most cases. Some stands will lose large, live tree structures in the short term due to fire or insects and disease. Perhaps 10 percent of the stands at risk of major structural loss or deterioration in the longer term are at risk in the next 2-5 years.

The existing interim management direction LOS descriptions do not fit well in some situations. A modified set of descriptions, that better fit eastside vegetative structure and produces essentially the same results with regard to retention of important wildlife habitat structure, could be used in those situations. Modifications could come from available research information, an existing larger-scale effort (such as the EEMP), or consultation with local area or forest ecologists.

1b. HRV Development and Scale of Application. Some units are having difficulty developing HRV descriptions from available data. In addition, appropriate scale for developing and applying the HRV descriptions is problematic for

some. Disturbance regimes operating across large landscapes are sometimes applied on smaller watershed or subwatershed scales which may or may not reflect the average or range of conditions for the larger landscape. Questions arise such as: Should each watershed reflect the average HRV for the larger landscape?

> Benefits/Impacts - While causing some frustration, this does not seem to be a critical issue in the short term, regarding implementation of interim direction and impacts to forested landscapes.

The team feels that since disturbance regimes are controlled by large landscape-scale factors, HRV should be developed and applied across large landscapes rather than sub-watershed scales. The interim direction states that characterization of landscape patterns and abundance of structural stages maintained by disturbance regimes should be considered across multiple watersheds in the analysis for HRV. Application should be at the watershed scale at a minimum. Sub-watersheds should not be expected to reflect the average HRV condition for the larger landscape. But, the composite of all the sub-watersheds in the larger landscape should generally reflect the average HRV condition.

FINDING 2

FINDING: The Interim Direction as written may put at risk some important old-growth features in some environments.

As described in Scenario A of the interim wildlife standard, if watershed conditions for the old and late-structural (LOS) stages in a particular biophysical environment fall below the HRV, harvest activities are not allowed to occur within these LOS stands. The intent of this direction is to maintain options for the retention of these habitats until the EEMP is completed.

However, with continued drought and high tree densities, the structure of many LOS stands is changing as insects and disease preferentially attack and kill large overstory trees. Fuel loadings and stand structure are making the LOS stands and surrounding stands more susceptible to stand replacement fires.

The inability to prescribe any harvest in these stands, even with the intent of retaining the LOS structure over the long term, was a major issue heard from Forests and Districts.

2a. LOS Below HRV. This is a common scenario within many watersheds across the Eastside. The acres of LOS stage stands within the watershed are below the predicted levels of LOS stands which would have been present historically. In addition, the composition and structure of these remaining LOS stands are also often different, in species and in stand densities, than what would have occurred under native disturbance regimes. This situation leads to a number of interrelated concerns:

Where conditions are below the HRV, interim standards prevent "thinning from below", which is designed to maintain or create open, park-like stands of old-growth ponderosa pine or to feature large old Douglas-fir and grand fir. Thinning from below could be judiciously used to move stands toward LOS conditions.

There is a perceived high risk of losing the old tree component in some LOS stands. Risk could be lessened by mitigating conditions conducive to crown fires and removal of some understory competition and ladder fuels, thereby lessening the susceptibility of these stands to fire, insects, or disease.

There is a potential to lose the very options the interim direction is designed to preserve (e.g. key LOS stage stands within watersheds where conditions are below HRV). Urgency to protect what we have left is great.

The degree of risk to loss of old-growth features is highly dependent on the current stand conditions, how long interim direction remains in place, and the time it takes to plan and react once new guidelines from the EEMP are in effect.

There are perceived conflicts with the Western Forest Health Initiative. Priority projects in the Forest Health Initiative are described as actions to reduce risk of catastrophic loss of key ecosystem structure, composition, and processes. Proposals to reduce densities or manipulate

conditions in late or old-structural stands are often not consistent with interim direction.

In some cases, manipulation of habitat in late and old-structural stands in areas below HRV could benefit some TES species (e.g. lynx on the Colville).

Interim standards cause the inability to use timber sales as a means to modify stand structure and reduce high risk fuels. Use of prescribed fire is hampered where stand conditions preclude the safe use of fire without some silvicultural treatment prior to burning.

Some old-seral stands of ponderosa pine are changing to old and late-structural stands of white fir or grand fir as the stand naturally advances in age. In some stands, without removal of encroaching fir in the understory, the ponderosa pine component will eventually be lost.

Benefits/Impacts - The interim direction is having the intended result of restricting manipulation of all LOS stage stands within watersheds where these conditions are below HRV. The interim standards are generally retaining the wildlife habitat values of existing structurally diverse, LOS stage stands, though these characteristics may not be the structures which occurred historically.

However, the risk of losing key old-growth features, especially in ponderosa pine communities, is a concern if these interim standards are in place over longer periods of time. When asked to quantify the level of risk, the response from Forests was that through appropriate silvicultural treatment, with the express purpose of retaining LOS characteristics, approximately 200,000 acres currently at risk could be effectively treated to reduce overstocked conditions and still preserve LOS conditions for the long term.

There is an interaction, impacts of which are difficult to quantify, between how structural stages are described (Finding 1) and the ability of units to manage stands to retain important large live, standing dead and down trees (this Finding). If structural stage descriptions were modified to more accurately reflect eastside conditions, the number of acres supporting stands above or below HRV might also change. Stands, which are currently above HRV using the existing structural descriptions, might well be below HRV using a modified set of descriptions. Increased flexibility in applying HRV standards to these stands would allow treatments to maintain and/or move them toward late and old conditions more appropriate to local site conditions.

For example, ponderosa pine stands with dense understories of small trees that are in late and old conditions under current interim direction structural descriptions might not be in late and old conditions under a modified set of structural descriptions. Redefining HRV for those sites would allow treatment to retain the stressed, large trees in a similar manner to the way fire acted on the landscape historically.

Modification of the late and old-structural stage descriptions as suggested in Finding 1 would alleviate many of the problems surfaced in this Finding, while still meeting the full intent of the interim direction.

FINDING 3

FINDING: **The Eastside Interim Management Direction assigns fixed riparian widths, and does not permit timber harvest (including salvage) within riparian buffers for any reason. Broad, fixed direction is difficult to apply to dynamic systems. Some flexibility should be considered.**

In order to protect water quality and aquatic/riparian-dependent resources, the interim management direction specifies there will be no timber harvest within defined riparian corridors. While reviews indicate this objective is being met, the direction also precludes treatments that would prevent degradation of riparian values or that are a high priority from the standpoint of other resource objectives.

3a. Fixed Widths. The interim management direction does not provide for changes to the reserve widths, not even following watershed analysis. The prescribed widths apply to all classes of streams including intermittent streams, seeps, bogs, springs, and wetlands, regardless of vegetation conditions, topography, or presence of existing developments. No timber sale activities (including salvage) are permitted within these buffers for any reason regardless of vegetation condition.

Benefits/Impacts - The buffer widths are having the desired effect, at least in the short term, by reducing disturbance related siltation and peak flows while maintaining most of the vegetation near all perennial and intermittent waterways. The benefits of retaining vegetation are numerous and each buffer contributes, often in immeasurable ways, to the quality of the watershed as a whole.

On the other hand, the fixed buffer widths are reported as excessive in some situations. Site-specific topography, vegetation (which may be burned, dense, across a road, and so forth), stream/water body condition, and potential downstream effects may indicate smaller widths would be adequate.

3b. No Timber Harvest. The interim management direction does not permit timber harvest (including salvage) within riparian buffers under any conditions.

Benefits/Impacts - The benefits of this interim direction as described above are unquestionable. In some areas, however, vegetation conditions within buffers such as overstocking, imminent stand-replacing insect attacks, and/or heavy fuel loading suggest that riparian and aquatic related resources could be enhanced (and the risk of stand-replacement activities reduced), through some types of vegetation management. Specifically, current interim direction prevents salvage even where all trees are killed, such as within recent burns and heavy bug-kill areas. It also prevents thinning designed either to reduce stress-related mortality or to increase growth of small diameter, overstocked stands. Even meadow encroachment cannot be harvested under the direction. In fire salvage and stress situations, fuel hazard build-up is one result of not treating riparian areas.

3c. Definition Broad and Unclear. The interim management direction requires 150-foot or wider buffers around "seeps, bogs, springs, wetlands..." out to the extent of seasonally saturated soil. On wet portions of some forests, such as areas of the Colville, small seeps are common and often return underground within a few yards. The 150-foot buffer appear excessive. In areas of poor drainage, such as many of the lodgepole flats of central Oregon, "seasonally saturated soil" can exist over wide areas, not considered "riparian" in the standard context and use of the term.

Benefits/Impacts - This direction protects numerous riparian values including riparian-type vegetation. However, the standards are viewed by some Forests as overly inclusive, and the intent is unclear. Application and interpretation is not entirely consistent across the Region. One result is that harvest opportunities are reduced. Up-slope potential units become fragmented or access to them becomes difficult due to riparian buffers, so the units are no longer practical. Some Forests have interpreted "seasonally saturated soil" very broadly and are avoiding areas that are not intended to be covered by the interim direction.

3d. Define "Timber Sale Activities". The interim direction prohibits "timber sale activities" within riparian buffers. Although this direction was intended to apply only to actual timber harvest, it is being interpreted to preclude the use of old landings and haul routes that are within riparian buffers.

Benefits/Impacts - Since hauling and other timber sale-related activities frequently take place in riparian buffers, forests applying this interim direction to such activities find their harvest plans considerably constrained. In some cases, new roads and landings are being considered because an existing road or landing is within the buffer width. There is no consideration of impacts from new construction, or the ability to mitigate impacts from existing roads and landings. This interpretation may benefit riparian resources in those cases where use of existing improvements would be detrimental to riparian values, but might lead to new disturbances just above the riparian buffer.

Because of the complexities and dynamics of aquatic and riparian systems, adjustments for situations as described in 3a through 3d will be difficult to handle through broad, general guidance. Some Forests expressed concern that any attempt to address these highly variable and complex situations on an interim basis could lead to confusion and false starts.

Where conflicts between the interim direction and perceived needs at the field level occur, some level of watershed assessment may be needed.

For PacFish watersheds, the PacFish Record of Decision might replace the riparian interim standard with PacFish Standards and Guidelines. The PacFish Standards and Guidelines might include a watershed analysis requirement from which riparian buffer widths could be adjusted as appropriate. For non-PacFish watersheds, a watershed analysis could be identified as an appropriate tool to consider adjustments.

FINDING 4

FINDING: **Interim Standards and Guidelines for down logs, snags, green tree replacements, connectivity corridors, and non-fragmentation are not universally applicable to all lands and all situations. In addition, implementation of these S&G's is not consistent between the Forests. Additional clarification would be useful.**

In order to maintain options for wildlife, interim requirements include large numbers of down logs, snags, and green tree replacements, as well as connectivity corridors and non-fragmentation guidance. This should NOT be interpreted as long-term direction. Levels were set to maintain current options, not to meet specific long-term species requirements. Long-term direction based on biological analysis will come from the Eastside EIS.

Forested landscape pattern and site potential varies widely throughout eastern Oregon and Washington due to the natural "patchiness" of forests and grasslands, and local variations in past management activities, insect and disease outbreaks, effects of drought, etc. This makes it difficult to implement the "exact quantities" found in this direction universally across the landscape. However, the intent of the wildlife direction can and should be fully implementable everywhere.

4a. Down Logs. This direction is difficult and often misinterpreted in areas where a specific stand site potential for down material falls below the numerical requirement of "pieces per acre".

The intent was to leave pre-activity levels of down logs. If the number left exceeded the quantities given for each species association type, then some of that material could be removed. If the numbers left were below the quantities given, then additional material should be left during harvest activities to get within the range. This direction was intended to be applied for "wood pieces" left on the ground. At this time, there is no requirement for "vertical storage" to be left for future down logs.

This requirement was not intended to preclude use of prescribed fire. Charring and consumption of some down wood is expected to the degree listed. In some heavily decadent stands, the addition of large numbers of down logs does contribute to increased fire risk when combined with existing high levels of ladder and small fuels; this would preclude the use of prescribed fire as an "initial treatment" tool.

Two items of additional clarification are needed. The "pieces per acre" does not mean "evenly distributed" in every acre. Down wood should be distributed in a natural mosaic pattern throughout the stand. And, long logs can be counted as more than one "piece", however, do not cut them into pieces unless absolutely necessary.

Benefits/Impacts - Stands with large down wood are good habitat for pine marten, woodpeckers, and others; while also contributing to increased fire risks. Currently, Dr. Evelyn Bull, PNW, is examining methods to maintain wildlife habitat structure while reducing the fuel loading.

4b. Snags. The interim direction modified the snag requirements for the large snag classes (i.e. greater than or equal to 15 inches, and, for lodgepole, greater than or equal to 10 inches), to the 100% biological potential levels for cavity species. Direction for smaller size class snags was not modified from existing Forest Plan levels. This direction does not mean "100% of all snags". Biological potential is calculated based on research information on cavity nesting birds. It is through these parameters that "100% biological potential" is converted into an actual number of "snags per acre". (A good narrative description of this process is found in Thomas 1979. Wildlife Habitats in Managed Forests; the Blue Mountains of Oregon and Washington). Consequently, the actual number of "snags per acre" can vary, by Forest as well as by District, as the bird species and stand site potential change. This creates confusion between publics and employees, alike.

The interim direction was not intended to eliminate salvage sales where there is dead standing material in excess of that needed for wildlife. Salvage sales do not need to be screened under the interim direction for historical range of variability (HRV). However, salvage sales are required to meet the riparian interim standard and the portions of the wildlife standard that do not relate to HRV (specifically, connectivity, snags,and down logs; goshawk; non-fragmentation; and other Forest Plan S&G's, as applicable).

Benefits/Impacts - The number of snags per acre being left is higher than most Forest Plans required prior to this amendment. Since research suggests that Forest Plan snag levels may have been too low, this increased level is beneficial in maintaining options for further analysis. In areas with high levels of stand decadence, meeting snag levels and still being able to implement salvage sales is often not a problem. However, there are some areas where all snags are needed to meet the snag requirements (which average 3-5 snags per acre, region-wide). Salvage sales are most affected when the large snags (greater than or equal to 21 inches) with the most economic value, are left for wildlife. Impacts to the salvage program from the snag requirement is considered moderate.

4c. Green Tree Replacements. The direction requires green tree replacements (GTR's to be maintained for "future" snags at the 100% biological potential level. This requires a very large number of live, green trees to be left (sometimes 35-45 trees per acre). This precludes many harvest prescriptions, some of which are considered sound "forest health/ecosystem management" prescriptions for the stand condition. In addition, some GTR's are infected with mistletoe that, if not removed, will infect any young stands (plantations) growing below or adjacent to them.

Benefit/Impacts - Maintaining green trees within a stand to insure the size and number of snags available in the future, without a "falldown" in availability of habitat, is important in the long run. However, meeting this at the 100% level of biological potential precludes major options for stand treatment. Regeneration, thinning, and some salvage prescriptions are impacted. Overall, the impact to the sale program is considered high in the short term. Analysis and direction from the Eastside Ecosystem Management Project will probably modify the need to maintain this high level of GTR's.

4d. Connectivity Corridors. This area is still confusing to many, and results in numerous interpretations. While very much a valid concept, it is difficult to implement consistent numerical sizes of corridors across the ever-changing mosaic of eastern Oregon and Washington.

The intent of the connectivity direction was to maintain and/or enhance "adequate connection" between late and old-structure habitats. "Enhance" was intended to imply the possibility of some management activities that perpetuate a healthy stand condition, thereby extending the time the stand can act as a connection corridor.

Scenario A, 2) b) in the wildlife standards gives a description of what "adequate connection" should be. These are stands of trees, not necessarily late and old, that can act as cover and/or dispersal habitat. The corridors can be managed stands as long as the stand is made up of trees greater than or equal to 9 inches d.b.h (i.e., more of a "forest" than a "plantation"), the canopy closure remains "dense" (i.e., at least 50% closure), and corridors are at least 400 feet wide.

Interim direction provides exceptions for some situations such as lodgepole, and areas where site potential will not reach a 50% canopy closure. The description of "adequate connection" provides the intent of the direction, which should be implemented as closely as possible given existing landscape patterns. Example: If the only forested habitat between large expanses of open grasslands is a stringer of trees along a riparian area, then it is obviously the only habitat forested species have to move through and should be left as connection habitat even though the natural mosaic of the landscape does not allow for required widths or canopies. Likewise, management activities could be allowed in dense forest stands left for connection corridors as long as stand conditions can still meet required canopy closures, etc.

> Benefits/Impacts - Connectivity corridors allow critical dispersal habitat for the young of some species, and hiding/travel corridors for others. Maintaining connections between late and old-structure stands insures that species associated with those habitats can be mobile and interact. In some areas, harvest units have been deferred because of this direction. The overall effect on sale programs is considered moderate.

4e. Non-fragmentation direction. The direction to reduce fragmentation of "large" habitat blocks is not well understood by many, creating numerous interpretations.

> Benefits/Impacts - In the interim, this direction maintains important options for interior forest-dwelling wildlife. The direction was designed to defer harvest activities that would create openings within the interior of large forest blocks, and the intent is being met. However, wording that limits "regeneration" harvesting has unintentionally limited single-tree and small group-selection methods.
>
> The intention of the direction was to allow harvest activities such as thinnings, single-tree, small group-selection, etc., that do not create openings and fragment the "forested structure" beyond its natural overstory pattern. Wording of the direction is admittedly awkward and, in this case, requires review of background material to understand the intent.

In most areas, field reviews indicate that the intent of the direction for down logs, snags, GTR's, connectivity corridors, and non-fragmentation are being met. It is difficult to meet some of the specific numerical prescriptions in all situations due to natural landscape patterns and existing vegetative structures. Meeting this direction does have an impact to the timber sale program as it restricts manipulation of some types of trees and stands. Most conflicts occur when attempting to **redesign** timber sales to meet the direction. Planning new sales with this direction in mind should have much less of an impact, especially if proposed sale activities are considered through a watershed analysis-type process.

Field reviews indicate that most Forests are conservative (i.e., leave more habitat than is specifically required) when they are unsure of direction intent. Continued field reviews would be beneficial in assisting field personnel to identify methods to meet the wildlife standards in conjunction with other resource objectives. Silviculturists and wildlife biologists need to continue to work together to design prescriptions to meet multiple objectives. Watershed analysis could be encouraged as a useful tool in mitigating resource conflicts prior to and during timber sale planning, rather than trying to mitigate for wildlife at the end; which always causes conflicts.

FINDING 5

FINDING: The Eastside Interim Management Direction does not contain an exception for ongoing or new research.

Research. There are some research projects under way that include activities currently prohibited by the interim direction. This research is often long term with considerable investment, includes numerous cooperators, and may contribute to the knowledge needed to implement the Eastside Assessment and provide answers to other questions regarding management of eastside stands.

Benefits/Impacts - The interim direction, as it currently exists, is holding up critical ongoing research, in particular, the Genesis project on the Malheur National Forest. Research units overlap riparian buffers or require entry into mature or older stands in order to study the very concepts and prescriptions we are proposing in ecosystem management. Research cooperators, including those from state universities, are deserting such projects in favor of moving their research to private or state lands or abandoning it altogether. Not only will research benefits be lost, the ability to recruit cooperators in the future will be damaged. Although there is a potential that the research treatment effects will be negative for some old-growth associated species, the area affected is small. There is also a high potential payoff in knowledge of how management effects a variety of resource values.

FINDING 6

FINDING: **This section includes issues brought up by Forests that are not directly related to application of the Eastside Interim Management Direction in most cases. While all issues brought were real, their solution is not necessarily affected by modifying the existing direction.**

6a. Timing of the Eastside Assessment. It now takes, in most cases, 2 years to develop a timber sale project from proposal to implementation. The latest amendment to Forest Plans became effective in May 1994. Sales that are designed with those guidelines will not be offered until the summer of 1996. There is a concern that the current direction will be modified by the Eastside Ecosystem Management Project and will negate previous planning. Some Forests are reluctant to begin planning sales based on the current Forest Plan direction.

6b. Sale Planning Time Frames. Since it often requires 2 years to carry a project from planning to implementation, it is unlikely that sales meeting the interim direction will be awarded before May 1996. Many persons expressed frustration that regional expectations are that new sales, meeting the current Forest Plans as amended, should have been available shortly after the Forest Plans were amended.

6c. Workforce and Management Expectations. The large number of high priorities (range, timber sales, ESA consultation, EEMP, forest health activities, restoration) are taxing the limits of the people available to do the work. While the total number of people on a Forest may have remained the same over the past year, the number dedicated to the development of timber sale projects has decreased with the addition of other high priority work. Those Forests reporting the most success are those with clear understanding of management priorities and those sharing resources across boundaries to more effectively leverage scarce resources to complete needed tasks.

FINDING 7

FINDING: **Some Forests have been more successful than others in being able to generate a timber sale program that is responsive to the Interim Direction and puts timber on the market.**

Successful Forests. Several Forests on the eastside have been more successful than others in meeting the demands put on them by the August 1993 screens and the interim direction. Those that have been most successful had the following traits in common:

1. One person (or a small team) were assigned at the Supervisor's Office level to coordinate the screening process/interim direction implementation and to deal with constituents that were likely to have concerns and interest in the process. Some of the tasks they were responsible for, and carried out were one-on-one meetings in the field when conflicts arose; resolution of issues, when possible, prior to decision documentation; and, active internal communications with Districts to resolve questions

2. Goals, with respect to the sale program, were clearly defined. Meeting both planning direction and outputs was a priority.

APPENDIX D

SCOPING, PUBLIC COMMENTS ANALYSIS AND MAILING LIST

Scoping and Public Comment Analysis

The following notice was placed in newspapers of local circulation for eastside forests. Those notices were placed in newspapers the week of March 10, 1995. A listing of those newspapers occurs at the end of this document.

"Notice of Opportunity to Comment

The Forest Service is proposing to revise the Environmental Assessment that led to the May 20, 1994 Decision Notice and Finding of No Significant Impact for implementing "Interim Management Direction Establishing Riparian, Ecosystem, and Wildlife Standards for Timber Sales". This Decision Notice amended Forest Plans for the following forests by changing standards by which timber sales are prepared: Deschutes, Fremont, Malheur, Ochoco, Umatilla, Wallowa-Whitman, Winema in eastern Oregon and Okanogan and Colville in eastern Washington.

Regional Forester John Lowe asked an interdisciplinary team to revise the Environmental Assessment following a review of implementation of the Interim Management Direction. The revision will focus on revising the Historic Range of Variability (HRV) and allowing more flexibility to describe local conditions. Changes in the HRV may cause some need to adjust the Wildlife portion of the direction. The alternatives will include, as a minimum, no action and revision of the HRV standard.

Following the revision, a new Decision Notice/FONSI may be signed by the Regional Forester in the spring of 1995.

If you would like additional information contact Jim Schuler, Regional Appeals Coordinator, at (503) 326-2322.

Comments should be provided to Regional Forester John Lowe, 333 SW First Ave., P.O. Box 3623, Portland, OR 97208-3623, by April 10, 1994."

To supplement this notice published in the legal notices section of eastside newspapers some forests made contacts with local newspapers providing additional information on the proposed action and the NEPA process. In many cases this led to news articles.

A mailing list was developed using all individuals who had expressed an interest in the previous Environmental Analysis for Regional Forester's Amendment #1. The list was added to by Forests who provided names of interested individuals and groups. That combined list of groups and individuals contains 78 addresses that received scoping notices.

Scoping was also conducted internal to the Forest Service. A monitoring report completed in February of 1995 was contributed to

by all eastside forests. That report helped form the basis of the proposed action.

The external scoping process generated 29 letters with over 150 individual comments. Comments generated in the scoping process were used to define the range of alternatives for this revision, help formulate aspects of the preferred alternative and to develop any additional issues. Comments fell into a series of categories very similar to those received for the original analysis for Regional Forester Amendment #1. Categories of comments included; Fisheries and Riparian, Historic Range of Variability, Wildlife, and Economic or Proceedural issues.

Fisheries and Riparian issues

The largest single category of comments dealt with fish and riparian issues. An example of the comments received is is that of Sierra Club Legal Defense Fund Inc. that states "Increased management "flexibility" in riparian buffer areas would amount to unbridled agency discretion without any backstop standards or checks on Forest Service activity" Others urged us "to allow flexibility in riparian direction to allow local professional judgement to meet the intent of watershed assessment." Other comments about riparian management said that they were "too narrow" or that strict no management buffers do not recognize ecological processes. Comments such as this were considered outside the scope of the analysis as the proposed action does not include adjustment of the riparian standards.

Historic Range of Variability

Comments on the HRV covered a wide range of interests. The comments ranged from questions as to the validity of using HRV as a measure of natural conditions to the size or time frames used. For example one comment stated "HRV should be based on pre-settlement conditions of 1800 to 1890, not on 1920 to 1930's figures/conditions." Additional concerns were that adjustments of the HRV might free managers to implement unsound projects. Although we received several comments that suggested changes to the HRV such as "it is important the stand structure descriptions depict structure as it should be, not as it is" few comments dealt directly with the proposed changes to the stand structural stage classes.

Wildlife Comments

There were a significant number of comments dealing with wildlife generally related to some facet of the current wildlife screen. For example, several comments dealt with the methods and theory used to calculate green tree replacements. Others were concerned with the effects of the proposed changes on wildlife corridors.

A comment received from a natural resource consulting company stated that the Forest Service needed review forest fragmentation and the requirement to maintain large, contiguous habitat blocks.

In many cases the suggested analysis is beyond the scope of this project. Changes to the wildlife standards and guidelines is limited, in the current analysis, to only two areas. Those places are where changes made to the stand stand structural stage descriptions have made it necessary to change the wildlife standards to maintain consistency and, where additional clarification is needed to assist in implementation.

Economic and Proceedural Comments

There were some concerns expressed that one major effect of Regional Forester Plan Amendment #1 was to drastically reduce the volume of timber available for harvest. On the other hand many people commented that the effect of reducing harvest on eastside forests was very positive and were not anxious to see amendments that would allow more flexibility and probably higher harvest levels. It was pointed out by one commentor that preserving options also included preserving economic options for local communities.

Malheur Lumber Company commented that the screens are an illegal application of forest planning direction and should be withdrawn. Other commentors took the position to the Sierra Club Northwest Regional Conservation Committee as stated in their comment "We must retain the last pieces of remnant forest and change management practices elsewhere to allow connections to be rebuilt; weakening the screens will make the present bad situation worse."

The alternatives developed in the NEPA process included No Action and Revising the Stand Structural Stage classification system to provide the flexibility needed to manage stands in a way that will improve forest health. The no action alternative would have allowed those facets of the screening process that were inhibiting management to continue. That continuation without modification would have allowed further degeneration of characteristics that were considered important options to maintain.

Newspapers Publishing the Notice to Comment

The following newspapers are used by all ranger districts, forests, and the Regional Office of the Pacific Northwest Region to publish legal notice of all decisions subject to appeal under 36 CFR 217, within the area covered by this proposed action. Notices in these papers inform interested members of the public of decisions made by forest service line officers. In this case, the same newspapers were used to provide early notice and an opportunity to comment on this proposed action. Using the same

list of newspapers allowed notification of persons most familiar with that method.

The list of newspapers will remain in effect until another notice is published in the Federal Register.

The Oregonian, Portland, Oregon
The Bulletin, Bend, Oregon
Sisters Nugget, Sisters, Oregon
The Bulletin, Bend, Oregon
Herald and News, Klamath Falls, Oregon
Lake County Examiner, Lakeview, Oregon
Blue Mountain Eagle, John Day, Oregon
Burns Times Herald, Burns, Oregon
Central Oregonian, Prineville, Oregon
Madras Pioneer, Madras, Oregon
Central Oregonian, Prineville, Oregon
East Oregonian, Pendleton, Oregon
Baker City Herald, Baker City, Oregon
Wallowa County Chieftain, Enterprise, Oregon
Lewiston Morning Tribune, Lewiston, ID
The Observer, La Grande, Oregon
The Seattle Post-Intelligencer, Seattle, Washington
Statesman-Examiner, Colville, WA
Newport Miner, Newport, WA
Republic News Miner, Republic, WA
Omak Chronicle, Omak, Washington
The Gazette-Tribune, Oroville, Washington
Methow Valley News, Twisp, Washington

Persons/Organizations Responding
to March 10, 1995 Request for Scoping Comments

Individuals

Perry and Sheila Pearman
Natalie Shapiro
Dale K. Fortune
Mrs. Beverley McLaughlin
Joyce Wheeler
Pat L. Wheeler
Michael J. Irving
K. Gilberson Stimpfle
Paul Machtalf
Clark Chambers

Organizations, Businesses, Governments

Concerned Friends of the Winema - Sally Wells
Friends of Forest Management - Jay Christensen
Spokane Audubon - Carol Elles
Northwest Timber Workers Resource Council - Gary M. Garrison
Zacharais Logging - Robert M. Zacharias
Maurice Williamson, ACF Consulting Forestry
Malheur Lumber Co. - Tom Partin
Sierra Club, Northwest Regional Conservation Committee - Mark Lawler
Society Advocating Natural Ecosystems - Nancy Ferguson
Ochoco Lumber Co. - Stewart Shelk, Jr.
Northwest Forestry Association - Charles H.Burley
Blue Mountains Biodiversity Project - Karen Coulter
Vaagen Bros. Lumber Co. - Hurbert "Butch" Sager
Malheur Lumber Co. - Tom Partin
Eastside Conservation Ontology - Tonia Wolfe
Natural Resource Defense Council - Nathaniel Lawrence
Ebel & Associates - Fredrick Ebel
Sierra Club Legal Defense Club - Deborah A. Sivas
Malheur Timber Operators, Inc - Ted Ferrioli
Kettle Range Conservation Group - Timothy J. Coleman
Boise Cascade, Northwest Oregon Region - Cassandra R. Botts

Initial Scoping Letter
March 10, 1995
sent to the addressee list that follows

United States Department of Agriculture | Forest Service | Pacific Northwest Region | P.O. Box 3623
Portland, OR 97208-3623
333 S.W. First Avenue
Portland, OR 97204

Reply To: 1920

Date: March 10, 1995

Dear Interested Public:

The Forest Service is proposing to revise the Environmental Assessment that led to the May 20, 1994, Decision Notice and Finding of No Significant Impact for implementing "Interim Management Direction Establishing Riparian, Ecosystem, and Wildlife Standards for Timber Sales." This Decision Notice amended eastside Forest Plans by changing standards by which timber sales are prepared on the following Oregon and Washington National Forests: Deschutes, Fremont, Malheur, Ochoco, Umatilla, Wallowa-Whitman, Winema, Okanogan, and Colville.

A recent review of the May 1994 decision implementation led the Regional Forester to consider revising the Historic Range of Variability (HRV) classification method to better reflect existing stand conditions on the eastside Forests. The revision will also consider the options available for relieving stress to old-growth stands with an invading understory and allow local ecologists to exercise more flexibility to define local conditions. The wildlife standard will also be reviewed for any necessary changes in response to an amended Historic Range of Variability classification system.

The original purpose and need for the interim direction remains the same; i.e., to maintain the abundance and distribution of old-growth structure, to protect riparian areas for wildlife and, at the same time, to provide for timber production. The Regional Forester expects to consider two alternatives: No Action alternative and Amended HRV alternative. We expect to complete the analysis and issue a decision by spring 1995.

If you have comments on the revisions under consideration, please provide them in writing prior to April 10, 1995. Comments should be addressed to: USDA Forest Service; ATTN: Jim Schuler, Strategic Planning; P.O. Box 3623; Portland, OR 97208-3623.

For more information, please contact either Jim Schuler at 503-326-2322 or Miles Hemstrom at 503-326-5918.

Sincerely,

/s/ James L. Schuler
JAMES L. SCHULER
Regional Appeals Coordinator

cc:

Forest Supervisors - Eastside

Honorable County Judge, Harney County
Honorable Dale White, County Judge
Lee Wallace, Commissioner
P.O. Box 1147
Burns, Oregon 97720

Inland Empire Public Lands Council
Sara Folger
P.O. Box 2174
Spokane, Washington 99210

Malheur Lumber Company
Post Office Box 160
John Day, Oregon 97845

Northwest Forest Resource Council
Charles H. Burley
1500 S.W. First Avenue,
Suite 770
Portland, Oregon 97201

WR2 Wood Products Incorporated
King Williams
P.O. Box 247 - W. Highway
John Day, Oregon 97845

Malheur Timber Operators
Steven J. Courtney
P.O. Box 928
John Day, Oregon 97845

Blue Mountains Biodiversity Project
Asante´ Riverwind
HCR 82
Fossil, Oregon 97830

Blue Mountains Native Forest Alliance
Ed Holder
P.O. Box 662
Prairie City, OR 97869

Scott and Virginia Jayne

Concerned Friends of the Winema
Sally Wells
3333 Highway 422
Chiloquin, Oregon 97624

Jennifer Stein Barker
Lance Barker

Ochoco Resource and Recreation Association
Tonia Wolf, Eastside Grassroots Coordinator
281451 Mill Creek Road
Prineville, Oregon 97754

Judge, Grant County
Honorable Kevin M. Campbell
Grant County Judge
Courthouse - P.O. Box 220
Canyon City, Oregon 97820

Grant Administrative School District No. 3
Ken Delano
P.O. Box 729
John Day, Oregon 97845

Boise Cascade
Cassandra Botts
Northeast Oregon Region
P.O. Box E
Joseph, Oregon 97846

Sierra Club - Cascade Chapter
Mark Lawler
4316 Whitman Avenue North
Seattle, Washington 98103

Patrica E. Allison - President
Save Our Industries and Land
P.O. Box 1287
Hines, Oregon 97738

Native American Program
Oregon Legal Services Corporation
Tim Simmons
917 S.W. Oak, Suite 410
Portland, Oregon 97205

Michael Bantam

Monique Schoustra
Public Forestry Foundation
P.O. Box 371
Eugene, OR 97440

J. Michael Klise
Steven Quarles
Thomas R. Lundquist
Crowell & Moring
1001 Pennsylvannia Ave., N.W.
Washington, D.C. 20004-2595

Scott W. Horngren
Michael E. Haglund
Haglund & Kirtley
1800 One Main Place
101 S.W. Main St.
Portland, OR 97204

Nathaniel Lawrence
David Edelson
Natural Resources Defense Council
71 Stevenson Street, Ste 1825
San Francisco, CA 94105

Bob Goodman
Feldman, Waldman & Kline
2700 Russ Bldg.
235 Montgomery St., Ste. 2700
San Francisco, CA 94104

Michael Axline 503-485-2471
Western Environmental Law Center
44 W. Broadway, Ste. 200
Eugene, OR 97402

Ronald S. Yockim - Grant Co.
425 S.E. Jackson St.
P.O. Box 218
Roseburg, OR 97470

Northwest Forestry Association
Chris West
1500 S.W. First, Suite 770
Portland, OR 97201

Oregon Natural Resources Council
Mark Hubbard
1161 Lincoln Street
Eugene, OR 97401

Samantha Mace

Klamath Forest Alliance
P.O. Box 820
Etna, CA 96027

Patrick Daigle
BC Forest Service
1st Floor, 31 Bastion Sq.
Victoria, BC V8W3E7

Bob Freimark
Wilderness Society
1424 4th Ave., Rm 816
Seattle, WA 98101

Dan Sherborne

Steve Mader
CH2M Hill
825 N.E. Multnomah
Portland, OR 97232

Evan Frost

Susan Prince

Cindy Dean
Eastside Ecosystem Management Project
112 E. Poplar
Walla Walla, WA 99362

Jay Christensen

Shasta-Cascade Chapter
Society of American Foresters
c/o Rodney D. Johnson
2819 Dahlia St.
Klamath Falls, OR 97601

Wallowa County Court
Ben Boswell
101 S. River Street, Room 202
Enterprise, OR 97828

Todd Gildersleeve
Chapter Chairman, SAF
P.O. Box 1780
Klamath Falls, OR 97601

Ed Kupillas
Consulting Forester
6210 Hwy 140
Eagle Point, OR 97524

Bob Mezger
Consulting Forester
2450 Redwood Drive
Klamath Falls, OR 97601

Okanogan County Commissioners
P.O. Box 791
Okanogan, WA 98840

Methow Forest Watch
P.O. Box 473
Twisp, WA 98856

Tonasket Forest Watch
P.O. Box 313
Tonasket, WA 98855

Washington Wilderness Coalition
P.O. Box 45187
Seattle, WA 98145

Okanogan Highlands Alliance
P.O. Box 163
Tonasket, WA 98855

Greater Ecosystem Alliance
P.O. Box 2813
Bellingham, WA 98227

Inland Empire Public Lands Council
P.O. Box 2174
Spokane, WA 99210

Omak Wood Products
Route 2, Box 54
Omak, WA 98841

Okanogan County Citizens Council
P.O. Box 273
Omak, WA 98841

Boise-Cascade Corp.
Richard Just
S. 110 Boise Road
Kettle Falls, WA 99141

County Commissioner
P.O. 191
Colville, WA 99114

Federal Lands Advisory Committee
Hal Mart
P.O. 191
Colville, WA 99114

Fred Ebel
Forestry Consultant
E. 2810 Oxbow Road
Colbert, WA 99005

Greater Ecoystem Alliance Grou[
Evan Frost
P.O. 2813
Bellingham, WA 98227

Hansen Logging Company
Sherri Hansen
P.O. 168
Chewelah, WA 99109

Inland Empire Public Lands Council
Barry Rosenberg
517 South Division
Spokane, WA 99210

Kettle Range Conservation Grou[
Mike Peterson
P.O. 150
Republic, WA 99166

NW Timber Workers Resource Council
Gary Garrision
S. 100 Boise Road
Kettle Fall, WA 99141

Northwest Forestry Association
James Geisinger
1500 S.W. 1st Street, Suite 770
Portland, OR 97201

Office of Congressman Nethercutt
Shelly Short
W. 920 Riverside, Suite 594
Spokane, WA 99201

Office of Congressman Nethercutt
Erik Skaggs
W. 920 Riverside, Suite 594
Spokane, WA 99201

Office of Senator Slade Gorton
Catherine O'Connell
697 U.S.courthouse
W. 920 Riverside
Spokane, WA 99201

Office of Senator Patty Murray
Patty Murray
W. 601 1st Avenue, Room 506
Spokane, WA 99204

Pend Oreille County Commissioner
P.O. Box 498
333 S. Garden
Newport, WA 99156

Pend Oreille Environmental Team
Carol Mack
2081 Deer Vally Road
Newport, WA 99156

Public Land Users Coalition
Candance Parr
P.O. Box 1014
Kettle Falls, WA 99141

State Representative
Steven Fuhrman
412 John L/ O'Brien Building
Olympia, WA 98502

State Representative 7th District
Robert Morton
325 John l.O'Brien Building
Olympia, WA 98504

State Senator 7th District
Cathy McMorris
107 Institutions Building
Olympia, WA 98504

Stevens County Citizens Coalition
John Shaver
P.O. 1144
Kettle Falls, WA 99141

Vaagen Brothers, Inc.
Butch Sagar
565 West 5th
Colville, WA 99114

Western Forest Industries Assn.
David Ford
1500 S.W. Taylor Street
Portland, OR 97205

Maurice Williamson Consulting Forestry
John Wilson
270 S. Main
Colville, WA 99114

Follow-up Scoping Letter
April 7, 1995
sent to the addressees that follow

United States Department of Agriculture
Forest Service
Pacific Northwest Region
P.O. Box 3623
Portland, OR 97208-3623
333 S.W. First Avenue
Portland, OR 97204

Reply To: 1950

Date: April 7, 1995

Dear (see attached list of addresses):

In response to a request, the Regional Forester has decided to extend the period for providing scoping comments to the Revised Environmental Assessment for Interim Standards for Timber Sale Preparation. Comments were originally due April 10, 1995. They are now due April 20, 1995. If you have already commented you may provide additional comments.

In addition, I have attached the latest draft of the Ecosystem Interim Standard and the resulting needed clarifications to the Wildlife Interim Standard. The draft standards are our current proposal for the revision and form the base of our proposed action. This material may be helpful in focusing your comments.

If you have questions with respect to the two proposed standards you may call Miles Hemstrom at 503-326-5918 regarding the Ecosystem Standard and Lisa Norris at 503-326-6641 regarding the Wildlife Standard.

Comments should be sent to Forest Service; ATTN: Jim Schuler, Strategic Planning; P.O. Box 3623; Portland, Oregon 97208-3623.

/s/ James L. Schuler
JAMES L. SCHULER
Regional Appeals Coordinator

Enclosures

cc:
Forest Supervisors

maddressnHonorable Dale White
Judge, Harney County
P.O. Box 1147
Burns, Oregon 97720
mnamenJudge White

maddressnInland Empire Public Lands Council
ATTN: Sara Folger
P.O. Box 2174
Spokane, Washington 99210
mnamenMs. Folger

maddressnMalheur Lumber Company
P.O. Box 160
John Day, Oregon 97845
mnamenSir

maddressnNorthwest Forest Resource Council
ATTN: Charles H. Burley
1500 S.W. First Avenue, Suite 770
Portland, Oregon 97201
mnamenMr. Burley

maddressnWR2 Wood Products Incorporated
ATTN: King Williams
P.O. Box 247 - W. Highway
John Day, Oregon 97845
mnamenMr. Williams

maddressnMalheur Timber Operators
ATTN: Steven J. Courtney
P.O. Box 928
John Day, Oregon 97845
mnamenMr. Courtney

maddressnBlue Mountains Biodiversity Project
ATTN: Asante Riverwind
HCR 82
Fossil, Oregon 97830
mnamenMr. Riverwind

maddressnNatural Resources Defense Council
ATTN: Nathaniel Lawrence
71 Stevenson Street, Suite 1825
San Francisco, California 94105
mnamenMr. Lawrence

maddressnBlue Mountains Native Forest Alliance
ATTN: Ed Holder
P.O. Box 662
Prairie City, Oregon 97869
mnamenMr. Holder

maddressnScott and Virginia Jayne

mnamenMr. and Mrs. Jayne

maddressnConcerned Friends of the Winema
ATTN: Sally Wells
3333 Highway 422
Chiloquin, Oregon 97624
mnamenMs. Wells

maddressnJennifer Stein Barker
Lance Barker
mnamenMr. and Mrs. Barker

maddressnOchoco Resource and Recreation Association
ATTN: Tonia Wolf, Eastside
Grassroots Coordinator
281451 Mill Creek Road
Prineville, Oregon 97754
mnamenMs. Wolf

maddressnHonorable Kevin M. Campbell
Judge, Grant County
Courthouse - P.O. Box 220
Canyon City, Oregon 97820
mnamenJudge Campbell

maddressnGrant Administrative School District No. 3
ATTN: Ken Delano
P.O. Box 729
John Day, Oregon 97845
mnamenMr. Delano

maddressnBoise Cascade Corporation
ATTN: Cassandra Botts
Northeast Oregon Region
P.O. Box E
Joseph, Oregon 97846
mnamenMs. Botts

maddressnSierra Club - Cascade Chapter
ATTN: Mark Lawler
4316 Whitman Avenue North
Seattle, Washington 98103
mnamenMr. Lawler

maddressnPatrica E. Allison, President
Save Our Industries and Land
P.O. Box 1287
Hines, Oregon 97738
mnamenMs. Allison

maddressnNative American Program
ATTN: Tim Simmons
Oregon Legal Services Corporation
917 S.W. Oak, Suite 410
Portland, Oregon 97205
mnamenMr. Simmons

maddressnMr. Michael Bantam
mnamenMr. Bantam

maddressnOregon Natural Resources Council
ATTN: Mark Hubbard
1161 Lincoln Street
Eugene, Oregon 97401
mnamenMr. Hubbard

maddressnNorthwest Forestry Association
ATTN: Chris West
1500 S.W. First, Suite 770
Portland, Oregon 97201
mnamenMr. West

maddressnBoise Cascade Corporation
ATTN: Richard Just
South 110 Boise Road
Kettle Falls, WA 99141
mnamenMr. Just

maddressnCounty Commissioner
P.O. Box 191
Colville, WA 99114
mnamenCommissioner

maddressnFederal Lands Advisory Committee
ATTN: Hal Mart
P.O. Box 191
Colville, WA 99114
mnamenMr. Mart

maddressnForestry Consultant
ATTN: Fred Ebel
E. 2810 Oxbow Road
Colbert, WA 99005
mnamenMr. Ebel

maddressnGreater Ecosystem Alliance Group
ATTN: Evan Frost
P.O. Box 2813
Bellingham, WA 98227
mnamenMr. Frost

maddressnHansen Logging Company
ATTN: Sherri Hansen
P.O. Box 168
Chewelah, WA 99109
mnamenMs. Hansen

maddressnInland Empire Public Lands Council
ATTN: Mike Irving
4291 N. Jepson Road
Valley, WA 99181

mnamenMr. Irving

maddressnInland Empire Public Lands Council
ATTN: Barry Rosenberg
517 South Division
Spokane, WA 99210
mnamenMr. Rosenberg

maddressnKettle Range Conservation Group
ATTN: Mike Petersen
P.O. Box 150
Republic, WA 99166
mnamenMr. Petersen

maddressnNW Timber Workers Resource Council
ATTN: Gary Garrison
South 110 Boise Road
Kettle Falls, WA 99141
mnamenMr. Garrison

maddressnNorthwest Forestry Association
ATTN: James Geisinger
1500 SW 1st Avenue, Suite 770
Portland, OR 97201
mnamenMr. Geisinger

maddressnOffice of Congressman George Nethercutt
ATTN: Shelly Short
West 920 Riverside, Suite 594
Spokane, WA 99201
mnamenMs. Short

maddressnOffice of Congressman George Nethercutt
ATTN: Erik Skoggs
West 920 Riverside, Suite 594
Spokane, WA 99201
mnamenMr. Skoggs

maddressnOffice of Senator Slade Gorton
ATTN: Catherine O'Connell
697 U.S. Courthouse
West 920 Riverside
Spokane, WA 99201
mnamenMs. O'Connell

maddressnOffice of Senator Patty Murray
ATTN: Patty Murray
West 601 1st Ave., Room 506
Spokane, WA 99204
mnamenSenator Murray

maddressnPend Oreille County Commissioner
P.O. Box 498
331 South Garden
Newport, WA 99156
mnamenCommissioner

maddressnPend Oreille Environmental Team
ATTN: Carol Mack
2081 Deer Valley Road
Newport, WA 99156
mnamenMs. Mack

maddressnPublic Land Users Coalition
ATTN: Candice Parr
P.O. Box 1014
Kettle Falls, WA 99141
mnamenMs. Parr

maddressnState Representative
ATTN: Steven Fuhrman
412 John L. O'Brien Building
Olympia, WA 98502
mnamenMr. Fuhrman

maddressnState Representative, 7th District
ATTN: Robert Morton
325 John L. O'Brien Building
Olympia, WA 98504
mnamenMr. Morton

maddressnState Senator, 7th District
ATTN: Cathy McMorris
107 Institutions Bldg.
Olympia, WA 98504
mnamenMs. McMorris

maddressnStevens County Citizens Coalition
ATTN: John Shaver
P.O. Box 1144
Kettle Falls, WA 99141
mnamenMr. Shaver

maddressnVaagen Bros. Inc.
ATTN: Butch Sager
565 West 5th
Colville, WA 99114
mnamenMr. Sager

maddressnWestern Forest Industries Assn.
ATTN: David Ford
1500 SW Taylor Street
Portland, OR 97205
mnamenMr. Ford

maddressnMaurice Williamson Consulting Forestry
ATTN: John Wilson
270 S. Main
Colville, WA 99114
mnamenMr. Wilson

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Individuals

Michael Bantam
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Scott and Virginia Jayne
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Jennifer Stein Barker
Lance Barker

Organizations, Businesses, Governments

County Court for Harney County
Inland Empire Public Lands Council
Malheur Lumber Company
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County Court of Grant County
Grant Administrative School District No. 3
Boise Cascade, Northeast Oregon Region
Sierra Club - Cascade Chapter
Save Our Industries and Land
Native American Program, Oregon Legal Services Corporation

1995 Revised EA Appendix E

Appeals to the
1994 Eastside Screens Decision Notice

APPENDIX F

BIOLOGICAL EVALUATION

Biological Evaluation
of the Alternatives
Considered for Timber Sale Planning and
Interim Forest Plan Amendment
for Nine East-side National Forests
In the Pacific Northwest Region of the Forest Service

January 10, 1993

A. Grant Gunderson
Threatened, Endangered and Sensitive Species Program Manager

Introduction

This Biological Evaluation (BE) is to document the assessment of the effects of implementing several alternatives that would guide the preparation of timber sales on nine National Forests in Oregon and Washington (hereinafter referred to in this document as "East-side" Forests). The alternative selected would be implemented until comprehensive landscape planning can be completed. The Land and Resource Management Plans for the nine National Forests affected would be amended on an interim basis as well. The East-side Forests addressed in this document are:

Colville National Forest

Deschutes National Forest

Fremont National Forest

Malheur National Forest

Ochoco National Forest

Okanogan National Forest

Umatilla National Forest

Wallowa-Whitman National Forest

Winema National Forest

Only parts of the Deschutes, Okanogan, and Winema National Forests are affected by the action. Other portions of these Forests are considered to be within the range of the northern spotted owl, and as such, are subject to a different set of standards pertaining to timber sale planning.

This BE has been prepared to satisfy the requirements of Forest Service Manual 2672.4 that requires the Forest Service to review all its planned, funded, executed, or permitted programs and activities for possible effects on endangered, threatened, proposed, or sensitive species.

Description of the Proposed Action

Three alternatives have been proposed by the Pacific Northwest Regional Office of the Forest Service to provide guidance for the design and preparation of timber sales on the East-side Forests. The alternatives were developed because of concerns that timber sale planning conducted under the current interpretations of Land and Resource Management Plans for the East-side Forests and subsequent cutting of those sales may contribute to the loss of viability of some wildlife and plant species. Each alternative is described below.

Alternative 1 - No Action

This alternative calls for the continued application of the provisions for timber sale planning of the current Land and Resource Management Plans for the East-side Forests (USDA 1988 to 1990). The most pertinent standards and guidelines that affect threatened, endangered, and sensitive species, relative to timber sale planning, are those associated with the protection of riparian areas and water quality, provisions for cavity nesting species, and other general wildlife prescriptions. Standards and guidelines for the protection of

threatened, endangered, and sensitive species are also part of each Plan and of key importance.

Standards and guidelines of the Plans that address the above issues vary considerably among Forests. A generalized description of them follows:

Protection of riparian areas - Some of the plans specify riparian buffers and prescribe widths while others do not. Where buffers are prescribed, they vary from 100 to 240 feet on each side of Class I and II streams. Buffers for Class III and IV streams are usually not prescribed--where they were mentioned, they were 50 feet on each side of the stream channel. In general roads and skidding are to be "avoided" in the riparian areas. Where roads and skid trails cross riparian areas, they are to be constructed to minimize the effects. Small wetlands, springs, seeps, and bogs are generally not included in the riparian standards. Prescriptions for these small wetlands, where mentioned, call for evaluation of such sites prior to implementation of a project.

Some Plans call for the retention of streamside shading at 80% of the potential levels while others are silent regarding shade. Likewise some Plans indicate that large woody debris will be retained in riparian areas while others are silent. All Plans indicate that the provisions of the Clean Water Act will be met and that Best Management Practices will be used to meet State Water Quality Standards.

After the Forest Plans were completed, additional guidance for anadromous fisheries management was set forth for the Umatilla, Deschutes, Malheur, Okanogan, and Wallowa Whitman National Forests in the Columbia River Basin Anadromous Fish Policy and Implementation Guide. This policy calls for the identification of specific objectives for anadromous fish habitat. It does not prescribe how the objectives are to be met.

Provisions for cavity nesting species and other wildlife - Prescriptions for the retention of snags that provide habitat for cavity nesting species in general forest allocations of the current East-side Forest Plans range from providing habitat to support 20-40% of the potential populations of such species. Some special allocations (a small percentage of the Forests land base) call for management levels that range from 60-100% of potential populations. Retention, at varying levels,of green (live) trees that will provide snags in the future is also included in the standards and guidelines.

Some of the current East-side Forest Plans provide for 2 down logs per acre. Diameters and lengths of such logs vary by forest. Logs are retained to provide habitat for a variety of species of plants and animals.

Standards and guidelines that address the protection of raptors other than peregrine falcons and bald eagles are also provided in most of the Plans. Generally the Plans call for the protection of the nest tree, and at times the immediate area, during the nesting season. Following fledging the nest trees can be cut. A few plans indicate that if possible more long-term protection should be provided.

The East-side Forest Plans have identified Management Indicator Species such as the pileated woodpecker and pine marten. Networks of habitat areas have been provided for such species.

Standards and guidelines that direct amounts and location of hiding and thermal cover for big game species such as mule deer and elk are also included in the East-side Forest Plans.

Land allocations in the Plans such as Resource Natural Areas, visual retention areas, and other areas that prohibit cutting old forest stands, coupled with Congressionally designated Wilderness Areas provide a network of older-aged forests. The amount and extent of the area in the networks vary by Forest. These blocks or patches of late and old seral forest are supplemented by the habitat provisions for Management Indicator Species associated with old forests and together will result in a pattern of older forest on the landscape of the Forests.

Protection of Threatened, Endangered, and Sensitive Species - All Land and Resource Management Plans for the East-side Forests indicate that the provisions of Bald Eagle and Peregrine Falcon Recovery Plans will be met. They further indicate that where nests of these two species are found, a site management plan will be prepared to ensure protection. On the Colville National Forest, the only Forest in the Pacific Northwest Region where woodland caribou occur, the Recovery Plan for that species will be followed. The Recovery Plan (Selkirk Area) for grizzly bears will also be followed on the Colville National Forest. There is also a Recovery Plan for McFarlane's four o'clock. All Forest Plans indicate that requirements of Section 7 of the Endangered Species Act, that provide for interagency coordination relative to federal actions, will be followed. Such provisions in the Plans ensure that consultation will be conducted and that no Forest Service actions that are likely to jeopardize the continued existence of Federally listed species will be implemented. For species such as the gray wolf or grizzly bear in areas of the Region not covered by completed Recovery Plans such consultation often provides the framework for management. Consultation also provides much of the basis for management for Snake River Basin chinook salmon on the Umatilla and Wallowa Whitman National Forests.

The East-side Forest Plans identify species of plants and animals that are included on the Regional Forester's Sensitive Species List. Sensitive species are designated as such because of concerns that listing under the Endangered Species Act may be warranted in the future because of declining populations and/or habitat or loss of viability. All Plans indicate that Forest Service Manual 2670 will be followed. This manual calls for Biological Evaluations to be conducted and sets forth a process for assessment of the effects of proposed Forest Service actions on sensitive species (as well as Federally listed species). The 2670 Manual also indicates that, although individuals of the species can be impacted by an action, no actions that cause a trend toward Federal listing or the loss of viability are to proceed.

Alternative 2. Moratorium On Timber Sale Activities

Implementation of this alternative would eliminate timber sale planning, and subsequent harvest until comprehensive planning for the East-side Forests can be completed. The planning also includes preparation of appropriate National Environmental Policy Act documents.

Alternative 3 - Implementation Of A Screening Process

Implementation of this alternative would provide interim standards and guidelines to be applied in addition to those in current Land and Resource Management Plans for the East-side Forests. In some cases, the new standards and guidelines would supplement those that exist in the Plans. In other cases, existing standards and guidelines would be superseded by those standards and guidelines of the "screening" process. The new standards and guidelines would be applied to the planning of precommercial thinnings, fiber sales, sales of dead material less than seven inches DBH, salvage sales, and sales that cut live green trees (including commercial thinning). A brief summary of the provisions of the screening process follows. More detailed descriptions of the screening standards and guidelines are contained in the Environmental Analysis files.

Protection of Riparian Areas

No sales are to be planned in streamside Riparian Emphasis Areas (REAs). REAs are defined based on three categories of streams; 1) Perennial and intermittent fish-bearing streams - width of the 100 year floodplain or 300 feet (slope distance except where the stream is designated critical habitat for Snake River Basin chinook salmom where it will be horizontal distance) from each edge of the stream channel whichever is greater; 2) Perennial nonfish-bearing streams - width of the 100 year floodplain or 150 feet from each edge of the stream channel whichever is greater; and 3) Intermittent nonfish-bearing streams - width of at least 100 feet from each edge of the stream. Forest Service Manual 2526 9/80 R-6 Supplement 42 is to be used for definitions of perennial and intermittent streams.

Provisions for cavity nesting species and other wildlife - Snags and green trees will be left in sufficient numbers to provide for 100% of the potential populations of cavity nesting species. Snags are to be at least 15 inches DBH except for lodgepole pine stands where they are to be at least 12 inches DBH.

Pre-activity levels of logs are to be left unless there is an accumulation that results in unacceptable risk of catastrophic fire. The levels that are considered excessive vary by forest type and range from above 3 to above 20 logs per acre.

Thirty acres of the most suitable nesting habitat around all goshawk nests will be protected from harvest. Old and late successional forest structure will be retained in a 400 acre area around all known active goshawk nests to serve as post fledging areas.

The new standards and guidelines associated with the screening process include provisions that are designed to retain amounts of various seral stages of forests within historical ranges of variability. Where a seral stage, for example old forest, is below the range of amounts that existed historically, only activities that maintain and enhance old and late structural components are allowed. Where treatment is prescribed, it is to mimic historical disturbance regimes as much as possible. Other standards and guidelines are aimed at maintaining connectivity among the blocks of late and old forest stands and reducing or at least not increasing fragmentation of such stands.

Protection of Threatened, Endangered, and Sensitive Species - No new specific standards and guidelines are provided in the screening process. However, standards and guidelines for the retention of snags, logs, late and old structure forests, and goshawks will provide additional areas that will likely serve as habitat for threatened, endangered, and sensitive species.

Description Of The Existing Environment

The proposed alternatives would be applied to National Forests in eastern Oregon and Washington outside the range of the northern spotted owl. Inasmuch as the standards and guidelines are pertinent to timber sale planning the direct effects are limited to forested environments or those lands that have the potential to support forest stands. Indirect effects extend to aquatic and nonforested environments adjacent to forested areas. Detailed descriptions of the physical and biological aspects of the existing environment can be found in the Land and Resource Management Plans for each East-side Forest (USDA 1988 to 1990).

Species accounts - Appendix A, Table 1 provides a listing of those species classified as "endangered" under the Endangered Species Act that occur in the action area. The table also shows occurrence of each species by Forest.

Appendix A, Table 2 lists those species that are classified as "threatened" and Table 3 lists the Forests in the action area where critical habitat for spotted owls has been designated.

Sensitive species (animals) that occur on the Forests are listed by occurrence in Appendix A, Table 4. Sensitive plant species are listed in Table 5

It should be noted that although the northern spotted owl and designated critical habitat for the northern spotted owl are listed as occurring on several East-side Forests, the actual area areas they occur are outside the action area for the proposed alternatives. Timber sale planning is conducted under different guidelines for those "spotted owl" portions of the Forests.

Populations of some federally listed species i.e., the bald eagle, peregrine falcon, gray wolf, and McFarlane's four o'clock appear to be increasing. Slight improvements in the population trends for woodland caribou have been noted in recent years. It is suspected that there may be a slight increase in the numbers of grizzly bears in the Pacific Northwest Region, however populations remain critically low. Stable or downward trends in the populations of Snake River Basin chinook salmon (fall, and spring/summer runs), Lost River sucker, and shortnosed sucker, are suspected.

Population trends for sensitive species vary. For species where data are available, there has generally been a downward trend in populations compared to levels in the past 50 years . For some species, such as the bull trout the downward trend continues or may have stabilized at low levels. Other species may have stable populations but are also at low levels that make them susceptible to loss of viability. Many sensitive species, especially plant species are rare and local endemics that are known to occur only in a few locations. These types of species are highly vulnerable to disturbance which could reduce populations.

Habitat Accounts - The threatened, endangered, and sensitive species that occur in the action area utilize a wide range of habitat types. Many of the species are associated with aquatic and/or riparian habitat. Much of the aquatic and riparian habitats have been degraded by timber cutting, road building activities, livestock grazing, mining, and other human related activities. Assessments of the current conditions of riparian and aquatic ecosystems by Forest Service personnel indicate that many elements such as pool frequency and water temperature are outside the historic ranges of variability (USDA 1992, USDA 1993).

In some areas there have been slow improvements in the condition of riparian areas but the improvements have been relatively minor and species populations have generally not responded.

Upland habitats have also been degraded due to past timber cutting, exclusion of fire, road building, and insect infestation. Amounts of late and old seral forests are generally below historic levels of variability (USDA 1992, USDA 1993) so populations of species associated with such seral stages have declined concomitantly.

Effects Of The Proposed Alternatives

Effects of implementing the proposed alternatives are described in this document based solely on the action. Because this assessment is programatic in scope and site-specific projects are not addressed, cumulative effects are described in general terms but are not accounted for in the determinations. Site-specific assessments will be prepared that will include cumulative effects analyses as project planning proceeds.

Alternative 1 - No Action

The "no action" alternative is considered the environmental baseline for the purposes of this assessment. As such it will be the basis for comparison of the alternatives.

Under this alternative timber sale planning would continue to be conducted as it has been done since the adoption of the Forest Land and Resource Management Plans. It is anticipated that there would continue to be reductions in the amounts of late and old seral forests and that fragmentation of such forest stands would likewise continue. Part of this determination is based on the fact that when screening standards and guidelines designed to reduce fragmentation and protect late and old seral forests were applied in calendar year 1993, there were modifications made to significant numbers of timber sales. In some cases sales or units were eliminated. This indicates that sale planning under the current Plans contributes significantly to reductions in amounts of late and old seral forests and fragmentation of such stands.

Recent information (USDA 1992, USDA 1993, FEMAT 1993) regarding riparian and aquatic ecology indicates that buffers and prescriptions of the current Land and Resource Management Plans are not likely sufficient to adequately reverse condition trends in such habitats. While some modest increases in habitat quality are expected under current Plans, it is unlikely that conditions would improve fast enough or to a degree that would ensure high security for species associated with these habitats. Therefore, under the no action alternative,

timber sales would continue to to be planned in areas that if cut would tend to degrade, or at least hinder the recovery of, riparian areas.

No specific provisions for small wetlands such a seeps springs, bogs and ponds less than an acre would be made. Rather the significance of these sites to threatened, endangered, and sensitive species would be evaluated during site specific project planning.

Habitat for cavity nesting species would continue to be provided at levels that are likely insufficient to sustain viable populations of those species. While no cavity excavators are currently Federally listed or designated as sensitive in the Pacific Northwest Region there would likely be indirect effects to species such as the bald eagle because of the elimination of potentially important roost sites. It also follows that if habitat for cavity nesting species are not provided, a "sensitive" designation or listing under the Endangered Species Act may be warranted in the future.

Large woody debris (logs) provide habitat for numerous species in both aquatic and terrestrial habitats. Forest Plans either offer no standards and guidelines or generally provide levels that are considered low. Current conditions indicate that numbers of logs in aquatic environments are below optimum levels. Continuation of the Forest Plans would likely result in insufficient numbers of logs on the forest floor or in riparian/aquatic areas. Examples of species negatively affected include Snake River Basin chinook salmon and bull trout. Terrestrial species such as sensitive plants are likely indirectly impacted by low numbers of logs because of reductions in nutrient cycling.

Protection of threatened, endangered, and sensitive species continues according to Forest Plans. Where Recovery Plans exist, Forests Plans have committed to following them. For species where there is no Recovery Plan, past projects have been planned that were determined to "likely adversely affect" the species. In such cases, consultation with and Wildlife Service or the National Marine Fisheries Service has been conducted. Such consultation ensures that, even though there may be "incidental take" of a listed species associated with a project, it will not jeopardize the continued existence of the species. This "avoidance" of jeopardy poses greater risk to listed species than would exist if a conservation strategy, or Recovery Plan was in effect.

The policies set forth in Forest Plans regarding management of sensitive species under Alternative 1 would continue. Essentially Forest Plans call for completion of Biological Evaluations. Biological evaluations rely heavily on surveys to locate species use areas or occurrences. Generally when sensitive species are detected, projects are designed to avoid them. Where large areas of the Forests are subject to timber harvest activities, a substantial risk of failure to detect such species exists. In the case of rare and locally endemic species, failure to locate occupied areas can result in significant losses of habitat or members of the population.

Overall the standards and guidelines of the East-side Forest Plans specify some level of late or old seral forest to be retained. The arrangement of the resulting patches of forest in these seral stages is also governed by the Forest Plans. Amounts and arrangements of late and old seral forests that would be provided in current Plans are likely insufficient to maintain viable

populations of species closely associated with such seral stages. Connectivity among late and old seral stage forest patches is generally poor as well.

Cumulative effects - There will be cumulative effects from site-specific timber sales that are prepared under the Forest Plans. In addition there would be a continuation of other activities based applicable standards and guidelines. These activities include livestock grazing, mining, recreation, land exchanges, special land uses, granting rights-of-ways and easements, and other projects. Some of these activities have had detrimental effects to the habitat or populations of threatened, endangered, or sensitive species. Because the proposed action is programatic and site-specific projects are not yet planned, it is not possible to assess the actions at the site-specific level. Therefore assessments will be prepared for projects that will address the site-specific aspects of the projects and account for the cumulative effects.

Activities will continue on State and Private lands independently from the alternatives assessed in this document. Habitat conditions for threatened and endangered species on private lands are generally poorer than those found on National Forests. It is unlikely that there will be appreciable increases in the amounts of high quality habitat for threatened, endangered, or sensitive species on private lands in the short term (10 years).

Conclusions - Based on effects of the proposed action, the following determinations have been made for Alternative 1:

The "no action" alternative "may affect" and is likely to adversely affect" the following endangered and threatened species or critical habitat:

Lost River Sucker	Shortnosed sucker
Gray Wolf	Snake River Basin chinook
Critical Habitat-Snake River Basin spring/summer/fall chinook salmon	Grizzly bear

These effects will primarily result from the continued degradation of riparian areas, brought about by timber harvest and associated road construction that occurs on National Forests. The primary detrimental effects to grizzly and gray wolf are associated with additional road construction. Although there will likely be adverse effects, jeopardy will be avoided because of the requirements for consultation.

For Alternative 1, a determination of "may affect" but "not likely to adversely affect is made for the following endangered and threatened species:

American peregrine falcon	Woodland caribou
McFarlane's four o'clock	Northern bald eagle

These determinations are based on the existence of, and adherence to, Recovery Plans for these species and the upward trends in their populations. There is also a relatively low risk of not detecting individuals of these species in a proposed project area. This success in surveying allows projects to be planned and carried out so that adverse effects are avoided.

Based on the standards and guidelines of the Forest Plans that provide direction for timber sale planning on National Forests, it is likely that some of the sensitive species or their habitat will be impacted. If the Biological Evaluation process is rigorously carried out, the impacts should be limited to individuals and there should not be a trend toward Federal listing or loss of viability for any of the species.

Alternative 2. Moratorium On Timber Sale Activities

Compared to the environmental baseline, implementation of a moratorium on timber sales would result in less risk to threatened, endangered, and sensitive species. Under this alternative there would be a cessation of timber sale planning and harvest would be limited to that associated with ongoing sales. There would be no reductions in the amounts of late and old seral forests and that fragmentation of such forest stands from timber harvest. It is possible that they may be an increased risk of catastrophic fire that would result in loss of such seral stands under a moratorium. However, there is considerable difference of professional opinion regarding the existence, or significance of, any reduction in fire risk resulting as a result of timber harvest. The amount of increased risk, if any, would be affected by the duration of a moratorium.

Riparian protection would be enhanced compared to the current situation. Road construction in riparian areas would be sharply curtailed since most roads are associated with timber sales. Small wetlands described earlier in this document would also gain additional protection under this alternative.

Depending on the duration, a moratorium on timber sale planning and harvest could provide significant contributions to circumstances necessary to slow or curtail the decline in quality of habitat in riparian areas.

Under Alternative 2, there would be an increase in the number of snags compared to the environmental baseline. Conditions for species that depend on dead trees and other species that are indirectly benefited would increase. Likewise there would be less risk of creating areas deficient in numbers of logs on the forest floor.

Protection of threatened and endangered species continues according to the Forest Plans. In addition to the effects described for Alternative 1, there would be additional reduction of risk to listed species. This reduction of risk is associated with a reduction in numbers and acreage of timber sales, hence less road construction and less chance of actually impacting individuals of the species. This risk reduction is particularly important as it pertains to rare and locally endemic species. As a result of the moratorium, there would be no "likely to adversely affect" determinations made as a result of proposed timber sales.

Sensitive species would also be afforded greater protection under Alternative 2. The reduction in the amount of ground disturbing activities would decrease the risk that such species are unknowingly impacted because they were not detected in the specific action areas.

Cumulative effects - Cumulative effects described under Alternative 1 are applicable to Alternative 2.

Conclusions - Based on the effects of the proposed action the following determinations have been made for Alternative 2:

The "Moratorium" alternative "may affect" but is "not likely to adversely affect" the following endangered and threatened species:

Lost River Sucker	Shortnosed sucker
Gray Wolf	Snake River Basin chinook
Grizzly bear	American peregrine falcon
Woodland caribou	McFarlane's four o'clock
Critical Habitat-Snake River Basin spring/summer/fall chinook salmon	Northern bald eagle

These determinations are based on the expected effects of implementing Alternative 2 which would significantly reduce the impacts from timber harvest to listed species. Only hazard tree removal and limited treatment of vegetation within recreational special use areas would be permitted. This sharp reduction of timber harvest would eliminate impacts due to timber sale activity for the most part. Cutting that would occur may have the potential to to affect a listed species or designated critical habitat but such effects should be insignificant or discountable and therefore "not likely to adversely affect" the listed species.

Based on the reduction of timber harvest under Alternative 2 it is likely that there will be only very minor effects to sensitive species or their habitat because of timber harvest. It is likely that impacts will be limited to individuals and there should not be a trend toward Federal listing or loss of viability for any of the species.

Alternative 3 - Implementation Of A Screening Process

Compared to the environmental baseline, implementation of a screening process for the preparation of timber sales would result in less risk to threatened, endangered, and sensitive species but a somewhat greater risk than under Alternative 2. Under Alternative 3, reductions in the amount of late and old seral forests would be allowed only in watersheds where analysis of current conditions indicated that amounts and connectivity were within the historic range of variability. Rates of fragmentation would be reduced and cutting units would be designed to mimic natural disturbances as much as possible.

Standards and guidelines in Alternative 3 that provide for the consideration and protection of areas of late and old seral forests that connect larger patches of such forest will also reduce the risk to threatened, endangered, and sensitive species compared to Alternative 1. The reduction in risk associated with this factor is not as great under Alternative 3 as under Alternative 2.

Riparian protection would be enhanced compared to the current situation. However the screens do not offer the degree of protection from road construction that is inherent in Alternative 2. Small wetlands described earlier in this document would be evaluated as under Alternative 1. Therefore, overall, this alternative offers a level of security to riparian and aquatic species that falls between Alternative 1 and Alternative 2. As in Alternative 2, there could be significant contributions to circumstances necessary to increase the quality of habitat in riparian areas under Alternative 3 when considering effects of the timber sale program.

Under Alternative 3, there would be an increase in the number of snags compared to the environmental baseline but less than would occur under Alternative 2. Conditions for species that depend on dead trees and other species that are indirectly benefited would increase somewhat. Likewise there would be less risk of creating areas deficient in numbers of logs on the forest floor than exists under Alternative 1 but greater than for Alternative 2.

Protection of threatened, endangered, and sensitive species continues according to the Forest Plans. In addition to the effects described for Alternative 1, there would be additional reduction of risk to these species as described for Alternative 2 but to a lesser degree.

Sensitive species would also be afforded greater protection under Alternative 3 compared to Alternative 1 but less than under Alternative 2. The reduction in the amount of ground disturbing activities would decrease the risk that such species are unknowingly impacted because they were not detected in the specific action areas.

Cumulative effects - Cumulative effects described under Alternative 1 are applicable to Alternative 3.

Conclusions - Based on the effects of implementing the proposed action, the following determinations have been made for Alternative 3;

Alternative 3 is "not likely to adversely affect" the following endangered and threatened species:

Lost River Sucker	Shortnosed sucker
Gray Wolf	Snake River Basin chinook
Grizzly bear	American peregrine falcon
Woodland caribou	McFarlane's four o'clock
Critical Habitat-Snake River Basin spring/summer/fall chinook salmon	Northern bald eagle

These determinations are based on the expected effects of implementing Alternative 3 which, although not a far reaching as Alternative 2, would significantly reduce the impacts from timber harvest to listed species. No timber harvest would be permitted in the riparian emphasis areas (described above) and harvest in late or old seral forests would be allowed only where

assessments indicate that such harvest does not reduce the amount of older forests below levels that existed historically. In addition, connecting patches of late and old seral forests would be left to ensure species movement among patches of older forests. Other aspects of Alternative 3 combine to significantly reduce timber harvest and therefore reduce impacts due to timber sale activity. Therefore the action of implementing the screens should reduce impacts to listed species or designated critical habitat. Effects that do occur as a result of timber harvesting should be insignificant or discountable and therefore "not likely to adversely affect" the listed species.

Based on the reduction of timber harvest under Alternative 2 it is likely that there will be limited effects to sensitive species or their habitat because of timber harvest. It is likely that impacts will be limited to individuals and there should not be a trend toward Federal listing or loss of viability for any of the species.

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APPENDIX A
TABLES OF THREATENED, ENDANGERED AND SENSITIVE SPECIES THAT OCCUR ON EAST-SIDE FORESTS

Table 1.

ENDANGERED SPECIES
AND OCCURRENCE ON "EAST-SIDE" FORESTS

Occurrence by Forest	Lost River Sucker	Shortnose Sucker	American Peregrine Falcon	Gray Wolf	Woodland Caribou	McFarlane's 4 O'Clock
COL			D	D	D	
DES			D			
FRE		S	D			
MAL			D			
OCH			S			
OKA			S	D		
UMA			S			
WAW			D			D
WIN	D	D	D			

D = Documented Occurrence
S = Suspected Occurrence

Table 2.

THREATENED SPECIES
AND OCCURRENCE ON "EAST-SIDE" FORESTS

Occurrence by Forest	Snake River Basin Chinook Fall Run	Snake River Basin Chinook Spring/Sum	Northern Spotted Owl	Grizzly Bear	Northern bald eagle
COL				D	D
DES			D*		D
FRE					D
MAL					D
OCH					D
OKA			D*	D	D
UMA	D*	D*			D
WAW	D*	D*			D
WIN			D*		D

D = Documented Occurrence
S = Suspected Occurrence
* = Only part of the Forest is within the range of the species and the northern spotted owl does not occur in the action area.

Table 3.

DESIGNATED CRITICAL HABITAT
OCCURRENCE ON "EAST-SIDE" FORESTS

Occurrence by Forest	Northern Spotted Owl	Snake River Basin Spring/ Summer Chinook	Snake River Basin Fall Chinook			
COL						
DES	D					
FRE						
MAL						
OCH						
OKA	D					
UMA		D	D			
WAW		D	D			
WIN	D					

D = Documented Occurrence - Note Critical Habitat for the northern spotted owl does not occur in the action area.

Table 4.

SENSITIVE ANIMAL SPECIES THAT OCCUR ON
THE TEN "EAST-SIDE" FORESTS
AND SUSPECTED OR DOCUMENTED OCCURRENCE BY FOREST

Redband trout - All

Bull trout - All but OCH

Oregon Lakes chub - FRE

Goose Lake sucker - FRE

Klamath large scale sucker - FRE, WIN

Malheur mottled sculpin - MAL, OCH

Pit Sculpin - FRE

Slender Sculpin - WIN

Snake River Basin steelhead - UMA, WAW

Northwestern pond turtle - FRE, WIN

Common loon - COL, OKA

White pelican - FRE, WIN

Ferruginous hawk - COL, DES, FRE, MAL, OKA, WAW, WIN

Western sage grouse - FRE, MAL, OCH, WAW

Greater sandhill crane - COL, DES, FRE, MAL, OCH, WAW, WIN

Long-billed curlew - DES, FRE, MAL, OCH, OKA, WAW, WIN

Upland sandpiper - MAL, OCH, WAW

Tricolored blackbird - FRE

Harlequin duck - OKA, WAW

Yellow rail - WIN

Black rosy finch - MAL, WAW

Prebles' shrew - MAL, OCH, UMA, WAW

Pacific western big-eared bat - All but OKA

Pygmy rabbit - DES, OKA

California Wolverine - All

North American lynx - COL, MAL, OKA, UMA, WAW, WIN

California bighorn - COL, FRE, MAL, OKA, UMA, WAW

Schuhs' homoplectran caddisfly - WIN

Alsea microcaddisfly - DES

Cascades apatanian caddisfly - DES

Blue Mtn. cryptochian caddisfly - MAL, UMA, WAW

* Refer to the Regional Forester's Sensitive Species List (FSM 2670) for scientific nomenclature.

Table 5.

SENSITIVE PLANTS

Documented or Suspected to occur on one or more Eastside Forests

December 1993

Agoseris elata	DES	OKA					
Agrostis borealis		OKA					
Allium bolanderi		WIN					
Allium brandegi	MAL	OCH	UMA	WAW			
Allium companulatum		DES	FRE	MAL	OCH	UMA	WAW	WIN
Allium dictuon	UMA						
Allium geyeri	WAW						
Antennaria aromatica		WAW					
Antennaria corymbosa		COL					
Antennaria parviflora		COL					
Arabis suffrutescens var. horizontalis	WIN						
Arnica viscosa	DES	WIN					
Artemisia ludoviciana ssp. estesii		DES	OCH				
Asarum wagneri	WIN						
Asplenium viride		WAW					
Aster gormanii	DES						
Aster sibiricus var. meritus	UMA						
Astragalus arthuri		UMA					
Astragalus atratus var. owyheensis		MAL	WAW				
Astragalus cusickii var. cusickii	UMA						
Astragalus diaphanus var. diurnus	MAL	OCH					
Astragalus howellii		OCH					
Astragalus microcystis		COL					
Astragalus peckii		DES	OCH	WIN			
Astragalus tegetarioides		MAL	OCH				
Betula papyrifera var. commutata		UMA	WAW				
Botrychium ascendens		WAW					
Botrychium crenulatum		WAW					
Botrychium lanceolatum		COL	WAW				
Botrychium lunaria		COL	OKA	UMA	WAW		
Botrychium minganense		COL	OKA	WAW			
Botrychium montanum		OKA					
Botrychium pedunculosum		WAW					
Botrychium pinnatum		COL	OKA	WAW			
Botrychium pumicola		DES	FRE	WIN			
Botrychium simplex		FRE	OKA				
Bupleurum americanum		MAL	UMA	WAW			
Calamagrostis breweri		COL					
Calliergon trifarium		WIN					

Calochortus longebarbatus var. longebarbatus				DES	FRE	OCH	WIN
Calochortus longebarbatus var. peckii	MAL	OCH					
Calochortus macrocarpus var. maculosus	WAW						
Calochortus nitidus	UMA						
Campanula scabrella	DES	WAW					
Carex aenea	COL						
Carex atrata var. atrosquama	OKA						
Carex atrata var. erecta	OKA						
Carex buxbaumii	COL	OKA					
Carex flava	COL						
Carex hystricina	COL	OKA					
Carex livida	DES						
Carex nova	WAW						
Carex novegica	OKA						
Carex paupercula	COL	OKA					
Carex saxatilis	OKA						
Carex scirpoidea	OKA						
Carex scopulorum var. prionophylla	COL	OKA					
Castilleja chlorotica	DES	FRE	WIN				
Castilleja fraterna	WAW						
Castilleja rubida	WAW						
Cheilanthes feei	COL	WAW					
Chrysosplenium tetrandrum	OKA						
Cicuta bulbifera	COL	OKA	WIN				
Collomia mazama	WIN						
Cryptogramma stelleri	COL	OKA	WAW				
Cymopterus nivalis - C. bipinnatus	DES	MAL	WAW				
Cypripedium calceolus	COL	FRE	OKA				
Cypripedium fasciculatum	MAL	UMA	WAW				
Dodecatheon pulchellum var. watsonii	OKA						
Draba aurea	OKA						
Draba cana - D. lanceolata	OKA						
Dryas drummondii	COL						
Dryopteris cristata	COL						
Dryopteris filix	MAL	UMA	WAW				
Epipactis gigantea	OKA						
Erigeron acris var. elatus	OKA						
Erigeron engelmannii var. davisii	WAW						
Erigeron humilis	OKA						
Erigonum diclinum	WIN						
Erigonum prociduum	FRE						
Eriophorum viridicarinatum	COL	OKA					
Eritrichium nanum var. elongatum	OKA						
Gaultheria hispidula	COL						
Gentiana glauca	OKA						
Gentiana newberryi	DES	WIN					
Geum rivale	COL	OKA					

Geum rossivar. turbinatum	MAL	UMA	WAW		
Haplopappus liatriformis	UMA				
Haplopappus whitneyi ssp. discoideus	WIN				
Hieracium bolanderi	DES	WIN			
Howellia aquatilis	COL				
Ivesia shockleyi	FRE				
Kobresia myosuroides	WAW				
Kobresia simpliciuscula	WAW				
Leptodactylon pungens ssp. hazeliae	WAW				
Listera borealis	COL	OKA			
Lobelia dortmanna	DES				
Lomatium cusickii	UMA				
Lomatium erythrocarpum	MAL	WAW			
Lomatium greenmanii	WAW				
Lomatium "pastoralis"	UMA	WAW			
Lomatium salmoniflorum	UMA	WAW			
Luina serpentina	MAL				
Lupinus cusickii	MAL	WAW			
Lupinus sabini UMA					
Lycopodium complanatum	DES	MAL	OCH	UMA	WAW
Lycopodium dendroideum	COL				
Melica stricta DES					
Mimulus clivicola	WAW				
Mimulus hymenophyllus	WAW				
Mimulus jepsonii	DES	FRE	WIN		
Mimulus patulus WAW					
Mimulus pygmaeus	FRE				
Mimulus suksdorfii	OKA				
Mimulus tricolor	FRE	WIN			
Mimulus washingtonensis	MAL	OCH	UMA		
Muhlenbergia glomerata	COL				
Nymphaea tetragona	COL				
Ophioglossum vulgatum	DES				
Oryzopsis hendersonii	MAL	OCH	WAW		
Oxypolis occidentalis	FRE				
Parnassia kotzebuel	FRE				
Pellaea brachyptera	OKA				
Pellaea bridgesii	MAL	WAW			
Penstemon glaucinus	FRE	WIN			
Penstemon peckii	DES				
Perideridia erythrorhiza	WIN				
Perideridia howellii	WIN				
Phaealia frankinii	COL	OKA			
Phacelia minutissima	WAW				
Phlox multiflora	UMA	WAW			
Physaria didymocarpa var. didymocarpa	UMA				
Plantanthera obtusata	OKA	WAW			

Pleuropogon oregonus	FRE	MAL	WAW		
Poa grayana	OKA				
Polemonium viscosum	OKA				
Potentilla diversifolia	OKA				
Potentilla nivea	OKA				
Potentilla quinquefolia	OKA				
Primula cusickiana	WAW				
Ranunculus longirostris	COL				
Ranunculus oresterus	MAL	UMA	WAW		
Ribes cereum var. columbrinum	UMA				
Ribes oxyacanthoides ssp. cognatum	COL	UMA			
Ribes oxyacanthoides ssp. irriguum	COL				
Rorippa columbiae	FRE	OCH	WIN		
Rubus acaulis	OKA				
Rubus bartonianus	WAW				
Salix candida	COL				
Salix farriae	WAW				
Salix maccalliana	COL				
Salix tweedyi	OKA				
Sanicula marilandica	COL	OKA			
Saxifraga adscendens var. oregonensis	WAW				
Saxifraga cernua	OKA				
Saxifraga debellis	OKA				
Senecio dimorphophyllus	WAW				
Senecio porteri	WAW				
Silene nuda ssp. insectivora	FRE	WIN			
Silene spaldingii	UMA	WAW			
Sisyrinchium septentrionale	COL				
Stylocline psilocarphoides	FRE				
Teucrium canadense ssp. viscidum	COL	OKA			
Thalictrum alpinum var. hebetum	WAW				
Thalictrum dasycarpum	COL				
Thelypodium brachycarpum	FRE	WIN			
Thelypodium eucosmum	MAL	OCH	UMA	WAW	
Thelypodium howellii ssp. howellii	MAL	OCH			
Tillaea aquatica	COL				
Townsendia montana	WAW				
Townsendia parryi	WAW				
Trollius laxus var. albiflorus	WAW				
Vaccinium myrtilloides	COL	OKA			

United States Department of the Interior

FISH AND WILDLIFE SERVICE
911 NE. 11th Avenue
Portland, Oregon 97232-4181

IN REPLY REFER TO

FEB 24 1994
FEB 1 F 1994
FFLRN/EA

Re: 1-7-94-I-153

John E. Lowe, Regional Forester
U.S. Forest Service
Pacific Northwest Region
P.O. Box 3623
Portland, Oregon 97208-3623

Dear Mr. Lowe:

This responds to your January 21, 1994, letter transmitting your biological evaluation of the alternatives considered to provide guidance for the design and preparation of timber sales on nine eastside National Forests in Oregon and Washington.

Alternative 3 has been presented as the preferred alternative. If adopted, Alternative 3 would be implemented for an interim period until a scientifically-sound, ecosystem-based strategy for the management of these National forests is adopted. The selected alternative would be applied to eastside Forests in Oregon and Washington outside the range of the northern spotted owl. In Oregon, affected National Forests would be the Fremont National Forest, Ochoco National Forest, Umatilla National Forest, Winema National Forest, Deschutes National Forest, Malheur National Forest, and Wallowa-Whitman National Forest. In Washington, affected National Forests would be the Colville National Forest, Okanogan National Forest, and the Umatilla National Forest.

The biological evaluation is programmatic in scope. Site-specific projects are not addressed. Cumulative effects are described in general terms, but are not accounted for in the determinations. The Forest Service has stated that site-specific assessments will be prepared that will include cumulative effects analyses as project planning proceeds. Under Alternative 3, a set of "screens" would be applied to proposed timber planning units. The following actions or results are anticipated:

1) the protection of threatened, endangered, and sensitive species and review of project impacts will continue according to the Forest Plans;
2) as individual timber sales are proposed, consultation under section 7 of the Endangered Species Act will be initiated if proposed actions may affect listed species;
3) reductions in the amount of late and old seral forests would be allowed only in watersheds where analysis of current conditions indicate that amounts and connectivity were within the historic range of variability;
4) rates of fragmentation would be reduced compared to Alternative 1 (i.e. the continued application of current Land and Resource Management plans for East-side Forests);
5) cutting units would be designed to mimic natural disturbances as much as possible; and

6) no timber harvest would be permitted in the riparian emphasis areas.

These anticipated results form the basis of the Forest Service's determination of impacts to listed species. Our comments by State, follow:

OREGON

The biological evaluation presents the determination that adoption of Alternative 3 as an interim process is "not likely to adversely affect" the Lost River sucker, shortnose sucker, McFarlane's four o'clock, American peregrine falcon, and northern bald eagle. The Service concurs with this determination.

WASHINGTON

The biological evaluation presents the determination that adoption of Alternative 3 as an interim process is "not likely to adversely affect" the American peregrine falcon, northern bald eagle, grizzly bear, gray wolf, and woodland caribou. The Service concurs with this determination.

If you have questions regarding comments pertaining to Oregon, please contact Russell Peterson, Field Supervisor, Portland Field Office at (503) 231-6179. For questions pertaining to Washington you should contact Dave Frederick, Field Supervisor, Olympia Field Office at (206) 753-9440.

Sincerely,

for WILLIAM F. SHAKE
Regional Director

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way, N.E.
Bin C15700, Bldg. 1
Seattle, Washington 98115-0070

MAR - 9 1994

F/NW

Mr. John E. Lowe, Regional Forester
Pacific Northwest Region
U.S. Forest Service
P.O. Box 3623
Portland, Oregon 97204

Dear Mr. Lowe:

Re: Timber Sale "Screens" for Nine East-Side National Forests in Oregon and Washington

This responds to your January 21, 1994, letter requesting informal consultation on the adoption of a set of criteria ("screens") to provide guidance for the design and preparation of timber sales in nine east-side national forests in Oregon and Washington. In the biological evaluation (BE) that accompanied your letter, the U.S. Forest Service (FS) determined that the use of the screens is not likely to adversely affect species listed under the Endangered Species Act (ESA). This consultation is undertaken under section 7(a)(2) of the ESA and its implementing regulations, 50 CFR Part 402.

Two species listed under the National Marine Fisheries Service's (NMFS) ESA jurisdiction, Snake River spring/summer chinook salmon and Snake River fall chinook salmon, are likely to occur in portions of the action area or in downstream areas that may be affected by the action and were considered during this consultation. Designated critical habitat for ESA-listed Snake River salmon (58 FR 68543, December 28, 1993) occurs within portions of the action area for the proposed action.

NMFS reviewed the following information during this consultation: a January 21, 1994, letter from John Lowe, FS, to Merritt Tuttle, NMFS, transmitting a January 10, 1993 (assumed to be 1994) BE and an undated document entitled "Alternative 3: Environmental Analysis for Eastside Interim Guidelines, The Screening Process" (EA).

The proposed action is the preferred alternative among three options described in the BE for the design and preparation of

timber sales in nine east-side national forests in Oregon and Washington. Of the nine national forests that would be affected, only the Umatilla and Wallowa-Whitman National Forests (Forests) presently contain ESA-listed species under NMFS' jurisdiction. If the preferred alternative is adopted, it would be implemented on an interim basis through amendments to existing Land and Resource Management Plan (LRMP) amendments until an ecosystem-based strategy for the management of these national forests is adopted (the BE did not specify a time frame for development of such a strategy).

The preferred alternative includes a set of riparian habitat screens and a set of screens to maintain old-growth and late seral forest stages within the range of historic variability, and to reduce fragmentation of old-growth and late seral forest stands (vegetation screens). The screens would consist of interim standards and guidelines to be applied in addition to those in current LRMPs. The interim standards and guidelines would be applied during the planning of fiber sales, sales of dead trees less than 7 inches in diameter, salvage sales, and sales of live green trees (including precommercial thinnings and commercial thinnings). Sales would not be planned in streamside Riparian Emphasis Areas, defined in the EA as follows:

a. Perennial and intermittent fish-bearing streams:
Consists of the stream and the area on either side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of two site-potential trees, or 300 feet slope distance (600 feet including both sides of the stream channel), whichever is greatest. In those streams that are part of designated critical habitat for anadromous species a minimum distance 300 feet horizontal distance will be used.

b. Perennial non- fish-bearing streams:
Consists of the stream and the area on either side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of one site-potential tree, or 150 feet slope distance (300 feet, including both sides of the stream channel), whichever is greatest.

c. Intermittent non- fish-bearing streams:
Consists of the stream and the area on either side of the stream extending from the edges of the stream channel to the top of the inner gorge, or to the outer edges of riparian

vegetation, or to the extent of landslides or landslide-prone areas, or to a distance of 100 feet slope distance (200 feet, including both sides of the stream), whichever is greatest.

The proposed screens are similar but not identical to the Riparian Reserves proposed in the Forest Ecosystem Management Team (FEMAT) report (FEMAT 1993). The proposed screens do not represent a comprehensive approach to protecting salmon habitat, because they do not address non-timber activities that can degrade habitat such as road construction, livestock grazing, recreation, mining, etc. Also, the proposed screens do not address the need to restore degraded salmon habitat. However, the screens would offer greater protection to riparian areas and their streams than that offered by the standards and guidelines contained in the LRMPs. The riparian screens generally would increase the width of buffers between stream channels and timber sale activities relative to the minimum buffers required under the LRMPs. In general, this would result in fewer and less substantial harmful effects of future timber sales on listed salmon species, relative to what would have occurred without the screens. Sediment delivery to streams, recruitment potential for large woody debris, stream shading, water temperatures, and other ecological functions affecting salmon likely will remain closer to natural conditions in potential timber sale areas than would have occurred if timber sales were carried out in the same areas under the standards and guidelines contained in the LRMPs (note that NMFS did not attempt to analyze the sufficiency of LRMPs in protecting listed salmon).

NMFS did not include possible effects of the vegetation screens in its analysis of the effects of the proposed action, because the vegetation screens were not designed with protection of fish habitat as a goal. However, additional protection of old-growth and late-seral stage forests is not likely to adversely affect listed species, and could help reduce damage to salmon habitat relative to what might have occurred under the LRMPs. In particular, since some of these forests likely occur in roadless areas that offer high-quality fish habitat and probably will not be entered if timber sales are avoided therein.

The on-the-ground result from the adoption of these screens would be to preserve existing riparian habitat by restricting timber harvest that otherwise would be allowable under the existing LRMPs. Thus, since this action would not change the environmental baseline, there are not likely to be "effects of the action" as that term is defined by our regulations, 50 CFR § 402.02. Effects of the action are differences in the environmental baseline before and after the action is implemented. Here the existing environment would not change.

Because the proposed action is programmatic in nature, that is does not authorize any site specific timber sales, further consultation will be necessary on site-specific actions once they are designed and proposed. Individual timber sales that pass the screens will be subject to consultation under section 7 of the ESA in accordance with 50 CFR Part 402 and in accordance with the interagency agreement between the FS and NMFS (signed by Gray Reynolds, John Butruille, and David Jolly, FS, and Rolland Schmitten, NMFS during February and March, 1992), and with the interagency letter signed by Gray Reynolds, John Lowe, and David Jolly, FS, and Rolland Schmitten, NMFS, on February 16, 1993. Based on the available information, NMFS concurs with the FS' determination that the implementation of the proposed set of screens for design and preparation of timber sales in nine east-side national forests in Oregon and Washington is not likely to adversely affect listed Snake River spring/summer chinook salmon or Snake River fall chinook salmon or adversely modify their critical habitat.

This concludes informal consultation on this action in accordance with 50 CFR 402.14(b)(1). The FS must reinitiate this ESA consultation if new information becomes available or circumstances occur that may affect listed species in a manner or to an extent not previously considered, if a new species is listed or its critical habitat is designated, or if designated critical habitat is amended in a way that may be affected by the action. If you have any questions please contact Mr. Jeffrey Lockwood, of my staff, at (503) 231-2339.

Sincerely,

J. Gary Smith
Acting Regional Director

cc: USFS, Region 6 - Grant Gunderson
Umatilla N.F. - Jeff Blackwood, Forest Supervisor
Wallowa-Whitman N.F. - Bob Richmond, Forest Supervisor

References

Forest Ecosystem Management Team (FEMAT). 1993. Forest ecosystem management: An ecological, economic, and social assessment. Forest Service, National Marine Fisheries Service, Bureau of Land Management, Fish and Wildlife Service, National Park Service, and Environmental Protection Agency. July 1993.

United States Department of Agriculture
Forest Service
Pacific Northwest Region
P.O. Box 3623
Portland, OR 97208-3623
333 S.W. First Avenue
Portland, OR 97204

Reply To: 1920/2600

Date: May 26, 1994

Marvin L. Plenert
Regional Director
U.S. Fish and Wildlife Service
911 N.E. 11th Avenue
Portland, OR 97232

Merritt Tuttle
Division Chief
National Marine Fisheries Service
911 N.E. 11th Avenue, Room 620
Portland, OR 97232

RE: Eastside Timber Sale Screening Environmental Assessment

Dear Mssrs. Plenert and Tuttle:

On May 20, I issued a a Decision Notice for forest plan amendments, which adopted interim riparian, ecosystem, and wildlife standards for timber sale design and preparation on the following 9 eastside National Forests in Oregon and Washington: Colville, Deschutes, Fremont, Malheur, Ochoco, Okanogan, Umatilla, Wallowa-Whitman, and Winema. Both of your agencies concurred with our January 10, 1994, biological evaluation determination of not likely to adversely affect. U.S. Fish and Wildlife Service concurred in a February 16, 1994, letter re: 1-7-94-I-153; National Marine Fisheries Service concurred in a March 9, 1994, letter re: Timber Sale "Screen" for Nine Eastside National Forests in Oregon and Washington.

As a part of our environmental analysis, we looked to our experience over the past months of implementing the screening process and found some portions of the screens, as originally written, were unclear and overlooked a few important factors. We have clarified the screens before adopting them as timber sale planning standards. None of the modifications expand, detract, or redefine the original intent of the screening process. The following is a description of the modifications to the interim standards:

1. Exempted Sales. The August 18, 1993, interim direction described the types of sales that would not be subjected to the screening process (personal use firewood, post and pole, and sales to protect health and safety). The interim standards add "sales to modify vegetation within recreation special use areas" because the scope and impact of the incidental and selective timber harvest in these areas was in alignment with the previously exempted types of sales.

2. Riparian Standard. As originally described, only timber sales "substantially completed" had to be screened for riparian effects. Because the interim standards require that harvest of timber in riparian areas be avoided for the interim, the "substantially completed" criteria has been deleted.

The interim riparian standard corrects the description of riparian areas by including ponds, lakes, reservoirs, seeps and springs, bogs, and wetlands. Their omission in the screening process was an oversight. The intention was to protect all riparian areas.

3. Ecosystem Standard. No changes are made to the way the original direction was implemented other than condensed wording. Of the four common sense questions in the screening process, only question one applies to the purpose and need of the proposed action. The other three questions were dropped.

4. Wildlife Standard. "Remnant old and late seral and/or structural live trees" from the screening process is clarified by adding the "≥21 inch diameter at breast height (dbh)" description, which better describes the original intent. The screening process omitted a description and direction for maintaining open, parklike stands of ponderosa pine habitat for the white-headed woodpecker, a key old-forest associated species. That direction is now included in the interim wildlife standard. Forest personnel requested clarification on how to maintain snags in lodgepole pine stands because original snag tree sizes could not be met in lodgepole pine; the interim standard now specifies that lodgepole pine ≥10 inch dbh or the largest trees available be retained to meet the snags and green tree/roost tree requirement. Due to difficulty and confusion in implementing the down log requirements, a chart is included that specifies the pieces per acre, diameter, and length of down logs by species type.

These modifications and clarifications do not affect the biological evaluation your agencies received in January. These changes will allow better implementation of the interim standards when formally adopted. I am enclosing a copy of the entire text of the interim standards. I am not requesting an additional review by your agencies. If you have questions, you may direct them to Grant Gunderson (503-326-6602) or Lisa Norris (503-326-6641) of my staff.

Sincerely,

JOHN E. LOWE
Regional Forester

Enclosure

cc:
USFWS, Portland Field Office
USFWS, Olympia Field Office

APPENDIX C

January 10, 1993 [sic] Biological Evaluation of the Alternative Considered for Timber Sale Planning and Interim Forest Plan Amendment for Nine East-side National Forests In the Pacific Northwest Region of the Forest Service

February 16, 1994, U.S. Department of Interior, Fish and Wildlife Service letter to John E. Lowe, Regional Forester, U.S. Forest Service Re: 1-7-94-I-153, concurring with Biological Evaluation

March 9, 1994, U.S. Department of Commerce, Nationl Marine Fisheries Service letter to Mr. John E. Lowe, Regional Forester, Pacific Northwest Region Re: Timber Sale "Screens" for the Nine EastiSide Natinal Forests in Oregon and Washington, concurring with Biological Evaluation

May 27, 1994, U.S. Forest Service letter to Marvin Plenert, U.S, Fish and Wildlife Service and Merritt Tuttle, National Marine Fisheries Service Re: modifications to screening process

Biological Evaluation for the
Revised Environmental Assessment
of the "Eastside Interim Standards"

March 16, 1995

A. Grant Gunderson
Threatened, Endangered, and Sensitive Species Program Manager

Introduction

A biological evaluation (BE) dated January 7, 1993, was prepared to assess the effects of implementing several alternatives that would guide the preparation of timber sales on nine "east-side National Forests in Oregon and Washington. That document, titled "Biological Evaluation of the Alternatives Considered for Timber Sale Planning and Interim Forest Plan Amendment for Nine East-side National Forests in the Pacific Northwest Region of the Forest Service", included an assessment of Alternative 3 that included a screening process to be applied on an interim basis. Alternative 3 was eventually implemented following informal consultations with the National Marine Fisheries Service and the Fish and Wildlife Service and is referred to as the "Eastside Interim Standards". This biological evaluation is intended to tier from the January 7, 1993, BE and therefore will focus on the changes that are proposed to the Eastside Interim Standards and any effects that may occur as a result of such changes. Please refer to the January 7, 1993, biological evaluation, on file in the Pacific Northwest Regional Office of the Forest Service in Portland, Oregon, for details.

It should be noted that since the implementation of the Eastside Interim Standards, the Forest Service has adopted, on an interim basis, an aquatic conservation strategy known as "PACfish". This conservation strategy sets forth standards and guidelines for riparian areas that replace the riparian screens in the Eastside Interim Standards. A BE and Environmental assessment was prepared for PACfish and consultation with the regulatory agencies was completed. Therefore no modifications are proposed for the riparian standards of the Eastside Interim Standards.

This BE satisfies the requirements of Forest Service Manual 2672.4 that requires the Forest Service to review all planned, funded, executed, or permitted programs and activities for possible effects on endangered, threatened, proposed, or sensitive species.

Description of the Proposed Action

Two alternatives have been proposed by the the Pacific Northwest Regional Office to apply to the Eastside Interim Standards and are described as follows:

Alternative 1. No action

Under this alternative there would be no changes to the Eastside Interim Standards. Application of the standards would continue on the nine affected National Forests until the comprehensive landscape planning can be completed.

Alternative 2. Proposed modifications to the Ecosystem Screen and the Wildlife Standards sections of the Eastside Interim Standards.

Proposed modifications of the Ecosystem screen consist of changing the classification of forest stands from one of three seral stages to one that identifies seven structural stages. The classification of structural stages provides better insight to the relationship of stands to site conditions and wildlife habitat values than seral stage classification. The term late and old structural (LOS) stands will continue to be used for the structural stages where old trees occur.

Following the classification of the stands, the historic range of variability (HRV) for each of the structural stages would be determined and timber harvest would be allowed only where amounts were above the HRV. This is the same standard that is currently in the Eastside Interim Standards.

Proposed modifications of the Wildlife Standards consist of changes in terminology for the purposes of clarification otherwise the substance of the standards remains the same as those in the Eastside Interim Standards.

Effects of the Proposed Alternatives

Alternative 1. No Action

Allowing the present screens of the Eastside Interim Standards to continue will have no effects on threatened, endangered, proposed or sensitive species that have not already been accounted for and described in the January 7, 1993, BE. Consultation has been previously completed for the Eastside Interim Standards as Alternative 3 in the Environmental Assessment. Consultation was concluded when letters of concurrence, with a determination that the screening processes were "not likely to adversely affect" listed species or critical habitat, were provided by the National Marine Fisheries Service and the Fish and Wildlife Service.

Alternative 2. Proposed modifications to the Ecosystem Screen and the Wildlife Standards sections of the Eastside Interim Standards.

Because the proposed changes serve to clarify terminology and intent of the Eastside Standards rather than affect the substance of the screens, there are no effects to threatened, endangered, proposed, or sensitive species that have not been previously accounted for in the January 7, 1993, BE. As in Alternative 1 above, consultation has previously been completed for the screening process and letters of concurrence from the regulatory agencies have been obtained.

Literature Cited

Gunderson, A. Grant. 1993. Biological Evaluation of the Alternatives Considered for Timber Sale Planning and Interim Forest Plan Amendment for Nine East-side National Forests in the Pacific Northwest Region of the Forest Service. Unpublished report. 13 pp plus appendices.