

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)

I. INTRODUCTION

This Environmental Assessment considers whether to continue the use of interim management direction for timber sales on the National Forests on the east side of the Cascade Mountain Range in Oregon and Washington -- the Eastside Forests.¹ The interim direction began as a screening process for pending timber sales established in an August 18, 1993 Memorandum issued by John E. Lowe, the Regional Forester for Region 6 of the Forest Service. See Appendix A. The interim management direction reflected in the August 18 screening process, in slightly modified form, is currently being applied in the timber sale planning stage, and it is proposed herein that the direction be applied as standards through amendments to the Eastside Forest Plans.

The interim management direction was the result of an interdisciplinary analysis conducted to determine the best approach for maintaining future planning options concerning wildlife habitat associated with late and old structural stages, anadromous fish habitat, and old forest abundance. At the same time, this approach allows certain timber harvesting which does not threaten that habitat. Interest in this analysis arose as a result of the completion of scientific studies, ongoing monitoring data and changing agency management focus.

The Forest Service must manage National Forest System Lands for multiple uses (16 U.S.C. 528). The results of 1990-93 forest plan monitoring, the listing as threatened and endangered species of certain Snake River salmon stocks, and a petition asking the Regional Forester to halt all old-growth logging until the management requirements for certain wildlife species in eastern Oregon and Washington could be further analyzed, suggested multiple interests which required thorough analysis.

In the meantime, Regional Forester John E. Lowe recognized that timber harvesting had the greatest likelihood to affect components of the landscape which developing information suggested were vitally important to certain species of wildlife and fish and to the overall vegetative structure of the forest.

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.

He consulted a number of Forest Service specialists during the summer of 1993, and requested action recommendations. As a result of their analysis, the Regional Forester instituted an interim screening process for FY 93 timber sales on August 18, 1993 (hereinafter, Interim Direction), and called for the preparation of the Eastside Ecosystem Management Strategy, Pacific Northwest Region (Eastside EIS) to fully analyze the developing information and to develop a coordinated ecosystem management strategy. It is expected that the Eastside EIS will be completed in May, 1995. (59 Fed. Reg. 4680 (Jan. 26, 1994).)

The interim management direction established a three-step analysis of timber sales which had the potential to impact late and old structure timber stands. Specifically, timber harvesting is deferred in riparian areas and limited in areas of late and old structure stands. The standards established in the interim management direction are intentionally restrictive, reflecting a conservative interpretation of wildlife ecosystem needs.

The intent of the interim management direction was to preserve future planning operations pending completion of the Eastside EIS. In order to preserve future planning options, it was determined to adopt protections that would restrict timber harvesting in those areas which scientific analysis indicated were important to certain fish, wildlife and ecosystem structure. While these options were preserved, the various items of information could be further analyzed and the need for new management direction assessed. No change in 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.

This Environmental Assessment is being prepared to determine whether to continue the application of the interim management direction, which will be applied as standards through amendments to the forest plans, until more definitive direction evolves in the Eastside EIS.

II. PURPOSE AND NEED

Region 6 of the Forest Service has a short-term need to maintain future management options for consideration in the Eastside EIS. In particular, there is a need to maintain the abundance and distribution of old forest structure and to protect riparian areas for wildlife and fish species that are showing population declines as these habitat components are reduced. At the same time, there is an economic need to continue some timber

production.² The Forest Service proposes to meet this need through the continued use of interim management direction designed to offer further protection to riparian, ecosystem and wildlife values.

The purpose is to preserve those components of the landscape -- old forest abundance, wildlife habitat in late and old structural stages, and riparian areas -- which new information suggests is vitally important to certain species of wildlife and fish and to the overall vegetative structure of the forest.

III. PROPOSED ACTION

The proposed action is to continue applying the interim management direction, as modified, to timber sale planning through amendments to Eastside Forest Plans. 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, Okanogan, Umatilla, Wallowa-Whitman, and Winema National Forests.³ The proposed action establishes interim standards for timber sales in riparian areas, late and old forest structure stands, and for wildlife habitat associated with late and old forest structure. The text of the interim direction as originally proposed on August 18, 1993, is set forth at Appendix A. The text of the proposed action, Alternative 3, which is a modified version of the August 18 direction, is set forth in Appendix B.

See Appendix B (Amendment #1) for a complete description of the standards and their application; a general summary of the standards follows.

A. Riparian Interim Standard: Timber harvesting will be deferred in the following riparian emphasis areas:

² The Forest Service desires to avoid the problems currently faced on the westside forests (west of the crest of the Cascade Mountains) related to the Northern Spotted Owl. There, the auction and award of timber sales has been enjoined, severely disrupting Forest Service policies and programs, and impacting the timber industry, and in turn, local businesses and economies. Seattle Audubon Society v. Moseley, 798 F. Supp. 1484 (W.D. Wash. 1992).

³ The action proposed herein does not apply to those portions of these forests to which the Final Supplemental Impact Statement for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl, March 1994, applies.

- 1) Perennial and intermittent fish-bearing streams;
- 2) Perennial nonfish-bearing streams;
- 3) Intermittent nonfish-bearing streams; and
- 4) Wetlands, seeps, springs, bogs, ponds and lakes.

B. Ecosystem Interim Standard: Harvest of late and old structural stands of timber will be deferred unless a comparison of existing stands of late and old structure (LOS) stands, with the historic range of variability (HRV)⁴, shows that the amount of existing LOS is within or above the HRV; and that the proposed timber sale will not decrease existing levels of LOS stands below the HRV.

C. Wildlife Interim Standard:

1. when LOS stands are below HRV, timber harvest outside LOS can occur only if:
 - a) harvest is designed to maintain and enhance components of LOS stands;
 - b) open, park-like stands of old seral ponderosa pine are maintained;
 - c) connectivity between LOS stands are maintained;
 - d) fragmentation of LOSS is reduced;
 - e) high levels of large snags, remnant live LOS trees, and down logs are left in place;
 - f) every known active and historically used goshawk nest site is protected from disturbance;
 - g) 30 acres of the most suitable nesting habitat surrounding goshawk nest trees are maintained; and
 - h) a 400 acre post-fledging area is established around every known active goshawk nest site.

⁴ HRV refers to the historical pattern and abundance of structural stages within watersheds, using pre-settlement (1800-1900) conditions as a reference point. It involves the determination of whether a particular sale might critically alter the abundance of any structural stage within the project area.

2) when LOS stands are within or above HRV, harvest can occur within LOS as well as other stands as long as the harvest activity does not drop LOS levels below HRV; and the following conditions are met:

a) Conditions b through f of paragraph 1 above are met;

b) A 400 acre goshawk post-fledging area is established around every known active nest site, with at least 60% of the area retained in unharvested LOS stage.

c) No regeneration harvest methods are allowed within blocks of LOS stands greater than 100 acres except along the edge of the stand (ie within 300 feet from the edge); and

d) Components of LOS stands are maintained and enhanced as much as possible.

3) any existing Forest Plan standard that is more restrictive will supersede the above interim standard.

4) Site-specific projects will undergo NEPA analysis and consultation with NMFS and FWS as required; no specific timber sale or associated activity is approved, required or mandated by this proposed action.

5) The interim standards will be incorporated into the Eastside forest plans through amendment and will remain in effect until the Eastside EIS is completed.

D. Summary of Modifications of the August 18, 1993 Interim Direction Which Are Included in Alternative 3:

Because the August 18, 1993 Interim Direction assumed application to a timber sale in the last stages of planning, some modifications were made so the direction could be applied to the timber sale planning phase. Other modifications were suggested based on experience in applying the Direction. All of the modifications are consistent with the intent of the August 18 Direction.

1. Exempted Sales

The category of sales "to modify vegetation within recreation special use areas" was added to the list of sales exempt from the Interim Direction. The scope and impact of this type of timber harvest is similar to the other categories of exempted sales. It is not believed that such sales will

significantly reduce the types of forest habitat and structures needed to maintain planning options.

2. Riparian Standard

Since Alternative 3 is applied in designing timber sales, the language referring to sales "substantially completed" was no longer applicable.

The definition of riparian areas is also clarified to include ponds, lakes, reservoirs, seeps and springs, bogs and wetlands. While the August 18 Interim Direction intended to protect all riparian areas, the term "riparian" had not been completely defined.

3. Ecosystem Standard

Modifications were made to the text, without a change in meaning, in order to be more brief. In addition, three of the four common sense questions did not apply to the purpose and need for the Proposed Action, and were therefore deleted.

4. Wildlife Standard

a. The definition of 'remnant old and late seral and/or structural live trees' has been clarified by adding ">21 inch dbh" to better define what is meant.

b. A provision for the maintenance of open, park-like stands of ponderosa pine as habitat for the white-headed woodpeckers, a key old-forest associated species has been added. Field monitoring has revealed the importance of these stands.

c. During implementation of the August 18 Direction, it was observed that snag tree sizes could not be met for lodgepole pine. Alternative 3 clarifies that with respect to lodgepole pine, ≥ 10 inch dbh or the largest available trees were sufficient to meet the snags and green tree/roost requirement.

d. The relationship between the down log requirement and fuels management has been clarified by inclusion of a chart specifying pieces per acre, diameter and length of down logs by species type.

IV. Decision To Be Made

The Deciding Official will be John E. Lowe, Regional Forester, Region 6. The decision to be made is whether to continue to implement the interim direction for timber sales (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.

the subsequent December 28, 1993 designation of critical habitat, had serious implications for the management of the spawning sites on the Wallowa-Whitman and Umatilla National Forests, where this stock of salmon return. The listing of the Snake River stocks reflects the grave concern about the continued viability of the salmon and again created debate concerning the effect of Columbia and Snake River hydroelectric dams, as well as harvest hatcheries, ocean conditions and stream habitat conditions. In Region 6 of the Forest Service, only the Snake River salmon is listed as threatened or endangered to date.

The importance of streamside vegetation has been well-recognized by the federal agencies with oversight responsibility for salmon habitat. Most recently, the Forest Service and the Bureau of Land Management, Department of the Interior, issued a Environmental Assessment (EA) for the implementation of interim standards for managing anadromous fish-producing watersheds in eastern Oregon and Washington, Idaho, and portions of California. Sometimes referred to as "PACFISH", the EA analyzes a range of interim strategies for arresting the degradation and beginning restoration of riparian and aquatic ecosystems in watersheds where anadromous fish habitat is present or could be easily re-established.

Adoption of these guidelines by federal agencies, including the Forest Service, is likely. As stated in the PACFISH Environmental Assessment, "During consultation [with NMFS] the Agencies have found that adoption of habitat protection standards similar to those explored in this environmental assessment generally has become the accepted method of meeting threatened and endangered anadromous fish habitat requirements." EA at 4.⁵

2. President Clinton's Forest Conference

President Clinton demonstrated the administration's concern with the issues of timber supply and wildlife-fisheries protection at the Forest Conference held in Portland, Oregon on April 1, 1993. One of the results of the Conference was a presidential mandate to all federal agencies to develop a scientifically sound and ecosystem-based strategy for management of the federal lands east of the Cascade Mountains in Oregon and Washington.

⁵ Early versions of the habitat protection standards proposed in PACFISH form the basis of the riparian portion of the interim direction, the continued use of which is being analyzed herein.

3. National Resources Defense Council Petition

On the eve of the President's Conference, the Natural Resources Defense Council (NRDC), representing 22 organizations, petitioned Regional Forester Lowe to halt timber harvesting in old-growth areas of the Eastside Forests, alleging that existing forest plan standards for old forest associated wildlife were illegal.

4. Ongoing Monitoring

a) Blue Mountains Forest Health Report.

Issued in April 1991, this Forest Service scientific study addressed health concerns on the Malheur, Umatilla and Wallowa-Whitman National Forests, emphasizing the need for greater ecosystem protection, as well as riparian area protection.

The report concluded there was a connection between healthy riparian areas, watersheds and anadromous fisheries and healthy trees, acknowledging that excess timber cutting can conflict with promoting forest health. The Blue Mountains Report made clear that anadromous fisheries "are an important feature of forest diversity" and should be restored. Blue Mountains Report, at xiii. Thus, for both "soil integrity" and to provide the "shade required for adequate fish habitat," live, healthy trees are "essential."

However, the Report noted that a fundamental conflict can exist between the requirements for healthy watersheds and viable fish habitat, and the harvesting of timber:

Some management activities that would protect or promote forest health would conflict with goals and objectives for maintaining timber production; e.g., where damaged or dead timber is retained to provide wildlife habitat or protect water quality, salvageable wood fiber volume is lost.

Id. at 1-2.

b) Monitoring Reports From Individual Forests

Following the adoption of the forest plans, each national forest reviews on an ongoing basis how well the directions and goals set out in the plan are being met. This review is typically compiled into an annual monitoring report and assists the Forest Service in determining whether the management direction being taken is producing the desired results.

The 1992 Ochoco National Forest Monitoring Report, for example, noted that the habitat effectiveness index, used to measure the land's ability to support wildlife, may not be effectively meeting the standards and guidelines in the Ochoco Forest Plan because of past timber management practices. Report at 5.

Similarly, the Monitoring and Evaluation Report from the Okanogan National Forest reported problems with increased sediment, which was affecting "key spawning and rearing areas for anadromous fish species." Id. at 16. As to wildlife, the report noted that the "number of trees available for nesting has been declining" and now falls below the Forest Plan objectives in most of the bald eagle management areas. Id. at 16.

The Umatilla National Forest 1991 Monitoring Report also reported concern over wildlife. The number of elk continued to decreased, and of particular concern was the low number of bulls and calves. Id. at 16. The Report concluded: "At this point, the reasons for the decline in elk populations, bull numbers and calf production are probably many and varied, but include the loss of cover from timber harvest." Id. at 16. Anadromous fish spawning counts also continued their steady downward trend. Id. at 29.

Another report expressed uncertainty over the effectiveness of riparian area standards and guidelines on the Wallowa-Whitman National Forest. 1992 Monitoring Report at 2-3. Likewise, the Winema National Forest's 1991 & 1992 Monitoring Report reflected a "decrease in structure and function of channels and floodplains," as well as a "decrease in quantity, quality, and diversity of riparian plant communities and wildlife habitat." Id. at 33. The Deschutes National Forest reported declines in several indicator fish populations. 1991 Deschutes National Forest Monitoring Report at 14. Deer population objectives were not met on the Fremont National Forest, and the 1992 Monitoring Report concluded that past timber harvest practices "have left numerous treated acres on the Forest without adequate dead tree densities to meet the habitat needs of primary excavators." Id. at 73.

Thus, the results of the monitoring of the Eastside Forests alerted the Regional Forester that further review of the effects of timber cutting on these other resources values was necessary.

c) Eastside Forest Ecosystem Health Assessment

Congress, aware of the problems facing the ecosystems of the eastside national forests, requested and funded a scientific analysis of the effects of Forest Service management practices on the forest ecosystems in eastern Washington and

Oregon. Report at 1. Over 113 scientists contributed to this Eastside Forest Ecosystem Health Assessment, which was issued in April, 1993. Id.

The Assessment concluded that "some eastside ecosystems are stressed and unstable" based on the "management practices of this century [that] have reduced diversity . . . and long-term productivity . . . and have thereby diminished the capacity to ensure a sustainable flow of renewable resources." Id. at 16.

In response, the report recommended that dead and dying trees, as well as snags, be allowed to remain to "provide wildlife habitat. Similarly, unharvested stands adjacent to riparian areas would "provide for increased terrestrial and aquatic biodiversity." Id.

In summary, the increasing body of scientific information strongly suggested that currently proposed timber harvesting:

- a) in riparian areas, could threaten the agency's obligations under a number of existing laws in re: salmon and other aquatic riparian associated species;
- b) in LOS stands could threaten the ecosystem balance and interferes with efforts to move watersheds towards a long-range sustainability of all biophysical environments, based on a historic range of variability;
- c) in LOS stands, could undermine needed habitat protection for old forest associated wildlife species, potentially threatening the agency's obligations under the National Forest Management Act.

It became clear that short term action was necessary to defer certain timber harvesting until a long-term strategy was developed.

VI. SIGNIFICANT ISSUES CONSIDERED IN THIS ANALYSIS

A. Economic effects

Many local communities in the vicinity of the Eastside Forests are dependant on a flow of products from the National Forests to help ensure economic and social stability. In addition, county governments receive revenues from the sale of commercial products, which revenue is used to support schools and roads. Timber supplies have been reduced in recent years as a result of many factors, with resulting negative effects on the economies of local communities.

B. 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 contended that recent research results from the Forest Service and other entities indicated that current forest plan management requirements for these species and others might not be adequate to insure long-term species viability.

C. Forest Health/Restoration

Forest health and/or restoration of healthy ecosystems is an important issue. There is a need to remove some dead and dying trees to reduce the fuel loading to avoid a major conflagration in the event of wildfire. While fires had 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. Also, the 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. There is a need to reduce stocking levels in many areas to more normal levels.

D. Riparian Health/Water Quality/Fisheries

Given the listing of certain salmon stocks in eastern Oregon as threatened or endangered, many commenters expressed concern about the effect of timber sales on salmon habitat. In addition, the PACFISH Environmental Assessment proposes standards, very similar to those proposed herein, suggested by the National Marine Fisheries Service during project specific consultations as accepted methods to meet salmon habitat requirements. The issue then becomes how best to maintain and protect salmon habitat during the interim period pending completion of the Eastside EIS.

E. Abundance of Late and Old Structural Stands/Suitability of Old-Growth.

There is a concern that not enough old-growth habitat exists and that what does exist is not protected. This issue was not used to vary the alternatives because protection of old-growth forest structure is addressed by the portion of the interim direction relating to ecosystem and wildlife standards.

F. Fuel loading and catastrophic fire potential.

A concern exists that limiting fuel treatment in areas of high fuel loading could lead to an increased danger of

catastrophic wildfire. This issue was not used in developing alternatives because fuel treatments would vary with the nature of the site specific project and there is fuel and fire management direction in the existing Forest Plans.

G. Validity of Historic Range of Variability.

Another issue considered in developing alternatives is the extent to which an analysis of the "Historic Range of Variability" (HRV) is a valid planning concept. HRV represents a range of condition using pre-settlement conditions (1800-1900) as a reference point. Under HRV, the variability for any site, and sites just like it in structure, composition and function, is what one would have observed during that period. That period is selected because we presume, based on the literature, that biological, physical conditions and climate were comparable to today. It is a reference point to be used in the short-term to maintain future planning options. Thus, in the interim, the goal of the ecosystem portion of the interim management direction is to avoid management activities which move conditions in any biophysical environment away from the historical range of variability.

The intent of the interim direction is to provide a reference point for ecosystem conditions where none previously existed. In the long term, ecosystems will be managed based on quantitative characterizations of biophysical potential. The scientific background for the concept of HRV is documented in the Eastside Forest Ecosystem Health Assessment (Everett Report), Volume II. Characterizations of biophysical potential will also be expressed as a range of values. HRVs were estimated to provide some guidance in the absence of data on biophysical potential. Biophysical potentials for eastside ecosystems are being analyzed as part of the Eastside Ecosystem Management Project Assessment which will provide long term direction for ecosystem management.

H. Management Area Allocations

Also considered was whether the application of the interim direction results in a change to the basic land allocations set forth in the Forest Plans. It was determined that no reallocation of land will be made through this direction which simply restricts some timber sales to preserve management options.

VII. ALTERNATIVES

A. Alternative Considered but Eliminated from Detailed Study

Species Specific Interim Guidelines - The possibility of formulating individual species guidelines was deemed to be too time consuming. The information is complex, further literature sources were needed, and no conclusive research existed for some species. The need for immediate action to maintain future planning options caused this alternative to be discarded. Further, this alternative would be more properly considered in the Eastside EIS.

B. Alternatives Developed

1. Alternative 1 - No Action.

This alternative would continue timber harvesting under existing Forest Plan standards and guidelines. Under this alternative, site-specific projects would undergo National Environmental Policy Act (NEPA) analysis, and where required, consultation with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service as required by the Endangered Species Act. New information would be considered on a site specific basis.

2. Alternative 2 - Moratorium.

Under this alternative, all timber sales in the Eastside Forests would be halted pending completion of the Eastside EIS. By imposing a moratorium, all existing late and old structural stands of timber and riparian habitat would be maintained, except for losses resulting from natural processes such as fire, windthrow and insects or diseases. There would be no timber output from the Eastside Forests, with severe financial impacts on local businesses and economies.

3. Alternative 3 - Proposed Action.

This alternative would continue the use of the interim management direction of August 18, 1993, as modified herein, for timber sales. The interim direction would be incorporated into the Eastside Forest Plans through amendment, pending completion of the Eastside EIS, which is expected in May, 1995. 59 Fed. Reg. 4680 (Jan. 26, 1994). Site specific projects would undergo NEPA and Endangered Species Act consultation with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service as appropriate.

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 during the short time the interim direction will be in place.

Both the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) reviewed the proposed action and the accompanying Biological Evaluation pursuant to an endangered Species Act Section 7 Consultation. In its February 16, 1994 reply, USFWS 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. See Appendix C for the Biological Evaluation and concurrence letters.

A. Alternative 1 - No Action

The effects expected are those already disclosed and analyzed in the existing forest plans since this alternative would be a continuation of existing forest plan direction.

1. Economic Effects

Under Alternative 1, the August 18, 1993 Interim Direction would be rescinded and timber sales would continue under existing Forest Plan direction. It is likely that timber supplies will continue at the same rate observed prior to August 18, which is below Forest Plan projections for a number of reasons unrelated to the action proposed herein. Employment in dependent industries and payment to counties will also continue near pre-August 18 levels.

2. Effects on Late and Old Structural Forest Stands

This alternative would allow further reductions in late and old structural stands to levels below their historical range of variability, greatly reducing vegetative diversity below natural, ecological levels. Implementation of this alternative would most likely result in the greatest amount of reductions in, and fragmentation of, late and old structural stands. Not all late and old structural stands could be harvested, since current Forest Plans designate lands containing late and old structure to be retained for Research Natural Areas, visual retention areas, Congressionally designated Wilderness Areas, and other management prescriptions and allocations, including a portion of "old growth

forest" for management of marten, pileated woodpeckers, and associated species.

3. Effects on Forest Health

This alternative allows for the least delay in those forest health treatments that use salvage timber sales or silvicultural treatments as the vehicle to achieve restoration of healthy forest ecosystems. Presumably, such treatments would continue to be implemented at pre-August 18 levels.

4. Riparian/Aquatic Habitats and Associated Species

Alternative 1 would not provide any additional protection for riparian areas. The majority of current Eastside Forest Plans do not afford as much riparian zone protection as would occur under the other two alternatives. Recent information (see discussion at 9-11) on riparian and aquatic ecology indicates that new direction may be needed to adequately reverse declining condition trends in such habitats. This, of course, is one of the reasons for the preparation of the Eastside EIS. While some modest increases in habitat quality are expected in some current Plans, it is unlikely that conditions would improve fast enough or to a degree that would ensure sufficient security for species associated with these habitats. Therefore, under Alternative 1 timber sales could continue to be planned in areas that, if cut, could hinder the recovery of riparian areas.

Few, if any, specific provisions are in current forest plans for wetlands such as seep springs, bogs, ponds, and lakes or their associated fish and wildlife species. The significance of these sites to threatened, endangered and sensitive species would be evaluated during site specific planning.

Informational sources such as the Eastside Forest Ecosystem Health Assessment, the Blue Mountain Forest Health Assessment, Forest Plan Monitoring and Evaluation Report, as well as watershed and fisheries research indicate that past protection measures are not sufficient to achieve "good" habitat conditions for anadromous and resident fish. This is evident by the number of species on the Forests which are "at risk" of extinction or of "special concern" as identified by the 1991 American Fisheries Society published report.⁶

Cumulative effects are anticipated for fish and riparian/aquatic wildlife, especially those listed as threatened, endangered, and sensitive. In addition to the continuation of

⁶ W. Nehlsen, J.E. and J.A. Lichatowich, 1991, Pacific Salmon at the Crossroads: Stocks at Risk from California, Oregon, Idaho and Washington, Fisheries 16(2): 4-21.

timber sales prepared under the current Forest Plans there would be a continuation of other activities based on existing 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 could have detrimental effects to riparian/aquatic habitats or populations of fish and wildlife associated with such habitats. Subsequent project-level NEPA analysis will address site-specific effects and cumulative effects from multiple projects or actions.

Activities will continue on state and private lands independently from the alternatives assessed here. Riparian/aquatic habitat conditions for associated fish and wildlife on private lands are often poorer than those found on National Forests. It is unlikely that there will be appreciable increases in the amounts of high quality riparian/aquatic habitat for associated fish and wildlife on private lands in the interim period.

(Refer to Appendix C, Biological Evaluation, for additional specific information on threatened, endangered, and sensitive species).

5. Effects on "Old Forest" Associated Wildlife

More than other alternatives, Alternative 1 allows fragmentation of existing contiguous blocks of late and old structural habitat. Similarly, key "connectivity corridors", which link patches of late and old structural habitats and are important travel corridors for wildlife and provide some protection from predators, could be reduced. This alternative also allows the greatest reduction of key structural components such as down logs, snags, and live remnant old and late structural trees that are essential habitats of many "old forest" associated species.

Habitat for cavity nesting species would continue to be provided at levels that are likely insufficient, i.e. 20-40% of potential population levels in current Forest Plan general forest allocations. Many Forest Plan monitoring and evaluation reports indicate insufficient levels of snags and live, green replacement trees are being retained following timber harvest. While no cavity excavators are currently federally listed or designated as sensitive in the Pacific Northwest Region, recent wildlife research suggests that habitat for some management indicator species such as pileated, three-toed, and white-headed woodpeckers is not being retained at levels sufficient to support

viable populations under current Forest Plan standards.⁷ Snag and green replacement tree retention levels under Alternative 1 would likely cause indirect effects to federally listed species such as the bald eagle because of the loss of potentially important roost sites. It also follows that if habitat for cavity nesting species are not adequately provided, a "sensitive" designation or listing under the Endangered Species Act may occur in the future.

Large down woody debris (logs) provide habitat for numerous species. Forest Plans either offer no standards and guidelines for retention, or provide levels that are generally considered low (i.e. 2 down logs per acre).

Alternative 1 retains the least number of acres for goshawk habitat than other alternatives. Specific standards and guidelines for goshawk, a late/old structure forest-dwelling raptor, are addressed in only a few Forest Plans. Most Forest Plans only protect raptor nests, in general, during breeding seasons; and do not require retention of nests over the long-term. Most Plans do not maintain habitat around nest sites, nor do they protect the goshawk post-fledging habitat that is important to the long-term survival of the species.

Cumulative effects are anticipated for "old forest" associated species; especially those listed as threatened, endangered, and sensitive. In addition to the continuation of timber sales prepared under the current Forest Plans, there would be a continuation of other activities based on 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 appear to have had detrimental effects on the habitat or populations of threatened, endangered, or sensitive species, as well as other "old forest" associated species. Because this is a programmatic decision, the effects discussed are those associated with the program, rather than site-specific projects. Subsequent project-level NEPA analysis will address site-specific effects, or potential cumulative effects from multiple projects or actions.

⁷ Bull, E.L. and R.S. Holthausen, 1993 Habitat Use and Management of Pileated Woodpeckers in northeastern Oregon. *Journal of Wildlife Management* 57(2): 335-345; Goggins, R., R.D. Dixon, and L.C. Seminara, 1988. Habitat Use by three-toed and Black-backed Woodpeckers, Deschutes National Forest, Oregon. Oregon Department of Fish and Wildlife Nongame Project Number 87-3-02; Frederick, G.P. and T.L. Moore, 1991. Distribution and habitat of white-headed woodpeckers (*Picoides albolarvatus*) in West-central Idaho. Cons. Data Center, Idaho Dept. of Fish and Game, Boise, ID, 32 pp.)

Activities will continue on state and private lands independently from the alternatives assessed in this document. Habitat conditions for "old forest" associated 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 "old forest" associated species on private lands in the interim period. (Refer to Appendix C, Biological Evaluation, for additional specific information on threatened, endangered, and sensitive species).

B. Alternative 2 - Timber Sale Moratorium

1. Economic Effects

Alternative 2 would allow no timber sales to proceed during the interim period until completion of the Eastside EIS and issuance of a ROD. Given the current volume of timber under contract and historical levels of timber consumption, it is anticipated that supplies of National Forest timber under contract would be nearly exhausted within the next 6 months to 1 year. This is less time than is estimated for completion of the Eastside EIS. This would vary by Forest, individual mill, and depend on what other timber supplies might be available. Under this alternative it is expected that employment levels and payment to counties would decrease below current levels.

2. Effects on Late and Old Structural Forest Stands

Alternative 2 would retain the most late and old structural stands, thereby retaining the greatest vegetative diversity within natural ecological levels. Late and old structural stands would not be further reduced to levels below their historical range of variability.

3. Effects on Forest Health

Alternative 2 would not allow the salvage of dead or dying timber during the interim period. Timber sales designed as preventive silvicultural treatments and salvage sales used as a tool to improve forest health or accomplish restoration would be deferred.

4. Riparian/Aquatic Habitats and Associated Species

This alternative would offer the most protection to riparian and aquatic habitat. The miles of protected streams (all types) and the degree of protection (riparian width) would be maximized with this alternative. Road construction in riparian areas would be sharply curtailed since most roads are associated with timber sales. Wetlands and other aquatic habitats 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 increase the quality of riparian habitat.

Protection of threatened, endangered, and sensitive fish and aquatic associated wildlife continues under this alternative the same as under current Forest Plans. In addition, alternative 2 provides an additional reduction in risk to fish and aquatic associated wildlife. This reduction of risk is due to a reduction in numbers and acreage of timber sales, hence less road construction and less chance of actually impacting fish and wildlife species.

Cumulative effects of other activities, given for Alternative 1, above, still apply. Refer to Appendix C, Biological Evaluation, for specific details relating to threatened, endangered, and sensitive species.

5. Effects on "Old Forest" Associated Wildlife

Alternative 2 maintains the greatest amount of late and old structure forest. It provides the greatest amount and distribution of habitat for old forest associated species. Alternative 2 provides the greatest opportunity for species movement and dispersal of young between habitats by maintaining current levels of habitat connectivity. Interior blocks of late and old structural forest would remain essentially intact for the short term. A moratorium on timber sales would result in the least risk to threatened, endangered, and sensitive species associated with old forest habitats. Under this alternative, timber harvest would be limited to that associated with ongoing sales. It is possible, however, that there may be an increased risk of catastrophic fire that could result in loss of old forest structure under a moratorium. There is considerable difference of professional opinion regarding the existence or significance of any reduction in fire risk resulting from timber harvest. The amount of increased risk, if any, would be related to the duration of a moratorium.

This alternative maintains the greatest number of key structural components such as down logs, snags, and live remnant late and old trees for "old forest" associated wildlife. These structural components could potentially increase in the near future under this alternative. 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 would continue according to Forest Plan direction. In addition to the effects described for Alternative 1, there would be additional reduction of risk to listed species. This reduction in risk is

associated with a reduction in numbers and acreage of timber sales, hence less road construction and habitat alteration. This risk reduction is particularly important as it pertains to rare and locally endemic species.

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

Cumulative effects of other activities as described under Alternative 1 are applicable to Alternative 2. Refer to Appendix C, Biological Evaluation, for specific details regarding threatened, endangered, and sensitive species.

C. Alternative 3 - Interim Direction

1. Economic Effects

Under this alternative, timber sales would continue under current forest plans as amended by the interim standards, until completion of the Eastside EIS. Barring other contingencies such as new listed species, more restrictive salmon standards or recovery plan, litigation, or legislation, sales resulting from Alternative 3 ought to produce volumes similar to the recent past. It is estimated that approximately 50,000 acres could be planned for timber sales using the interim standards over the next 18 months. With volumes near current levels, employment and payment to counties should be near those expected for Alternative 1.

2. Effects on Late and Old Structural Forest Stands

This alternative would result in some reductions in late and old structural stands, but much less than Alternative 1 because this alternative will not allow reductions to levels below the historical range of variability. Late and old structural stands within watersheds that are currently below levels of their historical range will remain essentially undisturbed in the near future.

3. Effects on Forest Health

Under Alternative 3, some salvage of dead and dying timber could occur, and most of the acres scheduled for preventive treatment (primarily commercial thinning of second growth stands) would be accomplished during the interim period. Salvage sales designated to implement forest health or restoration objectives would occur for those acres and volumes that have a minimum effect on abundance and distribution of old forest structures. Most preventive silvicultural treatments,

including commercial thinning, that are currently planned under Alternative 1, could be accomplished under this alternative, as long as the prescription does not move a biophysical environment below its historical range of variability.

4. Riparian/Aquatic Habitats and Associated Species

This alternative would result in lower risk to riparian and aquatic habitats. The main difference between Alternative 2 and Alternative 3 is that Alternative 2 provides for a greater degree of protection by maximizing the riparian width. However, Alternative 3 does not offer the degree of protection from road construction that is inherent in Alternative 2. Overall, this alternative offers a level of risk to riparian and aquatic species that falls between Alternatives 1 and 2. As with Alternative 2, there could be significant contributions to circumstances necessary to increase the quality of habitat in riparian areas under Alternative 3 when considering the reduced effects from timber sales.

Protection of threatened, endangered, and sensitive species continues according to the Forest Plans. In addition to the effects described for Alternative 1, Alternative 3 would afford additional reduction of risk to these species, but not as much as Alternative 2.

Cumulative effects described under Alternative 1 are applicable under Alternative 3. Refer to Appendix C, Biological Evaluation, for specific details in regards to threatened, endangered, and sensitive species.

5. Effects on "Old Forest" Associated Wildlife

Since this alternative was developed with "old forest" associated species in mind, it has the overall effect of maintaining more late and old structural habitat than that currently designated in Forest Plans for the near future, thereby maintaining more habitat than Alternative 1, but not as much as Alternative 2.

The risk to threatened and endangered species from implementation of Alternative 3 falls between Alternatives 1 and 2. Under Alternative 3, reductions in the amount of late and old structural habitat would be allowed only in watersheds where analysis of current conditions indicated that amounts were within or above the historic range of variability. Areas of fragmentation would be reduced and cutting units would be designed to mimic natural disturbances as much as possible.

Connectivity guidelines in Alternative 3 would insure the consideration and protection of areas connecting patches of late and old structural habitat to reduce the risk to associated

wildlife, including threatened, endangered, and sensitive species. The reduction in risk associated with this factor is not as great under Alternative 3 as under Alternative 2.

Alternative 3, would increase the number of snags 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 of a risk of creating areas deficient in numbers of logs on the forest floor than exists under Alternative 1, but greater than for Alternative 2.

Under this alternative, the protection of threatened and endangered species would continue as provided by Forest Plans. In addition to the effects described for Alternative 1, there would be the additional reduction of risk to these species as described in 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 described under Alternative 1 are applicable to Alternative 3. Refer to Appendix C, Biological Evaluation, for specific details in regards to threatened, endangered, and sensitive species.

APPENDIX A

August 18, 1993 Regional Forester letter to Eastside Forest Supervisors
re: Interim Approach for Sale Preparation, Eastside Forests



United States
Department of
Agriculture

Forest
Service

RO

Reply to: 2430/2600
(P&EA)

Date: August 18, 1993

Subject: Interim Approach for Sale Preparation, Eastside Forests

To: Forest Supervisors, Eastside Forests

There are a number of indications that interim changes in timber sale planning and layout are needed in order to be consistent with National Forest Management Act viability requirements for old growth-associated species. The Eastside Forest Ecosystem Health Assessment (Everett et al.) and Forest Plan monitoring results show cause for concern about the abundance and distribution of old-growth stands. The Eastside Forest Ecosystem Health Assessment shows that the amount of old growth in some watersheds is significantly below historic levels. Forest Plan monitoring reports are also providing information indicating a discrepancy between Forest Plan estimates of old growth and current conditions.

While the abundance, distribution, and interrelationships of all structural vegetation stages are important to sustainability, conservation of plant and animal species, and ecosystem processes, old-growth abundance is currently of primary concern. Projects need to be designed according to the principles of landscape ecology and conservation biology.

Therefore:

All the remaining Fiscal Year 1993 timber sales that have the potential to impact old-growth stands will be deferred until screened and, if necessary, redesigned according to the interim approach provided herein. The Project Decision Tree (Enclosure I) describes the process.

Fiscal Year 1994 timber sales shall be planned and designed according to this interim approach. FY 1994 sales would, therefore, conform to Enclosures II through IV, including all five of the Common Sense Questions in Enclosure III.

Some types of sales will not be subject to a screening process. They include:

- Personal use firewood sales.
- Post and pole sales.
- Sales made to protect health and safety (roadside or campground hazard trees).

Five other types of sales should be screened with respect to the riparian direction (Screen 1) and the wildlife screen (Screen 3). Those sales are:

- Precommercial thinning sales.
- Sales of material sold as fibre.



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ENCLOSURE I

PROJECT SCREENING DECISION TREE
FOR REMAINING FY93 TIMBER SALES

The following Screening Decision Tree provides the decision pathway to determine if projects should be implemented or not. Specific direction on screening procedures, analysis, and definitions are provided in Enclosures II-IV.

SCREEN 1

RIPARIAN

(Reference Enclosure II)

- | | |
|--|---|
| a) <u>No Impact, or</u>
<u>Beneficial Impact, or</u>
<u>Not Likely to Adversely Impact</u>
-- Proceed to Screen 2 | b) <u>Likely to Adversely Impact</u>
-- modify, defer, or
terminate project |
|--|---|

** For those sales exempt from Screen 2
Go directly to scenario 3a (Screen 3)

SCREEN 2

HISTORICAL RANGE OF VARIABILITY

(Reference Enclosure III)

- | | |
|--|---|
| a) <u>Amount of Late and Old Structural</u>
<u>Stands are BELOW HRVs</u>

Project:
1) <u>moves watershed within</u>
<u>or toward HRV</u>
-- Proceed to Screen 3
2) <u>does not move watershed back</u>
<u>within or toward HRV</u>
-- modify, defer, or terminate | b) <u>Amount of Late and Old Structural</u>
<u>Stands are WITHIN OR ABOVE HRVs</u>

Project:
1) <u>moves watershed below HRV</u>
-- modify, defer, or terminate
2) <u>maintains watershed within HRV</u>
-- Proceed to Screen 3
3) <u>improves watershed according to HRV</u>
-- Proceed to Screen 3 |
|--|---|

SCREEN 3

WILDLIFE

(Reference Enclosure IV)

- | | |
|---|--|
| a) <u>Screen 1 is met and/or Late and Old</u>
<u>Structural Stands are BELOW HRVs</u>

Project:
1) <u>meets all wildlife direction</u>
<u>within scenario 3a</u>
-- Proceed with project
2) <u>does not meet all wildlife direction</u>
<u>within scenario 3a</u>
-- modify, defer, or terminate | b) <u>Screen 1 is met and Late and Old</u>
<u>Structural Stands are WITHIN OR</u>
<u>ABOVE HRVs</u>

Project:
1) <u>meets all wildlife direction</u>
<u>within scenario 3b</u>
-- Proceed with project
2) <u>does not meet all wildlife</u>
<u>direction within scenario 3b</u>
-- modify, defer, or terminate |
|---|--|

ENCLOSURE I

ENCLOSURE II

United States
Department of
Agriculture

Forest
Service

RO

Reply to: 2430

Date: August 5, 1993

Subject: Interim Approach for Timber Sale Preparation in Streamside Riparian
Emphasis Areas

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

While existing Forest Plans provide standards for riparian areas and fish habitat, new information is now available which may require changes in timber sale planning and layout in order to be consistent with NFMA viability requirements. This information is a composite of Forest inventory and monitoring, a comprehensive evaluation of Regional aquatic habitat conditions conducted as part of the development for the Multi-Regional PacFish strategy, the Eastside Forest Ecosystem Health Assessment, and the Blue Mountains Ecosystem Assessment.

To protect riparian areas and to avoid the possibility of redoing work or having to make modifications to future timber sale contracts, I have decided to defer new timber sale planning in Streamside Riparian Emphasis Areas as defined in Enclosure 1 and to screen substantially completed timber sale plans according to the procedures contained in Enclosure 2. We have the flexibility to accommodate this interim approach until the new information can be fully assessed.

This interim approach is effective immediately for proposed timber sales within Streamside Riparian Emphasis Areas on eastside Forests, except those areas included in Option 9 of the President's Plan.

NEW STARTS (Little or no preparation/NEPA work completed)

Timber sales (green and salvage) will not be planned or located within Streamside Riparian Emphasis Areas (REA's) as described in Enclosed 1.

TIMBER SALES WITH PREPARATION WORK SUBSTANTIALLY COMPLETED OR IN PROGRESS

Timber sales (green and salvage) in this category shall be screened according to the Screening Procedure shown in Enclosure 2. Timber sales or portions thereof that are "likely to adversely impact" are to either be modified or deferred.

/s/John E. Lowe

JOHN E. LOWE
Regional Forester

Enclosures

Enclosure (1)

STREAMSIDE RIPARIAN EMPHASIS AREAS:

- 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 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 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

ENCLOSURE (2)

SCREENING PROCEDURE FOR TIMBER SALES
PREPARATION WORK SUBSTANTIALLY COMPLETED OR IN PROGRESS

The procedure outlined below is similar to the procedure used to coordinate with the National Marine Fisheries Service (NMFS) under Section 7 of the Endangered Species Act (ESA). It has proven to be a valuable tool for ensuring effective management of aquatic habitat.

Implementation - Screening should be conducted by an Interdisciplinary team. Impact assessment will be reviewed by an operationally competent Fisheries Biologist and Hydrologist. Screening results will be summarized and provided to the appropriate line officer for review and action.

Impact Screening

Two major conclusions can be reached as a result of the screening. They are described below.

A conclusion of: Not likely to adversely impact streams and riparian areas including fish habitat.

This conclusion shall be documented. No further actions are required.

A conclusion of: Likely to adversely impact.

If the impacts are determined to be beneficial or not likely to adversely impact streams and riparian areas including fish habitat, no further actions are required.

If projects, or portions thereof, are determined to likely to adversely impact the species and/or its habitat, the Forest Service line officer has the option of: Modifying the project, or portion thereof, so that it will "not likely to adversely impact" the stream and riparian area including fish habitat or; defer or terminate the project, or portion thereof, or its preparation.

The following guidelines are offered to assist the biologists and ID teams and provide consistency among the administrative units in making the determinations:

Not Likely To Adversely Impact

1. The project uses management practices designed for the protection of water quality parameters (water temperature and other measurable habitat parameters) that meet or exceed BMP's as specified by the states for compliance with the Clean Water Act.
2. The project complies with Forest Plan Standards and Guidelines for fish and water quality, to the extent they meet the needs of the fish species and are measurable.
3. This determination can be strengthened, for Forests included in the CRB Anadromous Fish Policy, if the project allows the numeric values for desired future conditions to be met, or it will allow demonstrated progress toward meeting the numeric values affected by the project.

NOTE: Adequacy of funding and staffing to administer and monitor projects must be considered as a factor when making determinations of not likely to adversely impact.

Likely To Adversely Impact

1. Any Project that contributes to not meeting State water quality standards, such as increasing water temperature, and/or other measurable standards that affect fish survival.
2. Projects that have negative effects on water quality, aquatic habitat, bedload sediments, stream bank stability or cover, stream habitat complexity, or riparian conditions where Forest Plans do not provide quantifiable standards and guidelines for such attributes.
3. Any Project that has effects that contribute to an inability to meet Forest Plan Standards and Guidelines for fish or aquatic habitat.
4. Projects that hamper the ability to meet, or make progress toward meeting, numeric values for desired future conditions on CRB Anadromous Fish Forests.

NOTE: THIS PROCESS DOES NOT SUPERSEDE ESTABLISHED ANALYSIS AND CONSULTATION REQUIREMENTS FOR FEDERALLY LISTED SPECIES.

Sales of dead material, less than sawlog size (7-inch dbh), with incidental green volume. (Ref. RO 2430 ltr. 8/16)

Salvage sales, with incidental green volume, located outside currently mapped old growth. (Ref. RO 2430 ltr. 8/16)

Commercial thinning and understory removal sales located outside currently mapped old growth.

The following apply to eastside Washington and Oregon Forests, except those portions of other eastside National Forests included in Option 9 of the President's Plan:

Screen 1. Riparian Area Direction:

August 5, 1993, Regional Forester John Lowe issued direction deferring timber harvest in riparian areas (Enclosure II). To move to Screen 2, sales must be consistent with Screen 1.

Screen 2. Ecosystem Screen:

This screen compares the acres of late and old seral stages in a watershed with the Historic Range of Variability (HRV) for that structural stage. Historic Range of Variability is a concept used by Carraher et al. in Restoring Ecosystems in the Blue Mountains and Everett et al. in the Eastside Forest Ecosystem Health Assessment. This HRV information is used to develop Common Sense Question 1 in Enclosure III. For this exercise, the HRV should be based on conditions in the presettlement era; however, early 1900 photography may be acceptable.

Screen 3. Wildlife Screen:

This screen is designed to maintain options for future wildlife habitat requirements for old growth-dependent species. Instructions for the application of Screen 3 is included in Enclosure IV.

Apply the above screening process to all proposed FY 1993 timber sales by September 10. I am establishing a Regional oversight team that will review sales on a sample basis. In addition, I am requesting that each Forest conduct open meetings to share information about the screening process. Lastly, Forest Supervisors need to be involved in the review of the results of the screening process and in the decisions on individual sales.

I expect timber sales in Fiscal Year 1994 and beyond to be planned and designed according to the requirements of Enclosures II, III, and IV.

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

Enclosures

cc:
TM
FWB
PEA

ENCLOSURE I

PROJECT SCREENING DECISION TREE
FOR REMAINING FY93 TIMBER SALES

The following Screening Decision Tree provides the decision pathway to determine if projects should be implemented or not. Specific direction on screening procedures, analysis, and definitions are provided in Enclosures II-IV.

SCREEN 1

RIPARIAN

(Reference Enclosure II)

- | | |
|--|---|
| a) <u>No Impact, or</u>
<u>Beneficial Impact, or</u>
<u>Not Likely to Adversely Impact</u>
-- Proceed to Screen 2 | b) <u>Likely to Adversely Impact</u>
-- modify, defer, or
terminate project |
|--|---|

** For those sales exempt from Screen 2
Go directly to scenario 3a (Screen 3)

SCREEN 2

HISTORICAL RANGE OF VARIABILITY

(Reference Enclosure III)

- | | |
|---|---|
| a) <u>Amount of Late and Old Structural</u>
<u>Stands are BELOW HRVs</u>

Project:
1) <u>moves watershed back within</u>
<u>or toward HRV</u>
-- Proceed to Screen 3
2) <u>does not move watershed back</u>
<u>within or toward HRV</u>
-- modify, defer, or terminate | b) <u>Amount of Late and Old Structural</u>
<u>Stands are WITHIN OR ABOVE HRVs</u>

Project:
1) <u>moves watershed below HRV</u>
-- modify, defer, or terminate
2) <u>maintains watershed within HRV</u>
-- Proceed to Screen 3
3) <u>improves watershed according to HRV</u>
-- Proceed to Screen 3 |
|---|---|

SCREEN 3

WILDLIFE

(Reference Enclosure IV)

- | | |
|---|--|
| a) <u>Screen 1 is met and/or Late and Old</u>
<u>Structural Stands are BELOW HRVs</u>

Project:
1) <u>meets all wildlife direction</u>
<u>within scenario 3a</u>
-- Proceed with project
2) <u>does not meet all wildlife direction</u>
<u>within scenario 3a</u>
-- modify, defer, or terminate | b) <u>Screen 1 is met and Late and Old</u>
<u>Structural Stands are WITHIN OR</u>
<u>ABOVE HRVs</u>

Project:
1) <u>meets all wildlife direction</u>
<u>within scenario 3b</u>
-- Proceed with project
2) <u>does not meet all wildlife</u>
<u>direction within scenario 3b</u>
-- modify, defer, or terminate |
|---|--|

ENCLOSURE II

United States
Department of
Agriculture

Forest
Service

EO

Reply to: 2430

Date: August 5, 1993

Subject: Interim Approach for Timber Sale Preparation in Streamside Riparian
Emphasis Areas

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

While existing Forest Plans provide standards for riparian areas and fish habitat, new information is now available which may require changes in timber sale planning and layout in order to be consistent with NFMA viability requirements. This information is a composite of Forest inventory and monitoring, a comprehensive evaluation of Regional aquatic habitat conditions conducted as part of the development for the Multi-Regional PacFish strategy, the Eastside Forest Ecosystem Health Assessment, and the Blue Mountains Ecosystem Assessment.

To protect riparian areas and to avoid the possibility of redoing work or having to make modifications to future timber sale contracts, I have decided to defer new timber sale planning in Streamside Riparian Emphasis Areas as defined in Enclosure 1 and to screen substantially completed timber sale plans according to the procedures contained in Enclosure 2. We have the flexibility to accommodate this interim approach until the new information can be fully assessed.

This interim approach is effective immediately for proposed timber sales within Streamside Riparian Emphasis Areas on eastside Forests, except those areas included in Option 9 of the President's Plan.

NEW STARTS (Little or no preparation/NEPA work completed)

Timber sales (green and salvage) will not be planned or located within Streamside Riparian Emphasis Areas (REA's) as described in Enclosed 1.

TIMBER SALES WITH PREPARATION WORK SUBSTANTIALLY COMPLETED OR IN PROGRESS

Timber sales (green and salvage) in this category shall be screened according to the Screening Procedure shown in Enclosure 2. Timber sales or portions thereof that are "likely to adversely impact" are to either be modified or deferred.

/s/John E. Lowe

JOHN E. LOWE
Regional Forester

Enclosures

Enclosure (1)

STREAMSIDE RIPARIAN EMPHASIS AREAS:

- 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

ENCLOSURE (2)

SCREENING PROCEDURE FOR TIMBER SALES
PREPARATION WORK SUBSTANTIALLY COMPLETED OR IN PROGRESS

The procedure outlined below is similar to the procedure used to coordinate with the National Marine Fisheries Service (NMFS) under Section 7 of the Endangered Species Act (ESA). It has proven to be a valuable tool for ensuring effective management of aquatic habitat.

Implementation - Screening should be conducted by an Interdisciplinary team. Impact assessment will be reviewed by an operationally competent Fisheries Biologist and Hydrologist. Screening results will be summarized and provided to the appropriate line officer for review and action.

Impact Screening

Two major conclusions can be reached as a result of the screening. They are described below.

A conclusion of: Not likely to adversely impact streams and riparian areas including fish habitat.

This conclusion shall be documented. No further actions are required.

A conclusion of: Likely to adversely impact.

If the impacts are determined to be beneficial or not likely to adversely impact streams and riparian areas including fish habitat, no further actions are required.

If projects, or portions thereof, are determined to likely to adversely impact the species and/or its habitat, the Forest Service line officer has the option of: Modifying the project, or portion thereof, so that it will "not likely to adversely impact" the stream and riparian area including fish habitat or; defer or terminate the project, or portion thereof, or its preparation.

The following guidelines are offered to assist the biologists and ID teams and provide consistency among the administrative units in making the determinations:

Not Likely To Adversely Impact

1. The project uses management practices designed for the protection of water quality parameters (water temperature and other measurable habitat parameters) that meet or exceed BMP's as specified by the states for compliance with the Clean Water Act.
2. The project complies with Forest Plan Standards and Guidelines for fish and water quality, to the extent they meet the needs of the fish species and are measurable.
3. This determination can be strengthened, for Forests included in the CRB Anadromous Fish Policy, if the project allows the numeric values for desired future conditions to be met, or it will allow demonstrated progress toward meeting the numeric values affected by the project.

NOTE: Adequacy of funding and staffing to administer and monitor projects must be considered as a factor when making determinations of not likely to adversely impact.

Likely To Adversely Impact

1. Any Project that contributes to not meeting State water quality standards, such as increasing water temperature, and/or other measurable standards that affect fish survival.
2. Projects that have negative effects on water quality, aquatic habitat, bedload sediments, stream bank stability or cover, stream habitat complexity, or riparian conditions where Forest Plans do not provide quantifiable standards and guidelines for such attributes.
3. Any Project that has effects that contribute to an inability to meet Forest Plan Standards and Guidelines for fish or aquatic habitat.
4. Projects that hamper the ability to meet, or make progress toward meeting, numeric values for desired future conditions on CRB Anadromous Fish Forests.

NOTE: THIS PROCESS DOES NOT SUPERSEDE ESTABLISHED ANALYSIS AND CONSULTATION REQUIREMENTS FOR FEDERALLY LISTED SPECIES.

ENCLOSURE III

AN ECOLOGICALLY-BASED SCREENING PROCESS FOR FY '93-'94 EASTSIDE
OREGON AND WASHINGTON VEGETATION MANAGEMENT PROJECTS

July 8, 1993

Introduction

The Pacific Northwest Region asked the Eastside Ecosystem Health Assessment Team of PNW Research Station to develop a screening process for FY '93 timber sale projects that would be used by the Region in assessing the consistency of east side projects with ecosystem management principles. The Region also requested that the screening process should place special emphasis on how projects may influence the abundance and distribution of old forest structures and be further refined and applied to FY '94 sales that are currently being designed.

We have agreed to develop and pilot-test this screening process. The process outlined below provides a mechanism for rapid screening and release of vegetation management projects that are basically free of major ecosystem management design defects. Decision-makers can use this process to evaluate the viability of proposed projects. Because of current legal requirements, projects must also be screened for consistency with existing fine filter conservation strategies; this will be accomplished in a subsequent screening.

In the screening process presented, "common sense" rules are applied to determine whether timber sales (vegetation management projects) are consistent with the primary goals and principles of landscape ecology, conservation biology, and sustainable ecosystem management. Projects that pass this initial screening will be further screened for consistency with existing fine filter conservation strategies. Projects not passing this first screening are recommended for withholding and redesign.

Project evaluations are based on descriptions and characterizations of current and historical landscape vegetation patterns and disturbance processes to determine whether the proposed action moves affected landscapes toward or away from historical ranges of variability.

ENCLOSURE III

Assumptions

To complete this process on a rapid time line, the following simplifying assumptions are made concerning proposed vegetation management projects:

- (1) Projects meet NEPA requirements.
- (2) Projects are developed consistent with applicable environmental laws and constraints.
- (3) Cumulative effects of proposed actions other than those affecting landscape vegetation pattern, such as road construction and reconstruction, are not addressed in this screening process.
- (4) Screening for project adherence with the requirements of applicable short-term, fine-filter conservation strategies for TES species, and unique habitats such as riparian or fish habitats, is outside the scope of this effort. A subsequent screening process will address this step and questions of current species viabilities within project areas.
- (5) Old forest abundance is a primary sensitive issue, however, the abundance, distribution, and interrelationships of all structural vegetation stages are important to conservation of plant and animal species and ecosystem processes.
- (6) The agency is concerned that all projects are consistent with the goals of ecosystem management, and are designed according to the principles of landscape ecology and conservation biology.

Vegetation Management Project Screening Process

With the assistance of District and Forest personnel knowledgeable about the vegetation and ecology of the project area (area ecologist, area pathologist, and entomologist, soils scientist, fire management specialist, silviculturist), proposed stands are considered and characterized in a larger watershed context.

- (1) The watershed that the stand occurs in is delineated. For this screening, watersheds should average about 25,000 acres (15,000 - 35,000) to ensure that vegetation pattern relations are adequately assessed. Watersheds should be larger than the average contiguous area extent of the dominant disturbance regime (e.g., fire); ideally at least two to three times that area.
- (2) Major biophysical environments within the watershed are classified (Table 1). For this exercise, biophysical environments are described by plant association groups in generalized landscape settings. Plant associations are grouped based on similarity of disturbance regime characteristics. For example, landscape settings with low severity fire regimes (PIPO and PSME-PIPO plant associations) are distinguished from those with high severity regimes (cool/wet ABGR, ABLA, PIEN plant associations).
- (3) Major biophysical environments are delineated within watersheds. Map biophysical environments according to a terrain model of their distribution (Table 1). For example: for each plant association group, develop a legend

that explains its topographic setting in the watershed (i.e., slope, aspect, elevation ranges, unique land form settings). Break aspect .. differences into northerly and southerly settings, and flat terrain first. Then break out plant association groupings within aspect settings considering elevation ranges. Next consider slope steepness and unique land form settings that influence plant association distribution. Each watershed should be classified into no more than about 5 biophysical environments to simplify analysis. Special high-value environments of limited extent (< 50 acres) should be mapped, otherwise inclusions <50 acres should be described within the larger biophysical environment in which they occur, but not mapped.

(4) For each biophysical environment:

- * the dominant historical disturbance regime is described (i.e., the disturbance type, and its magnitude and frequency),
- * the landscape pattern and abundance of structural stages maintained by the disturbance regime are characterized (consider biophysical environmental setting across multiple watersheds to make this determination),
- * describe each biophysical environmental setting in a watershed and its importance as a corridor for species migration, or as critical habitat,
- * describe spatial pattern and distribution of structural stages under historical disturbance influences,
- * map the current pattern of structural stages and calculate their abundance by biophysical environmental setting,
- * characterize the difference in percent composition of structural stages between historical and current conditions (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).

The ecosystem characterization steps outlined above will enable a screening team to determine:

- * Primary historical disturbance factors affecting vegetation pattern in a project watershed. This information is used to refine silvicultural prescriptions to ensure that historical disturbance effects are maintained.
- * Generalized vegetation patterns maintained by historical disturbance regimes as described by plant association groupings,
- * Major biophysical environment differences within a watershed that possess different disturbance histories and response to vegetation management (e.g., northerly vs. southerly aspects; riparian zones vs. ridge tops vs. side slopes),
- * Major departures in the pattern of vegetation structural stages considering historical disturbance regimes and management history.

Common Sense Screening Questions

Once projects areas and their associated watersheds have been characterized for major ecosystem pattern and process relations, project proposals are evaluated to determine whether the principal actions of the preferred alternative, when implemented, are consistent with watershed scale objectives. The following questions are addressed in assessing the degree to which projects meet larger scale watershed vegetation management objectives:

(1) Is the abundance of any structural stage currently outside the range of historical variability? Example: Is the abundance of old or late structural stage patches within a particular biophysical environment currently limited within the watershed, and does this project improve that abundance? If the answer is no, this project has a problem in its design. Also, if the abundance of certain structural stages in any biophysical environment is increased well-above historical ranges of variability and projects are not designed to remedy that disparity, they should be recommended for withholding and redesign. Such watersheds often differ dramatically from historical conditions with respect to landscape diversity, fire hazard, and insect and disease hazard.

(2) Is landscape connectivity a concern within the watershed of the project area? Example: If the current arrangement of late structural stage stands of a Douglas-fir/grand fir plant association group is fragmented (according to the local fire and management history), and prior management has made islands of this previously connected landscape element, then projects should effectively work toward reconnecting the historical pattern. If a project area has this concern and a project does not adequately promote a remedy to this issue of connectivity, then the project should be recommended for withholding and redesign.

(3) Are silvicultural systems and cutting methods consistent with the principal features of historical disturbance regimes? Example: When the proposed action of a project includes treatment of pine stands of the ponderosa pine climax series; are the cutting and prescribed burning methods consistent with the effects of frequent, low intensity fires that characterize this biophysical environmental setting? Dry pine zone forests were historically regenerated by frequent individual tree torching and small patch-killing fire effects that resulted in multi-cohort stands. Uneven-age management systems and individual tree and group selection methods are consistent with these disturbance effects. Frequent fires also destroyed most thin-barked pine in the under story and multi-tiered stands were exceptional. If project cutting methods are inconsistent with historical disturbance effects, then a project should be recommended for withholding and redesign. The intensity, frequency, and extent of historical disturbances should be considered in answering this question.

(4) Is the choice of cutting methods and stands entered consistent with enhancing or maintaining watershed vegetation patterns according to historical ranges of variability? Example: A large area of a watershed was historically maintained in a late structural stage condition by frequent low-intensity fire, and those same stands are currently multi-layered with mature and older ponderosa pine over stories, and dense shade-tolerant under stories. Does the project recommend removal of the pine over story and thinning the

Douglas-fir/grand fir under story, or does it remove the shade-tolerant under story and regenerate small patches of the over story to seral species? The latter scenario would be more consistent with historical fire effects. If the selection of stands to be treated and the project cutting methods are inconsistent with improving watershed vegetation patterns according to historical ranges of variability, then a project should be recommended for withholding and redesign.

(5) In aggregate, does the action of the project enhance long-term productivity, biological diversity, and the long-term sustainability of resource flows within the affected watersheds? Example: Will genetic, species, and landscape diversity be enhanced according to historical conditions through implementation of the proposed project or will some species, populations, or habitats be more marginal in viability, distribution, or connectivity? Will the ecological roles of fires, insects, and diseases be rescaled more in accord with historical roles upon completion of this project? Will the pattern of vegetation (patch size, composition, vertical and horizontal structure) in affected watersheds be more in accord with historical ranges of variability upon completion of this project? If not, the project should be recommended for withholding and redesign.

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 assoc.	1) Fire 2) I&Ds	Low ¹	< 1 ac	Ridgetops Steep Sideslopes	2500-4000 feet	S,SW
warm, dry PSME, ABGR, plant assoc.	1) Fire 2) I&Ds	Low	< 5 ac	Sideslopes	3000-4400 feet	S,SW
cool, mesic PSME, ABGR, ABLA2, PIEN plant assoc.		Moderate	80-120 ac		3000-5000 feet	
cool, wet ABGR, ABLA2, TSME plant assoc.		High	200-1000 ac			
cold ABLA2 PICO, TSME plant assoc.		High				
wet TSME, ABAM, THPL plant assoc.						
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			Middle			Late			Old		
	H ¹	C ¹	ΔD	H ¹	C ¹	ΔD	H ¹	C ¹	ΔD	H ¹	C ¹	ΔD
hot, dry PIPO, PSME plant assoc.												
warm, dry PSME, ABGR, plant assoc.												
cool, mesic PSME, ABGR, ABLA2, PIEN plant assoc.												
cool, wet ABGR, ABLA2, TSME plant assoc.												
cold ABLA2, PICO, TSME plant assoc.												
wet TSME, ABAM, THPL plant assoc.												
grassland												
shrubland												
meadow												
nonforest												
riparian												

¹ H¹ is the estimated percentage of the watershed area in this structural stage under historical conditions; C¹ is the estimated percentage of the watershed area in this structural stage currently, based on stand exam or other data, or field knowledge; ΔD is the estimated difference C¹-H¹=ΔD; 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.

August 16, 1993

ENCLOSURE IV

WILDLIFE SCREENING PROCEDURE AND DIRECTION FOR TIMBER SALES

The following direction was designed during a one-day meeting in the Regional Office by a small group of silviculturists and biologists from the Regional Office, Malheur, Ochoco, and Colville National Forests. Tim Rogan, Special Assistant to the Regional Forester led the group effort. The team's assignment was to design additional screening elements for wildlife to be used after potential projects were filtered through the Riparian and Historical Range of Variability Screens. Therefore, the process the team used was to conceptualize examples of sale activities that would filter through the first two screens, (using a few actual examples and Forest vegetation maps as base data), and then to decide on additional wildlife parameters that should be applied to insure wildlife conservation options were being maintained in the short-term.

The draft "wildlife screen" that resulted from that meeting was then reviewed and discussed with John Lowe, Regional Forester and a few additional professional and research biologists. This final document represents direction and parameters established by the Regional Forester that are based on general, scientific principles and concepts. This should not be confused with, (or used as), a "peer-reviewed, scientific assessment" of wildlife needs.

The purpose of this wildlife screen is to maintain options in the short-term for the conservation of wildlife species associated with late and old structural seral stages within eastern Oregon and eastern Washington. It is understood and acknowledged that a full conservation assessment for these species needs to be completed to determine a long-term strategy which will meet viability requirements. The initial steps of that long-term process have been initiated.

The following assumptions are made to insure the proper use of this screening process. Projects will not proceed until all the following assumptions are met:

- (1) Projects meet NEPA requirements and are consistent with applicable laws and regulations.
- (2) Projects have completed the necessary biological evaluations, inventories, and consultation for threatened, endangered, and sensitive plants, fish, and animals.
- (3) Projects have already been filtered through the Riparian and Historical Range of Variability Screens and met all requirements before proceeding to this screen.
- (4) Forest Plan standards and guidelines that relate to the amount of "old growth", or late and old seral stages to be maintained within a given unit of land will not be violated.

ENCLOSURE IV

(5) New projects being planned will be consistent with the goals of ecosystem management and are designed according to the principles of landscape ecology and conservation biology.

(6) For wildlife screening purposes, project activities will be analyzed on a watershed basis of at least 15,000 to 35,000 acres in size; (subwatershed analysis is not adequate for screening).

After following procedures for SCREEN #1 (Riparian) and SCREEN #2 (Historical Range of Variability-HRV), the following different scenarios still exist that need to be processed through SCREEN #3 (Wildlife). Use the Project Screening Decision Tree as a reference.

NOTE: For those sales exempt from SCREEN #2, follow guidelines given in SCREEN 3a, below.

SCENARIO 3a. SCREEN #1 (Riparian) is met, AND
SCREEN #2 (HRV) - Watershed Condition for the old and late
structural stage in a particular biophysical environment falls
BELOW HRVs:

- 1) 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.

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, (as was described in the documentation in Enclosure 3).

(a) Maintain all remnant old and late seral green trees 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) Treatment methods will mimic historical disturbance regimes as much as possible.

2) Maintain connectivity and reduce fragmentation of old and late structural stage stands:

Wildlife species associated with late and old seral 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:

- (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 network pattern, and
- (2) each old and late structural stand and MR area should be connected with others at least 2 different ways, (3 ways is preferred), and
- (3) "connection corridors" between these habitats needs to be made by stands of trees with the average dbh ≥ 9 inches, canopy closures $\geq 50\%$, (or within the top 1/3 percent of site potential, whichever is greatest); with stand widths at least 400 ft. wide at their narrowest point, and
- (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 project initiate a prescription that will 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 seral conditional should not be considered for regeneration at this time. Non-regeneration activities in these areas should only proceed if they meet the direction in 1 b) above.

3) Adhere to the following specific wildlife prescriptions:

In order to maintain options for species conservation in the future, the following standards are provided until a further wildlife analysis is completed. 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 and late seral associated species rely on moderate to high levels of snags and down logs for nesting, roosting, denning and feeding. Past management practices have greatly reduced the number of large snags and down logs in managed stands, that are a common, and important component of old and late seral, un-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).

(2) 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, old and late structural condition remnant trees should be left and considered part of the green tree "replacement" tree and roost tree requirement.

(4) Down logs ≥ 12 inches dbh should be left at an average of 20 pieces per acre in mixed conifer stands. In Ponderosa pine stands leave all large woody material. Leaving all large down logs is preferred to removing them. Consequently removal should only occur to meet specifically documented safety and silvicultural requirements.

b) Goshawks: Goshawks are an indicator species on some Forests and not on others. To insure goshawks are considered in the short-term until further analysis is completed, the following standards are provided as a minimum. Forest Plan standards and guidelines that exceed the levels described below should be used instead.

- 1) Protect every known active and historically used goshawk nest-site from disturbance. (For the purposes of this screen, "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 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.

SCENARIO 3b. SCREEN #1 (Riparian) is met, AND
SCREEN #2 (HRV) - Watershed Condition for the old and late
structural stage in a particular biophysical environment falls
WITHIN OR ABOVE HRVg:

While in this scenario, harvest activities are allowed within old and late structural stands, it needs to be remembered that a species viability assessment has not been completed for the east-side 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.

In order to maintain species conservation options until the larger analysis is completed, we will:

- 1) Maintain old and late structural stage conditions within the HRV; and
maintain and enhance old and late structural conditions and attributes as
much as possible. 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 (≤ 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 ≤ 100 acres in size
- e) at the edges (within 300 ft) of larger blocks of old and late structural stands.

2) Maintain connectivity as directed in Scenario 3a, above.

3) Fragmentation reduction guidance: In this scenario, while it is possible to harvest within old and late structural stage stands, fragmentation of these stands should be held to an absolute minimum to maintain options for wildlife species conservation.

- a) Regeneration harvest methods should not be utilized for harvest activities that are planned in blocks of old and late structural stands ≥ 100 acres that occur within the "interior" of the block (beyond 300 ft from the edge).

4) Adhere to wildlife prescriptions given in Scenario 3a with the following exception for goshawk post fledging areas:

Goshawks: Follow the same direction provided in scenario 3a, except use the following direction for post fledging area management:

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 stage. (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

Full Text of Alternative 3
Regional Forester's Eastside Forest Plans Amendment No. 1

Regional Forester's Eastside Forest Plans Amendment No. 1
Alternative 3, 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 are exempt from the interim ecosystem standard, but must apply the interim riparian and wildlife standards: precommercial 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 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 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 and 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 abundance 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).

*disturbance regime
→ already done overall forests/no change.
+ prof. judgment re: large scale to small scale.*

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 assoc.	1) Fire 2) I&Ds	Low ¹	< 1 ac	Ridgetops Steep Sideslopes	2500-4000 feet	S,SW
warm, dry PSME, ABGR, plant assoc.	1) Fire 2) I&Ds	Low	< 5 ac	Sideslopes	3000-4400 feet	S,SW
cool, mesic PSME, ABGR, ABLA2, PIEN plant assoc.		Moderate	80-120 ac		3000-5000 feet	
cool, wet ABGR, ABLA2, TSME plant assoc.		High	200-1000 ac			
cold ABLA2 PICO, TSME plant assoc.		High				
wet TSHE, ABAM, THPL plant assoc.						
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.

*Appendix
material*

Table 2. Example Biophysical Environment--Structural Stage Matrix

Biophysical Environments	Early			Middle			Late			Old		
	H%	C%	%D	H%	C%	%D	H%	C%	%D	H%	C%	%D
hot, dry PIPO, PSME plant assoc.												
warm, dry PSME, ABGR, plant assoc.												
cool, mesic PSME, ABGR, ABLA2, PIEN plant assoc.												
cool, wet ABGR, ABLA2, TSME plant assoc.												
cold ABLA2, PICO, TSME plant assoc.												
wet TSME, ABAM, THPL plant assoc.												
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.

*Appendix
material*

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.

*notes: ~~redo~~ replace w/ CRD (eastside) stage
structural
7 conditions > has cited research*

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 remnant 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 network 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 $\geq 50\%$. If site potential does not allow canopy closure of $\geq 50\%$, 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 prescription 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 remnant 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 should supplement 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.

<u>SPECIES</u>	<u>PCS. PER ACRE</u>	<u>DIA. SMALL END</u>	<u>PIECE LENGTH &</u>	
			<u>TOTAL LINEAL LENGTH</u>	
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 watershed 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 (≤ 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 ≤ 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 ≥ 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 stage. (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 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

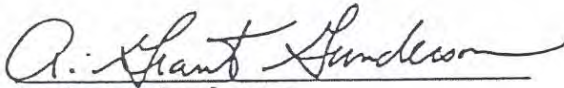
February 16, 1994, U.S. Department of Interior, Fish and Wildlife Service
letter to John E. Lowe, Regional Forester, U.S. Forest Service
Re: 1-7-94-I-153, concurring with Biological Evaluation

March 9, 1994, U.S. Department of Commerce, National Marine Fisheries Service
letter to Mr. John E. Lowe, Regional Forester, Pacific Northwest Region
Re: Timber Sale "Screens" for the Nine EastSide 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
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 handwritten signature in cursive script, reading "A. Grant Gunderson". The signature is written in dark ink and is positioned above the printed name.

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 salmon 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 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 as 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, Forest 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 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 as 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 RARE SPECIES THAT OCCUR ON
THE TEN "EAST-SIDE" FORESTS
AND SUSPECTED OR DOCUMENTED OCCURRENCE BY FOREST

Redband trout - All	Prebles' shrew - MAL, OCH, UMA, WAW
Bull trout - All but OCH	Pacific western big-eared bat - All but OKA
Oregon Lakes chub - FRE	Pygmy rabbit - DES, OKA
Goose Lake sucker - FRE	California Wolverine - All
Klamath large scale sucker - FRE, WIN	North American lynx - COL, MAL, OKA, UMA, WAW, WIN
Malheur mottled sculpin - MAL, OCH	California bighorn - COL, FRE, MAL, OKA, UMA, WAW
Pit Sculpin - FRE	Schuhs' homoplectran caddisfly - WIN
Slender Sculpin - WIN	Alsea microcaddisfly - DES
Snake River Basin steelhead - UMA, WAW	Cascades apatanian caddisfly - DES
Northwestern pond turtle - FRE, WIN	Blue Mtn. cryptochian caddisfly - MAL, UMA, WAW
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	

* 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

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

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

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

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



IN REPLY REFER TO

United States Department of the Interior

FISH AND WILDLIFE SERVICE

911 NE. 11th Avenue
Portland, Oregon 97232-4181

RECEIVED
FEB 24 1994
FERN/EA 1994

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

John E. Lowe, Regional Forester

2

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

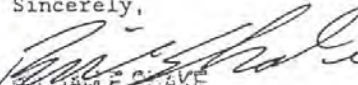
The biological evaluation presents the determination that adoption of Alternative 3 as an interim process is "not likely to adversely affect" the Lost River sucker, shortnose sucker, McFarlane's four o'clock, American peregrine falcon, and northern bald eagle. The Service concurs with this determination.

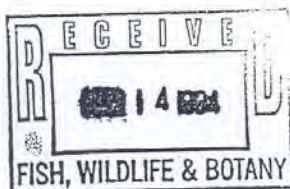
WASHINGTON

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,


Acting **WILLIAM F. STAKE**
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).

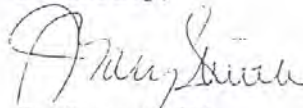
NMFS did not include possible effects of the vegetation screens in its analysis of the effects of the proposed action, because the vegetation screens were not designed with protection of fish habitat as a goal. However, additional protection of old-growth and late-seral stage forests is not likely to 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 Messrs. Plenert and Tuttle:

On May 20, I issued 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.



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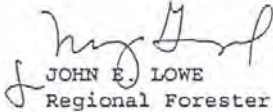
The interim riparian standard corrects the description of riparian areas by including ponds, lakes, reservoirs, seeps and springs, bogs, and wetlands. Their omission in the screening process was an oversight. The intention was to protect all riparian areas.

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 D

Scoping and Public Comment Analysis

APPENDIX D
Scoping and Public comment analysis

The following notice was published in the papers of local circulation (listed below) during the last week of December 1993:

"NOTICE OF OPPORTUNITY TO COMMENT"

The Forest Service is preparing an Environmental Assessment that will look at alternatives that will maintain options in habitat for old-growth associated species while allowing timber harvest to continue. The preferred alternative in the analysis, implementing a screening process, would if chosen amend eastside Forest Plans in the short term. Interim direction is needed to maintain options while a complete analysis is developed as part of the Eastside Ecosystem Assessment and EIS. The interim direction would apply to the following forests in eastern Washington and Oregon: Deschutes, Fremont, Malheur, Ochoco, Okanogan, Umatilla, Wallowa-Whitman, Winema and Colville.

Alternatives to the proposed action include, a moratorium on timber sales, species-specific interim direction, and no action.

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

If you wish to comment on the environmental analysis send comments to Regional Forester John Lowe, PO Box 3623, Portland, OR 97223-3623 by January 15, 1994."

The request for scoping comments generated 20 letters from various individuals and groups which contained approximately 270 specific comments. Comments received in the scoping process were used to define the range of alternatives and to develop issues. The issues were then used to help select the adopted alternative. The comments fell into four categories: riparian areas, Historic Range of Variability (HRV), wildlife, and economic and procedural. References to the "screening process" are to August 18, 1993, direction issued by the Regional Forester.

Riparian/Fisheries Comments

Many of the scoping comments related directly to the width of the buffer zones along and around riparian areas. Many thought the distances were exceptionally narrow given forest conditions on the eastside. For example comments from NRDC included: "In addition to slowing degradation of fish habitat, these wider zones would help preserve additional riparian habitat of importance to such upland species on the Eastside such as American Martin." Alternatives 1 and 2 provide different distances within which timber management activities would be allowed. Alternative 1 in particular would continue to implement current individual Forest Plan standards and guidelines, which vary by Forest.

In contrast, a significant number of comments took issue with the riparian buffer zones as too great a width, unnecessarily deferring sale activity. The

No Action Alternative provides for continued implementation of the current Forest Plan standards and guidelines. The effects of various distances is discussed as part of the cumulative effects analysis contained in the EA. Again, the interim guidelines were set conservatively to preserve options for implementing more permanent standards after the additional analysis included in the Eastside Assessment.

Historic Range of Variability Comments

Nearly all of the comments remarked on the Historic Range of Variability (HRV) and its value as a measure of ecosystem vitality because of the difficulty in establishing supportable ranges. Comments pointed out that the HRV tends to concentrate harvesting in areas of supposed abundance when those might possibly be the areas of greatest value to the wildlife species of concern.

Alternatives 1 and 2 do not incorporate the Historic Range of Variability so a comparison of the effects is provided in the Environmental Consequences section of the EA. Admittedly, as a long term planning tool, the ecosystem interim standard (based on HRV) lacks the depth and data needed to redirect the management of ecosystems. As an interim measure, however, the interim standards is a valid means to conserve future options for ecosystem management. Current risks to species, ecological groupings of species, and habitats will be assessed in the Eastside Ecosystem Management Project Assessment and Eastside EIS which will provide long term direction for ecosystem management.

Wildlife Comments

Commenters generally wrote about wildlife interests in three categories: need for a different strategy to assure viability; inadequate data on the status and requirements of the individual species to proceed with a proposed action; and adequacy of specific components of various habitats on which to base a decision.

Grant and Harney Counties expressed concerns in first category, i.e. different strategy to deal with species viability than was used in the current Forest Plans. The suggested analysis is beyond the intended scope of the proposed action. The intent of this environmental assessment is to provide interim standards and guidelines that will amend the Forest Plans in the short term. It would maintain the current concepts for wildlife management in existing Forest Plans.

Grant and Harney Counties also suggested that not enough information is available through Forest Plan monitoring and other research to require changes in management activities. While the need for greater analysis is recognized, in fact the purpose of the Eastside EIS, enough information was available to propose interim direction for some of the old growth associated species in eastern Oregon and Washington based on Forest Service research regarding habitat requirements for some old growth associated species, the listing of anadromous fish stocks, and the results of Forest Plan monitoring.

A great many comments provided suggestions for alternatives to the screening process or alternative elements in the screening process itself. Comments from the Concerned Friends of the Winema, Blue Mountains Native Alliance, and the Natural Resource Defense Council suggested changes to elements such as snag numbers, volume of down woody material, harvesting trees over 21 inches DBH, acres of old growth protected, and provisions for Goshawk, for example. These concerns were taken into account in development of the EA by considering the alternatives of continuing current Forest Plan direction, Alternative 1 (No Action) and a Moratorium on Timber Sales (Alternative 2) as well as the alternative to implement the screens (Alternative 3). Additional analysis of those elements suggested, particularly ecosystem and wildlife habitat needs, will be required as part of the Eastside Assessment and EIS. The interim nature of this decision and the need to protect options led to the formulation of the alternatives. The interim standards themselves were developed to be conservative in their approach to protecting habitats i.e. they did not attempt to establish protection at the minimum level. This approach was taken to provide the flexibility necessary to look at a wide range of options when establishing more permanent standards after the Eastside Assessment is completed.

Economic and Procedural Comments

Many of the comments tended to focus on the effects of the screening process on the communities of Eastern Oregon and their ability to continue their economic dependency on National Forest timber outputs. A comment received from The Grant County Court states "The Environmental Assessment must include a discussion of the quality of life in the communities affected by this decision. Included in the quality of life analysis must be a discussion of the impact upon Forest Service employees." The analysis suggested is part of the Environmental Consequences section of the EA, included in the socioeconomic effects section. The longer term socioeconomic effects to the region will be included in the Eastside Assessment currently underway.

A second area of comments related to the NEPA process and Forest Service responsibility to assure that public input is provided for in a fair and equitable manner. As stated by Boise Cascade Company, "A matter of such magnitude, which effects the human and economic environments of the state, requires a carefully prepared Environmental Analysis Statement for the appropriate depth of analysis". The level of public involvement is consistent with that needed for an EA on an interim set of standards and guidelines for existing Forest Plans. The depth of analysis for biological and social issues as well as the public involvement process developed for the Eastside EIS will be much greater given the fact that the results of that analysis will replace these interim standards and guidelines.

A third area of comments were general concerns with the application and construction of the screening process. In some cases persons were concerned with the ability of the screens to adequately protect the habitat of old growth associated species and in others, that there be a process to assure that the intent of the screening process is not over implemented. The Sierra Club, Cascade Chapter comments "One of the biggest problems with the present screening approach is that it allows too much leeway for managers to damage intact LS/OG and roadless areas." An alternative view is provided by Save Our Industries and Land (SOIL) "The amount of volume being offered is not enough to

keep the local mills operating at 1/2 their capacity, or to keep a local work force in the area to log." Alternatives to the screening process were developed in the NEPA process. Those included were, No Action, and a Moratorium on Logging. In general, the no action alternative was determined to not provide adequate protection to habitats for old growth associated species in the interim period while a moratorium did not provide an adequate flow of timber products logs to support many of the local mills.

Newspapers Publishing the Notice to Comment

This is a list of the newspapers 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. Notices in these papers inform interested members of the public which newspapers will be used to publish legal notices of decisions, thereby allowing them to receive constructive notice of a decision, to provide clear evidence of timely notice, and to achieve consistency in administering the appeals process.

Legal notices published in the listed newspapers will begin with decisions subject to appeal that are made on or after October 31, 1993. 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
Mail Tribune, Medford, Oregon
Grants Pass Courier, Grants Pass, 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
Meshow Valley News, Twisp, Washington