RECORD OF DECISION

WILLAMETTE NATIONAL FOREST

Land and Resource Management Plan
Final Environmental Impact Statement

WILLAMETTE NATIONAL FOREST

Lane, Linn, Marion, Douglas,
Clackamas, and Jefferson Counties
in Oregon

USDA FOREST SERVICE

July 1990

RECORD OF DECISION

TABLE OF CONTENTS

TABLE OF CONTENTS Continued

SECTION I

INTRODUCTION

BASIS AND NEED FOR DECISION

This Record of Decision (ROD) documents approval of the Land and Resource Management Plan (Forest Plan) for the Willamette National Forest (Forest) and the portions of the Mount Hood National Forest administered by the Forest (the area around Elk Lake and the upper Elk Creek drainage). This ROD presents reasons for selecting the alternative to be the Forest Plan for the 1.7 million acres of National Forest land. In making this decision I considered the estimated environmental, social, and economic consequences of the alternatives described in the Final Environmental Impact Statement (FEIS).

Throughout this ROD I have used technical terms which may not be familiar to large segments of the public. The FEIS and the Forest Plan both contain glossaries which define many of the technical terms used in this document.

A Draft Environmental Impact Statement (DEIS) and Proposed Land and Resource Management Plan (Proposed Forest Plan) were filed with the Environmental Protection Agency (EPA) on December 24, 1987. Additional details on meetings, notices, and documents preceding the FEIS and Forest Plan are presented in the FEIS Appendices A and I.

Authority

The FEIS and Forest Plan were developed under authority of the National Forest Management Act (NFMA) and its implementing regulations (36 CFR 219). The FEIS satisfies the requirements of the National Environmental Policy Act of 1969 (NEPA) and Council on Environmental Quality regulations (40 CFR 1500).

The Forest Plan is part of the framework for long-range resources planning established by the Forest and Rangeland Renewable Resources Planning Act (RPA). The Forest Plan establishes general direction for 10 to 15 years and must be revised at least every 15 years (36 CFR 219.10(g)). It replaces the 1977 Multiple-Use Land Management and Timber Management Plan for the Forest. It incorporates or replaces other previous management plans as listed in Chapter I of the FEIS.

AFFECTED AREA

The Forest is located along the western slope of Oregon's Cascade Mountains. The planning area includes the entire Forest located in portions of Lane, Linn, Marion, Douglas, Clackamas, and Jefferson counties and a portion of the Mount Hood National Forest located in Clackamas county.

The Forest Supervisor's Office is in Eugene. Ranger District Offices are in Oakridge, Westfir, Lowell, Blue River, McKenzie Bridge, Sweet Home, and Detroit.

PUBLIC INVOLVEMENT

On December 24, 1987 the DEIS and Proposed Forest Plan were formally released to the public. The public review period lasted for 143 days, closing on May 16, 1988. Many public meetings, presentations, and informal discussions were held concerning the DEIS. During this period over 17,000 responses were received containing more than 175,000 comments.

Forest representatives met often with the State of Oregon Federal Plan Coordinator and various private interest representatives to clarify and correct technical concerns and identify opportunities for improvement to the DEIS. Although the State did not prepare a final response, it did prepare a draft coordinated response. That document, together with the close personal coordination which occurred, resulted in a better, more technically accurate Plan.

In addition, a group comprised of representatives of local environmental groups, timber industry, and local government met regularly with the Forest Supervisor between the DEIS and FEIS. This group, known as the Fruitful Discussions Group, discussed key issues and made recommendations to the Forest Supervisor which were used to help clarify and focus on the most critical aspects of the issues.

The Forest updated basic inventories and made other technical changes to produce the Plan based on many of the recommendations from the State, the Fruitful Discussions Group, and the public response received on the DEIS. My staff and I were briefed thoroughly on the public comments, the FEIS, and all changes. I used this information to make my decision.

For further information on specific details of public involvement activities, see FEIS Appendices A and I.

Issues

Land and resource management planning began with the identification of issues and concerns through public contacts with civic and community organizations; individuals; local, State, and federal agencies; private industries; adjacent landowners; various interest groups; and Forest Service employees. After public comments and management concerns were gathered and analyzed, seven major issues were identified. These issues are described in detail in Chapter I of the FEIS, and were considered throughout the planning process. In addition to the seven major issues, there were numerous secondary issues. The following twelve issues were important in making my decision:

- Biological Diversity
- Communities Within the Forest Area of Influence
- Dispersed Recreation
- Old Growth
- Roadless Lands
- Scenic Quality
- Special Areas

- Timber Supply
- Water Quality and Quantity
- Wild and Scenic River System
- Wilderness
- Wildlife and Fish Habitat

Resolution of these issues is addressed in Section III of this ROD.

Alternatives

Alternative integrated management approaches were formulated to respond to the major issues in different ways. The alternatives considered are discussed in Section IV of this ROD.

WHAT THE FOREST PLAN IS, AND IS NOT

The Forest Plan and accompanying FEIS describe a general, integrated resource program for managing the Forest. The Forest Plan provides direction to manage the Forest to produce goods, services, and use opportunities in a way that maximizes long-term net public benefits. It is not a plan for the day-to-day administration activities of the Forest; it does not address such matters as vehicle and equipment management or organizational structure, although these things may be affected by direction in the Forest Plan.

The Forest Plan emphasizes the application of various management practices to achieve multiple-use goals and objectives in an economically efficient and environmentally sound manner. The standards and guidelines are the rules that govern the resource management practices and are key to successful implementation of the Forest Plan. They will influence how site-specific practices are implemented. Standards and guidelines will not be violated to achieve annual targets or projected outputs.

If the results of monitoring and evaluation show that management objectives cannot be achieved without violating the standards and guidelines, the Forest will evaluate the need for amending or revising the Forest Plan. If an amendment or revision is needed, one or more of the following could be changed: projected outputs, land allocations, management prescriptions, or standards and guidelines.

IMPLEMENTATION AND BUDGETS

Decisions to proceed with projects are made at the implementation phase of forest management. Project development and scheduling will be achieved through an integrated resource management approach, assuring interdisciplinary teamwork and public involvement throughout the process. When projects are designed, site-specific analyses will be performed. These analyses may result in environmental assessments, environmental impact statements, or decision memos and, possibly, an amendment or revision of the Forest Plan. Any resulting documents may be tiered to the FEIS for this Forest Plan pursuant to 40 CFR 1508.28.

Although all outputs in the Forest Plan can be accomplished from a physical, biological, and legal perspective, the Forest Plan does not guarantee that specific output levels will be met. An example is the allowable sale quantity (ASQ) of timber. The ASQ is the maximum chargeable volume of timber that may be sold over the planning period, not necessarily the amount of timber that will be sold. Factors such as the demand for timber products and annual Forest Service budgets will influence the actual volume offered for sale.

Management activities scheduled in this Forest Plan will be associated with multiyear program budget proposals that identify funds necessary to implement the Forest Plan. These proposals will be used to request and allocate funds. Outputs and activities in individual years may be significantly different than the averages shown in Chapter IV of the FEIS depending on available funds.

The Forest Supervisor may change proposed implementation schedules to reflect differences between proposed annual budgets and actual funds received. Such schedule changes shall be considered a significant amendment to the Forest Plan if they significantly alter the long-term relationship between levels of multiple-use goods and services projected in the Forest Plan.

SECTION II

DECISIONS

It is my decision to select Alternative W (the Preferred Alternative) from the FEIS for the management of the Forest. The Preferred Alternative was developed in response to concerns raised through the public review of the DEIS and Proposed Forest Plan.

I believe it is essential to issue this Forest Plan now to provide an updated basis for sound resource decisions and from which to make future adjustments. The most recent Forest Plan approved for the Forest, in 1977, does not fully consider the regulations promulgated from the National Forest Management Act nor the latest scientific, technical and socioeconomic information of the past 13 years. The Forest Plan has been developed to consider these factors and will make dealing with future adjustments more efficient, expedient, and environmentally sound.

CHANGES FROM THE DEIS

Alternative W changed or modified several aspects of the Preferred Alternative identified in the DEIS. These changes include:

- More protection for riparian areas.
- Increased emphasis on watershed management and water quality.
- Additional acres managed as Special Interest Areas, Old-Growth Groves, and Special Wildlife Habitat.
- Appropriate management for those segments of specific rivers Congressionally designated or identified as eligible for designation as Wild and Scenic Rivers.
- Additional standards and guidelines to address the issues of fragmentation of old growth and maintaining key structural components of old growth in managed stands.
- Fewer acres available for timber production.
- Lower allowable sale quantity.

In addition, many of the standards and guidelines in the Proposed Forest Plan were modified for clarity of intent in response to public comments.

PROGRAM DECISIONS

The program decisions I make here are accompanied by the necessary supporting NEPA analysis and disclosure required by law and regulation. Additional NEPA analysis for these decisions is not expected to be done and is not required. A final decision may be revisited or reassessed during implementation

if monitoring and evaluation indicate fundamental changes in data or information have occurred since this ROD. These decisions are not expected to be routinely revisited during site-specific analysis however. These decisions are as follows:

- Forest-wide goals and objectives.
- Forest-wide desired future condition.
- Forest-wide standards and guidelines.
- Management area locations and goals.
- Management area standards and guidelines.
- Monitoring plan and evaluation process.
- Forest-wide allowable sale quantity.
- Lands suitable and selected for timber harvesting.

OTHER DECISIONS

- Northern Spotted Owl

The decision, effective July 23, 1990, by the U.S. Fish and Wildlife Service (FWS) to list the northern spotted owl as a threatened species under the Endangered Species Act (ESA) has affected my decisions in this plan. As different steps are taken in response to the listing, further changes to the Forest Plan are likely to be required.

The Forest Plan and FEIS were prepared using the standards and guidelines in the Pacific Northwest Regional Guide, as amended by the Chief's decision of December 8, 1988. Thus, it did not consider the subsequent listing of the northern spotted owl nor the April 4, 1990, recommendations of the Interagency Scientific Committee (ISC) for conservation of the species.

My decision is to approve Alternative W as the management direction for the Willamette National Forest. We will be implementing the plan: (1) making adjustments for the listing of the northern spotted owl, any issuance of interim management guidance, and the eventual development of a recovery plan; and (2) the Forest Service will follow consultation procedures with the FWS necessitated by listing the owl as threatened.

For the remainder of FY 90, implementation of the Forest Plan will be directed to meeting requirements of Section 318 of the Interior Appropriations Act of 1990, while avoiding inconsistency with the recommendations of the ISC.

Pending completion of the recovery plan, all activities implementing the Forest Plan will meet the requirements of the ESA. Such activities will be scheduled so that conflicts with the recommendations of the ISC will be avoided. By doing this, I avoid precluding the Chief's options with respect to the ISC recommendations.

As directed by Section 318 of the 1990 Interior Appropriations Act, the Regional Guide decision of December 8, 1988, must be reviewed and revised as appropriate by September 30, 1990, to consider new information. Following the Chief's Regional Guide decision, other changes in direction, or the recovery plan, any necessary adjustments in management direction will be made through amendment or revision of the Forest Plan.

- Opal Creek

There has been a high level of public interest at the local, regional, and national level in the Opal Creek and Battle Axe drainages and the area between Stony Ridge and the Little North Fork Santiam River (Bonanza Mine subdrainage), including the uncertainty of the effects of the final northern spotted owl recovery plan on this area specifically. As a result of this, I have decided to defer further timber harvesting and road development in these areas for up to two years. During this period, the Forest will assess the options for this area in light of providing the protection needed for the spotted owl and continue to pursue a negotiated resolution of this issue. Within two years the Forest Supervisor will verify the land allocation and proposed activities in the Forest Plan or recommend adjustments based on spotted owl recovery objectives. Approximately 3.5 million board feet of the Forest Plan annual ASQ contribution is from these drainages. This amount of volume will be deferred from the ASQ for up to the first two years of implementation. The deferred volume (up to 7.0 MMBF) will be added back to the total first decade ASQ if the land allocations in the Forest Plan remain unchanged.

INTENDED ACTIVITIES

I also intend that the Forest will carry out certain scheduled activities. These proposed and probable activities are displayed in activity schedules in the Forest Plan Appendices C and D. Unlike the programmatic decisions listed above, these activity decisions are not accompanied by all supporting NEPA analysis and disclosure required by law and regulation. Additional environmental analysis for these projects will be done during Forest Plan implementation.

RECOMMENDATIONS

I am recommending the addition of five Research Natural Areas (RNA) and the expansion of an existing RNA. The authority to make final decisions on the recommendations lies with the Chief of the Forest Service. Like my final decisions, recommendations are accompanied by all supporting NEPA analysis and disclosure required by law and regulation. If the Chief accepts the recommendation, the resulting final decision will not ordinarily be revisited or reassessed by the Forest Service during implementation of this Forest Plan.

SECTION III

RATIONALE FOR DECISION

ISSUE RESOLUTION

I approached my decisions by first reviewing the major issues, the public's comments on those issues, and then how the various alternatives responded to these issues. I present my rationale for these decisions in the same manner below. My decision to select the Preferred Alternative (Alternative W in the FEIS) as the Forest Plan is based on my assessment that Alternative W best maximizes net public benefits. It provides a high level of diverse benefits and it is highly responsive to public issues. Numerous considerations have had a bearing on my decision regarding multiple-use of the Forest. No single factor or individual consideration has predominated in my decision. I reviewed the environmental consequences of the Preferred Alternative and the other alternatives. The Forest Plan, to the best of my knowledge, complies with all legal requirements applicable to the Forest.

The early identification of issues affecting the National Forests is consistent with well-reasoned management of public lands. Regulations to implement NFMA require that one or more alternatives in the FEIS for the Forest Plan address each of the major issues. The response of each alternative to the seven major issues was a major consideration in the selection of the Preferred Alternative (FEIS, Chapter II). The reasons for choosing the Preferred Alternative are discussed below on an issue by issue basis.

The following discussions summarize many of the important factors which I considered. They explain why I believe Alternative W, as described in the FEIS, will maximize net public benefits when compared to the other alternatives, including those offered by non-Forest Service groups.

ISSUE: How Will Biological Diversity of Plant and Animal Species Be Managed?

Biological diversity is the distribution and abundance of different plant and animal communities and species in a given area. Biological communities, ecosystems, species, genetic variability, and landscape all contribute to the concept of ecosystem diversity. (Old growth, one component of biological diversity, is specifically addressed in the Old-Growth Issue section of this document.)

New and greater demands are being placed on the Forest by a growing human population and changing patterns of Forest uses. There are different opinions on how plant and animal communities should be treated on the Forest, as well as the type, magnitude, and intensity of future resource management activities that should be allowed.

The Forest Plan addresses biological diversity by maintaining essential components of the natural ecosystem scattered throughout the Forest in allocations such as Wilderness, wildlife habitat areas, special interest areas (biological), H.J.Andrews Experimental Forest, Research Natural Areas, old-growth groves, large areas which are unsuitable for timber production, and riparian areas. These areas comprise over 50% of the total acreage of the Forest.

In addition, the Forest Plan recognizes that there are many options to meet biological diversity through the application of integrated management activities. Standards and guidelines have been updated to include consideration for biological diversity. Examples include:

- Retention of live and dead standing trees for wildlife habitat.
- Retention of downed logs.
- Biological evaluations of project areas to determine possible effects on sensitive, threatened, and endangered species.
- Silvicultural prescriptions based on plant associations.
- Regeneration of harvested stands to maintain a mixture of hardwoods and conifer species.
- Retention of some native species when managing competing and unwanted vegetation.
- Retention of ecologically significant stands of old growth.

ISSUE: How Will Management of the Forest Resources Affect Communities Within the Forest Area of Influence?

The primary area of Forest influence includes Lane, Linn, and Marion counties. These areas, plus the secondary zone of influence, contain over 1,000,000 people. In addition, the Forest is an important recreation area and source of forest products for residents of the Portland metropolitan area.

Local communities and Forest users are affected through availability of recreation opportunities, payments to county governments from Forest receipts, production of market goods (primarily timber), and other amenities such as enjoyment of the visual characteristics of the Forest. Economic activities affecting local individuals include logging, sawmill operations, tourism, and various recreational pursuits.

Forest management activities and resulting outputs influence job opportunities, incomes, and quality of life of residents in local communities. Public comments on the DEIS indicated deep concern about future employment opportunities and community stability. Many individuals feel the Forest should maintain or increase emphasis on commodity production. Others feel the Forest should emphasize other values such as clean water, wildlife and fish habitats, and recreation opportunities. Many individuals recognized the importance of payments to counties based on revenues from timber sales.

The range of alternatives shows considerable variation in the resource outputs and in the five basic factors that have a bearing on the impacts of implementing the alternatives: jobs, income, payments to counties, lifestyles, and community cohesion. The social and economic environment that surrounds the Forest will be affected as a consequence of implementing any of the proposed alternatives.

The continued controversy over National Forest resource management and the related effects on people is a concern to me. I take my mandate to manage all of the resources of the National Forests in an integrated manner and to ensure the long range productivity of all the resources

seriously. Decisions in this Forest Plan will affect communities. I have directed the Forest to take advantage of opportunities to enhance the vitality of surrounding communities by applying a new focus, such as the Pacific Northwest Strategy, to work together beyond the traditional boundaries.

In my judgment, the Preferred Alternative best meets the net public benefit by producing a balance between commodity outputs and amenity resources that will contribute to the long-term economic stability of local communities; while maintaining a healthy ecosystem, diversity of plant and animal species habitat, and a diversity of recreational settings--all of which are important objectives in National Forest management.

ISSUE: How Will the Forest Provide a Variety of Dispersed Recreation Experiences?

The Forest receives over 3 million visitor days of use per year. About 45% of the use is at developed sites, and about 55% of the use is for dispersed recreation activities. Recreation use is continuing to increase as social patterns change and the population of Western Oregon communities grows.

Recreation opportunities are available throughout the Forest across a spectrum of landscape settings that range from the densely forested West Cascades to the high elevation meadow and lake-dotted Cascade Crest. Opportunities range from high use campgrounds at Detroit Lake and within the McKenzie River/Santiam Pass area, to primitive wilderness experiences. The Forest contains the northern portion of the Oregon Cascades National Recreation Area. Camping, water related activities, driving for pleasure, and sightseeing are the most popular recreation experiences on the Forest.

The primary facets of this issue are the demand for a wide variety of recreation experiences, management of off-road vehicle use, and management of the Forest trail system.

Dispersed Recreation: Demand for recreation opportunities on the Forest remains high. People are interested in maintaining a wide variety of options for recreation activities and there is concern about how management decisions made in the Forest Plan will increase or decrease these opportunities.

Currently, the Forest has the capacity to meet recreation demands in all Recreation Opportunity Spectrum (ROS) classes. (ROS classes in ascending order of development are Primitive, Semiprimitive Nonmotorized, Semiprimitive Motorized, Roaded Natural, and Roaded Modified.)

Primitive and semiprimitive opportunities have decreased over time, however, as roading and timber harvest expanded. Even if existing inventories of these two classes of opportunities were retained, future demand is expected to exceed capacity by the early 2000s.

The span of semiprimitive opportunities (outside of Wilderness) covers a wide range in the alternatives.

The Forest's ability to fully satisfy projected demand for semiprimitive use would require rehabilitation of roaded natural and roaded modified settings over a period of 30 to 50 years. I am unwilling to take that step for the reasons stated below.

It is my decision to implement the Forest Plan which provides a full range of dispersed recreation opportunities while meeting other multiple-use resource goals and objectives. Expected future demand will be met at 35% for semiprimitive nonmotorized, 57% for semiprimitive motorized, 81% for roaded natural, and 100% for roaded modified recreation opportunities. This is an increase from the current level in all categories except semiprimitive nonmotorized, which is a 2% decrease.

Off-Road Vehicles: Off-road vehicle (ORV) use opportunities are currently available on 71% of the Forest. The remaining 29% is closed to or restricted from ORV use due to topography and safety, potential disruption of wildlife habitats, damage to basic natural and cultural resources, or conflicts with existing or potential uses.

The availability of the Forest for ORV use in the array of alternatives ranged from 38% of the total Forest acres open to 69% open.

My decision to achieve a balance of multiple-use resource opportunities with the Forest Plan results in 57% of the total Forest acres open to ORV use, 6% restricted, and 37% closed.

Trails: The Forest's nonwilderness trail system totals 714 miles, including three National Recreation Trails. Wilderness trails total 646 miles. The Pacific Crest National Scenic Trail runs north and south for the length of the Forest.

The public expressed concern that the Forest was not giving adequate attention to trail management in Alternative J the DEIS. This resulted in a review of the Forest's approach to trail management, including direct involvement by several citizen groups, leading to a proposed revision of trail management categories and standards and guidelines.

Trails which traverse management areas having a high incidence of timber harvest and road construction are subject to replacement and crossing by new permanent roads. The potential for a high effect on trails from these activities ranges from 4% of the existing system to 48% in the alternatives. Proposed new trail construction ranges from 0 miles to 68 miles.

Trails are an important component of the Forest system of travelways, which is one of the key features of the Forest. It is my decision to emphasize trail management in the Forest Plan by assigning trail segments to specific management classes with appropriate standards and guidelines. Under this system, 11% of the existing trail system will be subject to the effects of normal timber harvest and road construction.

The Forest Plan estimates that 60 miles of new trails will be constructed during the next 10 to 15 years. Ongoing efforts in addition to the formal construction schedule will result in the completion of an estimated additional 25 to 30 miles of trails on the Forest, for a total of 90 to 95 new trail miles. Priorities for new trails will be to provide access along rivers and streams (one of the key features of the Forest) and for placement in semiprimitive recreation areas to enhance the limited opportunities for that recreation experience.

ISSUE: How Much of the Existing Old Growth Should Be Preserved?

Data from the 1988 Mature and Over Mature Survey (MOMS) completed after the DEIS indicates that about 595,000 acres of the Forest is covered by old-growth trees as defined by the Regional Guide. (78% is in the low elevation Douglas-fir type and the remaining 22% is split among the three high elevation species: lodgepole pine, mountain hemlock, and true-fir.)

The facets for this issue include the trade-offs between conserving old growth for its benefits to wildlife habitat and ecosystem diversity, its recreational and aesthetic values, and continuing historic timber harvest levels to support future demands for timber.

The intensification of public interest surrounding old growth was reflected in comments to the DEIS involving a number of key issues. Some of the public did not feel the DEIS recognized the full significance of the remaining old growth on the Forest. Significant aspects that were identified included old growth providing forest structure, old growth as a reservoir of timber supply, and old growth as an ecosystem providing a unique habitat in support of other plant and animal species.

The apparent lack of unanimity among old-growth definitions has also been an ongoing public concern and point of confusion. (The FEIS and Forest Plan use the Regional Guide definition.)

Allocations that provide for the preservation of old-growth stands vary by alternative, but include Wilderness, the Oregon Cascades National Recreation Area, the H.J.Andrews Experimental Forest, Research Natural Areas, Special Interest Areas, Wild and Scenic Rivers, roadless areas, riparian areas, old-growth groves, and wildlife habitat areas for Management Indicator Species. Under the 1977 Forest Plan, old-growth stands were distributed as follows: Wilderness = 17%, unsuited soils = 7%, no-harvest allocation = 25%, and areas with scheduled timber harvest = 51%.

The estimated amount of old growth remaining at the end of the fifth decade (2040) in the alternatives ranges from 260,000 acres to 523,000 acres. The amount harvested in the first decade ranges from 17,000 acres to 101,000 acres.

Old growth is one of the key features of the Forest. I have decided to implement a Forest Plan that recognizes this by striking a balance between the competing values. The Forest Plan schedules harvest on about 61,000 acres of old growth during the first decade, reducing the inventory to 534,000 acres by the year 2000. If updates and future Forest Plans continue the direction in this Forest Plan, the Forest would maintain a minimum of 365,000 acres of old growth at the end of the fifth decade (2040). This figure increases to 730,000 acres at the end of the fifteenth decade (2140) as current young stands in no-harvest allocations grow older into an old-growth condition.

The Forest Plan includes 34 Old-Growth Grove Management Areas totaling 6,655 acres. The Forest has specifically recognized these areas as representative stands of old-growth trees, providing opportunities for interpretation and scenic enjoyment.

In addition to total acres and representative stands, my decision also includes attention to the distribution of old-growth stands across the Forest and to the structural attributes of individual stands of old growth. This is necessary to maintain the old-growth ecosystem component of biological diversity at the Forest level, the landscape level, and the stand level.

The Forest Plan includes management direction to categorize old-growth stands, reduce the rate of fragmentation of the most ecologically significant stands, maintain corridors of mature stands as links across the Forest, maintain green and standing dead trees in managed stands, and provide a continuous supply of large dead wood in all stands.

Standards and guidelines have been added to provide for the maintenance of structural features of old-growth stands as part of the management prescription for Management Areas which have rotation lengths of 150 years and longer.

By this decision I am directing the Forest Supervisor to establish a process and timeline to continue the Forest-wide effort to inventory and protect stands of ecologically significant old growth begun under the direction of Section 318 of the Interior and Related Agencies Appropriations Bill for FY 1990, Public Law 101-121. This effort will be coordinated with plans and direction developed in response to the listing of the spotted owl as a threatened species under the Endangered Species Act. I recognize that recommendations for additional protection may result in Forest Plan amendments, but this inventory is essential to complete the process to provide for the many significant values associated with old-growth forests.

All of these actions help provide a sustained flow of timber products to meet commodity needs, while maintaining options for future management of old growth responsive to current and anticipated new research findings.

ISSUE: How Will the Forest Manage Roadless Lands?

Prior to the Oregon Wilderness Act of 1984, 295,137 acres of unroaded lands on the Forest were inventoried. As a result of that Act, 84,930 acres received Wilderness or National Recreation Area classification, while 31 areas totaling 210,207 acres were released for multiple-use management. Since 1984, 38,200 acres of roadless lands have been affected by ongoing management activities. The current roadless land inventory of the 31 areas now totals 172,007 acres. (The roadless area inventory does not include areas designated by Congress or other areas less than 5,000 acres.)

The Forest has also identified 24 unroaded land areas that range in size from 1,500 acres to 4,500 acres. Although these areas are too small for inclusion into the Forest's Roadless Area Inventory, many are large enough to provide semiprimitive dispersed recreation opportunities.

The primary facet of this issue is the array of options for managing inventoried roadless areas that are currently unroaded and undeveloped.

Public comment on the DEIS was highly polarized between the desire on one hand to maintain inventoried and other unroaded areas in an undeveloped state, and on the other hand a desire to enter and develop these areas. Reasons stated for maintenance of roadless lands included: consideration for future Wilderness, ecological integrity, unroaded recreation, wildlife habitat, old-growth preservation, and provision for biological diversity. Respondents favoring development of roadless areas cited the Oregon Wilderness Act of 1984 as having settled the issue. This segment of the public felt that enough of the Forest was already currently dedicated to roadless area dependent uses. On the other hand, respondents favoring maintaining unroaded lands in an undeveloped state felt the 1984 Act did not preclude or prohibit Wilderness designation recommendations in this cycle of planning.

The alternatives vary in the amount of roadless land they maintain in an undeveloped condition. The alternatives propose management of these lands for uses that range between full commodity production and recommended Wilderness. The range of roadless acres is from 44,700 acres (26% of the current inventory) to 146,000 acres (85% of the current inventory).

The disposition of roadless lands was a particularly challenging decision. Lands allocated to development and production uses take many years to recover their roadless qualities, once they are developed. I arrived at my decision after careful analysis and review of each roadless area. Allocation of areas, including their boundary locations, was determined only after considerable interaction among Forest managers and interested and concerned individuals and organizations. This interaction included consensus and negotiation efforts for some areas. Success of these efforts varied by each area, but all efforts were worthwhile.

It is my decision to maintain significant portions of 13 inventoried roadless areas in a roadless condition under this Forest Plan. There will be about 92,100 acres, 53% of the inventoried roadless acreage, maintained in an undeveloped condition. That is an increase of 18% over the amount that would be retained under the direction in the 1977 Forest Plan. The qualities of these sites warrants maintaining them in an unroaded condition for this planning period.

The remaining 79,900 acres are allocated to various levels of development. Although some of these areas are expected to retain their roadless character for several decades, all 79,900 acres will lose that character over time if future Forest Plans continue the direction of this Forest Plan.

As I discussed for the Recreation and Timber Issues, the Forest will not meet the expected future demand for either semiprimitive recreation or timber supply with this Forest Plan. These are two of the most significant concerns associated with the Roadless Issue. I selected the disposition of roadless areas in the Forest Plan because it provided the best available balance between these competing uses.

One area requires specific notice in my decision.

The Opal Creek and adjacent drainages flowing into the Little North Fork Santiam River have been the focus of debate and controversy for several decades. The disposition of Opal Creek has received national attention. The Forest Plan establishes five different Management Areas in this area, including Riparian, Special Interest Area, Wildlife Habitat, Scenic, and General Forest. The prorated annual Allowable Sale Quantity share for the harvest allocations (Scenic and General Forest) is about 3.5 million board feet a year.

An attempt to mediate the differences between the main proponents of timber harvest proposals and the main proponents of no timber harvest proposals was made last year. This effort was not successful, but still remains an option.

The disposition of spotted owl habitat remains a factor in the Little North Fork Santiam River drainage. Currently, there are two 1500 acre Spotted Owl Habitat Areas (SOHAs) within the Little North Santiam Drainage. In addition, a Habitat Conservation Area recommended by the Interagency Committee of Scientists (Thomas Report) directly to the north of the Opal Creek drainage. The FWS recovery plan for the spotted owl will be developed within the next year.

It is my judgment that efforts to resolve the controversy over the allocation of land in the Opal Creek roadless area must continue. The possibility this might happen, together with the ensuing benefits of a negotiated agreement are too great for me to approve implementation of timber harvest activities at this time.

For this reason, I am accepting the Forest Plan Management Areas for the Opal Creek, Battle Axe, and Bonanza Mine drainages, but deferring implementation of any road construction or

timber harvest activities, other than salvaging mortality for catastrophic losses, in Management Areas 11a, 11d, 11f, and 14 not to exceed two years from the date of Forest Plan implementation. This decision will temporarily reduce the Forest annual Allowable Sale Quantity to 487.5 million board feet.

By this decision I am directing the Forest Supervisor to continue to pursue a negotiated resolution of the Opal Creek roadless area land allocations consistent with final direction for managing spotted owl habitat. (See Section II, Decisions, Other Decisions.)

ISSUE: What Emphasis Will Be Given to Scenic Quality?

The Forest landscape provides a broad range of natural and managed scenic experiences for visitors and travelers. Five State or federal highways traverse the Forest. Two travel routes on the Forest have been designated National Scenic Byways, and the Forest maintains about 1,300 miles of Wilderness and nonwilderness trails. The Forest estimates more than 12 million travelers view the Forest in a year.

Scenic resource management and maintenance of pleasant visual experiences for Forest users is provided primarily through the allocation of lands within viewshed corridors, and through the designation of dispersed recreation settings and travelways to meet visual quality objectives.

The facets of this issue include concern about the evidence of timber harvesting from major highways, homesites, popular recreation sites, and the role of visual quality objectives in planning resource management activities.

The visual quality of the Forest landscape is of concern to adjacent landowners, travelers, and Forest users. Many people prefer not to see evidence of timber harvesting from major highways and popular recreation areas such as trails, campgrounds, and scenic overlooks. The quality of the Forest's scenic resource is important to the local tourist industry as well as the Pacific Northwest. The scenery of the Forest is an important asset to the local communities which are attempting to diversify their economic base.

People who tend to favor utilization of Forest resources, however, feel that most visual effects of resource management activities are temporary. They believe that visual quality objectives should, therefore, play a reduced role in planning such activities.

The alternatives have varying effects on scenic quality as a result of the type and distribution of the proposed management areas and their associated activities. In general, alternatives emphasizing timber harvest and supporting road construction reduce the emphasis on scenic quality.

It is my decision to implement a scenic quality strategy that strikes a balance with other resource objectives. This strategy is sensitive to the need to maintain scenic objectives for Forest recreation visitors and travelers along major travel routes and around unique and special sites, but also allows intensive timber management activities on a substantial portion of the Forest.

In the Forest Plan approximately 35% of the Forest will be managed to maintain the natural landscape allowing for ecological changes only. This meets the preservation visual quality objective, which will be applied to 7 of the 15 management areas.

Approximately 26% of the Forest is allocated to management area prescriptions that will maintain a moderate level of scenic quality (retention and partial retention is 17%, modification is 9%) in major viewshed corridors. This includes management of the foreground areas of all State and federal highways, major Forest roads, and selected trails and use areas to ensure that landscape alterations will not be highly evident (retention). In addition, all other existing and proposed nonwilderness trails, or trail segments, are assigned a trail management classification, including a visual quality objective for that class.

Activities which alter vegetation or land forms in a way that dominates the characteristic landscape will occur in Management Areas that emphasize timber harvest. These areas will meet the maximum modification visual quality objective and amount to 39% of the Forest.

ISSUE: How Will the Forest Manage Special Areas?

In addition to Old-Growth Groves and Research Natural Areas, the Forest currently manages one administratively established Special Interest Area and four areas that were recommended for designation under the 1977 Forest Plan. Forty-five additional potential Special Interest Areas on the Forest have been inventoried for a total of 50 designated or potential areas.

The array of alternatives maintains the unique potential of these areas ranging from 12% to 100% of the inventoried potential areas.

I have decided to give special recognition to 44 of the potential areas in order to maintain their important historic, cultural, and natural aspects. These areas also contribute to the diversity of recreation opportunities. This decision gives formal recognition to the importance of these unique areas on the Forest and is consistent with the balanced and integrated resource management approach of the Forest Plan.

ISSUE: What Emphasis Will the Forest Place on Providing Timber in this Decade?

Timber management has been guided by a Timber Management Plan approved in 1977, which programmed an annual net sell volume of 615.6 MMBF. The 1977 Forest Plan was amended twice to account for reductions in the land base due to new Wilderness and to take into account the effect of Timber Stand Improvement (TSI) accomplishments. The reduction in acreage available for harvest was offset by increased TSI work and the annual programmed net sell volume actually increased to about 641 MMBF.

The total annual timber sale program for the Forest historically has represented about 15% of the timber production from Forests in Region 6 (Oregon and Washington) and about 7% of the production from the entire National Forest System. Thus, the amount of timber produced on the Forest assumes some level of national as well as local importance. In addition, since the wood products industry is one of the three major components of the economy of the State of Oregon, concern has been high for several years about the level of contribution the Forest's timber resource makes to the overall timber supply within the State as well.

Purchasers of Forest timber in the three primary Forest counties (Lane, Linn and Marion) depended on the Forest for approximately 43% of their timber supply needs from 1976-1988.

Under the 1977 Forest Plan, the total volume of timber sold for the period 1977-1989 amounted to 10.1 billion board feet, less the 1.5 billion board feet "bought out" or defaulted in the mid-1980s, for an adjusted total of 8.6 billion board feet sold. This is an annual average sell of 662 million board feet gross and 530 million board feet net for the 13 year period.

Although the receipts for harvested timber on the Forest reached all-time highs in the late 1980s, the volume sold declined in fiscal year 1989. Much of the reduction in sold volume was in response to a court injunction associated with management of spotted owl habitat.

Facets of this issue include the level of timber sales, effects on other resources, and effects on the economy of local communities.

Public comments on the DEIS focused on the harvest/no harvest debate. Some people believed that the ASQ was too high, resulting in unacceptable adverse effects to other resource values. Others believed that the level of harvest should be maintained or increased to provide the raw material to help satisfy needs for wood products and to provide a stabilizing force on the economies of local communities which might be highly dependent upon the various wood products industries.

In addition, many comments alerted the Forest to improvements which could be made to the technical analysis of timber availability. Because of these technical concerns the Forest reviewed the land suitability inventory, updated growth and standing inventory volume, created more analysis options by disaggregating some inventory categories, programmed fertilization throughout the Douglas fir-hemlock type, and added a commercial thinning option.

To respond to timber industry concerns about the design of the current timber inventory and methods used to compile and analyze the ensuing information, by this decision I am directing the Forest Supervisor to ensure public participation in the design of the next scheduled inventory effort.

The alternatives provide a timber supply ranging from a low of 27 million cubic feet (150 MMBF) to a high of 146 million cubic feet (810 MMBF) annual Allowable Sale Quantity (ASQ). (Allowable Sale Quantity includes primarily live, sound wood.)

ASQ will be monitored and controlled on the basis of cubic-foot measure for the Forest Plan. Board-foot volume associated with the cubic-foot volume (i.e., board foot/cubic foot conversion ratio) varies from stand to stand depending on the size and form of the trees. Both board-foot and cubic-foot measure are displayed in the Forest Plan since board-foot has been and continues to be the customary unit of measure. The Forest will use the board-foot measure in the early part of the Forest Plan period. The transition from use of board-foot measure to use of cubic-foot measure should be made during this Forest Plan period.

For the Forest Plan, the average annual ASQ will be 87 million cubic feet (491 million board feet) during the first decade. (This will be 487.5 MMBF for the first two years of the Forest Plan due to my decision for the Opal Creek area. See Section II, Decisions, Other Decisions)

The average annual Timber Sale Program Quantity (TSPQ), which includes live, sound wood, plus salvage, cull, unregulated and miscellaneous forest products, will be about 604 million board feet, as compared to the 800 million board feet which is allowed under the latest update of the 1977 Forest Plan.

This level of timber sell strikes a balance between demand for wood products, income to the Treasury and return to the counties, timber related jobs, and the protection of the various resource values contributing to the net public benefit.

The ASQ and TSPQ includes volume scheduled from inventoried roadless areas. If the volume scheduled from these areas cannot be achieved, that volume will not be replaced.

The Forest will also schedule harvest on an acre basis. Approximately 9,100 acres will be planned for timber sales annually.

The three most important factors in determining the amount of timber volume to be offered for sale during the Forest Plan period and the level of harvest that can be sustained in the long-term are the number of acres suited for timber production, the intensity of timber management, and the rate of harvest. The seriousness of this decision dictates that these factors be reviewed as part of my decision.

Land Suited for Timber Production: About 75% of the total Forest acres considered tentatively suitable for timber management are suitable for timber production in the Forest Plan. The difference is due to consideration for other resource values including riparian areas, roadless recreation, special interest areas, wildlife habitat, and management requirements (MRs). Reduction of acres for these uses would not meet the integrated management goals of the Forest Plan.

The number of acres considered tentatively suitable is based on the 1973 Soil Resource Inventory. This inventory was reviewed after the DEIS and found appropriate for constructing and analyzing alternatives for the FEIS. The inventory is now in the final stages of a scheduled update. When this update is available for analysis, I am directing the Forest Supervisor to evaluate the effects to the Forest ASQ and amend the Forest Plan if those effects are significant.

Intensity of Management: The types of silvicultural treatments available in any management area are determined by the application of management area and Forest-wide standards and guidelines. The Forest Plan provides the option to apply the full range of silvicultural treatments to forested land within the General Forest Management Area (39% of the total Forest area).

The decision on the most appropriate method of harvest and followup treatment will be made on an individual timber sale project basis, consistent with NFMA and the standards and guidelines of the Preferred Alternative.

Rate of Harvest: The rate of harvest in each area is determined by application of management area and Forest-wide standards and guidelines. Objectives for scenic quality, recreational opportunities, wildlife habitat, biological diversity, and watershed cumulative effects will have a strong influence on the rate of harvest in specific locations. The allowable sale quantity has been estimated by including these objectives which were modeled on a subdrainage basis. Each Ranger District provided some verification of the Forest planning model analysis results, resulting in the scheduling of timber harvest targets on an acre, as well as a volume basis.

ISSUE: What Emphasis Should the Forest Place On Water Quality and Quantity?

Water flowing from the Forest is of high quality and provides many benefits. The Forest furnishes water for municipal and domestic uses, fish hatcheries, electric power generation, and recreation. Water provides fish and wildlife habitat, and supports a highly productive vegetative environment.

The Forest contains approximately 9,300 miles of streams, all tributary to the Willamette River, and over 390 natural lakes.

Facets of this issue include the purity and abundance of waters and the importance of water from the Forest for recreation, fisheries, and domestic and municipal uses.

Primary public concerns were that road construction and timber harvest may result in long-term effects of increasing sediment (turbidity), water temperature, and chemical and bacterial contaminates.

A closely related concern was that management practices may result in decreasing the stability of the streams, lakes, wetlands, and riparian ecosystems, thus adversely effecting water quality, fish and wildlife habitat, travel corridors, diversity of plant and animal species, and human recreation use. Note public concerns and references to riparian areas in my discussions about Wildlife and Fish Habitat Issues and Dispersed Recreation Issues.

Public comments during the response period after publication of the DEIS sent a strong message that many of the alternatives in the DEIS, including the preferred alternative, proposed unacceptable levels of watershed degradation.

Water quality and the stability of stream channels is described in the FEIS in terms of relative risk of adverse cumulative effects to these resources. Risk categories are High, Moderate, and Low Risk. Alternatives range from 100% of the Forest area rated as Low Risk to 50% of the Forest area rated as High Risk.

I have decided to place increased emphasis on watershed management and water quality. Rivers and streams are one of the key features of the Forest. The Forest Plan recognizes riparian areas as an important feature in the forest landscape to support that emphasis.

I am responding to the high level of concern for water and riparian resources by requiring new ways of doing business, including:

- Strict application of Best Management Practices.
- Designating the riparian areas along Class I, II, and III streams as Management Areas with accompanying standards and guidelines appropriate to those areas.
- Scheduling no programmed timber harvest in those Management Areas and adjacent to lakes.
- Retaining live trees along wetlands and Class IV streams where needed.

- Accounting for adverse cumulative effects in the scheduling of timber harvests by distributing the rate of harvest by subdrainage.

- Implementing watershed improvement projects to stabilize existing high risk conditions.

- Implementing a comprehensive program to monitor water quality and related aquatic habitat.

These measures are described in Chapters IV and V of the Forest Plan and Appendix E of the FEIS. They result in assigning each of the Forest's major watersheds to a category of Low Risk of adverse effects.

ISSUE: Should Additional River Segments Be Recommended for Classification in the Wild and Scenic River System?

Sections of the McKenzie River and the North Fork of the Middle Fork of the Willamette River are designated Wild and Scenic Rivers (55.0 miles). Both river corridors provide extensive hiking opportunities, dispersed and developed camping, white water boating, fishing, hunting, and other natural resource activities. Sections of these two rivers and the Little North Fork Santiam and South Fork of the McKenzie Rivers have been designated State Scenic Waterways by the State of Oregon. River management plans for the designated Wild and Scenic River sections are currently being prepared in accordance with the Wild and Scenic River Act.

In addition, protection and management will be provided in the Forest Plan for two Congressionally designated Wild and Scenic Study Rivers (34.2 miles). In response to public comment to the DEIS, the Forest determined that nine additional rivers or sections of rivers are eligible for inclusion in the Wild and Scenic River system (126.2 miles). Protection will be maintained on all of these river sections until suitability studies have been completed. Protection measures will then be maintained for those rivers determined to be suitable for inclusion in the Wild and Scenic River System. This decision is consistent with the high value the Forest places on the system of rivers and streams as one of the key features of the Forest.

ISSUE: How Much of the Forest Should Be Preserved in Wilderness?

Currently 380,805 acres (22% of the Forest) is designated as Wilderness. While use varies by individual Wilderness, use in the semiprimitive class of recreation opportunity exceeds inventory capacity at the present time. Use in other Wilderness use categories will begin to exceed capacity in the early 2000s.

Only one of the proposed alternatives recommends lands for additional Wilderness designation or study. This alternative proposes 169,360 acres of roadless land, including the Mt. Hagan roadless area, for study or inclusion into the National Wilderness System resulting in a total of 550,200 acres of Wilderness. Congressional legislation would be needed to establish the new Wilderness in this alternative.

It is my decision that despite projected increases in use, the current amount and location of Wilderness is the best approach to meeting the demands for Wilderness, preserving unique areas in the National Wilderness System, and at the same time providing a balanced and integrated array of multiple-use resource opportunities and activities in nonwilderness Management Areas of the Forest.

Therefore, I am not recommending the establishment of any new Wilderness to Congress. However, the Forest has already begun to implement a Wilderness management strategy process designed to protect the values and resources in existing Wilderness. This process is described in Appendix A to the Forest Plan. My decision is to continue this process.

ISSUE: What Emphasis Should the Forest Place On Providing Wildlife and Fish Habitat?

The Forest provides a variety of diverse habitats which support over 260 wildlife species, including 170 avian breeding species, 64 mammalian species, and 30 amphibian and reptilian species. Wildlife species play many important roles in the Forest ecosystem. In addition, communities within or near the Forest benefit from the tourist income generated from sightseers and hunters.

The primary facets of this issue are the establishment of management requirements for management indicator species, including old-growth dependent species and cavity nestors, and the resulting impacts of these management requirements on timber supply.

Concerns surrounding plant and animal diversity intensified after the DEIS. The most notable representatives of these concerns were northern spotted owl habitat, old growth as a reservoir of a unique and valuable ecosystem, and riparian areas as critical ecosystems. I have also addressed old growth in the Old-Growth Issue discussion, biological diversity in a broad context in the Biological Diversity discussion, and riparian areas in the Water Quality and Quantity section.

The National Forest Management Act requires that Forests "provide for adequate fish and wildlife habitat to maintain viable populations of existing native vertebrate species." Management Requirements (MRs) were developed to ensure that this requirement was met in each alternative over time.

Several events since the DEIS have affected my decisions about habitat. A Supplement to the FEIS for an Amendment to the Pacific Northwest Regional Guide was issued in 1988, identifying standards and guidelines for spotted owl management. While the Forest Plan DEIS considered a total of 1,000 acres for each Spotted Owl Habitat Area (SOHA) on the Forest, the Supplement now requires management or dedication of 1,500 acre SOHAs and a network of habitat acres to ensure distribution of spotted owls across the Forest.

Section 318 of the Interior and Related Agencies Appropriations Bill for Fiscal Year 1990, Public Law 101-121 which expires September 30, 1990, directed additional interim habitat protection for the spotted owl. It also provided that the Record of Decision for the Supplement to the FEIS for the Regional Guide Amendment be reviewed and revised as appropriate by September 30, 1990.

Recommendations by the Interagency Scientific Committee appointed by the Chief of the Forest Service and the Directors of the U.S. Fish and Wildlife Service (FWS), Bureau of Land Management, and the National Park Service to develop a habitat conservation plan for the spotted owl, were made on April 4, 1990.

On June 22, 1990, the FWS announced its decision to list the northern spotted owl as a threatened specie under the Endangered Species Act, effective July 23, 1990.

Alternatives were developed according to the standards and guidelines in the Pacific Northwest Regional Guide as amended in 1988, before the Interagency Scientific Committee recommendations and before the FWS listing.

All alternatives, except one, meet or exceed Management Requirements for the establishment of a Forest-wide spotted owl habitat network. Habitat capability for spotted owls would increase above the MR level in two alternatives.

The Forest Plan complies with the Preferred Alternative identified in the Record of Decision for the FEIS for the Supplement to the Regional Guide which meets the MR level for the Forest. This establishes 95 network sites for spotted owls on the Forest. These SOHAs are needed to meet the dispersion requirements for owl habitat. The 95 owl areas consist of 60 SOHAs and 35 areas within Wilderness.

I have modified implementation of northern spotted owl habitat management direction in the Forest Plan to consider the listing of the species. My decision is described in Section II, Decisions, Other Decisions.

The Forest Plan also provides for a network of 38 habitat areas for pileated woodpeckers and 100 habitat areas for marten. These, in addition to areas reserved for SOHAs, provide minimum habitat capability for these two management indicator species.

The level of cavity excavators (the woodpecker guild) is expressed as a percentage of potential populations. The current habitat capability management objective for potential populations of primary cavity excavators is 45%. The array of alternatives maintains this habitat within a range of 20% to 60% within subdrainages.

I have decided to manage habitat to provide for at least 40% of the potential population. This will average about 43% Forest-wide for the first decade. This is consistent with direction provided in the Forest Service Manual and will provide well-distributed habitat to meet the territorial requirements of cavity excavators.

Habitat for anadromous and resident fish, which are indicators of species for aquatic habitats, will be restored and maintained through management to meet riparian area objectives.

Habitat for deer and elk will be maintained or enhanced to meet habitat effectiveness objectives established for identified big game management emphasis areas.

SECTION IV

ALTERNATIVES CONSIDERED

Nine alternatives were analyzed in detail in the DEIS. Seven alternatives are considered in detail in the FEIS. They include four considered in the DEIS and three additional alternatives developed in response to public comment on the DEIS and Proposed Forest Plan. The three alternatives added between the draft and final included some aspects of the alternatives considered in the DEIS but were modified to reflect different means of issue resolution proposed during public review. Alternatives in the DEIS not considered in detail in the FEIS either received little public support or comments indicated that issue resolution was addressed in the three additional alternatives considered in the FEIS. The Preferred Alternative, Alternative W, is one of the three additional alternatives analyzed in the FEIS. Trade-off analysis and environmental consequences are presented in Chapters II and IV, and Appendix B of the FEIS.

Alternative NC (No Change): The No Change Alternative was developed in response to appeals brought by the Northwest Forest Resource Council who believed a "true no-action" alternative representing current management plans should be included in the DEIS. Alternative NC is designed to represent the Forest Multiple-Use Land Management and Timber Management Plan of 1977 and does not comply with all provisions of NFMA and regulations promulgated by the Secretary of Agriculture to implement NFMA.

Alternative K: This alternative would emphasize timber production and developed, roaded recreation opportunities. It was developed in response to public comment on the DEIS, and was formulated with input from the Willamette Forestry Council. Nonmarket resources and resource uses such as wildlife and dispersed, unroaded recreation would not be emphasized.

Alternative A (No Action): This is the "no action" alternative required by NEPA. This alternative would continue to implement the land allocations and management direction of the 1977 Forest Plan with the addition of Management Requirements for wildlife, soil, and water.

Alternative J: This alternative represents a moderate emphasis on nonmarket resources and timber production. The objectives would be to maintain timber production near historical levels while maintaining several roadless areas in a roadless condition and providing scenic quality along major travel routes and rivers. This was the Preferred Alternative in the DEIS.

Alternative W (Preferred): This alternative emphasizes management for a healthy, diverse, and productive ecosystem that ensures the capability of the Forest to produce a continuous flow of goods and services to the public over the long-term. It was developed in response to public comments to the DEIS. While significant levels of timber production are retained, such production is reduced from historical harvest levels. Areas managed for other multiple-uses such as wildlife habitat, dispersed recreation, watershed protection, biological diversity, old growth, and ecological studies are increased from the previous levels. The role of rivers and streams and the associated riparian areas are recognized as critical components in the forest ecosystem in this alternative and are given special consideration in management prescriptions.

Alternative D: This alternative would emphasize nonmarket resources and resource uses such as wildlife habitat, scenic quality, and dispersed recreation. Habitat for management indicator species martens, pileated woodpeckers, and spotted owls would exceed the management requirement level.

Alternative L: This alternative would emphasize nonmarket resources and resource uses with a low emphasis on timber production. It was also developed in response to public comments on the DEIS and was formulated, in part, from the Oregon Natural Resource Council proposal that was considered but eliminated from detailed study in the DEIS. The full inventory of roadless areas would be maintained in an undeveloped condition and timber harvest would be curtailed in some roaded areas of the Forest for several years to allow the regrowth of younger stands.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferable alternative is the alternative causing the least impact to the biological and physical environment. It also is the alternative which best protects, preserves, and enhances historic, cultural, and natural resources.

Alternative L is the environmentally preferable alternative. It would schedule the least amount of timber harvest and associated road development of any of the alternatives considered and consequently would have the fewest adverse effects on the biological and physical environment.

Alternative L emphasizes the management and preservation of nonmarket values such as old growth, roadless areas, dispersed recreation, water quality, and biological diversity. All of the existing roadless areas and most of the existing old growth would be preserved. The entire known inventory of spotted owl sites would also be protected. All riparian areas would be removed from the suitable timber base. The reduced rates of harvest and road building together with protection of riparian areas achieve a low risk of adverse watershed impacts in all of the Forest watersheds. Timber harvests and road building would be deferred for 10 to 50 years in some areas to allow regrowth of existing harvest acres. Much of the area available for timber production would be managed with rotations up to 240 years. In all areas, 8 to 10 mature trees per acre would be maintained to provide future old-growth characteristics. The annual ASQ would be 27 MMCF (150 MMBF).

Additional information on the environmentally preferred alternative is in Chapter II of the FEIS.

Even though Alternative L is preferable from the standpoint of the physical and biological environment, I believe Alternative W provides for a better balance of resource uses and maximizes the net public benefit while protecting the environment. The Preferred Alternative is more responsive to concerns of local communities for economic stability and achieves a better overall balance of the economic concerns with the environmental issues. Some components of Alternative L are incorporated in Alternative W such as full protection of riparian areas, emphasis on watershed management, and the retention of 8 to 10 trees in some areas managed for timber production to provide for future old-growth characteristics.

Alternative W incorporates appropriate environmental safeguards to minimize potential adverse effects to the biological and physical environment. In addition, Alternative W also maintains options for the next 10 to 15 years that will allow the Forest to respond to many of the issues addressed in Alternative L. Features such as evaluating remaining old growth for relative values and locating and scheduling harvest that minimize fragmentation of remaining significant old-growth stands will allow the Forest to adapt and incorporate new scientific findings over the next 10 years while providing a stable supply of timber for local economic stability.

ALTERNATIVES WITH HIGHER PRESENT NET VALUES

Present net value (PNV) is used to measure economic efficiency of each alternative. PNV is the sum of priced benefits minus the sum of costs for the 150-year planning period, discounted to the present. PNV does not include all costs and benefits, however. Some of the more important nonpriced benefits include ecosystem diversity, habitat for threatened, endangered, or sensitive species, water quality, and scenic quality. Since PNV does not reflect the values of these benefits nor the costs associated with negative effects on them, it was not the only criterion I used in selecting the Preferred Alternative.

The Preferred Alternative has a PNV of $2,858 million. The following three alternatives have a higher PNV:

Alternative	PNV (MM$)
K	3,503
A	3,184
J	3,060

Alternative K has the highest PNV, because of its emphasis on timber production, the most acres available for timber management of any alternative except No Change and the greatest number of acres scheduled for harvest in the first decade. Fewer acres are reserved for Special Interest Areas, Old-Growth Groves and dispersed recreation. As a result, the recreation benefits in Alternative K occur primarily in the motorized category. Actual demand for recreation, however, is spread across the entire spectrum of nonmotorized and motorized recreation. Therefore overall recreation demands are better achieved by the diversity of opportunities provided in Alternative W.

The increased rate of harvest also results in more adverse impacts or higher risk impacts over the next 10 years. Some of these impacts include fewer acres of remaining old growth, increased risk of adverse impacts to water quality in some watersheds, reduced visual quality except in areas immediately adjacent to major cross-Forest highways and reduced habitat quality for wildlife.

Alternative A has the second highest PNV with effects similar to Alternative K in general. Although more acres are protected as Special Interest Areas or as roadless for nonmotorized recreation, they are significantly less than the Preferred Alternative.

Alternative J has the third highest PNV, approximately 7% greater than the Preferred Alternative, which is largely the result of a first decade harvest level that is 8% greater than the Preferred Alternative. Although Alternative J does include more nonmarket values than either Alternative K or A, I feel it does not adequately address the issue of water quality. It also protects fewer Special Interest Areas than Alternative W.

Alternative W reduces the risk of adverse watershed impacts, provides a greater diversity of recreation opportunities, protects more Special Interest Areas, and maintains scenic quality of the Forest at higher levels than in any of the alternatives with a higher PNV.

SUMMARY OF REASONS FOR SELECTING THE FOREST PLAN

Based on the preceding discussion it is clear that the Alternative W does not have the least impact on the environment nor does it generate as many market valued commodities as other alternatives considered

in the FEIS. However, I believe the Preferred Alternative achieves a balance between the economic benefits and environmental issues and concerns voiced by the public. Most importantly, I am confident that the management proposed in the Forest Plan is within the physical and biological capability of the land and can be accomplished without reducing that capability.

Many divergent opinions were considered in the development and selection of this Forest Plan. Considered individually, these opinions and their proposed goals and objectives for the Forest that are highly desirable. However, when considered simultaneously within the framework of resource capabilities it is impossible to meet all requests and desires. Considering the range and intensity of concerns expressed by the public on the various issues, I believe the Forest Plan is responsive within the basic limitations of the resources available.

COMPATIBILITY WITH GOALS OF OTHER PUBLIC AGENCIES AND INDIAN TRIBES

This Forest Plan has been developed with public participation which included involvement, coordination, and comments from federal, State, and local agencies including the State of Oregon (Governor's Office, Federal Plans Coordinator, Department of Fish and Wildlife, Department of Forestry, Water Resources Department, Department of Environmental Quality, and Parks and Recreation Division); the U.S. Fish and Wildlife Service; the Environmental Protection Agency; and representatives of county and city governments, industry groups, special interest groups, and individuals.

Numerous efforts were made to ensure that the Preferred Alternative considered the goals of other public agencies. Comments and letters from agencies were reviewed and analyzed extensively; numerous meetings and field trips were conducted with officials from other agencies and actions were taken to address their concerns. (See Appendix A and I of the FEIS).

I believe Alternative W is compatible with and complementary to the goals of other agencies and Native American tribes. Several aspects of the Preferred Alternative were included in response to comments from the State of Oregon and U.S. Fish and Wildlife Service. Coordination with all of the groups, agencies and individuals involved in the development of the Forest Plan will continue as projects are implemented.

SECTION V

IMPLEMENTATION

SCHEDULES

The Forest Plan will be implemented through identification, selection, and scheduling of projects to meet its management goals and objectives. These projects are displayed in the Forest Plan, Appendices C and D.

Project schedules will be available for review at Ranger District Offices and the Forest Supervisor's Office. Schedules of possible projects will routinely change as projects are implemented or removed from the lists for other reasons, and as new projects take their place. Adjustments to schedules may occur based on results of monitoring, budgets, and unforeseen events.

The Forest Plan provides direction in the form of goals and objectives, standards and guidelines, monitoring requirements, and probable scheduling of management practices. It does not cover projects on specific sites except in a broad manner. The management activity schedules displayed in Appendices C and D of the Forest Plan are not decisions for individual projects. Each proposed project will be subject to site-specific analysis in compliance with NEPA.

The Forest Plan's scheduled projects are translated into multi-year program budget proposals. The proposals are used for requesting and allocating funds needed to carry out planned management direction. Upon approval of a final budget for the Forest, the annual work program will be updated and carried out.

The Forest Supervisor has authority to change the implementation schedule to reflect differences between proposed annual budgets and actual appropriated funds. As a result, outputs and activities in individual years may differ from those projected in the Forest Plan. Significant deviations that alter the long-term relationships between goods and services projected in the Forest Plan will result in an amendment or revision of the Forest Plan.

Upon implementation of the Forest Plan, all projects, including timber sales to be offered, will be in compliance with direction contained in the Forest Plan. In addition, all new permits, contracts, and other instruments for the use and occupancy of National Forest system land and resource uses must also be in conformance with the Forest Plan. Permits, contracts and other instruments which were in existence prior to Forest Plan implementation will be revised (if needed) subject to valid existing rights. This updating will generally be done within three years.

Since a number of the decisions described here reflect very recent changes, some projects for fiscal year 1990 may not fully comply with all requirements set forth in the Forest Plan. The planning and design of these projects involved many months and the Forest used the best estimates of the Plan requirements available at those times. It is my decision to allow these projects to be offered without change during fiscal year 1990 and administered in a manner consistent with those offerings. To do otherwise would result in unnecessary delays and an increased workload. Projects offered in fiscal year 1991 and beyond will comply with all Forest Plan requirements.

The Forest Plan incorporates the Pacific Northwest Region's FEIS for Managing Competing and Unwanted Vegetation. In implementing Forest Plan project activities, the Forest will comply with the Record of Decision issued on December 8, 1988, and the mediated agreement of May 1989.

The Forest Plan will be implemented 30 days after the Notice of Availability of the Forest Plan, EIS, and Record of Decision appears in the Federal Register.

MONITORING AND EVALUATION

The monitoring and evaluation program is the management control system for the Forest Plan. It will provide us with information on the progress and results of implementation. This information will be evaluated and used as feedback to the Forest planning process for possible future change.

Chapter V of the Forest Plan outlines the specific process that will be used for monitoring. The overall objective of monitoring is to ensure that Standards and Guidelines and Management Area direction are being correctly applied and are producing the desired results. The information gathered during monitoring will also be used to update inventories, to improve mitigation measures, and to assess the need for amending or revising the Forest Plan.

The results and trends of monitoring will be described in a monitoring report, and will be evaluated and summarized periodically. A report of monitoring activities and results will be available for public review.

As part of the monitoring and evaluation process, I am directing the Forest Supervisor to continue to consult with citizens to ensure the Forest Plan is implemented as directed in this decision. Resource management is not static and in order to meet the expectations and desires of the public must be closely in tune with them. This consultation will be one way to allow communication to continue throughout the implementation of individual projects and activities under this Forest Plan.

MITIGATION

Mitigation measures are an integral part of the standards and guidelines and the management area direction. The management standards were developed through an interdisciplinary effort and contain measures necessary to mitigate or eliminate any long-term adverse environmental effects. These mitigation measures include Best Management Practices as presented in "General Water Quality Best Management Practices" (USDA 1988) which are incorporated by reference under the requirements of Section 319 of the Clean Water Act. Additional mitigation measures may be developed and implemented at the project level consistent with the measures identified in Chapter IV and Appendix E of the Forest Plan.

To the best of my knowledge, all practical mitigation measures have been adopted and are included in the Forest Plan.

AMENDMENT AND REVISION PROCESS

This Forest Plan may be changed either by an amendment or a revision. Such changes may be made as a result of monitoring or project analysis (see Forest Plan, Chapter V). An amendment may become necessary as a result of situations such as:

- Recommendations based on the review of monitoring results.
- Determination that an existing or proposed permit, contract, cooperative agreement, or other instrument authorizing occupancy and use is not consistent with the Forest Plan, but should be approved, based on project level analysis.
- Adjustment of management area boundaries or prescriptions.
- Changes necessitated by resolution of administrative appeals, litigation, or legislation.
- Changes needed to improve monitoring plans or information and assumptions used in the Forest Plan.
- Changes made necessary by altered physical, biological, social, or economic conditions.

Based on an analysis of the objectives, guidelines, and other aspects of the Forest Plan, the Forest Supervisor shall determine whether a proposed amendment would result in a significant change to the Forest Plan. If the change is determined to be significant, the Forest Supervisor shall follow the same procedure as that required for development and approval of the Forest Plan. If the change is not determined to be significant, the Forest Supervisor may implement the amendment after appropriate public notice and compliance with NEPA. The procedure is described by 36 CFR 219.10(e) and (f), 36 CFR 219.12(k), FSM 1922.51-52 and FSH 1909.12.

As Regional Forester, I will approve significant amendments and the Forest Supervisor will approve "nonsignificant" amendments. The determination of significance must be documented in a decision notice and would be appealable under 36 CFR 217. A mailing list will be maintained to provide notification and invitation to comment on proposed amendments.

The amendment documentation will include as a minimum:

- A statement of why the Forest Plan is being amended (some possible reasons are mentioned above).
- A description of the amendment.
- Rationale for the amendment.
- A statement of NFMA significance relating to changes to the Forest Plan. (36CFR 219.18f)
- A statement of NEPA compliance (40 CFR 1500-1508, FSM 1950 1909.15) regarding effects on the environment and how effects disclosed in the Forest Plan EIS may change as a result of the amendment.
- A statement of appeal rights.

NFMA requires revision of the Forest Plan at least every 15 years. However, it may be revised sooner if physical conditions or demands on the land and resources have changed sufficiently to affect overall goals or uses for the entire Forest. If a revision becomes necessary, procedures described in 36 CFR 219.12 will be followed.

SECTION VI

APPEAL RIGHTS AND APPROVAL

This decision may be appealed in accordance with the provisions of 36 CFR 217 by filing a written notice of appeal within 90 days of the date specified in the published legal notice. The appeal must be filed with the Reviewing Officer:

F. Dale Robertson, Chief
USDA Forest Service
P.O. Box 96090
Washington, D.C. 20090-6090

A copy must be sent simultaneously to the Deciding Officer:

John F. Butruille
Pacific Northwest Region
USDA Forest Service
319 S.W. Pine
P.O. Box 3623
Portland, OR 97208-3623

The Notice of Appeal must include sufficient narrative evidence and argument to show why this decision should be changed or reversed (36 CFR 217.9).

In the event an appeal exceeds ten pages in length, the appellant is required to furnish two copies of the appeal to the Reviewing Officer and two copies of the appeal to the Deciding Officer.

Requests to stay the approval of this Land and Resource Management Plan shall not be granted (36 CFR 217.10(a)).

For a period not to exceed 20 days following the filing of a first level Notice of Appeal, the Reviewing Officer shall accept requests to intervene in the appeal from any interested or potentially affected person or organization (36 CFR 217.14(a)).

Decisions on site-specific projects are not made in this document.

The schedule of proposed and probable projects for the first decade is included in the appendices to the Forest Plan. Final decisions on these proposed projects will be made after site-specific analysis and documentation in compliance with NEPA.

I encourage anyone concerned about the Forest Plan or Environmental Impact Statement to contact the Willamette National Forest Supervisor in Eugene, Oregon--before submitting an appeal. It may be possible to resolve the concern or misunderstanding in a less formal manner.

If you would like more information about the Forest Plan or EIS, or would like to review planning records, please contact:

Michael A. Kerrick, Forest Supervisor
Willamette National Forest
P.O. Box 10607
Federal Building
Eugene, OR 97440
(503) 465-6521

John F Butruille

JOHN F. BUTRUILLE
Regional Forester
Pacific Northwest Region
USDA Forest Service

7-31-90

Date

☆ U.S. GOVERNMENT PRINTING OFFICE: 1990-794-039/29105