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Record of Decision

Land and Resource Management Plan

Olympic National Forest



RECORD OF DECISION
For The
OLYMPIC NATIONAL FOREST

**LAND AND RESOURCE MANAGEMENT PLAN
FINAL ENVIRONMENTAL IMPACT STATEMENT**

**CLALLAM, GRAYS HARBOR, JEFFERSON
AND MASON COUNTIES
STATE OF WASHINGTON**

**USDA FOREST SERVICE
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SECTION I

INTRODUCTION

BASIS AND NEED FOR DECISION

This Record of Decision (ROD) documents my decision and rationale for approving the Land and Resource Management Plan (Forest Plan) for the Olympic National Forest.

Throughout this ROD, I have used many technical terms which may be foreign to a large segment of the public. In some cases I have been able to provide an explanation of the term, but in other cases explanations would have made this document unnecessarily long. The reader is encouraged to refer to the Final Environmental Impact Statement (FEIS) Glossary which contains definitions for the terms used in this document.

A Draft Environmental Impact Statement (DEIS) and proposed Forest Plan were filed with the Environmental Protection Agency (EPA) November 28, 1986. A supplement to the DEIS was filed September 30, 1988. Additional details on the meetings, notices, and documents preceding the FEIS and Forest Plan are available in the FEIS, Appendices A and K.

AUTHORITY

The FEIS and Forest Plan were developed under 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 the Council on Environmental Quality (CEQ) regulations (40 CFR 1500).

The Forest Plan is part of the framework for long-range 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(q)]. The Forest Plan replaces previous resource management plans including the:

- Soleduck Planning Unit (Soleduck Ranger District)
- Quinault Planning Unit (Quinault Ranger District)
- Canal Front Planning Unit (Hood Canal and Quilcene Ranger Districts)
- Satsop Block Planning Unit (Hood Canal Ranger District)
- Timber Resource Management Plan (Shelton Cooperative Sustained Yield Unit-SCSYU)
- Timber Management Plan, Peninsula Working Circle
- Timber Management Plan, Quinault Working Circle

Subject to valid existing rights, all outstanding and future permits, contracts, cooperative agreements and other instruments for the use and occupancy of National Forest System land will be in conformance with the Forest Plan at the earliest possible date.

AFFECTED AREA

The Olympic National Forest is located in the northwest portion of Washington State. The planning area includes the entire Olympic National Forest located in portions of Clallam, Jefferson, Grays Harbor and Mason Counties.

The Forest is headquartered in Olympia, Washington. Ranger District Offices are located in Hoodspport, Quilcene, Forks and on the south shore of Quinault Lake.

PUBLIC INVOLVEMENT

Pursuant to the intent of NFMA, the Olympic National Forest conducted a large-scale public involvement program. Formal public involvement activities included two Notices of Intent to Prepare an EIS printed in the *Federal Register*, two formal public comment periods on draft documents, numerous meetings, presentations and information distributions. In addition to formal activities, Forest Service employees informally explained the purpose of the Forest Plan and how to effectively participate in the process (see FEIS, Appendix K).

The Forest Service held meetings with the State of Washington, including the Governor's Office and various agency representatives to clarify and, where appropriate, resolve problems with the DEIS. Between the State recommendations and the abundant public response received on the DEIS, the Forest Service made several changes to management emphases in the Preferred Alternative. My staff and I were briefed on the public comments and the Forest Supervisor's adjustments to the Draft Forest Plan. I used this information to make my decision.

ISSUES

Land and resource management planning began with the identification of issues and concerns through contacts with local civic and community organizations, individuals, local, State and Federal agencies, private industries, adjacent landowners, various interest groups, American Indian tribes, and Forest Service employees. Public comments and management concerns were analyzed, and major issues were identified. Between the Draft EIS and the Final EIS, the issues were revisited and adjustments made based on responses to the Draft EIS. The primary adjustments were to more clearly describe the issues, combine issues that were closely linked, and develop separate issues where a facet of a previous issue had become more visible and important to the public. As a result of these adjustments, 13 issues which are described in detail in the Final EIS, Chapter I and Forest Plan, Chapter III are specifically addressed in this Record of Decision (ROD) in Section III, Rationale for the Decisions. The issues deal with:

- Management of Scenic Resources
- Management of Recreation Resources
- Management of Undeveloped (Unroaded) Areas
- Old-Growth Forest Management
- Timber Harvest Schedule and Location
- Transportation System Management (Roads and Trails)
- Fish and Wildlife Habitat Management
- Management of Potential Wild and Scenic Rivers
- Management of the Shelton Cooperative Sustained Yield Unit
- American Indian Concerns, Values, and Treaty Rights
- Management of Soil, Water, and Riparian Resources
- Protection of Native Plant Species and Communities
- Impacts to Local Communities

WHAT THE FOREST PLAN IS, AND IS NOT

As a long-range strategy for managing the Olympic National Forest, the Forest Plan and accompanying FEIS are programmatic. The Forest Plan provides management direction to produce goods, services and uses in a way that maximizes long-term net public benefits. It is not a plan for the day-to-day administrative activities of the Forest; it does not address such matters as vehicle and equipment management or organizational structure. The Forest Plan emphasizes the application of various land and resource allocations with management practices to achieve multiple-use goals and objectives in an economically efficient and environmentally sound manner.

It is vital to the reviewer to understand what the Forest Plan does not do; it does *NOT*:

- Maximize any single resource use or public service;
- Propose the use of any resource beyond the physical or biological capability of the land to sustain that use;
- Propose management of any resource based solely on values in the market place.

The Forest Plan does not emphasize site-specific decisions, but through Standards and Guidelines and Management Area direction, it significantly influences design, execution, and monitoring of site-specific activities (see Forest Plan, Chapter IV).

Standards and Guidelines are principles specifying conditions or levels of environmental quality to be achieved. They are the rules that govern our resource management practices and are the key to successful implementation of the Plan. Standards and Guidelines will not be violated to achieve annual targets. A Management Area consists of one or more areas of land which have similar management objectives and a common management prescription.

SECTION II

DECISIONS

SUMMARY OF THE DECISION

My decision is to approve, adopt, and implement the Forest Plan which accompanies the Final EIS. This decision is referred to as Alternative C (Modified) (Preferred Alternative) for management of the Olympic National Forest. Alternative C is a modification of the Draft EIS Preferred Alternative and is responsive to public comments, updated information and methodologies. Differences between the Draft Preferred Alternative and the Final Preferred Alternative results in: more protection of water and related soil and fishery resources, including riparian areas; more acres in Spotted Owl Habitat Areas; more acres of scenic viewshed protection; fewer acres allocated to timber production; additional recommendations for River Corridor protection; increased emphasis on protection of old-growth; increased recommendations for Botanical Areas and one Research Natural Area.

As a further response to public input, the Forest Plan establishes multiple-use goals and desired future conditions for the Forest. These are discussed in detail in Chapter IV of the Forest Plan.

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 C - (Modified) as the management direction for the Olympic 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.

ELEMENTS OF THE DECISION

The program decisions I make here are accompanied by the necessary supporting environmental analysis and disclosure required by law and regulation. Additional environmental analysis for these decisions is neither expected nor required. These decisions *may* be revisited or reassessed during implementation, but they do not have to be. These decisions establish or identify the following:

- Forest-wide goals and objectives.
- Forest-wide desired future condition.
- Forest-wide Standards and Guidelines.
- Management area goals and location.
- Management area desired future condition.
- Management area standards and guidelines.
- Monitoring Program and evaluation process.
- Forest lands suitable and selected for timber harvesting.
- Forest-wide allowable sale quantity.

INTENDED ACTIVITIES

I also intend to accomplish certain scheduled activities. Unlike the programmatic decisions listed above, these are *not* accompanied by all supporting environmental analysis and disclosure required by law and regulation. Additional environmental analysis will be done during Forest Plan implementation. These proposed and probable activities are displayed in the activity schedules and monitoring worksheets in the Forest Plan, Appendices A and B.

It is important to note that all proposals in the Forest Plan can be accomplished from physical, biological, economic, social, and legal perspectives. It is not certain that these proposals will be accomplished. First, the outputs specified in the Forest Plan are estimates and projections based on available inventory data and assumptions. Second, all activities, many of which are interdependent, may be affected by annual budgets as determined by Congress. The Forest Plan is implemented through various site-specific projects, such as timber sales, wildlife habitat improvements, or campground development. Budget allocations for any given year covered by the Forest Plan may cause projects to be rescheduled. However, the goals and land use allocations described in the Forest Plan would not change unless the Forest Plan itself were changed. If actual budgets are significantly different from those projected over a period of several years, the Forest Plan itself may have to be amended and, consequently, would reflect different outputs and environmental conditions. The significance of changes related to budgets or other factors is determined in the context of the particular circumstances.

During implementation, when the various projects are designed, site-specific analyses are performed. These analyses may be disclosed in an environmental document and may lead to an amendment or revision of the Forest Plan. Any resulting documents are to be tiered to the FEIS for the Forest Plan, pursuant to 40 CFR 1508.28.

RECOMMENDATIONS

I am also recommending certain decisions to others with the authority to make those final decisions. Like my final decisions, recommendations *are* accompanied by all supporting environmental analysis and disclosure required by law and regulation. However, the authority to make a final decision on some issues is not mine. If the higher authority accepts the recommendation, the resulting final decision *will not* ordinarily be revisited or reassessed by the Forest Service during implementation.

Recommendations include:

- Location of recommended addition to the Research Natural Area system.
- Additions to the National Wild and Scenic Rivers System.

SECTION III

RATIONALE FOR THE DECISIONS

I approached my decisions by first looking at the major issues, and the public's comments on those issues, and then comparing the various alternatives' response to the issues. I present my rationale for these decisions in the same manner below.

During the period between the Draft and Final EIS, Olympic National Forest employees held numerous meetings with interested members of the public. Forest employees then used the information gathered at these meetings along with written responses to the Draft EIS to develop the issues and, ultimately the alternatives presented in the Final EIS. Information gathered from the meetings and written responses were also used to develop recommendations to me.

In arriving at this decision, I reviewed the environmental consequences of the Forest Plan and the alternatives. I gave particular attention to how the selected alternative responded to the public issues and management concerns. In my judgment Alternative C (Modified) maximizes Net Public Benefits. It achieves the balance of adequately protecting the environment, while producing both monetary and nonmonetary resource outputs.

RATIONALE FOR RESOLVING EACH ISSUE

The response of each alternative to the thirteen major issues was a primary consideration in choosing the selected alternative. The alternatives and their resolution of the issues are discussed below, and are disclosed in greater detail in the FEIS, Chapters I and II.

ISSUE: *MANAGEMENT OF THE SCENIC RESOURCES*

How should the scenic resource of the Forest be managed?

Landscapes seen from areas that are heavily used by the public, such as roads, rivers, or developed recreation sites, are called scenic viewsheds. Viewsheds are more sensitive than other areas because the scenic quality may significantly affect the recreational experience of those viewing it. Timber harvest activities, including road construction, can change the visual quality of viewsheds. Many people find changes to the natural setting objectionable, and feel that most or all of the viewsheds should be maintained in a natural character.

Approximately 14 percent of the Forest is currently inventoried under the Visual Quality Objective (VQO) of Preservation (where generally only ecological changes alter the landscape), 4 percent is Retention (management activities are not evident), 11 percent is Partial Retention (management activities may be evident but do not dominate the natural landscape), and the remaining 71 percent is identified as either Modification or Maximum Modification (management activities may dominate the natural landscape but should repeat natural occurrences). Acres of Visual Quality Objectives are as follows:

Visual Quality Objective	Total Acres	Percent of Forest
Preservation	89,700	14
Retention	22,600	4
Partial Retention	67,500	11
Modification & Maximum Modification	452,500	71

Under the direction contained in the Selected Alternative, the VQOs will generally be met as inventoried. In the management areas outside of A2-Scenic that are programmed for timber harvesting, the Standards and Guidelines (see Plan, Chapter IV) specify that VQOs *should* be met unless rationale is displayed through an environmental analysis which justifies deviation from the inventoried VQO. Within A2-Scenic areas, the VQOs *shall* be met. In the Selected Alternative, use of the scenic management prescription has been designed to provide for protection of visual quality in highly sensitive areas on the Forest.

The Forest has identified 20 viewsheds that involve sensitive landscapes as viewed from high-use areas or travel routes. My choice is to provide essentially natural-appearing scenery in these areas. Seven of the viewsheds will provide scenery identified as Natural Appearing, and the remaining thirteen will appear Slightly Altered. This is consistent with inventoried VQOs, and will provide pleasing scenery for those who seek a natural-appearing setting for recreation. On other areas of the Forest, management activities may be visible, but should blend with natural conditions to the extent practicable.

The Selected Alternative provides Natural-Appearing or Slightly Altered settings in the following areas:

- Along Highway 101, Quinault Lake, Lake Cushman, and Hood Canal.
- Along several high-use recreation routes accessing the Forest and Olympic National Park.
- Along trails leading to Wildernesses on the Forest.

It is my judgment that implementation of the Selected Alternative will provide most of the public with natural or near-natural scenic surroundings within recreation use areas on the Forest, while still allowing compatible timber management activities to take place.

ISSUE: MANAGEMENT OF RECREATION RESOURCES

How should the outdoor recreation resource be managed?

The Olympic, due to its geographic location at a forest-ocean interface, its rugged and scenic mountain terrain, and its closeness to the major urban areas of Puget Sound, has a unique potential to provide a variety of recreation opportunities. The primary issue is to determine the appropriate level of various recreation opportunities to provide. The recreation opportunities of most concern on this Forest are those associated with the Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized Recreation Opportunity Spectrum (ROS) classes. Other facets of this issue involve how the Forest will meet demand for developed recreation and trail availability.

Present demand for Primitive and Semi-Primitive recreation opportunities exceeds the Forest's existing capacity to provide high quality experiences of these types. The Forest does not have the area in these ROS classes necessary to meet demand. As a result, visitors' experiences will be impacted by higher use densities and management-imposed restrictions aimed at limiting user density.

In the Selected Alternative, established Wildernesses and those currently unroaded areas which are to remain undeveloped will provide most of the Primitive and Semi-Primitive recreation opportunities. Specifically, 41,900 of the existing 60,590 acres of Primitive and Semi-Primitive ROS classes outside of Wilderness will be retained. The existing area in Wilderness, 88,265 acres, will remain the same. My choice is to reduce the acreage providing Primitive and Semi-Primitive recreation opportunity outside Wilderness to the 41,900 acres projected in the Selected Alternative. Although this involves reduction of ROS classes in limited supply, the areas to be removed from these classes are relatively low in recreation value, but have relatively high value as timber-producing areas. The acreage to remain in these ROS classes represents the most popular and desirable of the Forest's Primitive/Semi-Primitive areas.

Demand for developed camping will be met by expanding existing sites and/or constructing new ones. The Forest currently has 2,285 "persons at one time" (PAOT) capacity for developed camping. In the Selected Alternative, an increase to approximately 2,300 PAOT is planned for the first decade. This is expected to be adequate to fully meet demand for this form of recreation.

Demand for roaded dispersed recreation will be readily met, since the existing and future road access systems of the Forest provide capacity for this form of recreation that is well in excess of demand. Roaded dispersed recreation opportunities are now available on approximately 76 percent of the Forest. The following table displays the acreage in each of the Forest's ROS classes.

Acres of Recreation Opportunity Spectrum (ROS) Classes

ROS Class	Outside Wilderness	Inside Wilderness	Total	% of Total
Rural	5,099	0	5,099	1
Roaded - Natural	436,730	0	436,730	69
Roaded - Modified	41,640	0	41,640	7
Semi-Primitive Motorized	6,599	0	6,599	1
Semi-Primitive Non-Motorized	49,090	36,020	85,110	13
Primitive	4,901	52,245	57,146	9
Total	544,049	88,265	632,324	100

Demand for trail availability will be met by both constructing new trails and reconstructing existing trails. Construction of 52 miles of new trails is planned in the first decade in the Selected Alternative. Reconstruction will be carried out as needed to maintain the serviceability of the 227 miles of existing trails. One aspect of the trail question that is relatively new on the Forest is demand for trails on which off-road vehicle (ORV) use is allowed. The trail mileage needed to provide sufficient opportunities for ORVs will be analyzed, and the Forest will then look for opportunities to meet this demand in areas where resource impacts and user conflicts can be minimized or avoided.

With the exception of Primitive and Semi-Primitive recreation, demand for outdoor recreation opportunities on the Forest can be met through programs of developed site construction and trail construction and reconstruction. It is my judgment that these programs should be undertaken as outlined in the Selected Alternative. It is also my judgment that the small decrease in Primitive and Semi-Primitive recreation opportunity associated with the Selected Alternative is appropriate, considering the relatively low recreation value of the areas currently in these ROS classes that are to be managed for timber production in the Selected Alternative.

ISSUE: MANAGEMENT OF UNDEVELOPED (UNROADED) AREAS

How should the unroaded areas of the Forest be managed?

Under the DEIS Preferred Alternative, approximately 52,900 acres of the existing unroaded area outside of Wilderness was to remain unroaded. Public responses to the Draft Plan reflected the full spectrum of opinion regarding unroaded area management, with many favoring either retaining what we currently have as unroaded or increasing unroaded area acreage through road closures. Many others favored reducing the unroaded area acreage to a low level, thereby making more land available for timber management.

The responses to the Draft Plan also indicated a continuing interest in the retention of a few specific unroaded areas, including the Upper Dungeness, South Fork Skokomish, South Quinault Ridge, Mt. Zion, and Soleduck/Rugged Ridge areas. These are very closely tied to the issue of retention of old-growth. Several other areas which are currently roaded were often mentioned as being environmentally sensitive and valuable for recreation. A segment of the public recommended that the roads in these areas be closed and obliterated.

Other respondents covered the issue of the potential conflict between motorized and non-motorized users of undeveloped recreation areas, and many expressed the concern that adequate recreation opportunities be provided for all Forest users.

Currently there are approximately 85,800 acres within 13 unroaded areas on the Forest. Most of these are adjacent to the five Wildernesses and/or Olympic National Park. It is my decision to proceed with implementation of the Selected Alternative, which directs that 67 percent (57,500 acres) of the inventoried unroaded area acreage be maintained in an unroaded condition. These unroaded areas, combined with the Wildernesses and Research Natural Areas, will retain approximately 23 percent of the Forest in an unroaded condition. The change in unroaded area acreage from Draft to Final is not the result of major additions or deletions of specific unroaded areas, but rather reflects the refinement of unroaded area boundaries to better meet the objectives of the Selected Alternative.

Of the 57,500 acres of unroaded area to be retained, 41,900 acres will fall in the Primitive or Semi-Primitive ROS classes. Primitive and Semi-Primitive recreation opportunities will be retained in portions of 11 unroaded areas and in all of two unroaded areas. A total of 35,225 acres in unroaded areas are allocated to Management Area A1A-Undeveloped Recreation (Non-Motorized) in the Selected Alternative, while 6,138 acres will be in Management Area A1B-Undeveloped Recreation (Motorized). In addition to allocations to Undeveloped Recreation prescriptions, portions of existing unroaded areas are included in SOHAs and other allocations which prohibit timber harvest, and will remain unroaded.

All of the unroaded areas on the Forest have been allocated to management prescriptions in the Selected Alternative, and management activities will proceed in these areas according to their land use allocation. None of the existing unroaded areas may be managed as Wilderness, although the areas that retain their undeveloped characteristics will be eligible for Wilderness consideration in future planning efforts. Approximately 14,300 acres of existing unroaded area are expected to be developed (through road construction and timber harvest activities) in the next 10 years. Total area retaining unroaded characteristics at the end of the first decade will be 71,500 acres. Proposed timber sales scheduled for unroaded areas will receive appropriate site-specific environmental analysis and documentation before they are implemented.

I make this decision with the firm belief that it provides an equitable balance between development and protection of the Forest's unroaded areas. The areas to be retained provide a high degree of opportunity for quality recreation experiences, and are generally the most popular of the existing unroaded areas. Those areas which are allocated to timber production are generally low in recreation value in

comparison to the areas to be retained, and are often characterized by economically valuable stands and productive timber-growing sites. Specific information on individual unroaded areas may be found in Appendix C of the FEIS.

ISSUE: *OLD-GROWTH FOREST MANAGEMENT*

How should the old-growth resource on the Forest be managed?

The future of old-growth stands on the Forest is a major issue. Some members of the public value old-growth trees and older forests for aesthetic and recreational purposes, as well as for maintenance of wildlife habitat and forest diversity. Many persons believe that considerably more old-growth should be protected from timber harvesting. However, another segment of the public feels excessive land is already being removed from timber management through Wildernesses, Spotted Owl Habitat Areas (SOHAs), Research Natural Areas, and other land allocations.

The ecologically based definition of Douglas-fir old-growth is contained in Franklin et al. (1986) and describes stands containing the following characteristics:

- Low-elevation forests, with Douglas-fir as the principal successional tree species.
- Two or more species with wide range of ages and tree sizes.
- Eight or more Douglas-fir per acre that are bigger than 32 inches in diameter or over 200 years old. In some environments, western redcedar, western hemlock, or Sitka spruce are replacements for Douglas-fir.
- Twelve or more trees per acre of a shade-tolerant species bigger than 16 inches in diameter.
- Stands will usually contain a multilayered canopy.
- Four or more conifer snags per acre that are bigger than 20 inches in diameter and are over 15 feet tall. (Some Coast Range sites exposed to high winds may have fewer than four per acre.)
- Fifteen or more tons per acre of down logs including four pieces per acre that are bigger than 24 inches and 50 feet or longer.

The Regional planning definition of old-growth is contained in the Regional Guide for the Pacific Northwest Region. It defines old-growth as any stand of trees 10 acres or greater generally containing the following characteristics:

- Stands contain at least five overmature trees per acre and additional mature trees in the overstory. At least 60 percent of the canopy is dominated by large, individual trees with stem diameters 32 inches or greater.
- Stands usually contain a multilayered canopy and trees of several age classes; species include shade-tolerant and shade-intolerant species.
- An average of two standing dead trees per acre and 30 tons of down logs per acre are present.

- Stands are well into the mature growth stage. Trees have deeply furrowed bark. Crown height has slowed, giving the tops a more rounded shape; tops may be broken. Limbs are heavy and gnarled, with mosses and lichens present.
- Evidence of human activities may be present, but do not significantly alter the other characteristics and would be a subordinate factor in a description of such a stand.

In an effort to meet the Regional definition, the old-growth inventory in the Draft EIS was based upon acres of large sawtimber. This inventory did not consider other important criteria of old-growth, and consequently it has been modified in the Final EIS. For the Final EIS it has been determined that timber stands greater than 160 years of age contain the structural components which are characteristic of Olympic Peninsula old-growth. Stands which are over 160 years and below 4,000 feet elevation are also considered to be suitable, typical spotted owl habitat. Given the low precipitation of the northeastern portion of the Peninsula, a definition of old-growth which strictly adheres to a diameter criterion excludes many stands which have ecologically significant old-growth characteristics. (It should be noted that most of the stands of average age greater than 160 years, contain at least the minimum of 8 trees per acre greater than 200 years prescribed in Franklin et al. (1986)). Given these considerations, it is believed that the 160 year and older criterion provides the best estimate of an inventory of existing old-growth for the Olympic National Forest. Based on this definition, it is estimated there are currently 266,800 acres of old-growth on the Forest. A map showing the distribution of this old-growth has been included with the FEIS.

Under the Draft Preferred Alternative, it was estimated that 180,000 acres of old-growth would remain at the end of the first decade. The acreage of old-growth allocated to Spotted Owl Habitat Areas has increased substantially in the Selected Alternative as a result of meeting the direction in the Record of Decision for the Supplemental EIS to the Regional Guide. Whereas the Draft Preferred Alternative contained 29 SOHAs averaging 1,000 acres, the Final Plan has 30 SOHAs with an average of 3,000 acres. This SOHA change, as well as the old-growth inventory change noted above, results in a significant increase in the old-growth area which is retained in the Final Plan. Under the Selected Alternative, it is estimated that approximately 245,000 acres of old-growth will remain at the end of the first decade.

In the Selected Alternative, much of the old-growth on the Forest is included in management area allocations which preclude timber management activities. The following table presents the estimated acreage of old-growth by management area allocations.

Estimated Acreage of Old-Growth by Management Area Allocations (Thousand Acres) 1/

Management Area Allocation	Total Acreage (Thousand Acres)	Old-Growth Acreage (Thousand Acres)	Percent of Total Old-Growth
A1A - Undeveloped Recreation (Non-Motorized)	34.5	24.5	9.2
A1B - Undeveloped Recreation (Motorized)	6.1	4.1	1.5
A2 - Scenic	38.2	14.8	5.6
A3 - Developed Recreation and Admin. Sites	1.1	0.1	0.0
A4A - Wild and Scenic Rivers	1.8	0.3	0.1
A4B - River Corridors	17.3	8.2	3.1
B1 - Wilderness	88.3	46.8	17.5
C1 - SOHAs	75.7	57.2	21.4
C2 - Pileated & Pine Marten Areas	4.5	3.3	1.2
C3 - Bald Eagle Management Areas	1.1	0.7	0.3
E1 - Timber Management 2/	325.7	94.8	35.5
F1 - Municipal Watersheds	33.2	8.2	3.1
F2 - Riparian Areas 3/	---	---	---
J2 - Research Natural Areas	1.5	1.5	0.6
J3 - Botanical Areas	3.1	2.3	0.9
TOTAL ACRES	632.3	266.8	100

1/ All acreages are mutually exclusive, e.g., A4A, C1, C2, J2, and J3 within Wilderness (B1) are reported only as B1.

2/ Contains some riparian area, some constrained scenic management areas, and some unsuitable timberland. Other areas within E1 may not prove to be cost-effective in meeting the objectives of the Plan.

3/ The 177,050 acres of riparian area are distributed across the Forest and are included in the acreage of the other management areas. Constraints are placed on management of riparian zones to meet riparian area protection objectives.

The new inventory of mature and overmature stands now underway should provide more specific information about existing old-growth on the Forest. Also stands will be evaluated as they are located on the ground during Forest Plan implementation. This information will be used to assess where it may be appropriate to protect old-growth stands for their ecological, wildlife habitat and amenity values. Given the present information, I am confident that the Selected Alternative protects ample old-growth from development activities.

ISSUE: *TIMBER HARVEST SCHEDULE AND LOCATION*

Where should timber be harvested and what is the appropriate harvest level?

A primary issue for the Olympic National Forest is what balance should be struck between timber management and management of resources other than timber.

The Forest's existing timber management plans, as amended through 1990, project an annual timber sale level of 330.5 million board feet (MMBF) from Olympic National Forest land. This includes 16.1 MMBF of salvage material. Projected harvest from Simpson Timber Company land within the Shelton CSYU is 111.3 MMBF. The annual timber sale level of these plans is comparable to the allowable sale quantity (ASQ) of the Forest Plan. The actual harvest of National Forest timber has averaged 248.2 MMBF per year for the period 1980 to 1988. Harvest from Simpson land during this period has averaged 132.6 MMBF per year, for a combined annual total of 380.8 MMBF. The DEIS Preferred Alternative

included a first-decade ASQ of 185.6 MMBF (42.7 MMCF) from National Forest lands outside the Shelton CSYU and 152.6 MMBF (35.1 MMCF) from the Shelton CSYU (all from Simpson land).

Many of the issues addressed in this planning process influence ASQ. These issues include: management of the scenic and recreation resources, management of old-growth, fish and wildlife habitat management, management of unroaded areas, and the effects of forest management on local communities. The public is strongly divided as to the level of timber production that is appropriate for the Forest. Many feel the Forest should maintain a high level of timber harvest to help sustain local economies. They feel the Forest has enough Wilderness and other protected areas to meet other resource needs. Others feel the existing timber harvest level is far too high. They are concerned about the effects of harvest on wildlife, water quality, old-growth ecosystems, scenery, unroaded areas, and recreation.

I have considered alternatives ranging from a first decade ASQ of 2.3 MMCF (10.4 MMBF) to 59.8 MMCF (330.5 MMBF) in the FEIS.

Three alternatives in the DEIS proposed to manage timber on departures from nondeclining flow. Public comments generally opposed departure schedules, as these could pose unacceptable risks of adverse environmental impacts while failing to provide the stability of long-term timber supplies needed to sustain local economies.

After considering all factors, it is my decision to implement the Selected Alternative's first decade ASQ of 20.6 MMCF (110.9 MMBF) annually from National Forest land and 39.6 MMCF (183.4 MMBF) from Simpson Timber Company land within the CSYU. The Selected Alternative manages timber on a nondeclining flow harvest schedule. The harvest level of the Selected Alternative achieves a desirable balance between jobs, demand for wood products, income to the Treasury, and protection of the various nonmarket values desired by Forest users.

In addition to the ASQ, I estimate there will be 2.3 MMCF (12.3 MMBF) of material unsuitable for sawlogs offered annually during the first decade. This material includes miscellaneous forest products such as firewood, cull logs, posts and poles, and chips. The approximate historic levels of firewood and posts and poles will be made available to the public.

Under the Selected Alternative, lands to be managed for timber production total about 352,109 acres. Even-aged silviculture methods will be used for timber management. About 2,412 acres per year will be harvested through clearcutting. Precommercial thinning will occur on about 3,450 acres and commercial thinning on about 564 acres annually to improve stand density and species mix. Actual selection of harvest methods will be made at the project level, based on site-specific conditions and Management Area objectives. Factors to be considered in choosing logging methods include cost-effectiveness, protecting inherent site productivity, and satisfying management objectives for both timber and other resources. Appendix G, "Selection of Harvest Cutting Methods," provides further silvicultural information.

Reductions in the Forest's land base, due to 11,900 acres transferred to the Bureau of Indian Affairs to be held in trust for the Quinault Indian Nation; 5,500 acres transferred to the Olympic National Park; reevaluation of timberland suitability; and provision for substantially larger Spotted Owl Habitat Areas, are the principal factors contributing to the decline in ASQ from the Draft Plan to the Final Plan.

ISSUE: *TRANSPORTATION SYSTEM MANAGEMENT (ROADS AND TRAILS)*

How should the existing transportation system be managed and where should new roads and trails be constructed?

The Olympic National Forest transportation system will be planned, developed, and managed to facilitate accomplishment of the resource management objectives of the Forest Plan. Standards for roads and trails are a direct result of the resource objectives each facility is intended to serve. The costs of construction and maintenance of these facilities are a direct result of the standards used and the level of operation the facility receives.

The Forest has approximately 2,600 miles of roads, of which about 760 miles are arterial and collector roads. About 29 percent (743 miles) of the road system is maintained for general public use. About 48 percent (1,249 miles) is local roads that are maintained for high-clearance vehicles and commercial traffic. Local roads are subject to seasonal use restrictions to protect wildlife habitat and/or minimize user conflicts. Under the Selected Alternative, an annual average of 13 miles of local road and 1 mile of collector road will be constructed throughout the first decade. Essentially all needed arterial and collector roads are in place, but many may require reconstruction to meet management area objectives.

Road construction and reconstruction will be planned at the project level to ensure both cost-effectiveness and consistency with specific Plan objectives. Roads will be designed and maintained to the minimum standard required for the safety of users, for intended uses, and for meeting all resource objectives. Specific management direction for roads is described in the Forest Plan, Chapter IV, "Standards and Guidelines" section.

Approximately 141 miles will be constructed during the next ten-year period, with roughly 28 miles of this construction occurring in currently unroaded areas. Use of permanent road closures as a road system management tool will be increased over the long term, as roughly 34 percent of the system is expected to have some form of permanent closure by the end of the fifth decade (as opposed to 23 percent at present). Seasonal closures will remain at about today's level, or roughly 8 percent of the system.

The current transportation system also includes 227 miles of trail. Approximately 15 percent of the trail system is open to motorized vehicles, 69 percent is open to pack and saddle stock use, and 37 percent is open to mountain bicycles. None of the trails are closed to hikers. The Forest trail plan includes approximately 331 miles of proposed trail. 303 miles are proposed as non-Wilderness trails and the remaining 28 miles are proposed as Wilderness trails.

Demand for trail availability will be met by both constructing new trails and reconstructing existing trails. Construction of 52 miles of new trails is planned in the first decade in the Selected Alternative. Reconstruction will be carried out as needed to maintain the serviceability of the 227 miles of existing trails. One aspect of the trail question that is relatively new on the Forest is demand for trails on which ORV use is allowed. The trail mileage needed to provide sufficient opportunities for ORVs will be analyzed, and the Forest will then look for opportunities to meet this demand in areas where resource impacts and user conflicts can be avoided.

It is my judgment that the transportation system associated with the Selected Alternative provides reasonable and appropriate road and trail access consistent with the resource management objectives it is designed to support. The road construction and management projections of this alternative involve reasonable levels of development and access maintenance, which will serve to assure attainment of Forest goals without undue impact to resources which are affected by road construction and use. The trail system will be designed to meet demand for trail use opportunities.

ISSUE: FISH AND WILDLIFE HABITAT MANAGEMENT

How should fish and wildlife habitat be managed?

The commercial fishing industry, anglers, resource management agencies, American Indian tribes, and the public have an interest in maintaining productive fish habitats in Forest streams and in the estuaries into which the streams flow. Several coastal communities, including Indian reservations, depend on commercial fishing as an important part of their economy.

In the Selected Alternative, management practices to improve anadromous fish habitat will continue. These include providing sources of large, woody material, protection of riparian vegetation, sediment reduction through improved road building and maintenance techniques, and site-specific structural improvement projects. Management area allocations such as Wild and Scenic Rivers, River Corridors, and Municipal Watersheds have been designed to protect fish habitat.

Direction in the Selected Alternative is expected to result in an increase in fish production potential of more than 10 percent by the end of the first 10-year period of implementation. This corresponds to an estimated 1,200,000 additional anadromous smolts. These smolts will contribute an average annual increase (from current fishery production potential) of 174 thousand pounds of commercial anadromous catch. Fishery-related recreation experiences will total more than 29,000 user days per year.

All management activities will protect habitat values for Threatened and Endangered species and for proposed species. The Forest Plan, Chapter IV, provides direction consistent with the Endangered Species Act and recovery plans for listed species.

Since the DEIS was released several actions have taken place regarding the northern spotted owl which affect my latitude for providing for this species on the Olympic National Forest. First, a Supplement to the EIS for an Amendment to the Pacific Northwest Regional Guide was issued in July, 1988. The December 1988 Record of Decision for the Supplement identifies standards and guidelines for spotted owl habitat management. The analysis in the Supplement considered the conflicting views and scientific information of others. It provided new criteria for establishing "Spotted Owl Habitat Area" (SOHA) networks on forests in Washington and Oregon, including the Olympic National Forest. While the DEIS considered a total of 1,000 acres for each spotted owl habitat area on the Forest, the Supplement now requires the Forest to manage or dedicate 3,000 acre SOHAs and provide a network of habitat areas to ensure distribution of spotted owls across the Forest. Refer to Section II, Decisions, for further discussion on the spotted owl.

The Forest's spotted owl network consists of dedicated SOHAs, suitable habitat in Wildernesses, and other suitable habitat in management areas not allowing scheduled timber harvests. This network includes 144,310 acres on the Forest. The network is well distributed throughout the Forest and takes into account both suitable habitat and location of known spotted owls. The Selected Alternative will maintain about 162,000 acres (69 percent) of the 235,000 acres of identified typical, suitable spotted owl habitat on the Forest. Refer to the Forest Plan, Chapter IV for further discussion of spotted owl direction.

I have decided to provide habitat for a wide range of wildlife species, not limited to those proposed or listed by the U.S. Fish and Wildlife Service as threatened or endangered. I will accomplish this through the utilization of the best current information on the habitat needs of Management Indicator Species. This decision meets the requirements of laws and regulations that govern the protection of wildlife habitats.

In the next decade, habitat available for pileated woodpeckers and pine martens will increase substantially. Northern spotted owl habitat will be managed to provide 30 habitat areas (SOHAs) at an average of 3,000 acres each. Primitive and Semi-Primitive recreation and wilderness areas are examples where

additional habitat occurs. Habitat for primary cavity excavators will be provided at a level above that needed to maintain viable populations.

In compliance with established recovery plans, the Forest will provide 16 bald eagle sites of approximately 64 acres each, comprising a total of 1,200 acres. Habitat in these sites is designated unsuitable for timber management. In addition, other activities that may disturb nesting and roosting will be controlled around the sites.

By implementing the Selected Alternative, deer and elk habitat carrying capacity will not significantly change from current conditions. Elk habitat will be maintained through integrated management with timber harvesting, nongame wildlife and other resource objectives. Winter range conditions will be maintained or improved to avoid significant fluctuations in populations.

ISSUE: MANAGEMENT OF POTENTIAL WILD AND SCENIC RIVERS

How many and which of the rivers that flow through the Olympic National Forest should be recommended for inclusion in the Wild and Scenic Rivers System? How should the rivers which are not recommended be managed?

There are diverse opinions on the appropriate management of the river corridors on the Olympic National Forest. Many people believe that all of the rivers on the Forest should be recommended as Wild and Scenic, others feel that no such recommendations are appropriate.

The Olympic Peninsula does not have any designated Wild and Scenic Rivers. In 1982, the National Park Service listed six rivers as having potential for designation.

The Draft Preferred Alternative recommended three rivers for designation in the Wild and Scenic Rivers System, the Dungeness, Gray Wolf, and Duckabush. Two rivers, the West Fork Humptulips and the South Fork Skokomish, were assigned to the River Corridor management prescription.

In the Final EIS, seventeen rivers were evaluated for potential inclusion in the National Wild and Scenic Rivers System. Fourteen were found to be eligible. The Big Quilcene, Skokomish, and the Calawah and its three branches did not meet the eligibility criteria. These rivers have been assigned to the River Corridor prescription in the Selected Alternative. Four of the eligible rivers are proposed for suitability analysis and recommendation by the National Park Service as they only have minor occurrences on National Forest land (Quinault, Hoh, Bogachiel and Elwha). These four have also been assigned the River Corridor prescription in the Selected Alternative.

The remaining ten eligible rivers have been evaluated for classification as Wild and Scenic Rivers. Appendix F of the FEIS displays the suitability analysis for these ten rivers. Based on public comments on the DEIS and my review of the FEIS, I have chosen to recommend three rivers for designation as Wild and Scenic Rivers: the Dungeness, Gray Wolf, and Duckabush Rivers. I believe that these rivers provide the best representation of the "outstandingly remarkable" characteristics found on eastside Olympic Peninsula rivers. The Quinault, Hoh, and Bogachiel Rivers present the finest examples of westside Olympic Peninsula river characteristics. Recommendation to add these rivers to the Wild and Scenic Rivers System has been deferred to the National Park Service.

Rivers that meet the Wild and Scenic Rivers eligibility criteria, but are not recommended for designation, will be managed under the Selected Alternative as River Corridors. The River Corridor prescription has been well received as a means of protecting many of the values which are unique to the rivers of the Olympic Peninsula. Although it does not fully satisfy those favoring Wild and Scenic recommendation, it has proven to be a successful compromise which provides management flexibility and retains options

for the future. A total of fourteen rivers will be assigned to this prescription in the Selected Alternative, an increase of twelve rivers over the Draft Preferred Alternative.

The Wild and Scenic River recommendations are preliminary administrative recommendations that will receive further review and possible modification by the Chief of the Forest Service and Secretary of Agriculture. Congress has reserved the authority to make final decisions on designation of rivers to be included as part of the National Wild and Scenic Rivers System.

ISSUE: *MANAGEMENT OF THE SHELTON COOPERATIVE SUSTAINED YIELD UNIT*

How should the Shelton Cooperative Sustained Yield Unit (Shelton CSYU) be managed?

The Shelton Cooperative Sustained Yield Unit was formed in 1946 and is the only one of its kind in the United States. It was established for the purpose of stabilizing the economy of Mason County. Management is guided by the terms of a 100-year Cooperative Agreement between Simpson Timber Company and the Forest Service, and affects about 111,043 acres of National Forest land, all within the Hood Canal Ranger District, and about 250,000 acres of Simpson Timber Company land. Under the provisions of the Sustained Yield Forest Management Act and the terms of the Agreement signed by the Chief of the Forest Service and Simpson Timber Company, these lands are managed cooperatively to provide timber from the Unit. The harvest levels for each landowner are determined on the basis of the timber inventories, stand characteristics, and productivity of both ownerships. The last calculation of the harvest level was displayed through the environmental statement for the Timber Resource Management Plan, Shelton Cooperative Sustained Yield Unit and the Record of Decision signed on November 28, 1978.

Numerous concerns have been raised regarding the future management of the Shelton CSYU, both by Simpson Timber Company and by members of the general public. A primary concern of Simpson Timber Company has been the need to change management direction on the Shelton CSYU to incorporate the requirements of NFMA. The applicability of these requirements within the Unit has been questioned by the company. Questions have also been raised regarding possible modifications of the Cooperative Agreement under which the Shelton CSYU is managed, as well as the possibility of discontinuing the Agreement altogether.

Simpson Timber Company feels the Selected Alternative is heavily constrained in order to promote nontimber values. They argue that this does not fit the intent of the Cooperative Agreement. Simpson believes that conflicts exist between the requirements of the National Forest Management Act (management to assure viable wildlife populations in particular) and the Agreement, and they feel that the Agreement must take precedence in the resolution of these conflicts. They suggest that modification of the Agreement will be needed if NFMA requirements are imposed on the National Forest portion of the Unit.

Public concerns have largely focused on the past management of National Forest land within the Shelton CSYU, and on the desirability of continuing to manage the Unit cooperatively. There is a perception that resources have been seriously damaged because of concentrated harvest on National Forest lands within the Unit. A substantial number of respondents to the DEIS felt that the Unit should be retained because Simpson has had the benefit of harvesting on National Forest land during the past forty years at noncompetitive prices. These respondents feel that Simpson should honor the Agreement now that major harvest activity is taking place on their own lands, thereby maintaining the stable flow of timber for which the Unit was originally designed.

The intensity of timber harvest activity within the Shelton CSYU is shifting strongly from National Forest land to Simpson Timber Company land. Under the current timber management plan for the Unit, harvest from National Forest land is established at 115.7 MMBF per year. In contrast, there was no first-decade

volume programmed from National Forest lands within the Shelton CSYU under the DEIS Preferred Alternative. All first-decade Unit harvest in the Draft Plan, a total of 152.6 MMBF (35.1 MMCF), was programmed from Simpson Timber Company lands.

It is my decision that the Final Plan will include a National Forest harvest level of 1.6 MMCF (9.3 MMBF). With a first decade ASQ from Simpson Timber Company land of 39.6 MMCF (183.4 MMBF), the total yield from the Unit will be approximately 41.2 MMCF (192.7 MMBF). Increased board foot yields are largely the result of adjusted board foot-cubic foot ratios and adjusted timber yield calculations on both Simpson and National Forest land between the Draft and Final plans.

The Selected Alternative incorporates the requirements of the National Forest Management Act on all National Forest lands within the Shelton CSYU. Implementation of this alternative does not require changes in the Cooperative Agreement, and none are proposed.

ISSUE: *AMERICAN INDIAN CONCERNS, VALUES, AND TREATY RIGHTS*

How will American Indian concerns, values and treaty rights be addressed by this Plan?

American Indian tribes were primarily concerned that the Draft Preferred Alternative did not provide adequate protection for fisheries and wildlife habitat. The tribes requested drainage-specific fisheries effects for the Preferred Alternative. It was also noted that the nature of the cultural and archaeological resources is such that they require extensive trust and involvement on the part of the tribes and the Forest Service to secure the necessary inventory and protection.

The Squaxin Island Tribe felt that the Draft Preferred Alternative did not provide adequate resource protection as per their treaty rights. Specifically, they contend that Simpson Timber Company lands located within the Shelton Cooperative Sustained Yield Unit (CSYU) should be managed under the requirements of the National Forest Management Act (NFMA).

In the Selected Alternative, I have chosen management area allocations which are designed to address American Indian concerns. The River Corridor Prescription has been applied to fourteen rivers, and the Wild and Scenic River Prescription has been applied to three rivers. These allocations will provide substantial protection for anadromous fisheries and help resolve a major Tribal concern. Use of the Botanical Area prescription in the Final Plan will provide protection of areas utilized by Peninsula tribes for traditional purposes, including plant gathering (when this is not in conflict with Botanical Area objectives).

In response to extensive dialogue with the American Indian community, comments received at meetings, and written public responses, the planning documents have been substantially strengthened to more adequately address the concerns of American Indians. The Selected Alternative emphasizes that treaty rights and fundamental opportunities relating to religious, ceremonial, and traditional concerns will be fully protected and preserved. It recognizes the importance of ancestral sites, uses of Forest resources, and the central reverence and value held for western redcedar and salmon resources.

During Plan implementation, the Forest will continue to coordinate with the American Indian Community, focusing on tribal concerns regarding protection of ancestral sites and freedom to continue traditional uses of the Forest.

ISSUE: *MANAGEMENT OF SOIL, WATER, AND RIPARIAN RESOURCES*

How should the soil and water resources (including riparian areas, hydropower potential, and municipal watersheds) be managed?

There is agreement from all segments of the public that environmental quality of soil and water must be protected. A few timber industry groups expressed concern that the Forest's management standards and guidelines were unnecessarily more restrictive than the State of Washington's. Other individuals are concerned about the effects of new road construction and harvest activity on erosion and sedimentation, since water quality is critical to the maintenance of fish habitat, both in Forest streams and in estuaries.

After consideration of public and municipality concerns for water quality, I have decided to implement the management practices described in the Selected Alternative for protection of watersheds. This is a further increase in water quality protection from the Draft Preferred Alternative. To comply with Federal laws and regulations, protection will be provided to streams and streambanks to prevent detrimental changes in water temperatures, blockages of water courses and deposits of sediment where timber harvests are likely to seriously and adversely affect water conditions. In addition, the Forest will implement Best Management Practices that, at a minimum, meet State water quality standards and comply with the Clean Water Act of 1972, as amended in 1977 and 1987. (See the FEIS, Appendix J, Best Management Practices, and the Forest Plan, Chapter IV, Standards and Guidelines.)

In the Selected Alternative, protection is provided for soil and water resources by leaving areas of vegetation on slopes with high risk of landslides and by distributing timber harvest across basins to minimize risk of concentrating effects of logging activities within one drainage. Standards and Guidelines for riparian areas will ensure water quality by maintaining streambank stability, shading, sediment filtration, and through maintenance of vegetative ground cover and a portion of the standing timber. Timber harvesting will be consistent with the goals, objectives, and desired future condition for riparian areas.

Implementation of direction in the Selected Alternative will result in sediment levels being decreased in the first decade by over 40 percent from current levels. The amount of timber harvest activity in riparian areas will be reduced approximately 25 percent from what is currently occurring. Restrictions on potential hydropower developments will occur on the Gray Wolf, Dungeness, and Duckabush Rivers due to Wild and Scenic River recommendations.

Within municipal watersheds, harvest per decade is limited to 16 percent of the acreage in available harvest-age timber stands in order to protect municipal water supplies. In application, this means that no more than 5 percent of the total area of any municipal watershed will be harvested in the first decade.

In combination with riparian area, River Corridor, and Wild and Scenic River Standards and Guidelines, the application of site-specific measures or Best Management Practices (BMPs) will serve to meet or exceed State water quality standards.

ISSUE: *PROTECTION OF NATIVE PLANT SPECIES AND COMMUNITIES*

How should sensitive or unusual plant species and communities be managed?

Interest in this issue increased between the release of the DEIS and development of the Final planning documents. The Forest provides habitat for a number of sensitive plant species and unusual plant communities. A considerable amount of interest in studying, as well as protecting these species and plant communities (from disturbance that might result from road construction, timber harvest or mining) developed during the response period to the DEIS. Those responding felt that these unique areas

contribute to overall Forest diversity and that concentrations of rare plants or unique ecosystems should be designated as Botanical Areas or Research Natural Areas (RNAs). Others commented that the plant populations should be managed by on-the-ground project location and design without removing or greatly restricting lands for timber management or mineral development.

The Selected Alternative provides for the protection of several areas containing native plant communities of interest. Included are 12 Botanical Areas totalling 6,320 acres. This is an increase of approximately 5,600 acres over what was recommended in the Draft Preferred Alternative. Of this total, 3,095 acres are within Wilderness, and 1,372 acres are within other allocations which prohibit timber harvest, such as Undeveloped Recreation. These Botanical Areas are designed to protect an array of native plant species and communities ranging from large, old western red and Alaskan yellow cedar, through fragile alpine wildflowers and mushrooms.

I am recommending one Research Natural Area to the Chief of the Forest Service. This is the Weather Creek site which is located within the Buckhorn Wilderness. This area will be managed to maintain its potential research values. The existing Quinault Research Natural Area will continue to be managed under its current management plan.

There are other areas of sensitive or unusual plant habitat included in land allocations that preclude development activities. On areas of the Forest where development can occur, an inventory will be conducted before any ground-disturbing activities are initiated. Sensitive plant resources in these areas will be managed under the Standards and Guidelines which require that an evaluation be done where sensitive species are found, and that habitat be managed to maintain populations throughout their existing range.

In my view, the Selected Alternative contains the best balance of allocations to protect special habitats and emphasize protection of sensitive plants during Plan implementation.

ISSUE: *IMPACTS TO LOCAL COMMUNITIES*

How will the management of Forest resources affect local communities?

Forest management activities and the resulting outputs influence job opportunities, incomes, and the quality of life of residents of local communities. Public comments on the DEIS indicate deep concern about future employment opportunities and community stability. Individuals employed by or benefiting from the wood products industry feel that the Forest should maintain or increase emphasis on commodity production. Others feel that the Forest should protect the resources that provide amenity values, such as old-growth ecosystems, wildlife and fish habitats, scenery, and unroaded recreation opportunities.

During the first 10 years of implementation under the Selected Alternative, Forest outputs will generate an estimated 5,500 jobs per year in the four counties in which the Forest is located. This estimate is based on current employment coefficients for Forest outputs, and does not incorporate possible changes in labor productivity. Forest-generated employment associated with the Selected Alternative is 84 percent of the employment that has been supported over the last 9 years. The projected decrease in jobs is due to timber harvest levels expected to be 22.5 percent lower than the average harvest level of approximately 380 MMBF (including harvest from Simpson Timber Company land within the Shelton CSYU) between 1980 and 1988.

While the reduced timber harvest level is expected to result in employment decreases, these will be mitigated to some extent by increased employment in the recreation and commercial fishing sectors. Increases in recreation use and fishery outputs are projected to generate approximately 350 new jobs (including commercial fishing employment associated with improved off-Forest fish habitat conditions).

These jobs will offset roughly 30 percent of the timber-related employment change. The net employment change in the first decade is estimated to be a reduction of approximately 800 person-years of employment per year.

During the first decade, an average of \$4.5 million per year (in 1982 dollars) should be distributed to the four counties for school and road programs from the sale of National Forest timber. This is 17 percent less than the average of \$5.4 million per year that was paid between fiscal years 1985 and 1989. Payments are expected to decrease primarily because volume of timber harvest is expected to decline.

In my judgment, the Selected Alternative will contribute to a balance between commodity outputs and amenity resources in a manner that can contribute to the economic stability of dependent communities, while maintaining much of the natural character and recreation environment desired by Forest visitors from all areas. Although employment is expected to decline under this alternative, the reduction in jobs is not likely to be so substantial as to threaten community stability. This reduction is an unfortunate but necessary consequence of providing a balanced mix of all resource outputs, including both commodity and noncommodity values.

ALTERNATIVES CONSIDERED

Ten alternatives were analyzed in detail in the DEIS. An additional alternative was analyzed in detail in a supplement to the DEIS. The FEIS analyzes in detail six alternatives. The six alternatives include five from the DEIS which have all been modified to some extent, and the alternative from the supplement to the DEIS. The FEIS eliminated from detailed study five of the DEIS alternatives because few public comments were received supporting these alternatives and issue resolution was better resolved in the remaining alternatives (see FEIS, Chapter II). The Forest Service selected alternative is Alternative C (Modified). Tradeoff analysis and environmental consequences are disclosed in the FEIS, Chapters II and IV. A brief description of the six alternatives considered in detail follows.

ALTERNATIVE NC-NO CHANGE

The basis for this alternative is quite different from that of the other alternatives. It is designed to reflect the provisions and assumptions included in existing timber management plans *only*, without adjustment for direction developed or information gained subsequent to the publication of those plans. As a result, there are numerous important differences between Alternative NC-No Change and the remaining alternatives. These are detailed in Chapter II.

The "No Change" alternative was precipitated by discussions between the Forest Service and the Northwest Forest Resource Council regarding Appeal No. 1588, filed by the Council in May of 1986. Its purpose is to project the outputs and effects associated with management of the Forest on the basis of the output projections and land uses specified in existing timber management plans. The timber harvest potential yield estimates and land use assumptions upon which this alternative is based are specified in the Peninsula Working Circle, Quinault Working Circle, and Shelton CSYU Timber Resource Management Plans.

The principal guidelines and objectives underlying the development of this alternative are:

- The goal of the alternative is to provide a level of timber availability equal to the potential yield of timber specified in existing timber management plans. Output of other resources is subsidiary to this primary goal.

- Land allocations and uses specified in existing timber management plans will be applied.
- Management Requirements and other elements of current planning direction that are not fully compatible with timber management plan provisions will not be applied.
- Determination of availability, capability, and suitability of land for timber harvest shall be based on timber management plan suitability stratifications, not the most recent available information.
- Timber harvest prescriptions will emphasize volume output rather than contribution to present net value (PNV), as this is the basic emphasis of existing timber management plans.
- Timber yield data and resource relationship information used in the formulation of the timber management plans will serve as the data base for this alternative. FORPLAN analysis has not been conducted.

Alternative NC would maximize timber output from commercial forest lands determined by pre-NFMA criteria. The potential yield for Alternative NC would average 59.8 MMCF (330.5 MMBF) annually in decade one. A total of 21.6 MMCF (115.7 MMBF) will come from the National Forest portion of the Shelton Cooperative Sustained Yield Unit (SCSYU) with the balance of 38.2 MMCF (214.8 MMBF) coming from the non-CSYU portion of the Forest. An additional 21.7 MMCF (111.3 MMBF) will be harvested from the Simpson Timber Company portion of the SCSYU in decade one.

At the end of the first decade 55,300 acres of unroaded areas would remain undeveloped; 25,400 acres would be retained throughout the 50-year planning horizon. Approximately 197,900 acres of old-growth will be retained at the end of the first decade and 126,800 acres at the end of the fifth decade. This alternative would designate two botanical areas. Recommendations under the alternative include no new research natural areas, and one river (7.8 miles) for addition to the Wild and Scenic Rivers System.

ALTERNATIVE A - NO ACTION

This is the "no action" alternative required by the Council of Environmental Quality (CEQ) regulations (40 CFR 1502.14) and NFMA regulations (36 CFR 219.12(f)(7)). Its purpose is to project the outputs and effects associated with continued management of the Forest on the basis of current plans, policies, and direction. Land allocations upon which this alternative is based are specified in the Soleduck, Quinault, Satsop Block, and Canal Front unit plans and the Timber Resource Management Plan for the Shelton CSYU. These allocations have been adjusted as necessary to reflect current Management Requirements.

The principal guidelines and objectives underlying the development of this alternative are:

- The goal of the alternative is to simulate as closely as possible the future condition of the Forest if implementation of current plans is continued.
- Land allocations specified in current plans will be applied.
- All Management Requirements are to be applied.
- Determination of availability, capability, and suitability of land for timber harvest shall be based on the most recent available information, not existing approved timber management plans.

- The current budget level shall not be exceeded in any of the first five decades. This is the only alternative in which the budget level is constrained.
- Timber harvest schedules on both the Eastside-Westside and Shelton CSYU components of the Forest will be based on nondeclining flow.
- Timber harvest prescriptions will be selected to simulate actual current direction activities taking place on the Forest. This is best modeled with an objective function of maximizing present net value.

The ASQ for Alternative A would average 36.0 MMCF (199.5 MMBF) annually in decade one. A total of 9.1 MMCF (47.4 MMBF) will come from the National Forest portion of the Shelton Cooperative Sustained Yield Unit (SCSYU) with the balance of 26.9 MMCF (152.1 MMBF) coming from the non-CSYU portion of the Forest. An additional 34.3 MMCF (158.6 MMBF) will be harvested from the Simpson Timber Company portion of the SCSYU in decade one.

At the end of the first decade 67,900 acres of unroaded areas would remain undeveloped; 50,500 acres would remain at the end of the 50-year planning horizon. Approximately 229,700 acres of old-growth will be retained at the end of the first decade and 173,700 acres at the end of the fifth decade. This alternative would designate two botanical areas. Recommendations include no new research natural areas, and one river (7.8 miles) for addition to the Wild and Scenic Rivers System.

ALTERNATIVE B-DEPARTURE (MODIFIED)

This is a modified version of Alternative B-Departure which was presented in the DEIS. This alternative was designed to assess the effects associated with a commodity production-oriented alternative. This represents the "community stability" alternative suggested by some members of the public, including the timber industry. A departure from nondeclining evenflow is necessary to achieve the proposed timber volume output in the first decade.

The principal guidelines and objectives underlying the development of this alternative are:

- The goal of the alternative is to achieve high levels of commodity outputs while meeting management requirements for other resources.
- Land allocations (other than those common to all alternatives) will be unconstrained to allow maximum flexibility in attaining timber targets.
- All Management Requirements are to be applied.
- Departure from nondeclining flow will be allowed on the Eastside-Westside component of the Forest. Harvest from the Shelton CSYU will be governed by the nondeclining flow policy.
- Timber harvest prescriptions will be selected to emphasize volume output rather than contribution to PNV, as this will be necessary in order to achieve targeted harvest levels.

The ASQ for Alternative B-Departure (Modified) would average 55.7 MMCF (306.7 MMBF) annually in decade one. A total of 10.6 MMCF (56.7 MMBF) will come from the National Forest portion of the Shelton Cooperative Sustained Yield Unit (SCSYU) with the balance of 45.1 MMCF (250.0 MMBF) coming from the non-CSYU portion of the Forest. An additional 34.0 MMCF (157.1 MMBF) will be harvested from the Simpson Timber Company portion of the SCSYU in decade one.

At the end of the first decade 57,900 acres of unroaded areas would remain undeveloped; 30,700 acres would remain at the end of the 50-year planning horizon. Approximately 203,600 acres of old-growth will be retained at the end of the first decade and 151,500 acres at the end of the fifth decade. This alternative would designate no botanical areas and would recommend no new research natural areas, and no rivers for addition to the Wild and Scenic Rivers System.

ALTERNATIVE C - PREFERRED (MODIFIED)

This is the Preferred Alternative in the FEIS. It is a modified version of Alternative C which was presented in the DEIS. The purpose of this alternative is to determine the outputs and effects that would be associated with changing existing management direction to: (1) increase the emphasis on nonmarket outputs in areas of high public interest; (2) develop timber harvest schedules on the basis of contribution to PNV rather than harvest volume; and (3) provide a mix of allocations and outputs which addresses all issues, concerns, and opportunities.

The principal guidelines and objectives underlying the development of this alternative are:

- The goal of the alternative is to address all issues, concerns, and opportunities in a manner which is responsive to the input received to the DEIS.
- Land allocations have been developed based on experience gained during implementation of current plans and on comments received to the DEIS.
- All Management Requirements are to be applied.
- Timber harvest schedules on both the Eastside-Westside and Shelton CSYU components of the Forest will be based on nondeclining flow.
- Timber harvest prescriptions will be primarily selected on the basis of contribution to PNV rather than volume output.

The ASQ for Alternative C-Preferred (Modified) would average 20.6 MMCF (110.9 MMBF) annually in decade one. A total of 1.6 MMCF (9.3 MMBF) will come from the National Forest portion of the Shelton Cooperative Sustained Yield Unit (SCSYU) with the balance of 19.0 MMCF (101.6 MMBF) coming from the non-CSYU portion of the Forest. An additional 39.6 MMCF (183.4 MMBF) will be harvested from the Simpson Timber Company portion of the SCSYU in decade one.

At the end of the first decade 71,500 acres of unroaded areas would remain undeveloped; 57,500 acres would remain at the end of the fifty year planning horizon. Approximately 244,800 acres of old-growth will be retained at the end of the first decade and 185,000 acres at the end of the fifth decade. This alternative would designate twelve botanical areas. Recommendations include one new research natural area, and three rivers (30.0 miles) for addition to the Wild and Scenic Rivers System.

ALTERNATIVE H (MODIFIED)

This alternative is a modified version of Alternative H which was presented in the DEIS. This alternative was initially developed primarily in response to the wildlife habitat issue. It was designed to evaluate the effects associated with providing an age class distribution that would yield the best mix of habitat conditions for elk and deer populations, while also stressing the availability of habitat for old-growth dependent species and retaining the amenity emphasis of Alternative I in other respects. Substantial input into the structuring of Alternative H was provided by the State of Washington Department of

Wildlife. Between the draft and final EIS, this alternative as modified to reflect changes suggested by environmental organizations and others.

The principal guidelines and objectives underlying the development of this alternative are:

- Land allocations will be based on the goal of providing amenity outputs and nonpriced benefits. With the exception of a few areas in which timber harvest would be beneficial to big game populations, all areas capable of producing nontimber outputs related to issues or concerns will be allocated to prescriptions which provide these outputs.
- All Management Requirements are to be applied. Management Requirements will be adjusted in response to the concern that existing provisions may not be adequate to assure full attainment of MR goals.
- Timber harvest schedules on both the Eastside-Westside and Shelton CSYU components of the Forest will be based on nondeclining flow.
- Timber harvest prescriptions will be selected on the basis of contribution to PNV rather than volume output.
- The existing acreage of old-growth in deer and elk winter range will be retained throughout the 150-year analysis horizon.

The ASQ for Alternative H (Modified) would average 13.3 MMCF (69.3 MMBF) annually in decade one. A total of 1.0 MMCF (5.0 MMBF) will come from the National Forest portion of the Shelton Cooperative Sustained Yield Unit (SCSYU) with the balance of 12.3 MMCF (64.3 MMBF) coming from the non-CSYU portion of the Forest. An additional 30.7 MMCF (142.1 MMBF) will be harvested from the Simpson Timber Company portion of the SCSYU in decade one.

At the end of the first decade 82,900 acres of unroaded areas would remain undeveloped; 80,000 acres would remain at the end of the fifty year planning horizon. Approximately 252,500 acres of old-growth will be retained at the end of the first decade and 218,900 acres at the end of the fifth decade. This alternative would designate eleven botanical areas. Recommendations include two new research natural areas, and ten rivers (146.4 miles) for addition to the Wild and Scenic Rivers System.

ALTERNATIVE I

This alternative was developed to provide the maximum possible level of amenity outputs and nonpriced benefits that can be obtained from the Forest. It is the "amenity emphasis" alternative specified in Regional planning direction, and represents an approach to the resolution of issues and concerns that limits commodity production to that which is fully compatible with management for nontimber resources.

The principal guidelines and objectives underlying the development of this alternative are:

- Land allocations will be based on the goal of providing amenity outputs and nonpriced benefits. All areas capable of producing nontimber outputs related to issues or concerns will be allocated to prescriptions which provide these outputs.
- All Management Requirements are to be applied. Management Requirements will be adjusted in response to concerns that existing provisions may not be adequate to assure full attainment of MR goals.

- Timber harvest schedules on both the Eastside-Westside and Shelton CSYU components of the Forest will be based on nondeclining flow.
- Timber harvest prescriptions will be selected on the basis of contribution to PNV rather than volume output.
- The existing acreage of old-growth (266,800 acres Forest-wide) will be retained throughout the 150-year analysis horizon.

The ASQ for Alternative I would average 2.3 MMCF (10.4 MMBF) annually in decade one. All of this will come from the non-CSYU portion of the Forest. An additional 31.6 MMCF (146.1 MMBF) will be harvested from the Simpson Timber Company portion of the SCSYU in decade one.

All of the existing 85,800 acres of unroaded areas would remain undeveloped throughout the fifty year planning horizon. All of the existing inventory of 266,800 acres of old-growth will be retained throughout the fifty year planning horizon. This alternative would designate eleven botanical areas. Recommendations include two new research natural areas, and ten rivers (146.4 miles) for addition to the Wild and Scenic Rivers System.

ALTERNATIVES WITH A HIGHER PRESENT NET VALUE

Present net value (PNV) is used to measure the economic efficiency of each alternative. PNV is the sum of priced benefits minus the sum of costs over the 50-year planning horizon, discounted to the present. Nonpriced benefits, response to public concerns, and negative effects cannot be fully valued in monetary terms. Therefore, PNV does not measure all the relevant factors that vary from alternative to alternative.

The selected alternative has a PNV of \$520.3 million. The following two alternatives have higher PNV:

Alternative	PNV (MM\$)
A-Current Direction (No Action)	568.5
B-Departure (Modified)	547.2

Within most of the areas tentatively suitable for timber production on the Olympic National Forest, the dollar benefits generated by timber sales far exceed the costs of timber harvest and management. Where this is the case, the monetary return to timber production heavily overshadows the priced benefits generated by amenity outputs. Therefore, alternatives emphasizing timber production tend to be higher in PNV than those which do not.

Alternatives A-Current Direction (No Action) and B-Departure (Modified) both have stronger emphases on timber output than the selected alternative. Relatively few areas are assigned prescriptions which limit or preclude timber harvest in order to provide nontimber outputs. This is especially true in Alternative B-Departure (Modified), which includes management for timber production on virtually every acre available for this purpose (including those few areas where a timber production emphasis actually reduces PNV).

Because of their timber output emphasis, these alternatives are relatively low in fish and wildlife habitat quality, scenic quality, old-growth retention, unroaded recreation opportunity, and overall quality of recreation experiences. In contrast, the selected alternative strikes a balance between quantified economic benefits and environmental concerns. This alternative generates higher overall benefits (monetary and

nonmonetary combined) by being responsive to the importance of environmental benefits and values that either have low monetary value relative to timber or have no price at all.

The selected alternative provides higher quality fish and wildlife habitat than either of the alternatives which are higher in PNV. Total sedimentation levels are lower, and the distribution of harvest (and thus sedimentation) is more balanced. This reduces the likelihood of any single fishery being heavily affected by management activity, and provides a desirable distribution of wildlife habitat types. The total productive potential of the Forest's fisheries is higher in the selected alternative than in Alternatives A-Current Direction (No Action) and B-Departure (Modified).

The selected alternative provides a much higher level of scenic quality than either of those with higher PNV. In Alternative A-Current Direction (No Action), 27 percent of the area having Retention or Partial Retention Visual Quality Objectives is managed to meet these objectives. In Alternative B-Departure (Modified), attainment of these objectives is not specified anywhere. In contrast, the provisions of the selected alternative are designed to meet these objectives wherever they apply. Therefore, the overall scenic attractiveness of the Forest will be maintained to a considerably higher degree in the selected alternative.

The acreage of old-growth forest which will be retained is higher in the selected alternative than in those with higher PNV, and acreage of first-decade harvest of old-growth is lower. Therefore, the many values associated with old-growth will be provided at higher levels than occur with Alternatives A-Current Direction (No Action) and B-Departure (Modified). These values include wildlife habitat, aesthetic and spiritual qualities, genetic diversity, and a reservoir of natural ecosystems.

Unroaded recreation opportunity is more available in the selected alternative than in the higher-PNV alternatives, with just over two-thirds of existing unroaded areas retained in perpetuity. In addition, the lower level of timber harvest activity and the higher level of scenic quality of the selected alternative result in higher quality recreation experiences overall than are expected to occur with Alternatives A-Current Direction (No Action) and B-Departure (Modified).

Providing increased levels of all the above outputs and conditions results in reductions in PNV, since doing so necessitates either removal of land from timber production or reduced timber yield from the areas managed for amenity outputs. Although PNV is reduced by managing for these outputs, the balance they provide in the output mix of the selected alternative (and thus this alternative's responsiveness to public concerns and desires as a whole) is desirable from the standpoint of overall public benefit. See FEIS Chapter II, "Comparison of Alternatives Considered in Detail" for more detailed comparisons of the alternatives.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The environmentally preferable alternative is that which causes the least impact to the biological and physical environment and protects, preserves, and enhances the historic, cultural, and natural resources. All alternatives considered in detail satisfy legal and environmental standards except the No Change Alternative, which does not satisfy NFMA management requirements.

The environmentally preferable alternative is Alternative I. This alternative schedules less intense development activity, retains acres in an unroaded and undeveloped condition, and programs less ground-disturbing activity during the 10 to 15 year life of the Forest Plan, than is programmed in the Forest Plan.

Additional information on the environmentally preferable alternative and all of the alternatives considered is disclosed in the FEIS, Chapter II.

Alternative I emphasizes old-growth, wild and scenic rivers, wildlife, fish habitat, undeveloped, dispersed and unroaded recreation on the Forest. These are largely nonmonetary resources which (except for anadromous fish) generally do not have established market values. This alternative has an annual ASQ of 10.4 MMBF (2.3 MMCF), and a road construction program of 2 miles annually during the 1st decade. All old-growth would be retained for wildlife and ecological values. Fish habitat and snag habitat would increase over current levels. All unroaded areas would be maintained in an unroaded condition.

I did not select the environmentally preferable alternative because:

- It does not achieve a reasonable balance between concerns for maintaining environmental quality and satisfying the demand of society for commodity and noncommodity outputs from the Olympic National Forest.
- It fails to favorably respond to the timber supply needs of purchasers in the planning area.
- The Forest Plan has a more positive response to issues and concerns. It contributes to local economic stability; provides a steady timber supply; and will help to maintain existing county population, land uses, employment opportunities, and roaded recreation opportunities to a greater degree than is provided by the environmentally preferable alternative.

OVERALL EMPHASIS OF FINAL PLAN

Alternative C (Modified), the Forest Plan, recognizes and provides for landscape, resource, vegetation and animal diversity through the land use allocations or management areas identified and displayed in the FEIS, Map Packet - Alternative C (Modified).

Alternative C (Modified) provides appropriate environmental safeguards at an acceptable direct economic cost. This alternative incorporates the perspective that the Forest Service is the trustee of the environment for succeeding generations. I believe Alternative C (Modified) provides for the proper and continued use and development of Olympic National Forest resources in a manner that maintains economic stability, yet retains local natural heritages, such as fish and wildlife habitat, water quality and quantity, outdoor recreation opportunities, and scenic quality.

This Forest Plan has been developed with public participation, which included involvement, coordination, and comments from federal, state and local agencies including the Washington State Governor's Office, the Washington State Department of Fisheries and Department of Wildlife, the Washington Department of Natural Resources, the Washington State Historic Preservation Office, the U.S. Fish and Wildlife Service, Olympic Peninsula Indian Tribes, representatives of county and city governments, industry groups, special interest groups and individuals.

Considerable effort has been made to ensure that the Selected Alternative considered the goals of other public agencies and Peninsula Indian Tribes. Comments and letters were reviewed and analyzed extensively; numerous meetings and field trips were conducted with officials from other agencies and organizations. (See the FEIS, Appendix K). Many actions were taken to address their concerns.

I believe Alternative C (Modified) is compatible with and complementary to the goals of other agencies and Peninsula Indian tribes. Coordination with many agencies, groups, and individuals will continue as projects are implemented.

I select Alternative C (Modified) because, in my judgment, it maximizes net public benefit. The term "net public benefits" is necessarily subjective. Many people may disagree with this evaluation, and in fact, therein lie the controversies surrounding these decisions. Therefore, I have shared with you the factors I considered. I compared the selected alternative to the "environmentally preferable alternative" and to alternatives with higher present net values. I recognize that "environmentally preferable" is also a subjective term, and I explained the basis for making that subjective conclusion. Some decisions contained in the Forest Plan will affect communities. The Forest Service will work with communities to address these effects within the framework of a Pacific Northwest Strategy.

The Final Forest Land and Resource Management Plan reflects the importance of the Olympic National Forest as a special and major component of the Olympic Peninsula, of the northwestern coastal experience, and a contributor to the local and regional economy. The Plan recognizes the unique recreation opportunities available on the Forest, and it recognizes the strong reliance the regional economy places on fish, wildlife, timber, and recreation. As choices were made for individual resources, the intertwined relationships between opportunities to provide quality experiences and to support economic development were given strong consideration.

The Final Plan emphasizes anadromous fish habitat, forest recreation opportunities, high quality water, substantial old-growth reserves for wildlife habitat, and stable supplies of wood fiber for the regional and national economies. The Plan provides adequate levels of habitat for game and nongame wildlife species. Visual quality objectives are generally highest on the east face of the Forest and along major Forest travel routes. A variety of unroaded recreation opportunities are maintained and enhanced through trail maintenance and development. In an effort to care for the land and serve the public, this Plan has been structured to represent a balance of resource outputs and opportunities and to provide a sound framework from which to manage the Forest.

The balanced emphasis of the Final Forest Plan is reflected in the management area allocations acreages displayed in the table on page 13.

SECTION IV

IMPLEMENTATION

SCHEDULES

The Forest Plan will be implemented through identification, selection, and scheduling of projects to meet the management goals and objectives provided by the Forest Plan. These projects are displayed in Forest Plan, Appendices A and B.

Project schedules will be available for review at the Ranger District Offices and Supervisor's Office. Schedules of possible projects will routinely change as projects are implemented or are removed from the listings for other reasons and as new projects take their place. Adjustments to the schedule may be made 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. Each proposed project will be subject to site-specific analysis in compliance with NEPA. This process may result in a decision not to proceed with the proposed project, even though the project may be permissible under the Forest Plan.

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

The Forest program of work will implement the management direction of the Forest Plan. Outputs and activities in individual years may be significantly different from those shown in Forest Plan, Chapter IV, depending on final budgets, new information derived from updated inventories and monitoring, and any future amendments or revisions of the Forest Plan.

Timber sales offered during Forest Plan implementation will be in compliance with direction contained in the Forest Plan. Timber sales now under contract will be administered under provisions of the existing contracts. Changes to existing timber sale contracts may be proposed on a case-by-case basis where overriding resource considerations are present.

The Forest Plan incorporates the Pacific Northwest Region's FEIS for Managing Competing and Unwanted Vegetation. In implementing the Forest Plan through project activities, the Forest will comply with the Record of Decision issued by the Regional Forester dated December 8, 1988, and the Mediated Agreement of May, 1989. Use of all vegetation management techniques is allowed only when other methods are ineffective or will unreasonably increase projects costs. Emphasis must be on prevention and early treatment of unwanted vegetation and full public involvement in all aspects of project planning and implementation. Information about the vegetation management FEIS, ROD, and Mediated Agreement are available at the Forest Supervisor's Office.

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 be used to provide information on the progress and results of implementation. One of the results of monitoring will be an assessment of the need for amending or revising the Plan. Monitoring and evaluation are discussed in more detail in the Forest Plan, Chapter V.

Monitoring is intended to help keep the Forest Plan current and responsive to changes. Monitoring and evaluation each have a distinctly different purpose and scope. Monitoring consists of gathering data, observations, and information. During evaluation, the data and information are analyzed and interpreted. This process allows determination of whether conditions are within the bounds and intent of the Plan direction. Forest Plan monitoring is not a substitute for existing Forest monitoring activities. Many activities are currently being monitored on the Forest to comply with administrative and legal responsibilities. (FSM - Admin. Review Procedures).

Monitoring and evaluation will provide information to:

- Compare planned versus applied management standards and guidelines to determine if objectives are achieved [36 CFR 219.12(k)].
- Quantitatively compare planned versus actual outputs and services [36 CFR 219.12(k)(1)].
- Measure effects of prescriptions, including significant changes in land productivity [36 CFR 219.12(k)(2)].
- Determine planned costs versus actual costs associated with carrying out prescriptions [36 CFR 219.12(k)(3)].
- Determine population trends of the management indicator species and relationship to habitat changes [36 CFR 219.19(a)(6)].
- Evaluate effects of National Forest management on adjacent land, resources, and communities [36 CFR 219.7(f)].
- Identify research needs to support or improve National Forest management [36 CFR 219.28].
- Determine if lands are adequately restocked [36 CFR 219.12(k)(5)(i)].
- Determine, at least every ten years, if lands identified as unsuitable for timber production have become suitable or will remain unsuitable [36 CFR 219.12(k)(5)(ii)].
- Determine whether maximum size limits for harvest areas should be continued [36 CFR 219.12(k)(5)(iii)].
- Ensure that destructive insects and disease organisms do not increase to potentially damaging levels following management activities [36 CFR 219.12(k)(5)(iv)].

Results of the evaluation will lead to decisions of the following types:

- Continue practice, no change necessary.
- Refer the problem to the appropriate Forest officer for corrective action.

- Modify the management practice through Plan amendments.
- Modify land designation through Plan amendments.
- Revise output schedules.
- Revise unit output costs.
- Revise the Plan.

Three types of monitoring and evaluation will be conducted:

- **IMPLEMENTATION MONITORING** - Implementation monitoring will determine if plans, prescriptions, projects, and activities are implemented as designed and in compliance with Forest Plan objectives and Standards and Guidelines.
- **EFFECTIVENESS MONITORING** - Effectiveness monitoring will determine if plans, prescriptions, projects, and activities are effective in meeting management direction, objectives, and the standards and guidelines.
- **VALIDATION MONITORING** - Validation monitoring will determine whether the initial data, assumptions, and coefficients used in development of the Plan are correct; or if there is a better way to meet forest planning regulations, policies, goals, and objectives.

Evaluation of the results of the site-specific monitoring program will be documented in an annual report by the Forest Interdisciplinary Team. Based on the evaluation, any need for further action is recommended to the Forest Supervisor.

Actions directed by the Forest Supervisor could include one or several of the following:

- A determination that no action is needed.
- District Ranger(s) may be directed to improve application of management direction.
- Management direction for a particular piece of land may be modified as a Forest Plan amendment.
- The Standards and Guidelines may be modified as a Forest Plan amendment.
- The projected schedule of outputs may be modified as a Forest Plan amendment.
- The needed action may singly or cumulatively be so significant as to cause the Forest Supervisor to initiate revision of the Forest Plan.

If, through monitoring and evaluation, it is determined that management objectives cannot be achieved without violating the Standards and Guidelines, the plan will be amended. In amending the plan, one or more of the following can be changed: allocations, management prescriptions, projected outputs, or standards and guidelines.

MITIGATION

Mitigation measures will minimize or eliminate potential conflicts or adverse effects of implementation. Mitigation measures have been developed through interdisciplinary efforts and incorporated into the Forest Plan at different levels in several different ways.

The Standards and Guidelines and Management Area prescriptions in the Forest Plan, Chapter IV are a fundamental and integral part of these measures, and as such they are a basic and essential part of the Forest Plan.

All practical means to avoid or minimize environmental harm from the selected alternative have been adopted (40 CFR 1505.2 (2)).

The land use allocations play an important role in mitigation by the separation of incompatible uses.

National Forest Management Act requirements were incorporated into the planning process and are reflected in the land use allocations and Standards and Guidelines.

"General Water Quality Best Management Practices" (USDA 1988) are incorporated by reference under requirements of Section 319 of the Clean Water Act.

Additional mitigation measures may be identified and developed at the project planning level and be implemented under 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 environmental analysis (see Forest Plan, Chapter V). An amendment may become necessary as a result of situations, such as:

- Recommendations of the Interdisciplinary Team based on their 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.
- Changes needed to improve monitoring plans or information and assumptions used in the Plan.
- Changes made necessary by catastrophic physical or biological events; or by social or economic conditions.

Based on an analysis of the objectives, guidelines, and other aspects of the Forest Plan, the Olympic National 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 determined not to be significant, the Forest Supervisor may implement the amendment after

the appropriate public notice and compliance with the National Environmental Policy Act (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 "nonsignificant" amendments. The determination of significance must be documented in a decision notice or record of decision 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 stated on page 35).
- The actual amendment will be described.
- Rationale for the amendment.
- A statement of significance related to FSM 1922.51. This is the National Forest Management Act (NFMA) significance and relates to changes to the Forest Plan.
- A statement regarding NEPA compliance (40 CFR 1500-1508, FSM 1950, and FSH 1909.15) regarding effects on the environment and how effects disclosed in the Plan EIS may change as a result of the amendment.
- A statement of the appeal rights.

The 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, the procedures described in 36 CFR 219.12 will be followed.

SECTION V

APPEAL RIGHTS

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 the legal notice is published. 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, Regional Forester
USDA Forest Service
Pacific Northwest Region
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). If the notice is over 10 pages in length, appellants must file, simultaneously, two copies with the Reviewing Officer and two copies with 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 Appendix A to the 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 Plan or Environmental Impact Statement to contact the Forest Supervisor in Olympia, Washington, (206)753-9534, before submitting an appeal. It may be possible to resolve the concern or misunderstanding in a less formal manner. Also, please contact the Forest Supervisor if you would like more information about the Forest Plan or FEIS.


JOHN F. BUTRUILLE

Regional Forester - USDA, Forest Service
Pacific Northwest Region
319 SW Pine, P.O.Box 3623
Portland, OR 97204-3623

JULY 17, 1990

Date