



United States  
Department of  
Agriculture

Forest Service

Pacific  
Northwest  
Region

Deschutes  
National Forest



# Record of Decision

## Land and Resource Management Plan

Deschutes National Forest



# **RECORD OF DECISION**

FOR THE

## **DESCHUTES NATIONAL FOREST**

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

**DESCHUTES, JEFFERSON, KLAMATH, AND LAKE COUNTIES  
OREGON**

**USDA FOREST SERVICE  
August 1990**

# RECORD OF DECISION TABLE OF CONTENTS

Title	Page
<b>SECTION I INTRODUCTION</b>	1
<b>BASIS AND NEED FOR DECISION</b>	1
<b>AUTHORITY</b>	1
<b>AFFECTED AREA</b>	2
<b>PUBLIC INVOLVEMENT</b>	2
<b>ISSUES</b>	2
<b>WHAT THE FOREST PLAN IS AND IS NOT</b>	3
<b>IMPLEMENTATION AND BUDGETS</b>	3
<b>SECTION II DECISIONS</b>	5
<b>SUMMARY OF THE DECISION</b>	5
Changes From Draft to Final EIS	5
Elements of the Decision	6
Other Decisions	6
Northern Spotted Owl	6
Wild and Scenic Rivers	7
Roadless Areas	7
Proposed Newberry Volcano National Monument	7
Eligible Wild and Scenic Rivers	7
<b>INTENDED ACTIVITIES</b>	7
<b>RECOMMENDATIONS</b>	8
<b>SECTION III - RATIONALE FOR THE DECISIONS</b>	9
<b>RATIONALE FOR RESOLVING EACH ISSUE</b>	9
<b>ISSUES</b>	
Local Economics, Lifestyles & Population Levels	9
Timber Harvest Amount And Schedule	10
Management of Mountain Pine Beetle Infested Stands	12
Fuelwood Supply	12
Developed Recreation	13
Dispersed Recreation	14
Scenic Beauty	15
Roadless Area Management	17
Cultural Resource Management & Protection	18
Threatened, Endangered, Or Sensitive Species.	18
Wildlife Populations	19
Old Growth	20
Geothermal Leasing & Development.	21
Pest Management	22
Protection Of Lakes, Streams, And Wetlands.	22
Soil Productivity	23
Additional State Proposals	24

# RECORD OF DECISION TABLE OF CONTENTS

<b>SECTION IV - ALTERNATIVES CONSIDERED</b>	<b>26</b>
<b>ALTERNATIVES</b>	
Alternative NC - No Change	26
Alternative A - No Action	26
Alternative B - Resources Planning Act	26
Alternative C	26
Alternative E - Preferred Alternative	27
Alternative G	27
State of Oregon Alternative	27
<b>ALTERNATIVES WITH A HIGHER PRESENT NET VALUE</b>	<b>27</b>
<b>THE ENVIRONMENTALLY PREFERABLE ALTERNATIVE</b>	<b>28</b>
<b>SUMMARY OF REASONS FOR SELECTING THE FOREST PLAN</b>	<b>29</b>
<b>COMPATIBILITY WITH GOALS OF OTHER PUBLIC AGENCIES AND INDIAN TRIBES</b>	<b>29</b>
<b>SECTION V - IMPLEMENTATION</b>	<b>30</b>
<b>SCHEDULES</b>	<b>30</b>
<b>MONITORING AND EVALUATION</b>	<b>31</b>
<b>MITIGATION</b>	<b>31</b>
<b>AMENDMENT AND REVISION PROCESS</b>	<b>32</b>
<b>SECTION VI - APPEAL RIGHTS AND APPROVAL</b>	<b>33</b>

# 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 (also referred to as the Plan or the Forest Plan) for the Deschutes 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 explain 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 (EIS), glossary for definitions for many of these terms.

A draft EIS (DEIS) and proposed Forest Plan were filed with the Environmental Protection Agency (EPA) in 1982, again in 1986, and a supplement was completed in 1988. Additional details on meetings, notices, and documents preceding the final EIS and Forest Plan are available in the final EIS Appendices A and J.

### Authority

The EIS and Forest Plan were developed under the National Forest Management Act and its implementing regulations (36 CFR 219). The EIS satisfies requirements of the National Environmental Policy Act (NEPA), and Council on Environmental Quality regulations (40 CFR 1500-1508).

The Forest Plan is part of the framework for long-range planning established by the Forest and Rangeland Renewable Resource 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 all previous land and resource management plans including the:

- Timber Management Plan, Deschutes National Forest (1971 and updates)
- The 1978 Land Management Plan, Deschutes National Forest
- The Bark Beetle in Ponderosa Pine and Lodgepole Pine Environmental Assessment
- Land Adjustment Plan, Deschutes National Forest
- Mt. Jefferson Wilderness Management Plan, 1977
- Three Sisters Wilderness Management Plan, 1973
- Off-Road Recreation Vehicle Plan, 1979
- Noncompetitive Geothermal Leasing on Ft. Rock District Environmental Assessment, August 18, 1980 and Supplement June 11, 1982
- Geothermal Leasing Environmental Assessment for Deschutes and Klamath Counties, Bend and Crescent Districts, February 22, 1984
- Geothermal Leasing Sisters Ranger District Environmental Assessment, August 23, 1982
- Belknap-Foley Geothermal Area Final EIS, Geothermal Leasing, September 18, 1981

Interim direction for Wild and Scenic Rivers is established in this Forest Plan. This interim direction will be amended or revised as a result of the current rivers planning process which is underway. If a Newberry National Monument is established this Forest Plan will be amended or revised to include management for it within the framework of the establishing legislation and existing laws.

All outstanding and future permits, contracts, cooperative agreements, and other instruments for occupancy and use of lands included in this Forest Plan will be brought into agreement with this Plan, subject to valid existing rights of parties involved. This will be done as soon as practicable, and generally within three years of the date of this Plan.

## **AFFECTED AREA**

The Deschutes National Forest encompasses 1.6 million acres of forested land along the eastern flanks of the Cascade Range and the Paulina Mountains in Central Oregon. It lies mostly in Deschutes County but extends into Jefferson County on the north and into Klamath and Lake Counties on the south and east.

The Forest is a diverse landscape of mountain peaks, lakes and rivers, timbered lands, volcanic formations, and dry desert. Over 350 species of fish, wildlife and birds, including the bald eagle and northern spotted owl, inhabit the Forest. Timber is predominantly Ponderosa and lodgepole pine, mountain hemlock, Douglas, white and grand fir.

The cities of Bend and Redmond are the largest population centers adjacent to the Forest; but Madras, Sisters, Sunriver, LaPine, Gilchrist, and Crescent are smaller communities which also rely on the Forest and its resources. The mainstays of the local economy are timber harvesting and recreation. Over 166.4 million board feet of timber was harvested in 1988. The region's climate and environmental diversity provide for a variety of summer and winter recreation opportunities, attracting over 2.5 million visitors each year. Recently, the potential of Newberry Crater to provide geothermal energy and contribute to the local economy has attracted national interest.

## **PUBLIC INVOLVEMENT**

Pursuant to the intent of NFMA, the Deschutes National Forest conducted a large-scale public involvement program. Formal activities included a notice of Intent to Prepare an EIS printed in the Federal Register, a formal public comment period on draft documents, and many meetings, presentations, and information distributions. In addition to formal activities, Forest employees informally explained the purpose of the Forest Plan and how to effectively participate in the process. (See EIS, Chapter 1, Appendix A & J and Forest Plan Chapter 3.)

On the basis of public response received on the DEIS, the Forest modified some alternatives, dropped some from detailed analysis in the EIS and analyzed other alternatives. The Forest also performed additional analyses and changed some management emphases in the Preferred Alternative. My staff and I were briefed on the public comments, the EIS, and the Forest's changes to the draft Forest Plan. I used this information to make my decision.

On July, 26 1990 Governor Neil Goldschmidt's Forest Planning Team released a proposed 10-year management plan for the Deschutes National Forest. Development of this Alternative included a great deal of consultation with Forest Service staff, local government, and other publics. The Governor concluded that some changes to the Forest's Preferred Alternative were needed.

The Forest has reviewed the State of Oregon Proposed Alternative. Key points have been identified that differ with management direction in the Forest Plan (Preferred Alternative). These differences are identified and responded to in this Record of Decision. Discussions of the points and responses to them are included with the discussions of the major issues, which were primarily considered in choosing the Preferred Alternative, in Section III.

## **Issues**

Land and resource management planning began with the identification of issues and concerns through public contact with local civic and community organizations; individuals; local, state, and federal agencies; private industries; adjacent landowners; various interest groups; Native American tribes; and Forest Service employees. After public comments and management concerns were gathered and analyzed, the following major issues were identified. The issues, which are described in detail in the FEIS Chapter 1 and Appendix A, and the Forest Plan, Chapter 3, are specifically addressed in this ROD in Section III, Rationale for the Decisions. They center on the following issue areas:

- Local Economics, Lifestyles and Population levels
- Timber Harvest Amounts and Schedule
- Management of Mountain Pine Beetle Infested Stands
- Fuelwood Supply
- Developed Recreation
- Dispersed Recreation
- Scenic Beauty
- Roadless Area Management
- Cultural Resource Management and Protection
- Threatened, Endangered or Sensitive Species
- Wildlife Populations
- Old Growth
- Geothermal Leasing and Development
- Pest Management
- Protection of Lakes, Streams, and Wetlands
- Soil Productivity

## WHAT THE FOREST PLAN IS, AND IS NOT

As a long-range strategy for managing the Deschutes National Forest, the Forest Plan and accompanying EIS 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 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 application of various management practices to achieve multiple-use goals and objectives in an environmentally sound and economically efficient manner.

It is vital for 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 resources based solely on values in the market place.

The Forest Plan does not emphasize site-specific decisions, but through Forest-wide and management area standards and guidelines, it significantly influences design, execution, and monitoring of site-specific activities (See Forest Plan, Chapter 4.)

A Management Area consists of one or more areas of land which have similar management objectives and a common management prescription. 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.

## IMPLEMENTATION AND BUDGETS

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

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

Management activities scheduled in this Forest Plan will be associated with multiyear program budget proposals that identify funds necessary to implement the Forest Plan. These proposals will be used to request and allocate funds. Outputs

and activities in individual years may be significantly different than the averages shown in Chapter 4 of the EIS depending on available funds.

The Forest Supervisor may change proposed implementation schedules to reflect differences

between proposed annual budgets and actual funds received. Such schedule changes could be considered a significant amendment to the Forest Plan if they significantly altered the long-term relationship between levels of multiple-use goods and services projected in the Forest Plan.



## SECTION II

# DECISIONS

### SUMMARY OF THE DECISION

My decision is to approve, adopt, and implement the Forest Plan which accompanies the EIS. This decision is referred to as Alternative E (Preferred Alternative) for management of the Deschutes National Forest. Alternative E is a modification of the DEIS Preferred Alternative and is a response to public comments and updated information and methodologies.

The Forest Plan establishes multiple-use goals and desired future conditions. These are discussed in detail in the Forest Plan, Chapter 4.

I believe it is essential to issue this Forest Plan now to provide an updated basis for sound resource decisions and from which to make future adjustments. The most recent Forest Plan approved for the Forest, in 1978, does not fully consider the regulations promulgated from the National Forest Management Act nor the latest scientific, technical and socioeconomic information of the past 12 years. The Forest Plan has been developed to consider these factors and will make dealing with future adjustments more efficient, expedient, and environmentally sound.

### Changes From Draft to Final EIS

Differences between the draft Preferred Alternative and the final Preferred Alternative include more acres in Spotted Owl, Undeveloped Recreation, Wild and Scenic Rivers and Old Growth Management areas; more protection for water resources; more emphasis on Elk management; five rivers identified as eligible for Wild and Scenic designation; special considerations for the Metolius Conservation Area and fewer acres allocated to timber production.

Although the allowable sale quantity (ASQ) has dropped from the level in the DEIS Preferred Alternative, I have decided that a Supplement to the DEIS is not necessary for a variety of reasons.

The rationale for this decision is based on my review of the EIS data discussing the socioeconomic effects of the reduced ASQ, all of which are disclosed in the EIS Chapter 4. The rationale for not issuing a supplement is set forth below.

First, the effects were carefully analyzed utilizing the most current available data which are fully disclosed in the planning documents. Based on this information, I concluded that the reduction in the ASQ will not have a significant effect on the human environment. Further, the reduction was based on response to the public comments on the DEIS and updated information and methodologies, which came to light after the DEIS was released.

Second, I reviewed the CEQ Regulations regarding NEPA analysis. I find the changes made between the DEIS Preferred Alternative and the EIS Preferred Alternative in this Record of Decision are not substantial in terms of negative impacts on the human environment. Rather, the adverse environmental impacts are lessened and the Preferred Alternative provides for recovery from the environmental effects of past development activities. I do not project substantially different environmental impacts from the Preferred Alternative in the DEIS; the environmental impacts will occur at lower intensities, less frequently, and will be mitigated more carefully.

Third, the environmental circumstances today are not significantly different than the time of the DEIS. The areas identified in the Plan as being in an environmentally unsatisfactory condition were largely in that condition when the DEIS was issued. I do not project the Preferred Alternative will significantly change the circumstances on these lands in the near future.

Fourth, the new vegetative inventory was used in the development of the Preferred Alternative. This was done at the request and insistence of the public and the State of Oregon. The difference

in biological potential between the old and new vegetative inventory, was not significant and would not have caused a significant difference in the effects on the human environment.

As set forth in this Record of Decision and the FEIS, Chapter 4, I have given the environmental consequences of this Plan the "hard look" required by the U.S. Supreme Court and am making an informed decision. My decision not to issue a Supplement to the DEIS is based on the foregoing rationale.

## **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 general theme and objectives.
- Management area standards and guidelines.
- Monitoring program and evaluation process.
- Incorporation of specific plans for Wildernesses and the Oregon Cascades Recreation Area which are contained in appendix 4.
- Identification (location) of lands suitable and selected for timber harvesting.
- Forest-wide allowable sale quantity.

## **OTHER DECISIONS**

### **Northern Spotted Owl**

The Forest Plan and EIS 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, the April 4, 1990, recommendations of the Interagency Scientific Committee (ISC) for conservation of the species, and the decision made by the Secretary of Agriculture on June 26, 1990, in response to the listing decision.

My decision is to approve Alternative E as the management direction for the Deschutes National Forest with the understanding that: (1) it will be modified with short-term interim direction for the management of the northern spotted owl in response to the decision by the U.S. Fish and Wildlife Service (FWS) to list the owl as a threatened species effective on July 23, 1990; and (2) it must be amended or revised to reflect longer-term decisions dealing with the northern spotted owl as the result of legislation, the FWS Recovery Plan, and/or recommendations of the Inter-agency Task Force created by the Secretary of Agriculture.

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 not being inconsistent with the recommendations of the ISC.

Pending completion of the recovery plan, all activities implementing the Forest Plan will meet the requirements of the Endangered Species Act (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, including the recommendations of the Interagency Scientific Committee. 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.

## **Wild and Scenic Rivers**

This Plan establishes interim direction for management of the six rivers included in the National Wild and Scenic System in 1988. This management direction will guide management of the six rivers classified as Wild and Scenic, to protect their outstanding and remarkable values, until rivers management plans are completed in accordance with the Oregon Wild and Scenic Rivers Act of 1988. At that time this Plan will be amended to include the new rivers management direction.

The interim direction does not permit scheduled timber harvest in the river corridors. However, this activity is not precluded by law or policy in Scenic or Recreation segments. This question will be examined in the river management planning process, and completed plans may include scheduled harvest.

## **Roadless Areas**

The Plan designates non-wilderness, multiple-use allocations for those roadless areas that were reviewed under 36 CFR 219.17 and not recommended for wilderness designation under the Oregon State Wilderness Act of 1984. The roadless areas are allocated to management areas as shown in Appendix C, EIS. There will be no scheduled timber harvest in any of these roadless areas during the first decade.

## **Proposed Newberry Volcanoes National Monument**

I am directing the Forest Supervisor of the Deschutes National Forest to manage the proposed Newberry Volcanoes National Monument in a way which will protect the values which are important to its establishment. This decision will be reviewed in two years if legislation has not been enacted. For the duration of this decision the ASQ of the Deschutes National Forest will be 2 million board feet less, annually, than called for in the Forest Plan.

## **Eligible Wild And Scenic Rivers**

The Forest Supervisor of the Deschutes National Forest will manage the 5 rivers identified as eligible for consideration as Wild and Scenic Rivers in a manner which will not detract from their eligibility until the suitability studies are complete.

## **INTENDED ACTIVITIES**

I also intend to carry out certain scheduled activities. Unlike the programmatic decisions listed above, these are not accompanied by all supporting NEPA 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 activity schedules in the Forest Plan, Appendices 5, 9, 11, 12, 13, 14, 15, 16, 18, 19, and 20.

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, outputs specified in the Forest Plan are estimates and projections based on available inventory data and assumptions.

Second, most activities, many of which are interdependent, may be affected by annual budgets. The Forest Plan is implemented through various site-specific projects, such as timber sales, wildlife habitat improvements, and 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 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 will be disclosed in an environmental document and may lead to an amendment or

revision of the Forest Plan, pursuant to 40 CFR 1508.28.

## **RECOMMENDATIONS**

I also am recommending certain decisions to others with the authority to make those final decisions. Like my final decision, recommendations are accompanied by all supporting NEPA analysis and disclosure required by law and regulation. However, authority to make a final decision on

these issues is not mine. If others with higher authority accept the recommendation, the resulting final decision will not ordinarily be revisited or reassessed by the Forest Service during implementation of the Forest Plan.

My recommendations include the identification of:

- additions to the Research Natural Area System, and
- additional Special Interest Areas.

## SECTION III

# RATIONALE FOR THE DECISIONS

I approached my decisions by first examining major issues and public comments on them and then comparing the consequences of various alternatives on the issues. I present my rationale for these decisions in the same manner below.

During the period between the DEIS and EIS, Deschutes National Forest employees held numerous meetings with interested members of the public. Forest employees used the information gathered at these meetings along with written responses to the DEIS to develop the alternatives presented in the EIS.

In arriving at this decision, my staff and I were thoroughly briefed on the Plan and alternatives presented in the EIS. I gave particular attention to the responsiveness of the Preferred Alternative to the public issues and management concerns. In my judgment, Alternative E maximizes net public benefits and best responds to the issues. It balances adequate protection of the environment with production of both monetary and non-monetary resource outputs.

## RATIONALE FOR RESOLVING EACH ISSUE

How well each alternative responded to the major issues was the primary consideration in choosing the Preferred Alternative. The alternatives and their resolution of the issues are discussed below and disclosed in greater detail in the EIS, Chapters 1 and 2.

Included with the following issue discussions are the Forest's responses to the differences between the State of Oregon Proposed Alternative and the Forest's Preferred Alternative.

### **Issue: Local Economics, Lifestyles & Population Levels**

- How should the Forest consider local and regional economies, lifestyles, and population levels in managing Forest lands?

Central Oregon's economy is primarily based on its natural resources. Employment levels, community stability, the ability to attract new industries and maintain those present have been linked by some to recreation, tourism and timber supply levels. There are many small businesses being established here. People are coming to Central Oregon to enjoy a lifestyle which includes clean air, outdoor recreation opportunities, scenic beauty, and a natural appearing forest. These people are also bringing new values to Central Oregon and these values relate more to amenity than commodity resource values.

Real estate values, growth of tourism and growth of the community are significantly dependent upon the amenity values of the Deschutes National Forest. Our analyses show that the Forest cannot continue to concurrently provide the same amount of timber over time as is currently provided and meet this new demand for amenities and concurrently maintain the quality of life.

The issue, however, is not timber supply alone. Other factors, such as providing firewood, remanufacturing, log transport into and out of the area, automation, market conditions, rate of liquidation of old growth, and Ponderosa pine management affect jobs, employment levels, county receipts, and community stability. Other non-timber businesses and industries also contribute significantly to the economic well-being of the community and will also influence the future balance of Forest resource outputs.

Increases in recreation and tourism on the Deschutes National Forest will increase jobs locally. These jobs may not command as high a salary as those related to the timber industry. The importance of timber harvest levels to jobs is recognized, but decisions by industry (e.g. automation) also affect the number of jobs.

Large Ponderosa pine is valuable for sale and secondary manufacturing. It has the potential to generate the greatest number of jobs and economic returns compared to other local timber types. It also has high value as part of the scenic landscape and the recreational setting. Because of public input from both sides of the issue relating to the size and availability of Ponderosa pine, the decision is being made to grow Ponderosa pine to a larger diameter size than was envisioned in the DEIS. My decisions will provide a sustained, even-flow, of high value timber from the Forest, while maintaining, protecting, or enhancing wildlife, recreation, water quality and visual resources. In my opinion, Final Plan decisions contribute to a balance between commodity and amenity resources and can assist in local economic stability, and allow the character and recreational settings relating to rural lifestyles carried on near the Forest to be maintained over time.

Reductions in timber volumes on the Forest will have an impact on jobs in the timber industry. I am directing the Supervisor of Deschutes National Forest to monitor both new data and the economic impacts of the decisions I am making. The Forest Service will work with and through various government and business development programs to stimulate and expand economic activities in resource based communities. A great deal of this is already being accomplished through marketing strategies with local recreation and tourism agencies. Decisions contained in the Forest Plan will affect communities. The Forest Service will work with communities to address these effects within the framework of the Pacific Northwest Strategy.

#### **Issue: Timber Harvest Amount & Schedule**

- How much timber should be harvested, on what schedule, and by what methods?

There are concerns about the changing management direction on the Forest and how that will significantly reduce the amount of timber available for harvest and the corresponding impact on the local economy. Payments to counties and school districts from timber sale receipts, which are down in all alternatives, are also a concern because they are directly related to timber harvest levels.

Some of the alternatives in the DEIS were designed to produce either maximum cubic foot timber volume on available lands or maximum present net value (PNV). These alternatives resulted in harvesting stands at approximately 90 to 100 years of age and produced trees about 14 to 16 inches in diameter. Most of the public response, including that of the timber industry, was against this strategy.

Large Ponderosa pine trees are the most desired tree for lumber production and also the most desired by the public for aesthetic reasons. The high value, old growth Ponderosa pine not only produces logging and sawmill jobs but is the basis for one of the largest window and door industries in the country. The largest employer in Central Oregon is part of this industry. Because this work is more labor intensive there are far more jobs involved with old growth Ponderosa pine than with smaller Ponderosa pine or other species.

In the public response to the DEIS large Ponderosa pine were viewed as part of the unique character of Central Oregon. Small diameter second growth trees were not.

- What should be the balance between uneven-aged management and clearcutting in future harvest plans?

Public response to the DEIS was almost unanimous in opposition to clearcutting. This included the timber industry, conservation groups, and members of the general public. Reasons cited included the adverse effects it has on other resources; the waste of fast-growing, younger trees; and the destruction of advanced regeneration. The issue was posed as "clearcutting vs. selection." Clearcutting Ponderosa pine was simply not considered appropriate.

All publics wanted "selection" harvests, but for different reasons; the wood products industry for secondary manufacturing of quality wood products; the tourism and recreation industry for visual and aesthetic qualities. Because of numerous requests for an emphasis on "selection" or uneven-aged management, this issue was added to the list of issues. The advantages of moving in the direction of uneven-aged management are weighed against costs in Chapters 2 and 4 of the EIS.

There are some limitations on the amount of uneven-aged management which can be applied to the Ponderosa pine and mixed conifer stands. For example, dwarf mistletoe is a tree disease, and large old trees that are infected spread the disease to young trees below them. Also, on steep slopes, mixed conifer stands are easily damaged by selection harvest methods and the trees then become infected with rot which can destroy the lumber value of the tree.

- Should the Forest Depart from long-run sustained yield (LRSY) in it's planned harvest schedule?

This subissue stems from the Draft Plan (Alternative E-Departure) proposal for an ASQ that decreases from the first decade to the fifth decade. The intent of the departure was to liquidate the beetle infested lodgepole pine and convert the susceptible stands to thrifty less susceptible stands. The planned harvest level would then have declined over time.

In responding to the DEIS neither timber industry or conservationists liked the idea of departure. Industry said they needed a dependable supply of timber and the conservationists said departure was a euphemism for rapid liquidation of old growth. The public, for the most part, asked for a "sustained yield" which they seem to equate with nondeclining even-flow. Some felt we were remiss in proposing anything but sustained yield (nondeclining even-flow).

The State of Oregon, in their response to the Forest Plan, also suggested a departure for Ponderosa pine harvest with a sale level of 50 MMBF per year at the beginning of the decade and declining to 35 MMBF per year by the end of the decade and continuing at that level into the future. The Forest had projected approximately 46 MMBF per year as a decade average. The State also suggested that fluctuations in Ponderosa pine harvest levels be smoothed out to avoid sharp fluctuations between future decades.

Both of the above issues relate to how the ASQ is calculated. Basically the ASQ is calculated for the Forest as a whole and there is no ASQ for individual species. The Forest tries to balance the annual

sale program between various species groups, size classes, geographic distribution, green volume and dead volume. Therefore, in implementation, the actual amount of Ponderosa may be above 50 MMBF per year in some years and below it in others depending on which sales are offered. It is impossible, however, to bring all these items into an exact balance every year. However, for the first decade the Forest will attempt to offer approximately 46 MMBF of Ponderosa pine per year, as projected by the Plan, which exceeds the State's recommendation.

The concern over fluctuations of Ponderosa pine in future decades is something that can be adjusted in future planning efforts and it will not be significantly affected by first decade harvest levels.

### Summary of Timber Issue

Uneven-aged management:

Uneven-aged management will be the preferred silvicultural method in Ponderosa pine stands. An estimated 70% of the stands will be managed with this method. Uneven-aged management will be practiced where possible in the mixed conifer stands with an estimated 30% of these stands managed with this method.

Allowable Sale Quantity:

The allowable sale quantity (ASQ) is simply a calculation of the Forest's ability to produce wood based on the acres available for wood production and the constraints placed on those acres. The Forest Plan has fewer acres available for timber production than the Draft Plan and there are more constraints, such as uneven-aged management and a larger target tree size, placed on those acres. The net result is an ASQ of 99.3 MMBF (19.9 MMCF) which is approximately 25% less than over the past five year average. ASQ will be monitored and controlled on the basis of cubic-foot measure for the Forest Plan. Board-foot volume associated with the cubic-foot volume (i.e. board foot/cubic foot conversion ratio) varies from stand to stand depending on the size and form of the trees. Both board-foot and cubic-foot measure are displayed here, since board-foot has been and continues to be the customary unit of measure.

## Departure:

There is no departure in the Forest Plan. However, the salvage of dead lodgepole pine will continue for the next few years and this volume will be in addition to the Forest's ASQ.

## Bend Ranger District - New Forestry Applications:

The State has raised a concern that the even-aged silvicultural systems on the Bend District will not be sufficient as described in the Plan to meet increasing demands for dispersed recreation, scenic values, biological diversity and wildlife. They propose that the Bend District be a demonstration unit for testing and application of a variety of new concepts and practices where even-aged management is undertaken. They visualize this demonstration unit being a model for New Forestry on eastside Forests.

I accept this proposal. Our management practices have touched on various aspects attributed to New Forestry such as snag and woody debris retention following timber harvest, and designing the size and shape of harvest units to promote visual quality. Proposals to apply established forest practices along with new and untested practices, with the goal of achieving an ecosystem approach to forest management for this area of the Forest will be sought out and welcomed.

## Issue: Management of Mountain Pine Beetle Infested Stands

- How should the Deschutes, Winema, and Fremont National Forests manage the lodgepole pine stands which are infested with mountain pine beetles and stands which are susceptible to infestations?

Since the Draft Environmental Impact Statement was made available to the public this issue has been resolved biologically. Ninety percent of the lodgepole pine stands that were susceptible to mountain pine beetle mortality are already dead. Salvage of dead lodgepole is necessary to reduce fire hazard. Salvage has been accomplished while leaving appropriate numbers of snags for wildlife species dependent on them.

The mountain pine beetle infestation was one of the principal reasons for proposing a departure in the DEIS. Resolution of this issue was dictated by the biology of the mountain pine beetle. The management of mountain pine beetle infested stands and a departure from non-declining even flow are no longer issues.

## Issue: Fuelwood Supply

- How should the Forest Plan meet future demands for use of wood as an energy source?

Nearly 60 percent of Central Oregon dwellings use woodstoves for heating. An estimated 40,000 cords of firewood were consumed for personal use in 1985, and commercial fuelwood operators collected another 10,000. The 50,000 cords would fill 4,100 logging trucks.

The projected demand for fuelwood displayed in the DEIS was 60,000 cords. Demand has leveled off at 40,000 cords and is not expected to increase dramatically in the future. Some reasons for this are; technology in wood burning stoves has changed to include pellet stoves and all other stoves which are significantly more efficient, the public is more aware of the air pollution problems caused by burning wood and they are not burning on poor air quality days.

Most of this fuelwood is lodgepole pine. Given current consumption of firewood, regular timber sales, and the mountain pine beetle epidemic, easily accessible fuelwood may be gone by the late 1990s. In addressing this issue, it was assumed that demand will remain at about the current level and that firewood cutters will be willing to substitute other tree species for lodgepole.

The management of fuelwood has implications for wildlife. In addition to the question of big game hiding cover, firewood collection can also jeopardize dead trees providing habitat for cavity nesting species.

Firewood will be provided to meet demand for the foreseeable future. This demand will be met while still providing snags and down woody material for wildlife species. Firewood permits will continue to be a part of the management program. Firewood



cutting will not be allowed in dedicated old growth areas, as it defeats the purpose for which these areas were established.

### **Issue: Developed Recreation**

- How should the Forest provide for present and future developed recreation?

There are many types of recreation which require established sites or facilities. Developed sites on this Forest range from the Mt. Bachelor Ski Area to small isolated picnic grounds. The demand for sites to accommodate camping, boating, and other outdoor activities continues to grow. A large number of destination resorts are located adjacent to the Deschutes National Forest and attract many people to the Forest.

Addressing this issue involves deciding which portions of the Forest should be developed for recreation and how large they should be.

Many recreationists are drawn to lakes, rivers, and streams, where developments can result in a reduction in water quality and a reduction in the quality of riparian vegetation. Bald eagles and osprey are often drawn to these areas and conflicts can occur. Recreational facilities can also reduce visual quality. Appropriately designed and managed development, however, permits enjoyment of these sites by many more people.

This issue is strongly related to both the lifestyle and the economy of Central Oregon. The economic implications are complex. Tourism is a mainstay of the local economy, but so is the timber products industry, which can be affected by the amount of land allocated to developed recreation.

The Deschutes National Forest is famous for its open park-like stands of large Ponderosa pine. That appearance will be retained by limiting tree removal in key areas. This includes the foreground along all State and most County highways as well as many Forest Service roads, especially those leading to major trailheads. Most major buttes and recreation areas are also included.

Mt. Bachelor will continue to grow as an international destination for both alpine and nordic skiing. Recreationists will have more to do on the mountain,

which will become a year round resort. The construction of additional regional or destination alpine areas will not be permitted, within the Forest, until development of Mt. Bachelor is near the capacity as indicated in the Master Plan. Nordic and local alpine areas, however, may be added elsewhere on the Forest to meet increasing demand.

Developed recreation sites will continue to increase in popularity. New campgrounds may be built and existing sites expanded to meet this demand but the emphasis will be on rehabilitating and extensively maintaining existing sites (see Plan, Appendix 20).

The private sector will continue to operate some existing campgrounds and will construct new ones. Some existing resorts operating under special-use permits will contribute new camping facilities.

The number of resorts that provide overnight accommodations will not increase, with the possible exception of Skyliner Lodge and a nordic hut system between Mt. Bachelor and the Hoodoo Ski Area. Compatibility between the forest environment and the various types of recreation will be maintained.

Day use facilities such as boat ramps, picnic areas, and interpretive sites will be more numerous. The kinds of facilities will change over time to reflect changes in the popularity of different kinds of recreation and equipment.

The State proposes putting the Intensive Recreation and Winter Recreation Management Areas back in the timber base to assure that critical forest health problems are aggressively treated. These timber stands typically contain severe infestations of dwarf mistletoe, root rot and other health problems which, if left untreated, diminish the recreation value of these lands and add to forest fire potential through accumulation of slash.

I concur that vegetative treatments will be applied, but they should be done on an unscheduled basis as conditions dictate. Treatments are needed to stop the spread of these pest problems, improve the resistance of the timber stands, and rehabilitate areas which have already been affected. The opportunities for achieving these objectives will

be assessed annually while developing programs for the coming year. Although the Intensive Recreation and Winter Recreation areas will not be in the base for programmed timber harvest, they will periodically contribute to the volume of timber sold.

The State proposed that the Metolius Heritage Area be managed as an intensive recreation area with the exception that the area not be included in the land base for timber production.

I agree that there is a need to better manage recreation use and to rehabilitate damage in and adjacent to recreation sites along the Metolius River. However, I disagree that intensive recreation is the best use of the Metolius Heritage Area and the scenic views area along Forest Road 1292. The Forest has worked personally with groups and reviewed comments. I believe that the Plan provides for best maintaining the scenic character, social setting, and minimizes resource damage through a focus on dispersed recreation desired by the public.

#### **Issue: Dispersed Recreation**

- How can the Forest keep pace with expanding demands for dispersed recreation?

Hiking, walking, bicycling, rafting, fishing, snowmobiling, sailing, hunting, driving for pleasure, caving, and mountain climbing are all popular dispersed recreational activities.

Some dispersed recreation occurs almost exclusively in Wildernesses. Cross country skiers and snowmobilers often use the same areas and conflicts occur. Addressing this issue involves accommodating the full range of dispersed recreation while minimizing conflict.

Dispersed recreation away from roads, campgrounds, and other facilities, is called undeveloped. It occurs primarily in Wildernesses, the Oregon Cascades Recreation Area and roadless areas.

More people will visit the five Wildernesses on the Forest and the Oregon Cascade Recreation Area (OCRA). Management plans which includes standards and guidelines for these areas are summarized in Appendix 4.

More visitors will participate in activities which are not associated with developed sites. Activities which disperse recreation throughout the Forest include nordic skiing, river rafting, mountain bicycling, and off-highway vehicle use. These sports will be accommodated by additional trails and trailhead facilities.

There will be more winter trails, trailhead facilities such as snow parks and shelters for snowmobilers. The Forest may also offer additional opportunities for all-terrain vehicles and motorcycles.

The Forest Plan expanded the amount of dispersed recreation area available east of Maiden Peak but decreases this emphasis in the Metolius Wildlife/Primitive Management Area. The amount of Winter Recreation available was also expanded. The addition of the Wild & Scenic Rivers corridors also provides additional opportunities for dispersed recreation. General Forest, Scenic Views, Old Growth and Metolius Old Growth Management Areas will also provide dispersed recreation opportunities as a secondary benefit. The Plan provides the best mix of recreation opportunities while resolving Metolius Conservation Area issues.

An expanded trail system will be provided to offer opportunities for mountain bikes and hiking around campgrounds and resorts. Alternatives to Wilderness trail use will be a high priority. Opportunities will be provided for off-road vehicles where other resource values will allow.

No new Outfitter-Guide permits will be issued until additional needs are clearly identified and resources are analyzed to establish capabilities to accommodate additional use.

The State proposes inventorying dispersed recreation sites so they can be more actively managed.

My direction is that dispersed recreation sites will be inventoried as the Forest implements the Plan. The inventory will be compiled as Integrated Resource Analyses (IRA's) and project analyses are completed.

The State recommends that more specific standards and guidelines for ORV management should be included in the Plan. Further, the State recommends that the Forest should have a Forest Travel Plan which should be enforced.

I have directed that standards and guidelines in the Forest Plan be included for management areas which allow ORV use. Project specific analysis (NEPA process) will be completed for any new ORV trails or facilities. The Forest is also in the process of completing a detailed Forest Travel Plan which should be completed early in this planning period. The results of this travel management planning may be used to amend the Forest Plan at a later date.

The State indicates that the miles of trail to be constructed/reconstructed annually is extremely low considering the demands for future hiking, nature study, etc. The State also expresses concern for the Metolius-Windigo Trail and the damage done to it by logging.

Trail mileage listed in figure 2-50 (page 2-92) of the EIS shows that 5 miles are to be constructed or reconstructed annually. This is in error and should be 55 miles to be constructed or reconstructed annually. The Forest Plan correctly shows 55 miles.

The Forest and Sisters Ranger District completed an Environmental Assessment for relocating and for the future management of the Metolius-Windigo Trail in 1990. When completed this relocation will place the trail in areas that are unlikely to be included in future timber harvest and also in areas more attractive for trail travel.

The State proposed motorized activity be completely restricted from the primitive dispersed recreation area and seasonally restricted from the winter recreation areas as well.

My observation is that many primitive dispersed recreation areas are currently used by motorized users with little or no conflict with other users or resource values. The Forest has worked for years to establish the existing pattern of use of this travel system, which is the largest in the State. Where conflict has occurred we have worked out compromise solutions where both parties are accommodated and we plan to continue this approach.

#### **Issue: Scenic Beauty**

- How can the Forest maintain scenic beauty while providing for timber production and other goods and services?

Public comments indicated a great deal of interest in scenic quality and focused on such issues as:

- Expanding visual allocations beyond what is designated currently;
- Protection of sensitive viewsheds;
- Changes in vegetative management practices within visually significant areas;
- Maintaining a continuous forest canopy; and
- "Big Ole Trees".

Some people felt that scenic corridors were just another means of reducing the timber base. The State of Oregon expressed strong concern that the visual character of the Forest should be maintained over time.

The overall tone was that visual resources were important to lifestyles and recreation experiences and would affect the value of real estate.

The total number of acres in the Forest that would remain in a "natural" (Retention) or "slightly altered" (Partial Retention) appearance have been increased from the No Action Alternative by approximately 19% and have been increased from the DEIS by 4%.

While the actual number of acres within the Scenic Views Management Area appears to be lower, the total number of acres that would be managed to provide high quality Forest landscapes is significantly increased. This is because several other management areas such as Wild & Scenic Rivers and the management areas within the Metolius Conservation Area contain standards and guidelines that would provide long-term, high quality scenery, while the No Action Alternative would have permitted Modification or Maximum Modification of the scenic resource.

A new management area called "Front Country" was created to more sensitively manage the areas between Bend and Sisters along Highway 20 to the wilderness and Cascade mountain crest with more emphasis toward aesthetic values.

The application of a 24 inch target tree size in General Forest and uneven-aged management are also ways of protecting scenic values.

The predominant character of the Forest is open Ponderosa pine interspersed with parklike openings. On north slopes dense stands of mixed conifers occur. The large pine and dense forest which give the Forest its characteristic setting are also commercially valuable.

It is my intent to maintain the Forest setting and visual character of the Deschutes National Forest to the extent practical over time. The visual settings where people recreate and visit are important to the impressions and experiences they gain. Primary roads and highways and the Cascade Loop Scenic Byway are areas of the National Forest with the greatest amount of public use. The intent in these places is to identify particularly sensitive and visually important areas where forest management will be modified to meet visual management objectives. Management Area allocations with assigned visual objectives emphasize my commitment to forest management in a manner that protects and retains visual character and diversity over time on the Deschutes National Forest.

The State brought to my attention the fact that the west slope of Cultus Mountain is located in the Scenic Views Management Area with a visual quality objective of middleground partial retention. It is completely surrounded by management areas which do not contribute to the ASQ and the area is also proposed for inclusion in a spotted owl HCA. I concur with the State's recommendation that this area not be included in the calculation of ASQ. It is extremely likely to be included as owl habitat based on the Interagency Scientific Committee report on the spotted owl. When the Plan is amended to include further direction regarding the spotted owl, this allocation should be placed in a management area with no scheduled timber harvest.

The State suggests the need for additional scenic protection for roads listed in Table 9 of the State's Proposed Alternative.

The roads listed in Table 9 and the proposed Visual Quality Objective have been checked against the latest Forest Plan land allocations. In the majority of cases the States recommendation

matched the management proposed in the Preferred Alternative. In most cases where the match did not occur the State has recommended retention and partial retention foreground in stands of lodgepole pine that have been severely damaged by mountain pine beetle. I feel that it would be impossible to manage these stands in their current condition for retention or partial retention. I agree that the long-term visual objective should be retention or partial retention where these roads pass through lodgepole pine. However, in this planning period, an interim objective of modification may be used because of the priority to effectively treat mountain pine beetle affected stands.

In most cases where I did not comply with the State's recommendations, the land allocation was General Forest or Deer Habitat. Standards and guidelines specify that activities will meet Modification or a higher VQO. Development activities or habitat improvement projects will be blended with the surrounding vegetation and will appear natural adjacent to roads.

Also, the State proposes protecting trails with a visual corridor similar to that provided for roads. Trails to be protected are listed in Table 10 of the State's Proposed Alternative which includes:

Trail #	Name or Description	Ranger District(s)
61	Swamp Wells	Fort Rock
61A	Boyd Cave	Fort Rock
61.1	Boyd Cave	Fort Rock
62	Coyote Loop	Fort Rock
63	Arnold	Fort Rock
41	Flagline	Bend
99	Metolius-Windigo	Sisters, Bend, Crescent
15A	South of Cultus Lake	Bend
31	Edison Ice Cave	Bend
70	Green Lakes	Sisters
71	D-5	Sisters
69	End of Road	Sisters

After further discussion with the State, it was agreed that where the relocation measures cannot be applied effectively, a corridor 1/8th mile on either side of the above trails will be protected.

In response to comment on the Draft Plan the Forest looked very hard at opportunities to provide other trails, especially those in allocations where timber production was a primary objective, with greater scenic protection.

Although there was strong agreement that additional protection was needed it was felt that designating a visual corridor wasn't always practical. A visual corridor along a trail would be extremely wide in some areas where the terrain is open and viewing times are very long. This would reduce harvest levels in those areas. In other areas the visual corridor would be so narrow it couldn't be mapped.

A more practical solution is to look for opportunities to relocate existing trails using funds from timber sales or KV. An EA has been completed for the Metolius-Windigo Trail to do this on the Sisters and Bend Ranger Districts.

Also additional S&G's were added to emphasize maintaining visual quality, to require relocation where possible, to maintain trail markers and to require concurrent slash cleanup where logging conflicts can't be avoided. Draft Plan comments suggested that the public viewed slash that obscured the trail or made it impassible as a bigger problem than the visual impacts of the harvest itself.

In fact, timber sale roads and skid trails are increasingly being converted into trails for OHV's, nordic skiing, snowmobiling, and mountain biking.

Trails listed by the State that are associated with caves will get special consideration in further planning required by the 1988 Federal Cave Resources Protection Act.

The State proposes a VQO of retention middle-ground for Black Butte, except on the north side which should be partial retention foreground, and Little Walker Mountain.

The desired visual condition for the Black Butte Scenic allocation is partial retention where the removal of white fir under Ponderosa pine overstories is a high priority. The majority of the area is retention middle-ground. S&G's for the area emphasize maintaining a natural appearance. The area seen from Forest Roads 11, 12, 14 and Highway 20 will be managed as retention fore-

ground. The area will be managed to maintain a continuous closed canopy.

Most of Little Walker Mountain is in the General Forest Allocation, however, the seen area facing Highways 97 and 58 is within the scenic views allocation. Additional acreage will be added to the scenic views allocation in partial retention. To manage this as retention would require deleting it from the timber base.

The State proposes partial retention middle-ground for the Sisters Front Country, Little Odell Butte, McCool Butte, other buttes and middle-ground seen from FS roads 46, 42, 4220.

The Sisters Front Country will be managed for partial retention from seen areas. Little Odell and McCool Buttes are in General Forest. Middle-ground seen from Forest Service Roads 46, 42, and 4220 on the Bend District will be managed with New Forestry principles.

Other buttes were too numerous on the Forest to put them all into a special scenic designation without dramatic ASQ falldown. Many of the most visually sensitive, however, have their seen areas included in the Scenic Views allocation. This will provide the partial retention middle-ground protection the State seeks.

The State proposed that the area of little merchantable timber and high recreation value along the Waldo Lake Road (5897) should be taken out of the visual allocation.

I agree, the area will be removed from the timber base and managed under an undeveloped recreation allocation.

#### **Issue: Roadless Area Management**

- How should the Forest allocate and manage roadless areas?

Prior to 1984 the Forest had 15 RARE II areas with a total of 254,450 acres. The Oregon Wilderness act of 1984 designated about 100,000 acres to Wilderness or Oregon Cascades Recreation Area status. Another 9000 acres were developed in some fashion to lose their roadless status. The

EIS lists the remaining 145,142 acres in 11 Roadless areas.

The economic input constraints for the timber computer run in the FORPLAN model yielded output data that showed that it was more economical to harvest timber in other than the Roadless areas in the first decade. Current Forest direction does not plan for harvesting in any of the Roadless areas in the first decade. Acres predicted to remain in roadless status at the end of the second and fifth decades respectively are about 145,000 and 138,000, however approximately 100,000 acres may be developed eventually. Without these acres LTSY would be somewhat less.

The areas on the Forest which are still in a roadless condition generally have not been developed because they contain low value timber or other commodities. Further, rough ground and natural obstacles have made construction of roads into these areas economically impractical to date for the use of these commodities.

Two activities that could place a demand on roadless areas are geothermal exploration and firewood cutting. Both activities would require environmental analysis on a project basis. Potential for geothermal energy is high in the Bear Wallows, West-South Bachelor and the North and South Paulina Roadless areas and there could be some exploration drilling in the first decade.

#### **Issue: Cultural Resource Management & Protection**

- How should the Forest identify and protect its cultural resources?

The Forest's cultural resource inventory program has located and recorded more than 1,000 sites, most of which are prehistoric Indian campsites. Each year, more than 50 sites are added to this inventory. Records indicate that approximately 200 sites have been damaged or destroyed by illegal excavators. Significant sites are either protected from project impacts or the data is scientifically recovered prior to those impacts. Increasingly, interpretive efforts center on cultural prehistoric and historic sites.

Forest visitors as well as residents of Central Oregon have expressed strong interest in the area's human past. The volcanic landscape and evidence that humans were here immediately following the last ice age, almost 13,000 years ago, have attracted considerable attention. This creates opportunities for increased interpretive facilities to enhance recreation experiences and for further research into the prehistory of Central Oregon. It also attracts those interested in the resource for its commercial value, thus artifact theft is a constant and serious concern.

Protection of the resource is an issue because this record of human history is vulnerable and non-renewable. Much has already been destroyed and the loss cannot be permitted to continue.

Cultural resources will be protected through law enforcement efforts and the application of standards and guidelines which apply to all management activities with the potential to disturb sites. The standards and guidelines implement the National Historic Preservation Act and Executive Order 11593 and insure that all ground-disturbing activities will include a professional inventory for cultural resources, evaluation of sites located, and mitigation of effects of management activities on any significant cultural resource.

The greater harvest and road construction levels and more intensive management of developed recreation sites would increase both the potential for locating sites and for inadvertently disturbing sites during management activities. Knowledge of the archaeological resource is also proportional to the amount of developmental activity and therefore the amount of data recovery and interpolation which will be done.

#### **Issue: Threatened, Endangered, or Sensitive Species**

- How should the Forests manage habitat for threatened, endangered, or sensitive species?

Eleven plant species classified by the Regional Forester as sensitive are known to exist on the Forest. The presence of eight others is possible. The Forest has established new positions in plant

ecology on the Forest to provide expertise in conducting plant surveys.

Twenty-four pairs of bald eagles, which are listed by the USDI Fish and Wildlife Service as a threatened species in Oregon, have been found on this Forest. The habitat could potentially support 45 pairs. Nesting and feeding areas are important habitat for eagles.

The Forest is also occupied by at least 18 pairs of spotted owls, listed as threatened by the USDI Fish and Wildlife Service. Addressing this issue involves determining how many acres of old growth must be provided as habitat for eagles and owls.

The peregrine falcon, listed as an endangered species by USDI Fish and Wildlife Service, has been sighted on the Forest but no recent nesting sites have been found. Standards and guidelines have been developed for management of peregrine falcons in the event of new sightings.

Habitat for sensitive animal species will be provided to prevent future listings as Threatened or Endangered. This habitat is provided through the establishment of management areas and standards and guidelines.

The Forest Plan, Chapter 4 provides direction consistent with the Endangered Species Act and Recovery Plans for listed species. Management activities will protect habitat values for Threatened and Endangered species.

An important development occurred after the DEIS was filed. A Supplemental Impact Statement to the Pacific Northwest Regional Guide, EIS, identifying Spotted Owl Guidelines, was filed by the Forest Service. The analysis in the Supplemental Impact Statement 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 Deschutes National Forest.

I decided to adopt a spotted owl habitat network that implements the direction provided in the Supplemental Impact Statement for Spotted Owl Guidelines. The spotted owl network consists of dedicated SOHAs, suitable habitat in wilderness, and other suitable habitat in management areas

not allowing scheduled timber harvest. The Preferred Alternative will maintain 14 areas amounting to about 17,400 acres. This network is well distributed taking into account both suitable spotted owl habitat and location of known spotted owls.

#### **Issue: Wildlife Populations**

- What should wildlife populations be?

The public, Forest managers, and the Oregon Department of Fish and Wildlife are concerned about the population of certain wildlife species. They include mule deer, which currently number approximately 25,000 on winter range, elk approximately 1,000, and osprey approximately 125 pairs. Other species of concern are the goshawk, pine marten, and woodpeckers.

The issue is addressed by placing different emphasis on maintaining or improving required habitat. Measures taken to improve habitat affect timber management and can result in a reduction in potential timber production. Viewing of wildlife is an important element in Forest recreation but wildlife protection can restrict recreational activities in some areas.

Deer management in the Forest Plan achieves Oregon Dept. of Fish & Wildlife population objectives and includes 208,900 acres in a Deer Habitat Management Area. It also includes general standards and guidelines developed cooperatively with ODFW.

The State of Oregon Proposed Alternative recommends that thermal cover on deer winter range be defined by forest stands of at least 70% crown cover. The Forest has recently re-defined deer winter range thermal cover as stands of at least 40% crown cover to reflect the relatively low site-productivity for tree-growth common on Central Oregon winter ranges. Low site potential naturally limits the capability of these forest stands to produce 70% crown cover.

The State Alternative also recommends an average road density of no more than 1.5 miles per square mile on deer or elk summer range, and no more than 1.0 miles per square mile on deer or elk winter range. The Plan proposes; (1) an average

road density of no more than 2.5 miles per square mile for deer summer range, (2) an average of between 0.5 - 1.5 miles per square mile within Key Elk Habitat Areas, and (3) an average of between 1.0 - 2.5 miles per square mile in the Deer Habitat Management Area. I recognize that State recommendations will not be fully implemented, but big game habitat effectiveness can be partially maintained with retention of cover in key areas, and limited human use of open roads.

Elk management practices in the Forest Plan have been developed since the DEIS. The Deschutes National Forest and ODFW have cooperated in trapping and radio collaring elk in each of the herds on the Forest. A good deal more information and data is known now about elk habits and travel patterns. As a result 11 key elk habitat areas encompassing about 49,500 acres have been identified, mapped, and will be managed in the Final Plan. General S&Gs were developed cooperatively with ODFW and other resource representatives.

Snags will be provided to meet 40% of maximum potential populations (MPP) in areas where even-aged management is practiced, 60% of MPP where uneven-aged management is applied, and natural levels assumed to be 80-100% in areas such as Wilderness, Oregon Cascades Recreation Area, Old Growth and Spotted Owl Management Areas. In my judgment, the varied objectives from 40-100% as shown by management area will assure adequate snag habitat occurring across the Forest at any one time.

Standards and guidelines and/or management areas have been established for such species as osprey, blue heron and species of raptors.

Old growth dependent species will find habitat in Old Growth and Spotted Owl Management Areas. The amount of acres in Old Growth Management areas has been significantly increased since the DEIS. A network of old growth stands has been established to provide for a distribution throughout the Forest and acreages have been increased above the minimum requirements.

**Issue: Old Growth**

- What level of old growth should the Forest manage for?

Old growth is important to many people for reasons including concern about wildlife, the Forests gene pool, scenic quality, and commercial values. They stress the intrinsic value of large old trees, as well as the need to protect future timber management options. In addition to the amount of old growth, this issue deals with its distribution.

Many public comments revolved around the issue of use vs. protection of old growth forests. There is no public consensus on what should be done. To complicate matters, our publics identify with big, yellow-bark Ponderosa pine trees and stands which *do not* meet classic old growth definitions.

Currently there are 348,100 acres of old growth of various vegetative types which do meet the Region 6 definition of old growth.

Some old growth is retained to provide habitat for spotted owls and the bald eagle. It will also be retained in undeveloped recreation where natural processes will predominate. The preservation of old growth will reduce timber production.

An Old Growth Management Area containing 32,800 acres has been established to meet some of the specific management needs of wildlife species. What is more challenging is meeting the public's need for "Big Ole Trees" which are 30 inches and larger. In addition old growth will be retained in other management areas which are not programmed for timber harvest. The amount of these acres is listed below.

**ACRES OF OLD GROWTH  
(meets R-6 definition)  
BY MANAGEMENT CATEGORY**

Management Category	Acres
Management areas with no programmed timber harvest	221,000
Management Areas with programmed harvest as a secondary priority	59,000



Management Areas with programmed harvest as a high priority	68,000
Total Old Growth Today	348,100
Old Growth projected as remaining after 5 decades	270,200

The 348,100 acres of existing old growth equals about 21% of the Forest. Of the 348,100 acres about 14% (50,200 acres) are Ponderosa pine, about 19% (64,400) acres are lodgepole pine, about 42% (146,000) are mixed conifer, about 23% (79,600 acres) are mtn. hemlock and about 2% (7900 acres) are unsuitable and not classified by working group.

The existing old growth will be reduced by an estimated 6% to 326,400 acres at the end of the first decade and by an estimated 13% to 304,400 acres at the end of the second decade.

**Acres of Big Trees (that do not meet R-6 definition)**

In response to our publics in Central Oregon, an additional category of old growth has been adopted in the Forest Plan - Big Trees. These stands are typically big-tree Ponderosa pine which are dominated by yellow-bark trees and which are very scenic, but do not have multi-layered canopies, dead snags and downed woody material. Our public has nonetheless developed strong feelings that they are old growth. Accordingly, we have identified these areas and will perpetuate Big Tree stands on about 50,000 acres.

This is not an additional "set aside" for old growth. "Big Tree Old Growth" recognizes what already exists in many management areas throughout the Forest. It is not a "no touch" designation. It will be managed in accord with the standards and guidelines of the management area in which it is found.

The State proposes that a large portion of the Highway 20 corridor, including portions of Black Butte, be allocated as old growth habitat. Salvage logging should be excluded from these areas.

My feelings are that, with the exception of Lower Butte and Glaze Old Growth Areas, all the old

growth proposed is within highly sensitive areas either viewed by or traveled through by the public. The primary concern is the perpetuation of a forested canopy, when viewed from a distance, and also perpetuation of a healthy mature and overmature large tree forest of preferably Ponderosa pine when viewed from a short distance. To protect the health and safety of travelers along these major travel routes and meet the desired visual and social objectives will require some vegetative treatment not allowed in an old growth allocation. Therefore, I am retaining the Forest's allocation in the Plan.

The State also proposed establishment of two old growth groves near the headwaters of Six Creek and Spring Creek.

The State and I are in agreement with the general location of old growth areas in the Six Creek drainage. When detailed implementation map boundaries are drawn, agreement can be reached on the exact boundaries of the Six Creek Old Growth Area. I believe we should protect the excellent example of sugar pine old growth existing in the headwaters of Spring Creek, as the State recommends.

**Issue: Geothermal Leasing & Development**

- What areas on the Forest should be made available for geothermal leasing and development?

The Forest is thought to contain some of the highest potential for geothermal development of any area in the Western United States. Approximately 350,000 acres have already been leased.

Portions of Newberry Volcano are designated as a Known Geothermal Resource Area (KGRA). Hot fluids have been located near the surface within the Crater. The Volcano is also a National Natural Landmark and an important recreation area, with two large lakes known for quality fishing. Campgrounds and resorts are located adjacent to the lakes and the area is also a popular winter sports area for snowmobiles and cross country skiing.

There is an active bald eagle nesting territory within the Crater. There are also a number of

unique geological features in the Crater, including world famous obsidian flows.

In response to the public concerns for Newberry Crater, the area inside the Caldera rim will not be open to geothermal leasing.

Other portions of the Forest which have not been leased may have geothermal potential. Addressing this issue involves determining where and under what conditions leases should be issued and how recreational, visual, wildlife, water quality, and other resource values are to be protected.

Geothermal development is also related to the roadless area issue because some land with high geothermal potential is located in portions of the Forest without roads.

The Forest Plan makes large amounts of land available for geothermal leasing that are in the high and moderate potential categories. Seventy (70) megawatts of developed geothermal energy will return revenues to the counties totaling dollars equal to our entire timber program.

The issues relating to geothermal in and around the proposed Newberry Volcano National Monument may be resolved through the legislative process to establish a National Monument which the Governor of Oregon is supporting. If a monument is not established, the KGRA will only be leased after a site-specific environmental analysis has been conducted.

#### **Issue: Pest Management**

- How should the Forest protect vegetation from damage by forest pests?

Pesticides currently used on the Forest include big game repellent and strychnine alkaloid. Deer repellent is made of eggs and is used to protect newly planted trees on approximately 5,000 acres annually. Strychnine is applied underground on a similar number of acres where gophers would inflict heavy damage to new trees.

Insecticides have not been used on the Forest in recent years, including the recent mountain pine beetle epidemic. Spruce budworms exist on and around the Forest and pose a future threat.

Addressing the issue involves determining the environmental appropriateness and economic efficiency of various methods of controlling Forest pests.

The risk of incurring damage from some forest pests is higher with the Preferred Alternative because of the emphasis on uneven-aged management. The Forest has accepted this increased risk because of the perceived benefits associated with uneven-aged management. Steps have been taken to minimize the increased risk as much as possible through standards and guidelines which promote appropriate silvicultural systems where the potential for pest problems is high. Specific silvicultural guidelines have also been developed to avoid or mitigate pest problems in areas where uneven-aged management is to be practiced. Pest specialists are available to assist in dealing with potential or existing pest problems.

#### **Issue: Protection of Lakes, Streams, And Wetlands**

- How should the Forest manage its lakes, streams, and wetlands to prevent degradation?

Surface water quality has been monitored for the past ten years and found to be high. This issue was included because of the great importance of water quality for recreation.

Guidelines and management policies for activities along streamsides and lakes have prevented significant damage and riparian areas are in good condition. Some streams have small, localized instability problems.

Addressing this issue will involve remedial measures in these areas and maintaining water quality elsewhere on the Forest.

Water quality was not perceived to be a problem in the DEIS. Public response to the DEIS was insistent that we provide specific direction to management of these special areas. In response standards and guidelines have been developed for management of Riparian areas and fish habitat. These standards and guidelines provide protection for wetlands, riparian areas and fish habitat and call for:

- Featuring riparian dependent species,
- Restrictions on timber harvest,
- Standards for range utilization,
- Restrictions on recreation, and
- Enhancement of fish habitat.

Best Management Practices have been adopted and are included in Appendix H of the EIS. A water quality monitoring network has been established and will continue.

The State of Oregon Proposed Alternative recommends that land management planning, monitoring, and reporting be organized on the basis of watersheds. The Forest planned and analyzed through modeling, on the basis of implementation areas, which may not align with watershed boundaries that are subjectively defined on flat terrain. Project-level analyses performed by Forest hydrologists are always conducted using watershed boundaries, as best defined.

Past monitoring has shown no known or observable cumulative effects, therefore no dispersion constraints for watershed protection were specifically defined. Should continued monitoring indicate the onset of unacceptable change, dispersion will be reconsidered.

At the request of the Governors Planning Committee some of the standards and guidelines for riparian areas were rewritten to be more specific.

Approximately 18,800 acres of the Forest are considered the riparian influence zone. Riparian areas receive a disproportionate amount of recreation and grazing use. Our most productive timber sites also occur along stream bottoms. Public attention for riparian area management and condition is increasing. Application of standards and guidelines, displayed in the Forest Plan, Chapter 4 will help to ensure soil, water, and air quality are protected during project implementation. Riparian area management will emphasize maintaining or enhancing riparian areas. The riparian areas are not considered in the timber base for calculating the ASQ. While some livestock and recreation use will be permitted in riparian areas, ecosystem values will be emphasized.

During implementation of the Forest Plan, further analysis which may identify watershed concerns will be addressed on a subbasin basis. Riparian area prescriptions shall be developed which will guide timber and range management activities within these zones. The prescriptions shall develop measurable standards for riparian area conditions that assure maintenance for improvement of riparian dependent resources. Standards include, but are not limited to: shading, large woody material concentrations in floodplains and streams, stream-bank and channel conditions, snag density, and diversity within the ecosystem.

The quality of water on the Deschutes National Forest is high and the decisions I've outlined above will maintain that quality while providing correction and improvement in conditions where necessary. The Forest will meet its obligations in respect to requirements of law, regulations and objectives for riparian management established by this Plan.

The Wild and Scenic Rivers Act states that rivers may be managed beyond a 1/4 mile on either side of rivers classified or eligible as Wild and Scenic to provide protection to "outstandingly remarkable values" while Wild and Scenic River planning is completed.

The W&S River Act language states that, "boundaries shall include an average of not more than 320 acres of land per mile measured for ordinary high water mark on both sides of the river; that planning should be done in consultation with State and local governments and the interested public; that they and their immediate environments should be protected for the benefit and enjoyment of present and future generations." Through the Wild and Scenic Rivers process, the Forest is considering including areas beyond 1/4 mile on either side of rivers classified or eligible as Wild and Scenic.

#### **Issue: Soil Productivity**

- To what extent should the Forest enhance or maintain soil productivity and control erosion?

Soil is a basic nonrenewable resource. The demands for sustained timber production create

a need for maintaining long-term soil productivity. The ability of soils to remain productive depends largely on the management practices that are allowed. Future management will likely include shorter rotations of timber, the use of mechanical timber harvesting equipment and more complete utilization of woody residues. The effect of repeated activities, over a long period of time, has the greatest potential of lowering forest soil productivity.

In general, the soils within the Deschutes National Forest are resilient to change because of their sandy nature. The soils do not erode easily, will compact, but only in certain areas under moist conditions and are uniform over large areas. The soils are sensitive to equipment use on slopes over 30%, in areas of seasonal high water tables, and in areas where the soils are fine in texture and easily compacted after use. Concern for soil productivity is reflected in recent changes in management as well as the increased awareness of the impacts of damaging soils. Where negative changes have been allowed to occur in the past, soil productivity and its ability to sustain yields have been reduced. In most instances, it's the cumulative effect of repeated entries on the same piece of land that has the greatest potential to reduce long-term soil productivity.

The components of long-term soil productivity have been identified as the preservation of:

- Surface litter and topsoil layers;
- Soil organic matter and its replacement;
- Soil organisms and biological systems; and
- Soil porosity, structure, drainage and aeration.

The goal is to maintain or enhance soil productivity. This directs the Forest Soil Program to measure, quantify and evaluate the effects of management activities on the natural capacity of soils to heal after disturbances. The Forest-wide standard/guidelines for soils as well as FSM 2521 R6 supplement No.50, June 1987 provide a basis from which to measure these changes.

Uneven-aged management practices have a negative tradeoff with soil productivity, ie. more entries into a stand result in increased soil compaction. This is displayed in Figure 2-50,

page 2-81 of the EIS. An increase in soil restoration work to 400 acres per year will help to mitigate the compaction.

Protecting long-term soil productivity is a very important part of any management of the Forest. Many of the equipment activities that are associated with forest management cause negative changes within the soil. These can include: compaction, displacement, severe burning or erosion and can be negative depending upon the size of change as well as the extent of area affected.

### **Additional State Proposals**

The State proposed that the Forest should have an upper level employee or Forest Manager for the Metolius Conservation Area.

The key to successfully meeting the Plan objectives for the Metolius Conservation Area is through participation and cooperative partnerships with the Metolius "community". The establishment of a "Forest Manager" and/or a "citizens advisory board" are just two possibilities, among many, that the Forest will consider when implementing the Plan.

The State proposed that the area known as Fly Creek Canyon should be a special interest area. It is uniquely rugged steep country for this Forest and provides a very primitive experience within close proximity to a highly developed recreation area. It also provides a wildlife corridor off the ridge down to Lake Billy Chinook.

I believe a special interest designation is inappropriate and will encourage public recreation use which might conflict with the important wildlife values in the Fly Creek Canyon. Though outside the Metolius Conservation Area, Fly Creek is best managed as Wildlife/Primitive and not as Deer Habitat.

With regard to the Metolius Special Forest, the State proposed; "If the overstory is healthy, a thinning from below should be done to remove those trees while retaining site occupancy by the overstory. This should be a part of the S&Gs for the area."

I agree. Retaining full site occupancy by large, healthy overstory is the primary objective for the management area and the large trees should only

be removed in those rare instances when it is operationally and technically necessary to meet Metolius Special Forest Management Area objectives. This will be included as a S&G for the Management Area.

The State proposed, on a map, the extension of the Metolius Wildlife/Primitive Management Area to the south to include a portion of Spring Creek.

I disagree with the proposed small inclusion to the Metolius Wildlife/Primitive Management Area. The S&Gs for the Deer Habitat Management Area provide better protection and opportunities for habitat improvement that will be beneficial to wintering deer.

The Governor has made numerous additional recommendations which will be addressed as the Plan is implemented.

## SECTION IV

# ALTERNATIVES CONSIDERED

In the DEIS, including the supplement, 9 alternatives were analyzed and presented in detail. In addition, several benchmarks (see appendix B and Chapter 2 of the FEIS) were developed and utilized in the analysis process. The benchmarks served as analysis reference points to define bounds for comparison purposes only. They were not developed with the intent of being implemented. In addition to the 9 alternatives analyzed in detail, several variations of the alternatives, particularly the Preferred were analyzed and are treated as "considered, but eliminated from further detailed study". Three of the alternatives considered in detail in the DEIS are not presented in detail in the EIS. The general basis for elimination of the detailed analysis of these alternatives was lack of public interest or support and relevance to the NEPA process in final analysis and preparation.

The Current Direction Benchmark with National Forest Management Act (NFMA) requirements, is now Alternative A in the EIS.

### **Alternative NC - NO CHANGE:**

The "No Change" alternative has been developed as a no-action alternative representing current management plans. It provides for a level of goods and services as defined in unit plans and the 1978 Timber Resource Plan. The alternative does not comply with all provisions of the National Forest Management Act (NFMA), and could not be implemented or used in future management of the Forest without Congressional and/or Secretary of Agriculture action to change the law.

### **Alternative A - No Action**

The No Action Alternative represents the existing management direction required under the National Environmental Policy Act and features a blend of land uses intended to balance resource uses. Timber, dispersed recreation, visual quality, and deer habitat management are emphasized.

Less emphasis is placed on developed recreation, old growth, and threatened and endangered species. This Alternative does not address geothermal leasing nor the long-term demand for personal use firewood in areas affected by the mountain pine beetle epidemic.

### **Alternative B - Resources Planning Act**

Alternative B meets the goals and targets established for the Deschutes National Forest under the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA). Although resource outputs are not maximized the Forest would be intensively used and developed. Future options for preserving some undeveloped lands and some old-growth ecosystems would be retained. An annual limit could be set on the amount of personal use firewood to meet long-term demand. Alternative B meets RPA targets for dispersed recreation, range and habitat improvement. It does not meet RPA targets for developed recreation and timber. Some higher potential geothermal areas would be available for leasing.

Deer and bald eagle habitat would be increased. Scenic quality would be emphasized along heavily traveled roads, developed recreation areas, and roads to trailheads.

### **Alternative C**

This Alternative emphasizes the commodities and resources which have the potential to increase contributions to the local and regional economy. A significant part of the Forest would be intensively managed for timber production. The price of firewood could increase significantly, because it would compete with other wood markets without special provisions for personal use.

Recreation would focus on providing access and facilities for large numbers of people. Much of the Forest would be available for motorized recreation. The Forest would be heavily roaded. Geothermal

leasing would be permitted on Newberry Volcano, but not inside the Caldera.

Deer habitat would be increased. Scenic quality would be protected along heavily traveled roads. Old-growth forests would not be protected except on lands not scheduled for timber harvest.

### **Alternative E - Preferred Alternative**

This Alternative is similar to Alternative B but the management prescriptions for some areas of the Forest are different. The accompanying maps show these differences. A significant part of the Forest would be intensively managed for timber production. Part of this timber base would be set aside annually for personal use firewood and could be adjusted based on long-term availability and demand.

Both developed and dispersed recreation would be emphasized, though construction of new facilities would be less than in Alternative C. Some land could be managed to provide opportunities for motorized and nonmotorized recreation. Geothermal leasing would be permitted on Newberry Volcano, but not inside the Caldera, and in other high potential areas.

This Alternative increases habitat for threatened and endangered wildlife. Scenic quality would be protected along heavily used roads, developed recreation areas, and some roads to trailheads. Small areas of old-growth forest are also protected.

### **Alternative G**

This Alternative emphasizes preservation of ecosystems. Areas available for timber harvest would be reduced. Personal use firewood would be made available and would be adjusted to meet demand. Significant areas of roadless land would remain unroaded and undeveloped. Geothermal leasing would be permitted in only some areas of Newberry Volcano, but not inside the Caldera, and other high potential areas.

A wide range of recreation opportunities would be provided but emphasis would be on activities not requiring large or extensive developed sites. New construction would be associated with dispersed and unroaded recreation. Motorized recreation would be de-emphasized.

Threatened and endangered plant and animal species and habitat would be maintained at high levels. Deer habitat would decrease because forage and cover are not emphasized in this Alternative. Scenic quality would be maintained along major roads, trails, recreation areas, and undeveloped landscapes. Large areas of old-growth forest would be protected.

### **State of Oregon Alternative**

This Alternative was developed by the State of Oregon utilizing Forest Service data and with a public review process separate from the review conducted by the Forest Service. The Alternative supported by the State is a result of extensive collaboration between State agencies, the Forest Service, and the public. The State's Alternative is similar to Alternative E with the following exceptions:

- More old growth in the Metolius Conservation Area;
- The Metolius Heritage Management Area is smaller on the west side and is proposed as developed recreation;
- The north side of Black Butte is proposed as partial retention;
- Portions of highways 41, 58, and 97 are classified with more retention;
- Several trails that pass through general forest, deer habitat, and scenic view areas have corridors which are proposed as non-ASQ areas;
- More visual management overall;
- Included the proposed Newberry National Monument as a non-ASQ area;
- Creation of a Bend (District) Special Forest; and
- Creating a Fly Creek Special Interest Area.

## **ALTERNATIVES WITH A HIGHER PRESENT NET VALUE**

Present net value (PNV) is used to measure the economic efficiency of each alternative. PNV is the difference between the sum of the total discounted benefits of a course of action over some time period, and the total discounted costs of carrying out that course of action over the same time period. Benefits and costs used to calculate PNV are those which have a market

price or which can be assigned a market price equivalent, and therefore PNV does not measure all factors that differ between alternatives.

The Preferred Alternative has a PNV of \$595.06 million (In 1982 dollars at 4 % discount rate). Alternative C is the only alternative with a higher PNV which is \$681.54 Million. Additional information on Alternative C can be found in the EIS.

Alternative C has the highest PNV, because of its emphasis on timber production. Recreation and wildlife benefits are the major contributors to PNV in Alternative C. Timber benefits are higher in Alternative C, than Alternative E, by about 86 percent while timber costs in Alternative C increase by 92 percent.

Alternative C has a high emphasis on managing more suitable lands for timber production; this includes not only more acres but more intensive management. As a consequence scenic quality will deteriorate. Other non-market amenities are allocated more in areas not suitable for timber production.

Alternative E provides better biological stability and provides greater overall benefits recognizing the importance of non-priced values such as visual resources, wildlife habitat, and more primitive recreation activities. Spatially, the Preferred Alternative better addresses public concerns about recreation, wildlife, historic values and logging activities. These concerns will often mean forgoing timber opportunities for a more balanced activity, like reduced harvest rates in scenic views, middle-ground, deer habitat and uneven-aged management in general forest. These added resource provisions, such as old growth, spotted owls, Front Country Management Area, and the Metolius Conservation Area, in the Preferred Alternative either remove land from timber production or reduce the intensity of timber management on some lands, and this lowers PNV. For detailed comparisons of the Alternatives, see the final EIS, Chapter 2, "Comparison of the Alternatives".

## THE ENVIRONMENTALLY PREFERABLE ALTERNATIVE

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

The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources.

The environmentally preferable alternative is Alternative G. This alternative schedules less intense development activity, retains more acres in an unroaded and undeveloped condition, and programs less ground-disturbing activity during the next 10 to 15 years than the Forest Plan.

Additional information on the environmentally preferable alternative and other alternatives considered is in the EIS, Chapter 2 and 4.

Alternative G emphasizes high levels of amenity values by providing for: ecosystem preservation by having more acres of the roadless areas remain unroaded, a wide range and large amount of recreation opportunities with emphasis on activities not requiring large or sophisticated developed sites, scenic resources being emphasized along heavily traveled roads and other roads and areas receiving high amounts of recreation use, high levels of habitat for threatened and endangered plants and wildlife species, and old growth ecosystems.

I selected Alternative E instead of Alternative G because: Alternative E supplies more timber, range, and recreation with similar environmental costs, and supplies more Net Public Benefits and Present Net Value in the form of timber, range, and recreation. Alternative E is better at facilitating the resolution of issues surrounding the Metolius



River, scenic views on the Forest, the Front Country Management Area, wildlife and fish habitat, forest health, riparian management, campground construction and reconstruction, and possible conflicts with Native Americans.

In my judgment, Alternative E provides appropriate environmental safeguards at a minimum direct economic cost. This Alternative incorporates the perspective that the Forest Service is the trustee of the environment for succeeding generations. An objective of Alternative E is to provide for the proper and continued development of resources in a manner that maintains economic stability, yet retains local natural heritages, such as wildlife habitat, outdoor recreation opportunities, water quality, scenic qualities and open range.

## **SUMMARY OF REASONS FOR SELECTING THE FOREST PLAN**

Based on the preceding discussion it is clear that the Alternative E does not have the least impact on the environment nor does it generate as many market valued commodities as other alternatives considered in the EIS. However, I believe the Preferred Alternative E achieves a balance between the economic benefits and environmental issues and concerns voiced by the public. Most importantly, I am confident that the management proposed in the Forest Plan is within the physical and biological capability of the land and can be accomplished without reducing that capability.

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

issues, I believe the Forest Plan is responsive within the basic limitations of the resources available.

In my judgment Alternative E provides the most overall Net Public Benefits.

## **COMPATIBILITY WITH GOALS OF OTHER PUBLIC AGENCIES AND INDIAN TRIBES**

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

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

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

## SECTION V

# IMPLEMENTATION

### SCHEDULES

The Forest Plan will be implemented through identification, selection, and scheduling of projects to meet its management goals and objectives. These projects are displayed in the Forest Plan, Appendices 5, 9, 11, 12, 13, 14, 15, 16, 18, 19 and 20.

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

The Forest Plan provides direction in the form of goals and objectives, standards and guidelines, monitoring requirements, and probable scheduling of management practices. It does not cover projects on specific sites except in a broad manner. The management activity schedules displayed in Appendices 5, 9, 11, 12, 13, 14, 15, 16, 18, 19 and 20 of the Forest Plan are not decisions for individual projects. Each proposed project will be subject to site-specific analysis in compliance with NEPA.

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

The Forest Supervisor has authority to change the implementation schedule to reflect differences between proposed annual budgets and actual appropriated funds. As a result, outputs and activities in individual years may differ from those projected in the Forest Plan. Significant deviations

that alter the long-term relationships between goods and services projected in the Forest Plan will result in an amendment or revision of the Forest Plan.

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

The Forest Plan incorporates the Pacific Northwest Region's FEIS for Managing Competing and Unwanted Vegetation. In implementing Forest Plan project activities, the Forest will comply with the Record of Decision issued on December 8, 1988, and the mediated agreement of May 1989. Use of all vegetation management techniques is allowed only when other methods are ineffective or will unreasonably increase project 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 management direction in the Plan was developed prior to the U.S. Fish and Wildlife Service's listing, effective July 23, 1990, of the northern spotted owl as threatened and subsequent anticipated development of a recovery plan for the owl. Implementation of the Plan will comply with the Endangered Species Act, as interpreted through consultation with the FWS, any interim management guidance, and eventually the recovery plan.

Forest Plan implementation actions will be conducted so that conflicts with recommendations of the Interagency Scientific Committee will be avoided until superseded by subsequent direction.

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

## MONITORING AND EVALUATION

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

Chapter 5 of the Forest Plan outlines the specific process that will be used for monitoring. The overall objective of monitoring is to ensure that standards and guidelines and management area direction are being correctly applied and are producing the desired results. The information gathered during monitoring will also be used to update inventories, to improve mitigation measures, and to assess the need for amending or revising the Forest Plan.

All Forest Plan management areas are assigned a primary objective such as scenic views, and other secondary objectives. In implementing the Plan we will attempt to accomplish the primary and all secondary objectives. If conflicts arise, meeting the primary objective will prevail. For example, in Scenic Views, if visual objectives cannot be met while achieving the expected ASQ outputs, then timber harvesting will be restricted accordingly. That portion of the ASQ lost in this situation should not be automatically made up in another management area. Another example might occur in General Forest when primary timber outputs cannot be achieved while applying discretionary standards and guidelines for wildlife. In that case, wildlife objectives would be relaxed, but not below Regional or legal requirements. It would be appropriate in either case to consider amending the Plan by adjusting standards and guidelines or revising the ASQ to match the realities discovered through monitoring.

We will continue to monitor effects of Forest management activities on water quality by watershed. Monitoring will be commensurate with the level of management activity or will respond to unforeseen events which affect the watershed, such as floods and fires. Several goals for monitoring are: assure that BMP's are correctly applied, are performing the job they were meant to do, and assure water quality standards and beneficial uses of water are met. Another goal is to track activities in a watershed and to build upon the Forest's current hydrologic cumulative effects findings; to identify any needed shifts in monitoring intensity, and to make management adjustments as needed to continue to protect beneficial uses of water.

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

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

## MITIGATION

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

consistent with the measures identified in Chapter 4 of the Forest Plan.

"To the best of my knowledge all practicable means to avoid or minimize environmental harm from the Alternative selected have been adopted."

## AMENDMENT AND REVISION PROCESS

This Forest Plan may be changed either by an amendment or a revision. Such changes may be made as a result of monitoring or project analysis (see Forest Plan, Chapter 5). An amendment may become necessary as a result of situations such as:

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

Based on an analysis of the objectives, guidelines, and other aspects of the Forest Plan, the Forest Supervisor shall determine whether a proposed amendment would result in a significant change to the Forest Plan. If the change is determined to be significant, the Forest Supervisor shall follow

the same procedure as that required for development and approval of the Forest Plan. If the change is not determined to be significant, the Forest Supervisor may implement the amendment after appropriate public notice and compliance with NEPA. The procedure is described by 36 CFR 219.10(e) and (f), 36 CFR 219.12(k), FSM 1922.51-52 and FSH 1909.12.

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

The amendment documentation will include as a minimum:

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

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