

CHAPTER 3

TABLE OF CONTENTS

LIST OF TABLES.....	3
CHAPTER 3. RESPONSE TO ISSUES, CONCERNS, AND OPPORTUNITIES.....	1
Introduction.....	1
Forest-wide Standards and Guidelines	1
Management Requirements	1
Best Management Practices (BMP's)	2
Management Strategies (Areas).....	2
Alternative Design	2
Forest Management Objectives	2
Mitigating Measures	2
Monitoring and Evaluation	3
ISSUES	5
ROADLESS AREAS	5
UNDEVELOPED AREA MANAGEMENT	5
BIG GAME DEER AND ELK HABITAT MANAGEMENT	7
Deer/Elk	7
TIMBER	8
WOOD FIBER PRODUCTION	8
SOCIAL AND ECONOMIC EFFECTS.....	9
RIPARIAN AREA MANAGEMENT	10
WILDLIFE	11
OLD GROWTH AND DEAD TREE HABITAT MANAGEMENT	11
RECREATION	12
MIX OF RECREATION OPPORTUNITIES.....	12
WATER AND SOIL RESOURCE MANAGEMENT	13
TRANSPORTATION ROAD SYSTEM MANAGEMENT	14
CONCERNS AND OPPORTUNITIES.....	14
CULTURAL RESOURCES--CULTURAL RESOURCE MANAGEMENT	15
WILDERNESS—WILDERNESS MANAGEMENT	15
FISH—FISH HABITAT MANAGEMENT.....	16
RANGE—FORAGE ALLOCATIONS.....	16
MINERALS AND ENERGY—MINERAL AND ENERGY RESOURCE MANAGEMENT	17
PEST MANAGEMENT—MANAGEMENT OF FOREST LAND AND RESOURCES SUSCEPTIBLE TO OR INFECTED WITH PESTS.....	17

LIST OF TABLES

TABLE 3-1. APPLICATION OF DIRECTION-RESPONSE TO ISSUES, CONCERNS, AND OPPORTUNITIES.....	3
TABLE 3-2. INDICATORS OF RESPONSIVENESS OF ALTERNATIVES AND THE FOREST PLAN TO MAJOR ISSUES AND NATIONAL CONCERNS.....	4
TABLE 3-3. ROADLESS AREA MANAGEMENT	6
TABLE 3-4. SUSTAINED YIELDS OF TIMBER AND WOOD PRODUCTS	9

CHAPTER 3. RESPONSE TO ISSUES, CONCERNS, AND OPPORTUNITIES

Introduction

This chapter summarizes the major Issues, Concerns, and Opportunities (ICOs), and shows how the Plan addresses and responds to them. The initial (and ongoing) Forest planning step was the identification of the ICO's related to management of the Forest. Issues are the 'problems' or conflicts to be resolved through the planning process. Concerns and Opportunities are other points of public interest considered in developing management direction. The reader is encouraged to read Chapter I of the FEIS for a more detailed description of the ICO's. The issue identification process is documented in FEIS Appendices A and N. Nine major public issues were identified for consideration in developing management direction. They are:

ROADLESS AREAS	SOCIOECONOMIC	RECREATION
BIG GAME	RIPARIAN AREAS	WATER
TIMBER	WILDLIFE	TRANSPORTATION ..

In addition, six identified concerns and opportunities are considered. These are:

CULTURAL RESOURCES	FISH	MINERALS AND ENERGY '
WILDERNESS	RANGE	PEST MANAGEMENT

Forest Issues, Concerns, and Opportunities are addressed primarily through the following means in the Forest Plan:

- Forest-wide Standards and Guidelines including Management Requirements (MR's) and Best Management Practices (BMP's)
- Management Strategies (areas with specific prescriptions and standards and guidelines)
- Alternative Design
- Forest Management Objectives (outputs and effects)
- Mitigating Measures
- Monitoring and Evaluation

Forest-wide Standards and Guidelines

Forest-wide Standards and Guidelines were developed to respond to all the ICO's except wilderness and roadless areas, the two area-specific ICO's. See Chapter 4 of the Plan for details on the standards and guidelines. In addition to responding to the issues, Forest-wide Standards and Guidelines are designed to meet laws, regulations, and policy requirements, to direct management activities in protecting and enhancing resources, and to mitigate potentially adverse environmental effects. (See Table E-2 in Appendix E of the FEIS for further discussion on mitigation.)

Management Requirements

The legal or management requirements (MR's) stem from the National Forest Management Act as interpreted by the implementing regulations (36 CFR 219.27). The MR's can be viewed as

national intent in responding to the issues. The National Forest Management Act (NFMA) contains the basic direction for the following management requirements:

Resource Protection	Riparian Areas
Vegetative Manipulation	Soil and Water
Silvicultural Practices	Diversity

The Forest interdisciplinary team (IDT) defined specific management requirements, based on national and regional direction applicable to the Forest. MR's represent a floor or base level for the Forest, at or above which resources would be maintained. The requirements are essential elements incorporated into the Forest-wide Standards and Guidelines. A detailed description of the MR's can be found in the FEIS Chapter II; Appendix B, Section VI; and Appendix M.

Best Management Practices (BMP's)

Best Management Practices are included in Forest-wide Standards and Guidelines to protect and enhance water quality. All management activities having potential to impact water are governed by these practices, generally on a project level or site-specific basis.

Management Strategies (Areas)

Management strategies (areas) were formulated to respond directly to nine of the ICO's (including wilderness) by specifying through goals and area-specific standards and guidelines how areas of land will be managed on the Forest (see Table 3-1 and Chapter 4). Five ICO's (minerals and energy, transportation, cultural resources, socioeconomic effects, and pest management) are not area-specific, and all effects, except socioeconomic, are addressed in each management strategy. Management strategies applied to specific geographic areas of the Forest are known as management areas.

Alternative Design

Through the Analysis of the Management Situation (AMS) and other analyses in both the DEIS and FEIS (see Chapter 2), the ability of the Forest to respond to the issues was determined. In general, the Forest had a wide latitude to respond to most of the issues. The AMS set the framework for development of the alternatives. Each of the alternatives, displayed in Chapter II of the FEIS, was developed to respond to one or more of the issues and to address concerns and opportunities. The Forest Plan provides a mix of resources and associated outputs, with emphasis on responding to the timber, range, big game, fish, and recreation issues and concerns. In addition, the Plan provides for application of management area direction specifically designed to resolve issues of high public interest and management concern.

Forest Management Objectives

The outputs and effects resulting from each alternative reflect another response to the ICO's. The Forest Plan represents the selected alternative which, in the opinion of the Regional Forester (and Forest), best maximizes net public benefits while responding effectively to all the issues and concerns.

Mitigating Measures

Mitigation measures are applied to reduce or avoid adverse effects resulting from management activities. Mitigating measures were designed into each alternative (including the Plan) in order to respond to the potential adverse effects of management. Mitigation can also be found

throughout the Forest-wide Standards and Guidelines and management areas (Forest Plan, Chapter 4). Other measures will be applied when site-specific consequences are determined through project analysis (see Chapter IV, FEIS).

Monitoring and Evaluation

Monitoring is designed to focus on the identified issues and concerns in measuring and evaluating the effectiveness of Forest Plan implementation. The process is described in Chapter 5.

The response to each issue is reflected in recommendations associated with Alternative F/M in the FEIS and in the Record of Decision. All of the above measures were used to help address the issues. Complete resolution of each issue simultaneously was not possible. Tradeoffs and compromises were made to maintain compliance with existing laws and regulations and to provide some issue resolution for competing values and resources. This chapter discusses how the Plan responds to the ICO's. Discussion is supplemented by data in Tables 3-1 and 3-2.

TABLE 3-1. APPLICATION OF DIRECTION-RESPONSE TO ISSUES, CONCERNS, AND OPPORTUNITIES

MAJOR ISSUES, CONCERNS, AND OPPORTUNITIES	FOREST-WIDE STANDARDS AND GUIDELINES	MANAGEMENT AREA		OTHER DIRECTION/ ANALYSIS
		NUMBER	STANDARDS AND GUIDELINES	
ROADLESS AREAS				FEIS Appendix C
BIG GAME	Wildlife Habitat Fire and Fuels	(C3,C3a) (C4,C5,C8)	Big Game Winter Range Wildlife Habitat	Forest Management Objectives Resource Summaries
TIMBER	Timber, Fire and Fuels	(E1) (E2)	Timber/Forage Timber/Big Game	Forest Management Objectives Resource Summaries
SOCIOECONOMIC	Community/ Human Resources			FEIS Appendix B Forest Management Objectives Resource Summaries
RIPARIAN	Fish Habitat/Riparian Water	(C5,C7)	Riparian/Fish	FEIS Appendices B, E, M Forest Management Objectives Resource Summaries
WILDLIFE	Wildlife Habitat; T/E/S Species Fire and Fuels	(C1,C2) (C4)	Old Growth Habitat Wildlife Habitat	FEIS Appendices B, M Forest Management Objectives Resource Summaries
RECREATION	Recreation	(A1,A2) (A3,A4,A5) (A6) (A8) (A7,A9) (A10)	Dispersed Recreation Visual Developed Recreation Scenic Area Special Areas Special Mgmt. Area	Forest Management Objectives Resource Summaries FEIS Appendix G
WATER AND SOIL	Soil and Water Fish Habitat/Riparian Range	(F2) (C5,C7) (F3) (F4)	Fish Habitat Municipal Watershed Barometer Watershed Special Mgmt. Area	FEIS Appendices B, E, M Forest Management Objectives Resource Summaries
TRANSPORTATION	Transportation System Facilities			Forest Management Objectives Resource Summaries
CULTURAL RESOURCE	Cultural			Forest Management Objectives Resource Summaries

MAJOR ISSUES, CONCERNS, AND OPPORTUNITIES	FOREST-WIDE STANDARDS AND GUIDELINES	MANAGEMENT AREA		OTHER DIRECTION/ ANALYSIS
		NUMBER	STANDARDS AND GUIDELINES	
WILDERNESS		(B1)	Wilderness	Forest Plan Appendix B Forest Management Objectives Resource Summaries
FISH	Fish Habitat/Riparian	(C5,C7)	Riparian/Fish	Forest Management Objectives Resource Summaries
RANGE	Range T/E/S Plant Species Fire and Fuels	(D2) (E1)	Special Areas Timber/Forage	FEIS Appendix H Forest Management Objectives Resource Summaries
MINERALS AND ENERGY	Minerals and Energy			Forest Management Objectives Resource Summaries
PEST MANAGEMENT	Ecosystem Management Pest Management			Forest Management Objectives Resource Summaries

TABLE 3-2. INDICATORS OF RESPONSIVENESS OF ALTERNATIVES AND THE FOREST PLAN TO MAJOR ISSUES AND NATIONAL CONCERNS

MAJOR ISSUES, CONCERNS, AND OPPORTUNITIES	UNITS	ALTERNATIVE OUTPUT		CURRENT DIRECTION ALT. A	FOREST PLAN
		MAXIMUM	MINIMUM		
RECREATION					
Primitive/Semi-Primitive Recreation Opportunity	M Acres	589	304	333	497
Percent of Estimated Demand					
Decade 1	Percent	78	-8	1	50
Decade 5	Percent	27	-34	-28	7
OHV Opportunity	M Acres	345	148	290	307
Visual Quality Level – Retention/Partial Retention					
Decade 1	M Acres	730	70	167	388
ROADLESS AREAS					
Areas Remaining Unroaded, Decade 1	M Acres	281	0	23	195
Percent of Potential	Percent	100	0	8	69
WILDLIFE					
Old Growth – Dedicated/Managed/Other (Outside Wilderness), Decade 1	M Acres	143.7	49.6	49.8	91.1
Percent of Potential	Percent	17	6	6	11
Primary cavity excavators	% Potential Pop	68	46	55	65
BIG GAME					
Decade 1	Index	22,500	19,900	20,500	21,200
Percent of State Management Objective No.	Percent	+7	-6	-4	+1
Decade 5	Index	23,200	19,600	20,000	21,500
Percent of State Management Objective No.	Percent	+10	-7	-5	+2
RIPARIAN/FISH					
Average Number Acres Harvested/Decade (5 Decades)	Ac./Decade	1,482	136	1,482	938
Smolt Habitat Capability Index, Decade 1	M Smolts	2,970	2,117	2,339	2,818
Percent Change from 1980 Base	Percent	+102	+44	+59	+92
Decade 5	M Smolts	7,404	4,479	5,218	7,020

MAJOR ISSUES, CONCERNS, AND OPPORTUNITIES	UNITS	ALTERNATIVE OUTPUT		CURRENT DIRECTION ALT. A	FOREST PLAN
		MAXIMUM	MINIMUM		
TIMBER					
Allowable Sale Quantity, Decade 1	MMBF/Year	168	69	161	124
Percent Change from 1963 TM Plan	Percent	+14	-53	+9	-16
Percent Change from Alternative A (Current Direction)	Percent	+4	-57	0	-23
Percent Change from 1979-88 Timber Offered Level	Percent	+40	-43	+34	+3
Ponderosa Pine ASQ, Decade 1	MMBF/Year	23.5	3.4	23.5	23.5
Total Uneven-aged Management	M Acres	88.3	34.7	56.1	88.3
Land Selected for Timber Production	M Acres	755.3	510.3	736.7	618.8
Percent of Potential	Percent	94	63	91	77
Long-term Sustained-yield	MMCF/Decade	421.6	151.6	333.8	328.2
Firewood Supply, Decade 1	MMBF	20	8	20	15
Percent of 1986-88 Average Amount	Percent	+22	-50	+17	-10
WATER & SOIL					
Sediment Yield, Decade 1	Tons/Yrs.	21,300	18,200	21,300	19,700
TRANSPORTATION					
Total Road Construction, Decades 1-5	Miles	2,023	1,388	2,010	1,638
Open Road Density (Decade 1)	Mi./Sq. Mi.	2.8	1.1	2.5	2.0
SOCIOECONOMIC					
Present Net Value	Million \$'s	1,075.8	817.3	1,022.2	1,000.2
Payments to Counties, Decade 1	Millions of \$/Yr.	6.5	2.7	5.9	5.0
Change in Jobs, Decade 1	No. of Jobs	+766	-97	+683	+375
Change in Personal Income, Decade 1	Million \$'s	+13.8	-6.7	+12.1	+4.6
Net Cash Flow					
Decade 1	Million \$'s	7.8	-1.2	4.2	4.1
Decade 5	Million \$'s	17.7	7.3	14.1	14.9
Noncash Benefits					
Decade 1	Million \$'s	25.7	25.6	25.7	25.7
Decade 5	Million \$'s	34.5	34.3	34.5	34.4

ISSUES

ROADLESS AREAS

UNDEVELOPED AREA MANAGEMENT

Background

There are 281,100 acres in 22 areas of the Forest, outside of wilderness, identified as roadless. Roadless areas are a focal point for, and will influence the resolution of, a number of the Forest issues. As identified throughout the planning process and reaffirmed in comments on the DEIS, disposition and management of the roadless areas are the heart of the issue. A variety of individuals, groups, and organizations indicated they preferred to see roadless areas kept roadless (maintained in an unroaded or undeveloped state) for a number of values and protected from disturbance or development. On the other hand, strong interest was expressed by other individuals, groups, and organizations who preferred to see roadless areas developed and utilized for a number of multiple-use values including timber production, range use (livestock grazing), mineral production, roaded recreation experiences, and OHV use. Many people expressed concern about development or management of particular areas.

Preferences for different uses of these lands are in direct competition. Resolution favoring one type of land use or resource may preclude or reduce options for other land or resource uses. Therefore, resolution of the roadless question directly affects the ability of the Forest to provide benefits to competing uses. Conversely, roadless areas will be affected by resolution of the other Forest issues.

Response

The roadless area issue is primarily addressed through management area allocations. All or parts of 12 areas, totaling about 195,000 acres, will remain unroaded (for more detail on specific roadless areas, see FEIS Appendix C). The total roadless acres include Spangler and Lookingglass which together will have fewer than 5,000 acres. Resolution of the roadless area question is inherent in the outputs and effects displayed in the Forest Plan, Table 4-1. Under the Forest Plan, roadless areas will be managed as shown in Table 3-3.

TABLE 3-3. ROADLESS AREA MANAGEMENT

ROADLESS AREAS	PRINCIPAL MANAGEMENT AREA(S) ²	PERCENT REMAINING UNDEVELOPED (%)
Upper Tucannon ^{3 1}	A1, A10, C8	62
Willow Springs	C3, E2, C8	21
Asotin Creek	C8, C4, C3a	70
Spangler	A2, A3	70
Meadow Creek	C4, C3	0
Wenatchee Creek	A1, A4	97
Mill Creek Watershed	F2, C4, D2	81
Walla Walla River	F4, C1, E2	96
Jaussaud Corral	C4, A4	0
Grande Ronde	A8, A7, C4	93
W-T Three	A7, C3	54
Lookingglass	A2, C4	69
Hellhole	C8, C4, C1, A4	78
Horseshoe Ridge	C8, C1	98
North Mt. Emily	A5	0
Texas Butte	C4, C1	34
Skookum	C8, C3, C1	77
Potamus	C8, C1	97
South Fork-Tower	C7, C1, A3	6
Squaw	C7, E1	6
Jumpoff Joe	A8	99
Greenhorn Mountain	A8, D2	100

1 All areas in C8, Grass-Tree Mosaic, may have unscheduled harvest for wildlife enhancement.

2 Management areas are listed in the order of acreage dominance.

3 Roadless areas identified as having high public interest.

As seen in Table 3-3, parts or all of 11 areas with high public interest are retained as roadless. Of these, only Upper Tucannon, W-T Three, Skookum, and South Fork-Tower have some area scheduled for timber harvest. Three areas (Upper Tucannon, Walla Walla River, and South Fork-Tower) are included in management areas designed to respond to specific public and management concerns (FEIS, Chapter I). All or parts of seven roadless areas encompass the grass-tree mosaic, another area of specific public and management concern.

BIG GAME DEER AND ELK HABITAT MANAGEMENT

Deer/Elk

Background

The Forest provides about 70-80 percent of the summer range and approximately 35 percent of the winter range for one of the largest populations of Rocky Mountain elk in the Nation. Management of big game species, particularly elk, is one of the most controversial issues on the Forest. A diversity of opinion is apparent among the various interests over the appropriate techniques to use in big game management. Controversy surrounds key factors including: Roadless area development, timber harvest use and its impacts on cover and forage, road development and closures, and management of big game winter range and its habitat components.

In response to the DEIS, commenters expressed one or more of the following points about big game:

- Desire by most to maintain or increase deer and elk numbers. Some want reduced populations, to minimize private land and agricultural impacts.
- The importance of maintaining, protecting, and/or improving the quality of big game habitats on both summer and winter ranges. Strong emphasis was on enhancement of winter ranges. Strong differences of opinion were apparent on how this was to be done.
- A necessity for reducing the miles of open road (by closing roads), particularly on winter ranges, to reduce or minimize effects on deer and elk. Support for a more aggressive Forest road management program to enhance big game habitat values is heavy. Support for additional access is also strong. Temporary closures are supported to provide habitat security and 'quality' hunting opportunities.
- A wish by many to reduce (restrict) timber harvest levels and activities, including road construction, to minimize perceived adverse effects on big game. A desire by many others to allow standard timber management on summer and winter ranges (maintain or increase timber harvest) because of perceived compatibility with big game management.
- The need to protect migrational corridors, fawning and calving grounds, elk wallows, and riparian areas.

Elk are used as the indicator species for all big game populations. Both Oregon and Washington state wildlife agencies have established target elk population levels for the Forest. The two states' combined state management objective (SMO) on Forest lands totals 21,056 elk. The (1983) elk population on the Forest was estimated to be 21,135. Recent (November 1989) State of Oregon population trend information indicates that elk populations remain at or near the SMO, while mule deer numbers have declined significantly in recent years and are well below the management objective. A major concern is the more recent reduction in elk calf and fawn production and survival. State agency data also indicates that big game are staying yearlong on private lands.

Response

The Forest Plan incorporates a number of measures to maintain or improve big game habitat. The Forest-wide Standards and Guidelines provide processes and definitions for habitat management, management for special elk related areas, and winter range direction. As part of the Forest Plan design, about 36 percent of the Forest is allocated to management areas emphasizing big game (A10, C3, C3A, C4, C5, C8). Some use timber management as a habitat

management tool and others preclude harvest. All provide emphasis on management of cover, forage, and roads. Another 31 percent of the Forest, in wilderness, roadless areas, and others, provides high levels of cover and security. As part of the alternative design, prescribed burning and other habitat improvement techniques will be used to enhance habitat. Many roads will be closed to enhance habitat according to management area direction and district access management plans. Monitoring and evaluation will be used to assure that habitat objectives are being met.

Under the design of the Plan, big game habitats are expected to be capable of producing potential populations at or near the state management objective. During the next decade, the elk population index is expected to be about 21,200 animals, only slightly (0.7 percent) above the SMO. However, by the fifth decade, potential elk populations will increase to about 21,500 animals.

TIMBER

WOOD FIBER PRODUCTION

Background

Wood supplied by the Forest is an important part of the local and regional economy. The Forest has supplied about 30 percent of the average annual total timber harvest in its 10-county area of influence, during the past decade (1979-88), or an average total of 148.5 million board feet (MMBF) per year. The Forest analysis of resource potentials (USDA Forest Service 1985) indicated the Forest has an opportunity to increase the harvest above previous levels or projections. Estimates indicate that demand for timber from the Forest will be rising modestly. At the same time, demand is increasing for the variety of other often competing values, resources, and land uses. Perhaps more than any other issue, the timber issue affects and is affected by the resolution of other resource issues. Sometimes the relationship is complementary but often is competitive.

The timber management issue centers on three principal aspects:

- The appropriate timber harvest levels (total and ASQ) and amount of land suitable for timber production.
- The appropriate amount of ponderosa pine to harvest.
- The silvicultural system and associated practices to use (clearcutting, even-aged, or uneven-aged management).

Each of these areas is closely tied to strong concerns about the effects of timber harvest and management on the Forest and associated resources. The underlying issue appears to be a difference of opinion about what constitutes good land stewardship.

A related concern is the amount of firewood the Forest intends to supply in light of anticipated demand. The present primary sources of relatively easy, accessible fuelwood probably will be gone in less than 10 years. Competition for dead wood and slash is increasing as chips and energy (cogeneration) are being produced from these sources and dead and down trees are retained for dependent wildlife species.

Response

Based on the alternative design and management area allocations, about 618,800 acres (or 77 percent of tentatively suitable acres) were determined suitable for timber production for the Plan and will be managed for timber production (and related uses) on a regulated basis. The Forest provides sustained yields of timber and wood products as displayed in Table 3-4.

TABLE 3-4. SUSTAINED YIELDS OF TIMBER AND WOOD PRODUCTS

Umatilla National Forest

Allowable Sale Quantity (ASQ)	124 22.2	MMBF/Year MMCF/Year	1 st Decade
Ponderosa Pine (ASQ)	23.5 4.2	MMBF/Year MMCF/Year	1 st Decade
Firewood	15.0	MMBF/Year	1 st Decade
*Total Sale Program Quantity (TPSQ)	159 28.4	MMBF/Year MMCF/Year	1 st Decade
Long-term Sustained-yield Capacity	184 32.8	MMBF/Year MMCF/Year	Achieved in 10 th Decade

*Includes cull, dead lodgepole, and firewood

Timber management is used as a tool in achieving a variety of resource objectives, including those of big game, visual, range forage, and pest management. Big game habitat is emphasized on lands where timber management techniques will be used on about 33 percent of the tentatively suitable acres, under Management Areas A10, C3, C4, and C5. Both timber and big game are emphasized on about 19 percent of the potential available acres under Management Area E2 and nearly 7 percent of the tentatively suitable lands are managed to emphasize wood fiber production in Management Area E1. Fish management is emphasized on another 11 percent of the tentatively suitable areas. At the same time, timber harvest and management are restricted on about 24 percent of the tentatively suitable acres, in order to meet big game, wildlife (old growth), fish, scenic and other special interest areas, and dispersed, semi-primitive recreation objectives.

A range of extensive to intensive timber management practices is planned. About 6,615 acres/year are designated for regeneration harvest by clearcut or shelterwood prescriptions during the first decade. Overwood removal cuts are planned on about 1,526 acres/year in decade 1. About 58 percent of the acres are planned to be planted with genetically-improved stock, and the remainder will be regenerated naturally. A variety of stand harvest techniques, including selection systems, sanitation, and salvage, may be used in riparian, viewshed, and other areas. About 905 acres/year in decade 1 will receive uneven-aged management treatments; and 2,850 acres/year of precommercial thinning and 80 acres/year of commercial thinning are planned.

SOCIAL AND ECONOMIC EFFECTS

Background

The economic well-being and lifestyles of people and communities in the Forest's 10-county area of influence can be affected by products and services from the Forest. The availability of wood fiber, forage, quality water, recreation, and aesthetic opportunities provided by the Forest will affect economic activity and lifestyles in local communities. Use of resources can assist in creating jobs and income which influence social stability and other aspects of social well-being.

Comments on the DEIS showed a general recognition and agreement that the Umatilla National Forest is a tremendous natural and public asset that should be managed for the use and benefit of the general public (the most good for the most people). Economic, social, and environmental stability appear to be the general public goals. Overall disagreement is apparent on how to achieve these goals. Disagreements deal primarily with management emphasis and what the

effects of Forest management ought to be. As noted by several respondents, everyone benefits from a well-rounded or balanced management program. However, the various interests don't agree on the specific components that should make up the balance.

Persons (and communities), whose standard of living are influenced positively by industries and services dependent on resources from the Forest, usually support the production or harvest of commodities and use of land at a level that will maintain or improve industries and community stability. Many groups and individuals with aesthetic, recreation, environmental, and other interests support judicious use of resources and management that maintains or enhances resources or land uses of their preference. Additionally, Forest production and other activities can affect local government financing. Local county governments in the 10-county area receive annual payments derived from receipts for Forest production and activities. Such payments constitute, on average, about 10 percent of general county revenues

Response

Social and economic effects result from application of all the planning tools (means) in responding to the issues Indicators are used to evaluate the effects of Forest management. Economic indicators include jobs, personal income, payment to counties, and PNV. Each is anticipated to increase by very small amounts. During the first decade of this Plan, forest related jobs will increase by an estimated 0.7 percent above recent total employment levels in the 10-county area. Personal income will increase by an estimated 0.6 percent. Additionally, payments to counties are estimated to increase. Most of the effects are related to timber production except for jobs which are strongly influenced by recreation. Furthermore, this Plan will produce a moderate increase in present net value of forest goods and services.

Social indicators of lifestyle, attitudes, beliefs and values, and social organizations are not expected to change in a substantial way as a result of Plan implementation.

RIPARIAN AREA MANAGEMENT

Background

Riparian areas amount to only about 5 percent of the Forest, but are the most productive lands for the full range of resources including recreation, fish, timber, forage, quality water, wildlife habitat, and minerals. Because of the number and interplay of resources, competition for resource use is focused on these areas, and involves most of the competing groups. As seen in comments on the DEIS, all interests generally agree on the need to protect riparian areas but do not agree on how this is to be done. Numerous groups and individuals advocate a high degree of riparian protection and most prefer little to no development. These people are particularly concerned about potential impacts from development and use on resources of their interest, including wildlife, fish, water, and recreation. Other interests have preferences that support use and development of riparian areas. Most of these groups feel that development can be successfully accomplished without adverse impacts to other riparian resources. Therefore, from the management perspective, the riparian issue revolves around utilization of the productive capabilities of riparian areas while minimizing resource conflicts and potential adverse impacts.

Response

Along Class I, II, and III streams, the Forest Plan emphasizes management to maintain or enhance fisheries, big game, and other wildlife habitat and to protect riparian values. Forest-wide Standards and Guidelines provide detailed management direction to accomplish these goals on all Class I, II, and III stream riparian areas. The C5 management area direction is applied to a total of 27,200 acres of riparian areas with about 17,200 of these acres scheduled for timber harvest; the direction emphasizes selection harvest systems. Timber harvest in the remaining riparian areas is either prohibited or must meet more restrictive guidelines. Many

riparian areas will be grazed moderately but under standards and guidelines designed to protect or improve riparian condition. Upper tributaries of the North Fork John Day, Umatilla, Grande Ronde, and Walla Walla rivers are managed under Management Areas C7, C8, A7 (part), and F4, respectively. Parts of the North Fork John Day and Wenaha are also in Wilderness Area management to enhance anadromous fish under direction C7 is planned for 105,300 acres of the North Fork John Day River system.

On the remaining Forest riparian areas (Class IV streams and others), Forest-wide Standards and Guidelines, including Best Management Practices, are applied to protect and enhance riparian areas. In addition, enhancement of riparian areas will occur through fish habitat improvement projects, range management practices, correction of road problems and riparian improvement projects. The application of standards and guidelines, management area direction, and improvement techniques will assure continued productivity of riparian areas.

The anadromous fish production index (SHCI) is one indicator of response to the issue. The index is expected to nearly double in the next decade.

WILDLIFE

OLD GROWTH AND DEAD TREE HABITAT MANAGEMENT

Background

Management of old growth and snag habitat for dependent wildlife species and other values is an issue of controversy. Various public interests are divided on the amount of old growth and dead tree habitat to retain on the Forest. A number of individuals, groups, and organizations have expressed concern about reduction of old growth/mature tree forests and dead tree habitat. Their desire is to maintain existing habitat distribution and amounts for dependent species, forest diversity, and aesthetic values. Other groups, associations, and agencies support utilization of old growth/mature tree forests and dead trees and see these resources as important to timber production, firewood supply, and long-term forest productivity. Historically, harvest of old growth/mature tree forests has been the backbone of the local timber industry.

Response

Forest-wide Standards and Guidelines, alternative design, and management areas provide direction and allocation for old growth. Total old growth/mature tree habitat, outside wilderness, managed directly as dedicated or managed units (Management Areas C1, C2, or others) for dependent wildlife species amounts to about 52,600 acres or about 4 percent of the Forest. An additional 38,500 acres of old growth/mature tree habitat are estimated to occur in riparian and unroaded areas. An additional 83,000 acres of suitable old growth tree habitat has been identified outside of wilderness. During the planning period, however, these old growth acres will decline in the general forest as a result of timber harvest.

Snag levels for cavity dependent species vary depending on the level of timber management. Forty percent of the potential use level is the objective in intensely managed areas, 60 and 80 percent are the levels retained in viewsheds and identified wildlife emphasis areas, and 100 percent potential use snag levels are found in unroaded areas. In areas of vegetation management, the Forest average snag level, outside of wilderness, amounts to an estimated 65 percent of the potential population level for primary cavity excavators

Planned wildlife habitat, improvement projects are relatively numerous at 10,000 acres and 75 structures per year during the next decade. Other important habitats will be protected with the application of the Forest-wide Standards and Guidelines.

RECREATION

MIX OF RECREATION OPPORTUNITIES

Background

Recreation is a popular and widely supported use of the Forest. Many interests expressed an opinion that the final Forest Plan should place more emphasis on recreation. Specific comment about recreation confirmed the identified issue and its aspects: Roadless opportunities, OHV use, visual appearance, and access (trails and roads).

The future supply of primitive and semi-primitive dispersed recreation opportunities is one of the principal aspects in the roadless issue (see Roadless Areas for discussion). The Forest ability to meet projected demand for primitive and semi-primitive recreation (and other resources) will depend on how the roadless areas are allocated and managed. Concerns expressed about the need for additional trails and road access reflect an aspect of recreation opportunity that the forest should provide (see the Transportation issue).

OHV opportunities on the Forest have declined. OHV users and clubs want more opportunity to enjoy their pursuits. Past reduction of OHV areas has increased potential conflicts elsewhere with other recreation users who want restricted OHV use. Wildlife interests are also concerned about disturbance and harassment impacts of OHV use on big game and other wildlife.

Recreationists of all types are concerned about the scenic qualities of the Forest: many of these people want little noticeable change. Some are concerned about visual change in certain locations on the Forest. The timber industry and others interested in development do not oppose visual management, but are concerned that the amount of protection given scenic resources may hinder production and reduce future supplies. The problem is to determine the appropriate degree of change from the natural-appearing landscape.

The alternative design provides the primary means for meeting future demand and resolving the issue. A variety of dispersed recreation activities, settings, and experience opportunities is provided or available under the Forest Plan. Overall, a moderate level of recreation opportunities in natural to near natural settings (semi-primitive) will be available outside of wilderness. About 195,000 acres in 14 areas will remain undeveloped (69 percent of potential), and will be managed for, or could provide, semi-primitive recreation opportunities. The wildernesses (20 percent of the Forest) also provide many primitive and semi-primitive recreation opportunities. Projected fifth decade demand for primitive and semi-primitive recreation opportunities will be met. On other areas of the Forest, dispersed recreation opportunities will take place in a roaded and modified context only slightly reduced from current levels because of road closures.

A diversity of hunting settings will be available with about 33 percent of the Forest in an unroaded condition and the remainder in roaded environments. Road closures will be used to maintain high big game habitat effectiveness and provide a more remote hunting experience. Dispersed campsites, especially those used recurrently by hunters, will receive special consideration and protection.

OHV opportunities will increase above current levels with the development of loop trail and road systems, but may be limited to certain times or areas to minimize impacts on big game. An estimated 316,000 acres of more desirable area for OHV use will be available, including over 200 miles of trails for trail bike use, with 300 additional miles of potential locations. Numerous routes will be available for 4-wheel drive opportunities.

Visual quality management is emphasized on 23 viewsheds including state highways, key forest travel routes, and major water-related areas. About 26 percent of the Forest will be managed to

meet a retention or partial retention visual quality objective. The natural appearance of some landscapes will be moderately reduced under the Plan.

Many other recreation opportunities are addressed in the Forest Plan. Developed sites (Management Area A6) will remain at current numbers. However, expansion of key recreation sites will be accommodated, provided that demand warrants a change. Winter sports activities are also to be accommodated; for example, where big game winter range may be impacted, winter recreation activities may be modified or controlled. Trail construction and reconstruction will increase; existing trails will be retained or relocated.

A variety of special areas, including 3 Wild and Scenic Rivers (Grande Ronde, Wenaha, and North Fork John Day) (A?), 6 botanical areas (AS), 8 Research Natural Areas (D2), 2 historic sites (AS), 1 geologic area (AS), and 2 scenic areas (A8), will contribute toward the diversity of recreation opportunities.

WATER AND SOIL RESOURCE MANAGEMENT

Background

The Forest currently produces almost 2.5 million acre-feet of water runoff annually. Quality of water flowing from the Forest is currently well above minimum state standards. Analysis shows that the Forest has little opportunity to increase water yields or increase late season low flows through management activities.

Response

The maintenance of adequate quantities of high quality water is an objective of numerous, diverse interests. Many developmental activities and uses are perceived by these groups as detrimental to water, because they can cause pollution and sedimentation. These interests support actions to limit, restrict, or prohibit developmental activities on a riparian or watershed basis. The timber, livestock, and mining industries feel that developmental activities can be successfully accomplished while protecting water supplies and quality. They see little conflict between timber harvest and other management activities and quality water supplies. In their view, limiting or prohibiting activities unduly restricts the industries' ability to maintain or increase supplies of timber, livestock, and minerals.

Most people felt that Mill Creek should receive maximum protection with little, if any, timber harvesting. However, strong differences appeared were management of Walla Walla River; many specifically advocated maximum protection (very limited timber harvest or none at all) and many others supported the level of development shown in the proposed Plan. A good number of people were concerned about having adequate water supplies for irrigation, particularly in the Walla Walla River area.

Response

Water and soil protection and management receive emphasis in the Forest Plan primarily through Forest-wide Standards and Guidelines (including Best Management Practices [BMP's]) and application of certain management areas (also see Riparian issue). The following are ways the Forest Plan responds to the issues: (1) The Forest-wide Standards and Guidelines provide Objectives and direction for protection and management of water (based on BMPs), for riparian areas, and for all soil-disturbing activities to maintain soil productivity; (2) no scheduled timber harvest is permitted in the Mill Creek Municipal Watershed (Management Area F2), in the north and south forks of the Walla Walla River (Management Area F4), and in key tributaries of the North Fork John Day, Umatilla, and Grande Ronde river systems (under a variety of management area direction); (3) limited timber harvest is permitted on other major streams

(under C5); and (4) C7 is applied to parts of the North Fork John Day River system, limiting harvest activities in the watershed.

Overall, sediment production resulting from management of the Forest is expected to increase about 15 percent above background levels, but is predicted to be 8 percent below current direction levels. However, water quality is expected to remain in an excellent condition and not be changed significantly by management activities. Based on barometer watershed results, water quantity, including peak flows and low flows, is also not expected to change significantly due to management activities. Monitoring of water quality and quantity, and management impacts, is also emphasized.

TRANSPORTATION ROAD SYSTEM MANAGEMENT

Background

The transportation system is an aspect of the timber, big game, and recreation issues. Two elements were identified in the transportation issue: Road system development (including / associated impacts) and road management (closures). Both were areas of strong differences of opinion. Development interests and some recreationists support additional road development and open road management to meet their access and operational needs. A variety of other individuals and groups expressed desires to limit or minimize additional roads for a variety of reasons, primarily because of the perceived adverse impacts related to their areas of interest. These and other groups wanted roads closed to meet their objectives or minimize effects on other resources.

Generally, road development and management respond to overall resource objectives and programs; thus, the heart of the issue is the need to provide an appropriate road system that meets all resource objectives and achieves a balance of open and closed road densities.

Response

Since the transportation system is integrally linked to other issues, the response to this issue falls under outputs and effects (objectives) of planned management. Both construction and reconstruction of the road system in this Plan respond to the planned timber management program. Over the next four decades, a total of about 1,638 miles of local roads will be constructed about 56 percent of the construction is planned for the first decade. Reconstruction is also planned for part of the arterial, collector, and local road systems. Forest-wide Standards and Guidelines and management area direction provide a framework for how road development will be accomplished.

Across the Forest, closures will be used principally to maintain suitable elk habitat, but will also occur in order to meet recreation, soil, water, and economic criteria. Average, Forest-wide open road density will be at about 2.0 miles/square mile in the first decade, a figure that will vary greatly between watersheds (allocation zones), depending on the resource objectives being achieved Forest-wide, arterial and collector roads will be open; local roads can fall into the open or closed category. All of the arterial and about half of the collector roads will be managed for passenger cars. The remainder of the collectors and other open, local roads will be managed for high-clearance vehicles. Access and travel management will be confirmed through a planning process involving the public. More specific direction for each road will be identified.

CONCERNS AND OPPORTUNITIES

Six concern and opportunity areas identified by the public and Forest managers through the planning process, and the responses to these, are described as follows:

CULTURAL RESOURCES--CULTURAL RESOURCE MANAGEMENT

Background

An ongoing program exists on the Forest to identify and evaluate the historic and prehistoric cultural resources which exist on Forest lands. To date, about 750 cultural resource sites (archeological sites, historic structures, etc.) have been reported within or adjacent to the Forest. These sites represent a broad cross section of uses, spanning a period of several thousand years. Native American tribes, various other groups, and Forest managers are concerned about the protection and management of cultural resources on the Forest. A principal concern is that the full intent of the law be met.

As land-modifying activities and public use increase within the Forest, so does the possibility of loss or degradation of the cultural resources. The degree of potential impact will depend upon the location and extent of land alteration, the nature of the site, and the concentration of public use. A concern of management is to provide a balance between resource uses and the protection of cultural sites so as to provide adequately for their preservation.

Response

Cultural resources will be protected and managed as directed under the Forest-wide Standards and Guidelines (see Chapter 4). Management direction for cultural resources on the Forest is one of avoidance and protection for all sites listed in, nominated to, eligible for, or potentially eligible for the National Register of Historic Places. The preferred management approach is to achieve a 'no effect' finding. In the absence of this possibility, the preferred strategy will be to cause 'no adverse effect.'

The activities under the Forest Plan have a moderate to high likelihood of both discovering and impacting cultural resources. As a result, some mitigation measures, as prescribed in the Forest-wide Standards and Guidelines and Chapter IV of the FEIS, may be needed to eliminate undesirable effects or recover values of the properties prior to their alteration. As additional sites are located, opportunities for enhancement and interpretation are available. Activities will be coordinated through a consultation memorandum of agreement with the affected Native American tribes.

WILDERNESS—WILDERNESS MANAGEMENT

Background

Since the creation of the three wildernesses, various interest groups and Forest managers have become concerned about meeting the intent of the wilderness acts in light of past impacts and continued heavy hunting pressure and mineral development. Differences of opinion exist on how wilderness should be managed, particularly in the type of wilderness recreation experiences to provide and the management of nonconforming uses and activities which diminish options to maintain and preserve wilderness values.

The existing wildernesses are traditional elk hunting areas in the Blue Mountains of Oregon and Washington, and very heavy use by hunters occurs during elk season. The hunter recreation use intensity and the many perennial hunting camps affect inherent wilderness values (as defined in the Wilderness Act of 1964) including solitude, untrammled and undisturbed natural conditions, and other primitive recreation opportunities. The only Forest sources for primitive recreation opportunities lie in the wildernesses. In the North Fork John Day Wilderness, the statutory mining rights and many mining activities limit the options for managing to maintain and preserve wilderness values.

Response

Direction for wilderness is included in Management Area B1, in the alternative design, and in management plans for each wilderness, summarized in Appendix B of the Plan. Wilderness management will emphasize natural ecological systems and processes modified to accommodate some nonconforming uses. Wilderness management will shift to provide more primitive recreation opportunities, on about 128,000 acres. The remaining wilderness will be maintained in a semi-primitive setting. Road access restrictions, trail management, and other action will be applied to achieve the primitive opportunities. Congressional committee and conference reports will be considered when determining appropriateness of various uses, such as traditional hunting and fish habitat protection. Management actions will recognize valid rights for mining, grazing, water uses, and other nonconforming uses.

FISH—FISH HABITAT MANAGEMENT

Background

Forest streams are important spawning and rearing habitat for anadromous fish and resident fish production. A variety of groups, Native American tribes, and governmental agencies have general agreement on increasing anadromous fish runs through fish habitat enhancement and riparian management. Protecting and enhancing fish habitat and increasing fish production are highly supported (by nearly everyone commenting on the subject in the DEIS). Differences of opinion occur over methods for achieving improved habitat.

The Forest has an opportunity to assist in achieving increased anadromous and resident fisheries through (1) Maintenance and enhancement of key streams and associated riparian habitat for fish production; and (2) rehabilitation of degraded fish habitat. This concern is closely interrelated with the riparian, roadless areas, timber, water issues, and the minerals and energy concerns.

Response

Planned enhancement of anadromous and resident fisheries follows a two-pronged approach. Riparian management is planned to enhance fisheries as described in the Riparian issue. Developmental activities in riparian areas will be managed through the variety of applied Forest-wide Standards and Guidelines, management area direction, primarily C5 and C7, and planned activities and mitigating measures.

In addition, a high level of cost-effective fish enhancement is planned as part of the alternative design. The North Fork John Day, Snake, Umatilla, and Walla Walla river systems all have planned enhancement work. (See Appendix A of the Forest Plan for the planned level of fish improvement work in each river system.) An estimated increase of about 92 percent in anadromous fish and 37 percent in resident fish production above the 1980 base is expected.

RANGE—FORAGE ALLOCATIONS

Background

Most comments on the range section of the DEIS were concerned with the level of grazing on the Forest. Many suggested that the level be increased and that perceived conflicts with other resources did not exist. Others indicated that grazing should be reduced for a variety of reasons, including minimizing conflicts with wildlife over forage.

Currently, competition for forage between users is not generally a problem. However, analysis indicates that the Forest cannot accommodate both types of users at the highest production or use level. Opportunities to increase forage are available through timber harvest and other vegetative management techniques.

As a result of the Plan's design, allocations, and planned activities, sufficient forage will be developed through timber harvest and other vegetative management activities to accommodate some increases in both big game and livestock. Total permitted use will increase to 58,000 AUM's (a 6 percent increase above current levels) in the first decade due to the increased available forage. Forage will be 'split' between livestock and big game on a 40-60 basis. Some livestock grazing capacity on big game winter ranges will be allocated where forage for big game can be enhanced.

Response

Intensive to extensive (strategy D and C) range management (see Glossary for explanation of strategies) will be practiced on about 75 percent of the Forest, and minimum management or no grazing on the remainder. A moderate to high level of cost-effective investments in range management, such as fencing and water developments, is planned. Potential conflicts in key areas will be minimized by applying Forest-wide Standards and Guidelines, management area direction, and followup monitoring.

MINERALS AND ENERGY—MINERAL AND ENERGY RESOURCE MANAGEMENT

Background

As expressed by the industry and some state agencies, the principal mineral and energy concern is accessibility to the resource. Because of the increasing importance of energy minerals and other mineral resources, Forest Service management is concerned with and committed to maintaining access to the Forest for mineral exploration and development. Some people recognize that mineral exploration and development can produce conflicts with other Forest resources and activities. The Forest Service must respond to the proposals while protecting surface values.

Response

As part of the alternative design and allocations, the Forest Plan provides for reasonable access with resource protection stipulations on Forest lands open to mineral and energy exploration and development. On about 62 percent of the Forest, normal resource protection stipulations are applied, through permits and operating plans, to meet environmental standards. About 13 percent of the Forest will have additional restrictions imposed through resource protection stipulations within management areas including old growth, riparian and other fisheries habitat, and roadless/scenic designations. Generally, conflicts that may arise can be mitigated through appropriate, reasonable stipulations in the plan of operation or operating permits. Acres withdrawn from mineral entry, including congressionally mandated wildernesses and proposed areas, total about 25 percent of the Forest. Withdrawals and proposals are being reviewed by the BLM as specified in the Federal Land Policy and Management Act of 1976.

PEST MANAGEMENT—MANAGEMENT OF FOREST LAND AND RESOURCES SUSCEPTIBLE TO OR INFECTED WITH PESTS

Background

The Forest has had, and is currently experiencing, large-scale insect infestations of forested areas. The attacks have created large stands of dead and dying trees. These large-scale pest epidemics have major impacts on wildlife habitats, recreation opportunities, timber growth and yield, visual resources, fire hazards, and other resources. Many groups, agencies, and individuals are concerned about the general health of the Forest and the amount of damage and loss occurring on northeastern Oregon forests. The concern revolves around the appropriate prevention and control activities and the amounts of these needed to reduce pest outbreaks and overall damage.

Response

Under the Forest-wide Standards and Guidelines and other direction, cost-effective, integrated pest management (IPM) approaches are used to prevent and control forest pests. The principal approach in preventing the spread of pests is through vegetation management activities. In forested stands, activities include timber harvest, planting, thinning (tree stocking level control), species conversion, and underburning to maintain healthy tree conditions (See the timber sections of Chapters 3 and 4 for further program details).

When prevention fails, early detection and aggressive control action may assist in alleviating large pest outbreaks. Direct control methods, such as chemical application, may still be required. The appropriate control method for forest pests will continue to be determined through an analysis and reported in a separate environmental assessment.