



U.S. Department of the Interior
Bureau of Land Management

Roseburg District Office
777 NW Garden Valley Blvd.
Roseburg, Oregon 97470

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Annual Program Summary and Monitoring Report

for Fiscal Year 1996



As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public land natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interest of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under Federal administration.

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U.S. Department of Interior
Bureau of Land Management

ROSEBURG DISTRICT

ANNUAL PROGRAM
SUMMARY

AND

MONITORING REPORT

FISCAL YEAR 1996

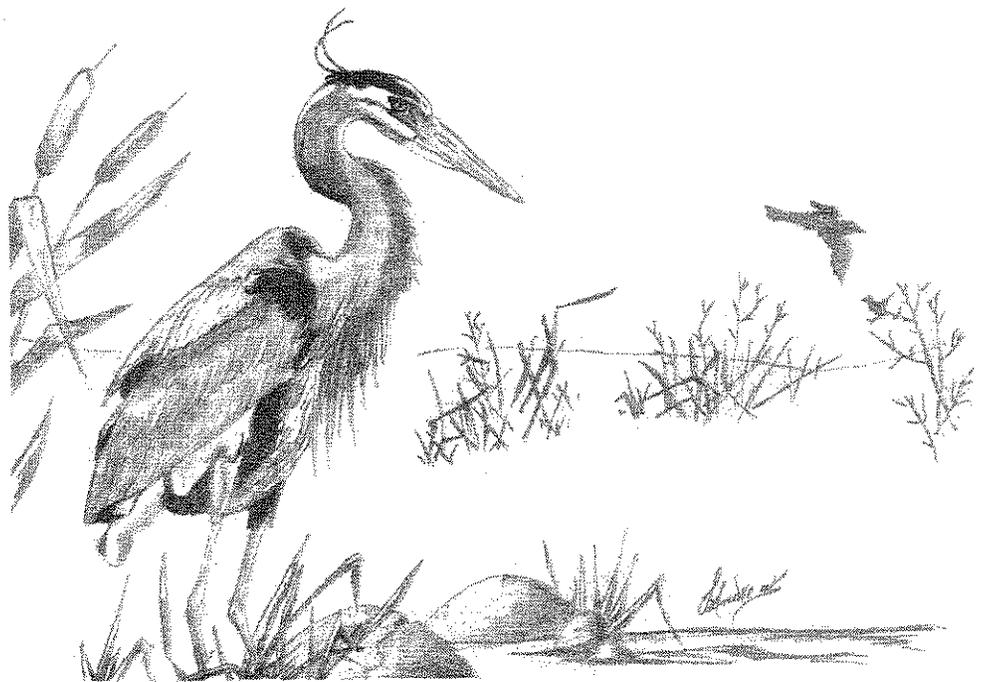
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ROSEBURG DISTRICT ANNUAL PROGRAM SUMMARY FISCAL YEAR 1996



Executive Summary

This document combines the Roseburg District Annual Program Summary and Monitoring Report for fiscal year 1996. The Annual Program Summary addresses the accomplishments of the Roseburg District in such areas as watershed analysis, Jobs-in-the-Woods, forestry, recreation, fire, and other programs. It also provides information concerning the Roseburg District budget, timber receipt collections, and payments to Douglas County. The Monitoring Report compiles the results and findings of implementation monitoring of the first full fiscal year of implementation of the Roseburg District Resource Management Plan (RMP). The Monitoring Report, which is basically a "stand alone" document with a separate executive summary follows the Annual Program Summary in this document.

Fiscal year 1996 was an interesting and challenging year for the Roseburg District in implementing the Northwest Forest Plan and adjusting to a new Resource Management Plan. The year included events such as floods, high winds, protests and demonstrations, government shutdowns, and the listing of the Umpqua River cutthroat trout as an endangered species. Despite these challenges, the Roseburg District met or exceeded the goals and objectives set out by the Northwest Forest Plan and Roseburg District Resource Management Plan.

Although the Annual Program Summary gives only a very basic and very brief description of the programs, resources and activities in which the Roseburg District is involved, the report does give the reader a sense of the enormous scope, complexity and diversity involved in management of the Roseburg District public lands and resources. Although there are and will continue to be challenges which will require us to adapt and to give our best, the managers and employees of Roseburg District take pride in the accomplishments described in this report.

Annual Program Summary

Introduction

This Annual Program Summary is a review of the programs on the Roseburg District Bureau of Land Management for the period of June 1995 through September 1996. The program summary is designed to report to the public, local, state and federal agencies a broad overview of activities and accomplishments for Fiscal Year 1996. This report addresses the accomplishments of the Roseburg District in such areas as watershed analysis, Jobs-in-the-Woods, forestry, recreation, and other programs. It also provides information concerning the Roseburg District budget, timber receipt collections, and payments to Douglas County. Included in the Annual Program Summary is the Monitoring Report for the Roseburg District.

Implementation of the Northwest Forest Plan began in April 1994 with the signing of the Northwest Forest Plan Record of Decision. Subsequently, the Roseburg District began implementation of the Resource Management Plan (RMP), which incorporates all aspects of the Northwest Forest Plan, in June 1995 with the signing of the RMP Record of Decision. Fiscal Year 1996 represents the first full fiscal year of implementation of the Resource Management Plan.

There are 20 land use allocations and resource programs under the Roseburg District Resource Management Plan. Not all land use allocations and resource programs are discussed individually in a detailed manner in this Annual Program Summary because of the overlap of programs and projects. A detailed background of various land use allocations or resource programs is not given in this Annual Program Summary in order to keep this document relatively concise. Additional information can be found in the Resource Management Plan Record of Decision and supporting Environmental Impact Statement. These documents are available at the Roseburg District office.

The manner of reporting the activities differs among the various programs. Some resource programs lend themselves well to a statistical summary of activities while others are best summarized in short narratives. Some programs include information for only fiscal year 1996 (Oct. 1995 - Sept. 1996) because of the method in which records are kept and summarized. Further details concerning individual programs on the Roseburg District may be obtained by contacting the Roseburg District office.

Budget

In fiscal year 1996, Roseburg District had a total appropriation of \$13,061,000. This included \$1,075,000 for the Jobs-in-the-Woods program; \$272,000 Management of Lands and Resources (MLR); \$74,000 fire; \$11,531,000 Oregon California Railroad Lands (O&C); \$64,000 mining law.

There were 158 full-time employees, and at times as many as 19 temporary employees.

Riparian Reserves

Restoration projects, density management, culvert and road upgrade are described under the programs of Water and Soils, Jobs-in-the-Woods, and Road Maintenance. In addition to these other programs, timber sales are also a means to accomplish ecosystem management objectives of watershed restoration through density management, culvert replacement and road upgrade. Density management of approximately 263 acres to enhance or hasten the acquisition of late-successional characteristics in stands less than 80 years old was planned and programmed into the design of timber sales. In addition to this work, road restoration, renovation or upgrade to benefit watersheds, and culvert replacements to aid fish passage and to better accommodate water flows associated with large storms was also accomplished through timber sales.

Late-Successional Reserves

Work was begun on late-successional reserve assessments for late-successional reserves RO 222, RO 223, and RO 267. These late-successional reserve assessments were all joint efforts involving the US Forest Service and the BLM. In addition, four initial late-successional reserve assessments were completed. The Northwest Forest Plan Record of Decision provided that for fiscal years 1994-1996, projects may proceed using initial late-successional reserve assessments done at a level of detail sufficient to assess whether activities are consistent with the objectives of the late-successional reserve standards and guidelines. Activities in late-successional reserves included precommercial thinning of plantations, density management, and facility maintenance.

Little River Adaptive Management Area

Little River Adaptive Management Area is one of ten Adaptive Management Areas designated under the Northwest Forest Plan for ecosystem management innovation including community collaboration and management applications. The management emphasis of Little River Adaptive Management as set forth in the Northwest Forest Plan is the development and testing of approaches to intensive timber production while maintaining or restoring high quality riparian habitat. Working with other agencies, organizations, and the public has been another area of learning.

In the Little River Adaptive Management Area, teachers and students are taking a hands-on approach to learning about water quality. The Roseburg District and the Umpqua National Forest entered into a partnership with Glide Middle School to develop a program of ecosystem learning and student collection of water quality data. Students learned how to use instruments to measure pH,

conductivity, and other water quality parameters. The measurements will help provide a baseline for water quality of streams in the lower portion of Little River watershed, helping scientists to better understand the relationship of management practices to natural stream conditions.

Important activities in the Little River Adaptive Management Area involving the Roseburg District (usually in cooperation with partners outside the agency) include:

Watershed analysis was completed September 1995; Socio-economic assessment was completed November 1995; Initiated work on Adaptive Management Area Plan; Adaptive Management Area homepage established; Glide School Partnership established; Projects include E-mile timber sale, Wolf Pine timber sale/research; Initiated study of fire ecology; Initiated water quality monitoring; Mariposa lily research; Jobs-in-the-Woods projects.

Timber Resources

The Roseburg District manages approximately 425,000 acres of land located mostly in Douglas County and in the Umpqua River basin. Under the Northwest Forest Plan, approximately 81,800 acres (or 19% of the Roseburg District land base) are available for timber harvest. The Northwest Forest Plan and the Roseburg District Resource Management Plan provide for a sustainable timber harvest, known as the Probable Sale Quantity (PSQ), from Roseburg District administered public lands of 45 MMBF (million board feet) annually. As the Roseburg District ramps up to meet the full PSQ of 45 MMBF in fiscal year 1997, the district offered 41.7 MMBF in fiscal year 1996.

To meet the PSQ commitment, the Roseburg District must do timber sale planning including preparing an environmental analysis, conducting timber sale preparation through cruising, appraisals, contract preparation and timber sale advertising, and timber sale administration which includes auctioning the timber sales and ensuring contract compliance of awarded timber sales. Importantly, the Roseburg District is investing in the future of the forests through forest development and reforestation.

The harvesting of forest products is being used to meet other management goals. Examples of this include encouraging the development of multi-layered forest canopies, creating or improving wildlife and fisheries habitats, species diversity, and watershed conditions. Other ways that the Roseburg District is using timber harvest to meet management goals include identifying and leaving snags for cavity dwelling species, and leaving woody debris for habitat improvement.

In fiscal year 1996, Roseburg District sold 14 timber sales at auction and 26 negotiated sales of minor volume. The value of these sold timber sales was over \$19,000,000. The monies associated with these timber sales is paid as the timber is harvested over the life of the contracts, which is generally three years. Timber sale collection for fiscal year 1996 from active harvesting was \$18,062,961 for Oregon and California Railroad Lands (O&C), \$3,796,970 for Public Domain Lands (PD), and \$653,889 for Coos Bay Wagon Road Lands (CBWR).

Below is a summary by land use allocation of timber volume and acres of these timber sales. In addition, the harvest prescription of regeneration harvest, thinning, density management or salvage is identified. All regeneration harvest occurred in stands over minimum harvest age of 60 years. No stands in FY 1996

were harvested that were less than the culmination of mean annual increment age of 80-110 years.

Total Timber Sale Vol.	41.7 MMBF
Matrix Timber Sale Vol.	36.7 MMBF
GFMA Regen Timber Sale Vol.	31.1 MMBF
GFMA Comm. Thin TS Vol.	1.2 MMBF
GFMA Salvage TS Vol.	1.3 MMBF
C/D Block Regen TS Vol.	0.6 MMBF
C/D Block Comm Thin TS Vol.	2.4 MMBF
C/D Block Salvage TS Vol.	0 MMBF
RR Density Mgt TS Vol.	3.2 MMBF
RR Salvage TS Vol.	0 MMBF
LSR Density Mgt TS Vol.	0 MMBF
LSR Salvage TS Vol.	1.0 MMBF
Key Watershed TS Vol.	7.4 MMBF
Little River AMA TS Vol	1.1 MMBF
Little River AMA Salvage Vol.	0.1 MMBF

Total Regeneration Harvest	950 acres
Total Commercial Thinning	317 acres
Total Density Management	263 acres
GFMA Regeneration Harvest	910 acres
GFMA Commercial Thinning	97 acres
GFMA Salvage	55 acres
C/D Block Regen. Harvest	40 acres
C/D Block Comm. Thinning	220 acres
C/D Block Salvage	0 acres
RR Density Mgt	263 acres
RR Salvage	0 acres
LSR Density Mgt	0 acres
LSR Salvage	101 acres
Little River AMA Regen	0 acres
Little River AMA Thin	52 acres
Little River AMA Salvage	0 acres

Below is a summary of various forest development, reforestation, silvicultural and timber stand improvement practices that were accomplished in fiscal year 1996. This work was accomplished through eleven contracts valued at approximately \$950,000.

Brushfield/hardwood conversion	0 acres
Site Preparation, prescribed fire	252 acres
Site Preparation, other	0 acres
Planting, regular stock	737 acres
Planting, genetic stock	269 acres
Stand maintenance/protection	2224 acres
Stand release/precommercial thin	3629 acres
Pruning	331 acres
Fertilization	0 acres

Special Forest Products

The Draft Handbook on Guidance for Special Forest Products was reviewed and finalized during fiscal year 1996. The final handbook was published at the end of fiscal year 1996. The following table shows the Special Forest Product sales for fiscal year 1996 on the Roseburg District.

Product	No. of Contracts	Quantity Sold	Value
Boughs-Coniferous	183	164,850 lbs	\$3,297
Burls & misc.	9	12,900 lbs	\$505
Christmas Tress	266	266 trees	\$1,375
Edibles & Medicinals	3	1,578 lbs	\$70
Floral & Greenery	120	69,120 lbs	\$3,458
Mosses-Bryophytes	3	6,333 lbs	\$150
Mushrooms-Fungi	56	1,572 lbs	\$393
Transplants	7	560 plants	\$480
Wood Products/Firewood	210	267,960 bd ft	\$49,111
Totals	857		\$58,839

Fire/Fuels Management

Site Preparation, prescribed fire: 252 acres

On district fires, 1995: 9 for a total of 1.85 acres, all lightning strikes

On district fires, 1996: 20 for a total of 15.17 acres, 17 lightning strikes, 1 vehicle exhaust, 1 burning vehicle, 1 campfire

1995 personnel and resources to 12 off district fires; 3 in Arizona, 9 in Oregon. 18 people were provided (4 IMS personnel, 3 probeye operators, 7 engine operators, 1 medical unit leader, 2 division/group supervisors, 1 strike team leader). Three engines and 4 probeyes were provided.

1996 personnel and resources to 35 off district fires; 3 in New Mexico, 2 in Arizona, 1 in Washington, 29 in Oregon. 126 people were provided (2 BLM coordinators for MAC group, 3 division/group supervisors, 1 dozer boss, 13 drivers, 2 dump truck operators, 37 engine operators, 5 felling bosses, 2 felling boss-trainees, 1 field observer, 17 firefighters, 3 front-end loader operators, 3 grader operators, 1 helicopter crew member, 1 helispot manager, 2 IMS managers, 4 IMS assistants, 3 IMS technicians, 2 initial attack dispatchers, 1 information officer, 3 lowboy operators, 9 probeye operators, 1 receiving/distribution manager, 1 resource unit leader, 2 squad bosses, 3 strike team leader-engine, 1 strike team leaner-engine-trainee, 1 support dispatcher, 1 telephone operator, 1 tool/equipment specialist. Twenty drip torches, 9 engines, 3 graders, 3 front-end loaders, 6 cases fusees, 7 pickups, 3 dump trucks, 4 flight helmets, 2 pumpkin tanks, 11 pumps, 40 gallons slash fuel, 60 gallons of Silvex (foam).

In addition the district also provided 4 dump trucks w/operators, 1 lowboy w/operator, and 4 flaggers to flood assistance in February 1996, and 1 support dispatcher for protests on the Umpqua National Forest in March 1996.

Water and Soils

Surveyed 38 miles of stream for proper functioning condition, operated 47 temperature monitoring stations, 6 gauging stations, collected sediment samples, one United States Geological Survey site on the North Umpqua Wild Scenic River for surface water and water quality.

Two miles of cooperative conifer reestablishment along streams, 38 acres of brushed conifer reestablishment and density management in riparian areas, 4 environmental assessments in areas that plan to improve riparian vegetation, monitoring plans for timber fertilization and Little River Adaptive Management Area, 5 monitoring studies for sediment, water temperature, water chemistry, Cooperative water quality, and stream flow monitoring. 2 hydro mulching projects to reduce sediment yield,

Watershed analysis has been described as a building block or foundation for management actions like timber sales, roads, and stream enhancement that are planned in a particular watershed. The watershed analyses provide managers a sound basis for management decisions. The watershed analysis process involves several steps. Some of the steps include identifying existing and desired conditions, identifying processes that explain the causes and effects of current conditions, and identifying restoration opportunities. Watershed analyses are dynamic documents, in that once they are "done", subsequent revisions or iterations can be expected to be added to provide additional information needed by managers to make informed decisions, or respond to changed circumstances or new information.

As of the end of fiscal year 1996, twenty watershed analyses had been completed through at least the first iteration. These watershed analyses included Old Fairview (Middle North Umpqua), Calapooya Divide (Calapooya), Tom Folley (Elk Creek, near Drain), Hubbard Creek (Upper Umpqua), Upper South Myrtle (Myrtle Creek), Days Creek (South Umpqua), John Creek (South Umpqua), Coffee Creek (South Umpqua), Middle Umpqua Frontal (Upper Umpqua), Upper Smith River, Brush Creek/Hayhurst (Elk Creek, near Drain), Canton Creek, Rock Creek, Little River Adaptive Management Area, Stouts Creek (South Umpqua), Poole Creek (South Umpqua), Shively-O'Shea (South Umpqua), East Elk Creek (Elk Creek, near Drain), Umpqua Frontal (Upper Umpqua), Radar/Wolf (Upper Umpqua). These watershed analyses involved a total of 709,489 acres, including 229,573 acres of public land administered by the BLM. This watershed analysis effort has encompassed 54% of the Roseburg District by the end of fiscal year 1996.

Watershed restoration work consisted of the decommissioning of approximately 1.8 miles of road, and the renovation or upgrading of 24.8 miles of road. The decommissioning of roads is dependent on complex and sensitive negotiations with permittees who have legal rights on most Roseburg District roads through Road Use Agreements. In fiscal year 1996, much work has been accomplished to build understanding and trust concerning the objectives of road decommissioning with permittees that is expected to facilitate this process in future years.

Wildlife Habitat

Monitoring northern spotted owls continued to be an important component of the overall wildlife program. Working with the team from the Pacific Northwest

Research Station, two northern spotted owl demographic study areas were maintained. These demographic study areas are a part of the overall effectiveness monitoring program being developed for the Northwest Forest Plan. Monitoring sites within the study areas as well as other sites within the district provides valuable information for project planning and day to day operations. Other listed threatened or endangered species surveyed or monitored within the district were marbled murrelet, peregrine falcon, and bald eagle.

Development of a management plan for the North Bank Management Area (an Area of Critical Environmental Concern, ACEC) was initiated in cooperation with the US Fish and Wildlife Service and Oregon Department of Fish and Wildlife. The area had been acquired to meet recovery needs for Columbian white-tailed deer. Besides planning, minor projects related to removal of old fences and structures and improvement of boundary fences and the domestic water supply was accomplished. A juvenile hunting program for black-tailed deer was established with Oregon Department of Fish and Wildlife to avoid crowding on the management area and minimize accidental loss of Columbian white-tailed deer through hunter education and identification training.

As the Northwest Forest Plan implementation dates arrive and protocols become available, additional survey and management species and protection buffer species are being inventoried. Project areas and high potential habitat were surveyed for great grey owls and red tree voles. The BLM continued to fund cooperative inventories for sensitive species in cooperation with Pacific Northwest Research Station, Oregon Department of Fish and Wildlife, Oregon State University, US Forest Service, and US Geological Survey. Stream amphibian, white-footed vole, fisher, and western pond turtle studies were conducted in cooperation with these agencies during the fiscal year.

Neo-tropical birds are of increasing concern in North America, across the nation and in the Northwest. The migratory avian productivity and survivorship protocol, and point count stations were employed to monitor non-game and neo-tropical migrant birds. The district received a section of land from a private donor. Past management and wildfire has left much of the area open brush and grass, providing habitat for a number of neo-tropical migratory birds. Management and monitoring on the area will emphasize these birds

During the past four years, marbled murrelet crews in the Roseburg District have also been inventorying neotropical birds in late-successional reserves. The crews have to contend with the tedium of staring into an empty sky in the earliest hours of the morning, waiting to detect a robin-sized bird (murrelet) flying over and through treetops at 50 mph. These crews can work for weeks without seeing any sign of a murrelet. There are two distinct benefits of the neotropical counts and surveys: (1) they provide baseline information on the relative abundance of these birds on the Roseburg District, and (2) they offer a welcome change of pace and opportunities to sharpen birding skills, which are critical for doing murrelet work this far inland. The Roseburg murrelet crews have located the furthest inland murrelet nesting site in the northwest and identified 67 neotropical bird species in the Coast Range and Klamath Provinces..

Fish Habitat

Much effort has been expended as a result of the listing of the Umpqua River cutthroat trout (*Onchorynchus clarki clarki*) as an endangered species under the

Endangered Species Act. District fisheries biologists, managers and interdisciplinary teams have worked hard to design projects to meet the management objectives for the Umpqua River cutthroat trout. The Roseburg District has worked closely with the National Marine Fisheries Service (NMF) and other agencies in the Umpqua basin concerning this issue.

The Roseburg District fisheries biologists installed a smolt trap in Little River obtain much needed information concerning this important species. The summary of this effort is displayed below.

Little River Smolt Trap Summary - 1995

Species, age	No. Fish Trapped	Population Estimate
Chinook, 0+	870	7207
Coho, 0+	206	1483
Coho, 1+	26	299
Steelhead, 1+	257	1926
Steelhead, 2+	185	2114
Steelhead, 3+	19	1266
Cutthroat, 1+	1	—
Cutthroat, 2+	3	—
Cutthroat, 3+	0	—

Little River Smolt Trap Summary - 1996

Species, age	No. Fish Trapped	Population Estimate
Chinook, 0+	253	884
Coho, 0+	68	385
Coho, 1+	12	33
Steelhead, 1+	598	5256
Steelhead, 2+	332	6806
Steelhead, 3+	70	4550
Cutthroat, 1+	2	—
Cutthroat, 2+	6	—
Cutthroat, 3+	2	—

In addition to the smolt trap effort, the district conducted spawning surveys. Stream surveys were conducted under contract with the Oregon Department of Fish and Wildlife. Other water quality and habitat surveys are discussed in the Water and Soils section of this report.

The Roseburg district participated in a stream restoration project in Brush Creek. This project involved a cooperative effort with private industry, the Fishermen's Association and the Roseburg District.

Special Status and SEIS Special Attention Species

Surveys, Monitoring, Consultation, and Restoration:

Surveys for Special Status (SS) and Special Attention (SA) species are being conducted prior to all ground disturbing activities. Roughly 4500 acres of preproject surveys have been conducted during the three year summary period.

Baseline bryophyte and lichen inventories have been conducted on approximately 2100 acres in District ACECs and ACEC/RNAs. Four SS plants are monitored on an annual basis to determine population trends. Preproject surveys and monitoring have been accomplished by a botanical staff of five permanent and two temporary (NTE) botanists. The total number of sites of SS plants known to occur on public lands within the District at the end of 1996 are presented in Table 1. The total number of sites of SA plants are presented in Table 2. There are a total of 162 SS sites and 230 SA sites.

Number of Sites by Species Group for Special Status Plant Species.

<i>Species Group</i>	<i>FL</i>	<i>FC</i>	<i>Status</i> ¹		
			<i>BS</i>	<i>AS</i>	<i>TR</i>
Fungi	—	—	—	—	—
Lichens	—	—	1	—	—
Bryophytes	—	—	—	6	—
Vascular Plants	—	4	44	8	110

¹ Status: FL=Federal Listed
FC=Federal Candidate
BS=Bureau Sensitive
AS=Assessment Species
TR=Tracking Species

Number of Sites by Species Group for Special Attention Plant Species.

<i>Species Group</i>	<i>PB</i>	<i>SM1</i>	<i>Status</i> ²		
			<i>SM2</i>	<i>SM3</i>	<i>SM4</i>
Fungi	—	—	—	9	—
Lichens	11	2	1	1	8
Bryophytes	—	2	—	2	193
Vascular Plants	—	12	12	—	—

² Status: PB=Protect & Buffer
SM1=Survey & Manage Strategy 1
SM2=Survey & Manage Strategy 2
SM3=Survey & Manage Strategy 3
SM4=Survey & Manage Strategy 4

(Some special attention species are included in more than one status category)

No consultation has been initiated for SS plants. Habitat restoration has been attempted at one SS plant location. Two Conservation Strategies have been completed and three more are in preparation.

C-3 Process Overview. There are approximately 400 species listed in Table C-3 in the Northwest Forest Plan Record of Decision (pp. C-49 - C-61). These species are known as Survey and Manage Species and each has management requirements that are listed as requiring one or more of four survey and manage strategies in the Northwest Forest Plan Record of Decision. Much of the information to carry out the various strategies has been under development through the Regional Ecosystem Office with the help of species experts from throughout the northwest.

Management recommendations for component (strategies) 1 and 2 fungi are in preparation and should be available for field use by the end of the current fiscal year. Management recommendations for lichens and vascular plants should be available to the field by spring of 1998. Draft management recommendations for bryophytes have already been distributed and are currently in use.

Survey protocols are currently in preparation for all species groups and should be available for field use in FY 1998. Training in survey protocols has been tentatively scheduled for the spring of 1998.

Special Areas

Defensibility monitoring has been conducted on annually all ACEC/RNAs. Habitat has been restored from unauthorized use on one ACEC/RNA and noxious weeds have been controlled on two other ACEC/RNAs. A checklist vascular plants is currently in preparation for publication for the Myrtle Island ACEC/RNA. Baseline lichen and bryophyte inventories have been complete at six ACEC/RNAs, one ACEC, and one candidate ACEC. Baseline fungus inventories are currently being conducted.

Seven ACECs were nominated by the public in the Final RMP. No action has been taken by the District on any of these nominations. All nominated areas are being managed to protect the proposed important and relevant features. Land acquisition proposed in the Final RMP to expand the Beatty Creek ACEC/RNA has not been pursued.

Cultural Resources

Excavation of a Native American archeological site at Susan Creek, Passports Time (PIT) Project which involved 30 volunteers. A radiocarbon assay from the pre-mazama component returned a date of 8,400 years ago, the oldest date so far recorded on the Umpqua Basin.

Socio-economic

Timber sale collections	
Oregon and California Railroad Lands (O&C):	\$18,062,961
Coos Bay Wagon Road Lands (CBWR):	\$653,889
Public Domain Lands (PD)	\$3,796,970
Payments to Douglas County	
Oregon and California Railroad Lands (O&C):	\$18,366,586
Payment in Lieu of Taxes (PILT):	\$231,578
Value of forest development contracts (11 contracts):	\$950,000
Value of timber sales, oral auction (14) and negotiated (26):	\$19,000,000

Jobs-in-the-Woods report

The Jobs-in-the-Woods program was established to mitigate the economic and social impacts of reduced timber harvesting under the Northwest Forest Plan while investing in the ecosystem. Fiscal year 1996, which was the third year for this program, consisted of a budget of \$1,075,000 on the Roseburg District. Six contracts were funded on the district under this program in fiscal year 1996 to accomplish projects such as road restoration, renovation or upgrade to benefit watersheds, culvert replacements to aid fish passage and to better accommodate water flows associated with large storms, and construction and renovation of Susan Creek Falls trail to meet handicap accessible standards. The Roseburg

District continues to work closely with partnerships to accomplish the work and provide displaced workers with longer term, high skill family-wage jobs.

Recreation

Number of campgrounds - 7, Number of campground users - 20,000
Number of day-use areas - 11, Number of day-use area users - 175,000

Miles of trail - 14: North Umpqua 11, Susan Creek Falls 1, Wolf Creek Falls 2

Wild and Scenic Rivers - 1: North Umpqua

Boating use:

Commercial	2541 boaters
Private Use	3605 boaters
Total	6146 boaters

The Roseburg District shares management of the North Umpqua Wild and Scenic River with the Umpqua National Forest. Implementation of the management plan continued in fiscal year 1996.

Number of Volunteer Hours

Boy Scout Troops	199
Eagle Scouts	493
Prison Inmates	675
LDS Church	148
Wolf Creek Job Corps	100
Campground Hosts	3760
Other	40
Total	5415

Projects completed:

1. Millpond Recreation Site renovation
2. Revegetation projects at Millpond and Rock Creek Recreation Sites
3. Hazard tree monitoring and treatment at all recreation sites
4. Construction of disabled accessible trail to river in Susan Creek Campground

The Cow Creek Backcountry Byway plan was under development, a kiosk for interpretive and public information purchased.

Noxious Weeds

The noxious weed program on the Roseburg District has as its objective to contain and/or reduce noxious weed infestations on BLM-administered land using an integrated pest management approach, and to avoid introducing or spreading noxious weed infestations in any areas. The Roseburg District continues to survey BLM-administered land for noxious weed infestations. Infestations are reported to the Oregon Department of Agriculture, and the district cooperates with the department to control infestations. Integrated pest management includes chemical, mechanical, manual and biological methods which are used in accordance with BLM's 1985 Northwest Area Noxious Weed Control Program Environmental Impact Statement, and 1987 Supplement, and respective Records of Decision.

Recent management actions to control noxious weeds are summarized below

Treatment	Species	Acres	Years Treated
Manual	Scotch Broom	90	2
	Yellow Starthistle	21	1
	Skeleton Weed	1	1
	Gorse	1	1
Biological	Yellow Starthistle	5	1
Chemical	Diffuse Knapweed	3	3
	Yellow Starthistle	1	2

Noxious weeds have been included in all project clearance surveys which have totaled approximately 1500 acres per year. Sites that have been identified during these surveys have been managed in accordance with the Resource Management Plan and the District Noxious Weed Environmental Assessment

Port Orford Cedar

Extensive road side surveys have been conducted to determine the extent of infestations of the root rot fungus, *Phytophthora lateralis*.

There are two outplanting sites for Port Orford Cedar being developed on the district.

One ten acre site will be a "Common Garden Study" site to test for how much genetic variation in silvicultural characteristics in this species from seedlings collected from across its range. The site will accommodate 10,000 seedlings. This is one of five similar sites. The other four sites are located on the Forest Service.

One six acre site will be a field verification site. Vegetative material (cuttings) have been taken of various parent trees. The vegetative material is inoculated a laboratory with the fungus *Phytophthora lateralis* which causes a root rot disease that kills Port Orford cedar. The inoculated specimen is observed as how quickly the fungus is taken up in order to identify potential genotypic resistance. Seeds are collected from potentially resistant parent trees identified through the testing process. Seedlings from the parent trees are then transplanted into this field verification site, which is naturally heavily infected with the disease, to determine if the seedlings display resistance.

Access

Because public and private lands are intermingled within the district boundary each party must cross the lands of the other in order to access their lands and resources such as timber. Throughout most of the district this has been accomplished through Reciprocal Logging Road Rights-of-Way Agreements with neighboring private landowners. The individual agreements and associated permits (a total of 140 on the district) are subject to the regulations which were in effect when they were executed or assigned. Additional rights-of-way have been granted for the construction of driveways, utility lines for servicing residences, domestic and irrigation water pipelines, legal ingress and egress, etc.

In fiscal year 1996, nine temporary right-of-way permits were granted. In addition, there was the assignment of five right-of-way agreements. When right-of-way agreements are assigned, the Roseburg District exercises its right to update these agreements to reflect current laws and regulations, and environmental goals and objectives.

Roads

The Roseburg District has approximately 3,000 miles of roads which are controlled or improved by the BLM. Timber sales are often designed such that the purchasers have responsibility for maintaining those BLM roads that are used in execution of the contract. In addition, road maintenance is accomplished on a regular basis by the district road maintenance crew. The Roseburg District road maintenance crew maintained approximately 750 miles of road in fiscal year 1996. This is somewhat lower amount of roads miles maintained than average due to the need to address significant storm damage. The maintenance crew completed seven storm damage projects valued at \$140,000. In addition, storm damage was repaired under a contract valued at \$160,000. Other work included the maintenance of fifteen bridges and extensive road side brush cutting.

Energy and Minerals

One Plan of Operations approve, 11 mining notices received and reviewed, 106 mining claim inspections performed, 8 notices of non-compliance issued, 54 community pits inspected, work performed in rehabilitation of Middle Creek.

Hazardous Materials

Five minor incidences responded to, contingency plan updated, waste minimization plan started, district environmental audit performed with only minor problems noted, all of which were corrected.

Planning and NEPA

The Roseburg Resource Management Plan Record of Decision was approved in June 1995. Since that time, the Roseburg District has begun implementation of the plan across the entire spectrum of resources and land use allocations. As the plan is implemented it sometimes becomes necessary to make minor changes, refinements or clarifications of the plan. Potential minor changes, refinements or clarifications in the plan may take the form of maintenance actions. Maintenance actions respond to minor data changes and incorporation of activity plans. This maintenance is limited to further refining or documenting a previously approved decision incorporated in the plan. Plan maintenance will not result in expansion of the scope of resource uses or restrictions or change the terms, conditions and decisions of the approved resource management plan. Maintenance actions are not considered a plan amendment and do not require the formal public involvement and interagency coordination process undertaken for plan amendments. Important plan maintenance will be documented in the Roseburg District Planning Update. Examples of possible plan maintenance issues that would involve clarification may include the level of accuracy of measurements needed to establish riparian reserve widths,

measurement of coarse woody debris, etc. Much of this type of clarification and refinement involves issues that have been examined by the Regional Ecosystem Office and contained in subsequent instruction memos from the BLM Oregon State Office.

The following items have been implemented on the Roseburg District as part of plan maintenance. These items have been reviewed and coordinated with the Regional Ecosystem Office and the Southwest Provincial Advisory Committee. Depending on the issue, not all plan maintenance issues will necessarily be reviewed and coordinated with the Regional Ecosystem Office or Provincial Advisory Committee. These are condensed descriptions of the plan maintenance items. Complete and detailed descriptions are available at the Roseburg District Office by contacting Phil Hall at 440-4931 ext. 242. These plan maintenance items represent minor changes, refinements or clarifications that do not result in the expansion of the scope of resource uses or restrictions or change the terms, conditions and decisions of the approved resource management plan. Plan maintenance is also described in the Roseburg District Resource Management Plan Record of Decision, page 79.

Roseburg District Plan Maintenance; *for fiscal year 1996.*

1. Refinement of management direction pertaining to riparian reserves.

Standard of accuracy for measuring riparian reserve widths. (NFP Record of Decision pg B-13, Roseburg RMP Record of Decision pg 23)

As reviewed by the Regional Ecosystem and Research, and Monitoring Committee; a reasonable standard of accuracy for measuring riparian reserve widths in the field for management activities is plus or minus 20 feet or plus or minus 10% of the calculated width.

2. Refinement of management direction pertaining to riparian reserves.

Determining site-potential tree height for riparian reserve widths. (NFP Record of Decision page C-31, Roseburg RMP Record of Decision pg 24)

According to the NFP Record of Decision, and the Roseburg District Resource Management Plan Record of Decision, "site potential tree height is the average maximum height of the tallest dominant trees (200 years or older) for a given site class." As reviewed by the Regional Ecosystem Office and as set forth by Instruction Memo OR-95-075, the Roseburg District will determine site-potential tree height for the purpose of establishing riparian reserve widths by the following steps:

*Determine the naturally adapted tree species which is capable of achieving the greatest height within the fifth field watershed and/or stream reach in question;

*Determine the height and age of dominant trees through on-site measurement or from inventory data (Continuous Forest Inventory Plots);

*Average the site index information across the watershed using inventory plots, or well-distributed site index data, or riparian-specific derived data where index values have a large variation;

*Select the appropriate site index curve;

Use Table 1 (included in Instruction Memo OR-95-075) to determine the maximum tree height potential which equates to the prescribed riparian reserve widths.

Additional detail concerning site potential tree height determination is contained in the above referenced instruction memo. Generally, the site potential tree heights used on the Roseburg District are usually in the vicinity of 160 to 200 feet.

3. Minor change and refinement of management direction pertaining to coarse woody debris in the matrix.

Coarse woody debris requirements.(NFP Record of Decision pg C-40, Roseburg RMP Record of Decision pg 34,38,65)

As recommended by the Research and Monitoring Committee and as reviewed and forwarded by the Regional Ecosystem Office, the Roseburg District will use the following guidelines in meeting the coarse woody debris requirements (leave 120 linear feet of logs per acre greater than or equal to 16 inches in diameter and 16 feet long) in the General Forest Management Area and Connectivity/Diversity Blocks.

*In determining compliance with the linear feet requirements for coarse woody debris, the Roseburg District will use the measurement of the average per acre over the entire cutting unit, or total across the unit.

*log diameter requirements for coarse woody debris will be met by measuring logs at the large end.

*interdisciplinary teams will establish minimum coarse woody debris requirements on each acre to reflect availability of coarse woody debris and site conditions.

*During partial harvests early in rotational cycle, it is not necessary to fall the larger dominant or codominant trees to provide coarse woody debris logs.

*Count decay class 1 and 2 tree sections greater than or equal to 30 inches in diameter on the large end that are between 6 feet and 16 feet in length toward the 120 linear feet requirement

In addition, the coarse woody debris requirements have been further refined in cooperation with the Southwest Oregon Province Advisory Committee, a diverse group of land managers and interest groups with representation from federal land management and regulatory agencies, state and local government, timber industry, recreation, environmental, conservation, fishing, mining, forest products, grazing, and tribal interests. After this refinement has been implemented for one year, the Province Advisory Committee will evaluate the results.

This process for determining coarse woody debris requirements, which is described in seven steps, is anticipated to be a very simple process that an interdisciplinary team will follow when planning projects that may impact levels of coarse woody debris. New prescriptions will be only for the project being planned.

4. Minor change in management direction pertaining to lynx.

Change in specific provisions regarding the management of lynx. (NFP Record of Decision pages C-5, C-45, C-47 C-48; Roseburg RMP Record of Decision pages 45,46,47)

This documents an Oregon State Director decision to implement through plan maintenance of the western Oregon BLM resource Management Plans a Regional Interagency Executive Committee decision .

This refinement of lynx management consists of the changing the survey and manage lynx requirements from survey prior to ground disturbing activities to extensive surveys. Implementation schedule is changed from surveys to be completed prior to ground disturbing activities that will be implemented in fiscal year 1999 to surveys must be under way by 1996. Protection buffer requirements for lynx are unchanged.

These changes simply resolve an internal conflict within the Northwest Forest Plan Record of Decision and Roseburg Resource Management Plan.

5. Minor change in standards and guidelines for *Buxbaumia piperi*

On July 26, 1996, the Oregon State Director issue a minor change in the standards and guidelines or management action direction in the RMP for *Buxbaumia piperi* (a species of moss) through plan maintenance. The State Director's action "maintained" the Roseburg, Salem, Eugene, Medford, and Klamath Falls Resource Management Plans. Simultaneously, the Forest Service issued Forest Plan corrections for 13 National Forests in the Northwest to accomplish the same changes.

This plan maintenance action removes *B. piperi* as Protection Buffer species. This change corrects an error in which mitigation measures described on page C-27 of the Northwest Forest Plan Record of Decision and on page 44 of the Roseburg District Resource Management Plan Record of Decision were incorrectly applied to *B. Piperi*.

B. piperi was addressed in the Scientific Analysis Team (SAT) report published in 1993. The Northwest Forest Plan Record of Decision included some Protection Buffer species sections from the SAT report. The SAT Protection Buffer species status was developed to improve the viability of species considered at risk. Although *B. piperi* is not rare, it was apparently carried forward as a Protection Buffer species because it was rated with a group of rare mosses that occupy similar habitat.

This plan maintenance is supported by staff work and information from the Survey and Manage Core Team, and the expert panel of Pacific Northwest specialists on bryophytes, lichens and fungi that participated in the Scientific Analysis Team process.

6. Minor change/correction concerning mountain hemlock dwarf mistletoe

Appendix H-1 of the Roseburg RMP Record of Decision indicated that *Aruethobium tsugense* was to be managed under survey strategies 1 and 2. The Regional Ecosystem Office later determined mountain hemlock dwarf mistletoe to be common and well distributed in Oregon, and recommended that *Aruethobium tsugense* subsp. *Mertensianae* be managed as a survey strategy 4 species in Washington only. This information was received in OSO Information Bulletin OR-95-443 is adopted as RMP clarification.

Other planning and NEPA related activities include the following:

Planning for the RMP Third Year Evaluation was initiated.

Nineteen environmental assessments were completed.

The Western Oregon Transportation Management Plan was adopted in June 1996 fulfilling a requirement of the RMP Record of Decision.

Work was started on the Draft Off-Highway Vehicle Implementation Plan. This plan would be finalized and adopted in fiscal year 1997.

Research

In June 1996, the BLM published "A Strategy for Meeting Our Research and Scientific Information Needs". It lays out a strategy for identifying BLM's priority research needs, addressing all areas of science throughout the agency. It also tells how to acquire research results through partnerships with federal science agencies, the academic and private sectors and other sources. Guidelines for transferring research results into use are also provided.

At the state level, BLM has organized a research and monitoring committee which periodically evaluates research recommendations, and which proposes areas needing research to cooperating agencies. Virtually all of western Oregon research subjects proposed for future research in fiscal year 1996 dealt with Northwest Forest Plan topics such as riparian, Aquatic Conservation Strategy, and habitat issues.

Current research projects on the Roseburg District are related to the Northwest Forest Plan. Research is being done to increase our knowledge of how late-successional stands develop their unique characteristics. Part of this research has involved a retrospective thinning study which has examined the development of old growth stands through examining stumps in harvested areas, existing stands and other means. Related to this topic and the retrospective thinning study has been other research that has included density management studies of existing stands that have undergone previous thinning. This research may lead to improved or more effective ways of managing stands to achieve ecosystem objectives and accomplishing the goals of the Northwest Forest Plan.

Information Resource Management

The ability to accomplish very complex management of diverse resources over 425,000 acres requires enormous amounts of information. In order to accomplish this management in an efficient manner, the Roseburg District employees the most up to date electronic office and geographic information system (GIS) hardware and software. There have been several recent major accomplishments concerning information resource management. First, the office data and electrical systems were upgraded to carry the district well into the future. All of the outdated cabling and data communications equipment were removed during the process.

Next, the data connections to other districts, agencies and the Internet were completed. The district achieved its goal of providing all employees access to electronic mail, office automation software and the Internet.

Finally, and most significant to district resource management professionals, is the growth in use of the geographic information system. This electronic mapping and analysis tool is providing a means for district specialists to complete complex analyses of spatial and relational data. A large number of resource managers have recently been trained in the use of GIS software. The training has resulted in a surge of GIS use on the district.

All of these achievements are the result of a focused effort to modernize the district office. The Roseburg District's goal is to continue to place appropriate technology and training in the hands of employees to increase efficiency and effectiveness.

Interagency Cooperation Efforts

Ongoing participation in the southwest Oregon Provincial Executive Committee (includes heads of federal agencies in southwest Oregon). Completed interagency effort on Little River watershed analysis. Ongoing interagency effort on Little River Adaptive Management Area. Initiated interagency effort on three late-successional reserve assessments. Interagency discussions begun on an Umpqua Basin Assessment. Endangered Species Act consultation process involving Bureau of Land Management, US Fish and Wildlife Service, US Forest Service, and National Marine Fisheries Service. Joint BLM-Forest Service efforts in developing late-successional reserve assessments.

Cadastral Survey

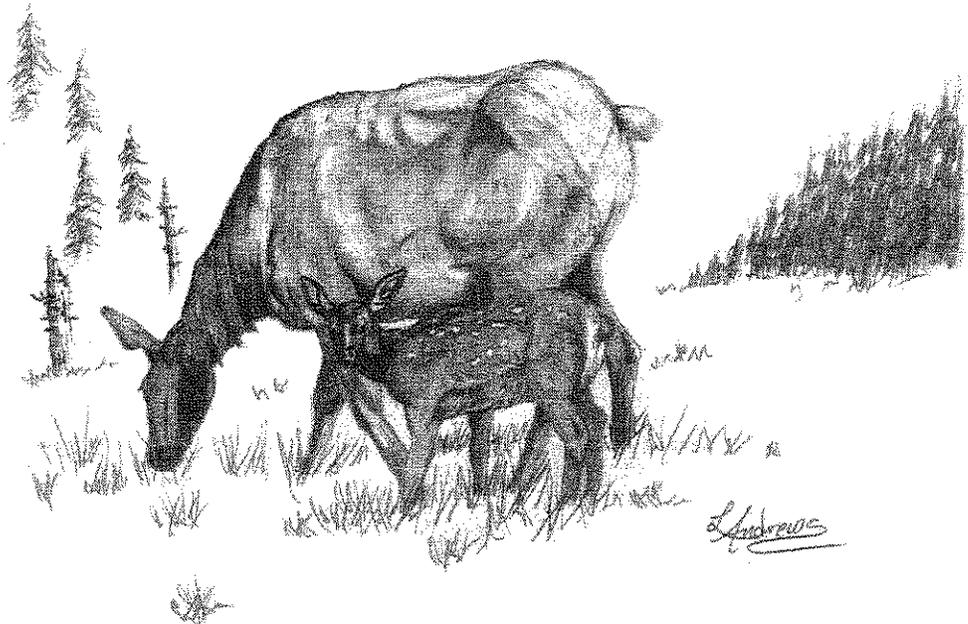
Cadastral Survey Crews completed 7 projects with a total of 37.5 miles of survey line run, 38 monuments set, and marked a total of 12.25 miles of federal lands. These surveys were completed to mark the boundaries of future timber sales and mark areas of trespass, timber theft and occupational trespass. Also there were approximately 50 questions as to survey procedures, status of surveys, and information about corners asked by private land owners, private timber companies, and private surveyors. Cadastral Survey Crews also furnished information and training to Roseburg District personnel as needed throughout the year as to survey procedures, operation of surveying equipment and use of GPS equipment.

Law Enforcement

Roseburg District has a full time BLM Ranger along with the services of a Douglas County Deputy Sheriff (through a law enforcement agreement with Douglas County) for law enforcement duties. Law enforcement efforts on the Roseburg District for fiscal year 1996 included participating in operations at Roseburg, Salem and Medford Districts during active protests and other demonstrations having the potential for confrontation, destruction of government property, or threatened employee or public safety, investigating occupancy trespass cases, assistance to the United States Attorney's Office with legal issues involved in searching BLM lands in the Roseburg District for a homicide victim, coordination with various state, local and federal agencies on the exchange of information concerning illegal or planned illegal activities on BLM lands, along with regular patrols and other ongoing investigations. Cases and incidents have resulted in written warnings, citations, physical arrests, and the referral of cases to other agencies. In addition, through the BLM Ranger and Deputy Sheriff, the Roseburg District has been able educate the public concerning appropriate uses of public lands and resources as well as preventing or avoiding potentially unlawful or harmful incidents and activities.

ROSEBURG DISTRICT RESOURCE MANAGEMENT PLAN MONITORING

FISCAL YEAR 1996



Monitoring Report

Fiscal Year 1996

Executive Summary

Introduction

This document represents the first monitoring report of the Roseburg District Resource Management Plan for which the Record of Decision was signed in June 1995. This monitoring report compiles the results and findings of implementation monitoring of the first full fiscal year of implementation of the Resource Management Plan, Fiscal Year 1996. This report does not include the monitoring conducted by the Roseburg District which is identified in activity or project plans. Monitoring at multiple levels and scales along with coordination with other BLM and Forest Service units has been initiated through the Regional Interagency Executive Committee (RIEC).

The Resource Management Plan monitoring effort for Fiscal Year 1996 addressed the 86 implementation questions relating to the 20 land use allocations and resource programs contained in the Monitoring Plan. There are 51 effectiveness and validation questions included in the Monitoring Plan. The effectiveness and validation questions were not required to be addressed because some time is required to elapse after management actions are implemented in order to evaluate results that would provide answers.

Findings

Monitoring results found full compliance with management action/direction in 19 of the 20 land use allocations and resource programs identified for monitoring in the plan. Monitoring results also found full compliance in 85 of the 86 implementation monitoring questions contained in the plan. Of the 86 implementation monitoring questions, 38 questions require status or reports of programs.

One key question relating to Riparian Reserves found two instances of discrepancies with management action/direction. Although not constituting non-compliance, results from two other key questions which required status or reports, found differences in some Fiscal Year 1996 activities and outputs compared to projected annual averages.

In the case of the two Riparian Reserve question discrepancies, actual design of the project exceeded protection of the Riparian Reserves compared to that intended by management action/direction in the RMP. Overall, analysis of the discrepancy and differences did not indicate adverse affects to resources or programs or the need for management or program adjustment

Recommendations

No implementation or management adjustments are recommended as Fiscal Year 1996 monitoring results indicate very high compliance with management action/direction.

Fiscal Year 1996 Monitoring indicates the need for clarification of some management action/direction in the Resource Management Plan, and some improvements to the RMP Monitoring Plan and process.

Conclusions

Analysis of the Fiscal Year 1996 monitoring results concludes that the Roseburg District had almost 100% compliance with management action/direction, and therefore no major changes in management direction or Resource Management Plan implementation is warranted at this time. The results indicate a very conscientious implementation of the plan by highly informed and knowledgeable staff and managers.

Monitoring Fiscal Year 1996

Introduction

This document represents the first monitoring report of the Roseburg District Resource Management Plan for which the Record of Decision was signed in June 1995. This monitoring report compiles the results and findings of implementation monitoring of the first full fiscal year of implementation of the Resource Management Plan. Included in this report are the projects that took place from June 1995 until September 1995 as well as those for Fiscal Year 1996. Effectiveness and validation monitoring will be conducted in subsequent years when projects mature or proceed long enough for the questions asked under these categories of monitoring to be answered. The term "management action/direction" discussed in the Resource Management Plan and this monitoring report is approximately equivalent to the term "standards and guidelines" used in the Record of Decision for the Northwest Forest Plan.

Background

The BLM planning regulations (43 CFR 1610.4-9) call for the monitoring and evaluation of resource management plans at appropriate intervals.

Monitoring is an essential component of natural resource management because it provides information on the relative success of management strategies. The implementation of the RMP is being monitored to ensure that management actions: follow prescribed management direction (implementation monitoring), meet desired objectives (effectiveness monitoring), and are based on accurate assumptions (validation monitoring)(see Appendix I, Record of Decision and Resource Management Plan). Some effectiveness and most validation monitoring will be accomplished by formal research. The nature of the questions concerning effectiveness monitoring require some maturation of implemented projects in order to discern results. This and validation monitoring will be conducted as appropriate in subsequent years.

The monitoring process usually collects information on a sample basis. Monitoring could be so costly as to be prohibitive if not carefully and reasonably designed. Therefore, it is not necessary or desirable to monitor every management action or direction. Unnecessary detail and unacceptable costs are avoided by focusing on key monitoring questions and sampling procedures. The level and intensity of monitoring varies, depending on the sensitivity of the resource or area and the scope of the management activity.

Monitoring Overview

This monitoring report focuses on the 86 implementation monitoring questions contained in the Resource Management Plan. This report does not include the monitoring conducted by the Roseburg District identified in activity or project plans. The monitoring plan for the Resource Management Plan incorporates the Monitoring and Evaluation Plan for the Record of Decision for the Northwest Forest Plan.

Monitoring at multiple levels and scales along with coordination with other BLM and Forest Service units has been initiated through the Regional

Interagency Executive Committee (RIEC). At the request of the Regional Interagency Executive Committee, the Regional Ecosystem Office (REO) initiated a regional-scale pilot Implementation Monitoring Program. An interagency work group attached to the Research and Monitoring Committee of the Regional Ecosystem Office produced a Final Draft Implementation Monitoring Guidance document. Based on this document and other work, an interagency monitoring team sampled 10 percent of the BLM and Forest Service timber sales implemented in Fiscal Year 1996. This random sample of 43 timber sales represented 10 of the 12 Northwest Forest Plan provinces. The findings of this monitoring effort may be found in the Final Report, March 3, 1997 Results of the FY 1996 (Pilot Year) Implementation Monitoring Program for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl.

The monitoring process is intended to be an iterative, adaptive process where we learn by doing. As results are evaluated, the process is expected to be adjusted as needed. Changes may be made in the monitoring process itself to increase clarity, efficiency, and usefulness of monitoring. Other adjustments may be made in district processes and procedures to increase our success in achieving implementation objectives.

The goal of management is to have very high compliance with all management action/direction or all standards and guidelines. Failure to achieve 100 percent compliance will result in the evaluation aspect of adaptive management to determine if adjustments are necessary to correct deficiencies.

Monitoring Process and Approach

Each Resource Area is responsible for the collection, compilation, and analysis of much of the data gained through monitoring activities. Resource Areas must report their findings and recommendations to the District for consolidation and publication in the Annual Program Summary.

The RMP Monitoring Plan consists of key questions for implementation, and effectiveness and validation monitoring relating to the various land use allocations and resource programs. The key questions are applied through monitoring requirements identified in the Monitoring Plan. Monitoring requirements describe appropriate sampling levels and how the key questions will be answered. Where monitoring requirements indicated a sample percentage of projects to be monitored, projects were selected randomly by District staff. The identified sample projects were given to the Resource Areas to complete implementation monitoring.

Although some monitoring requirements indicate that the information for some key questions will be found in the Annual Program Summary, this document has been designed to stand alone and all answers and information are provided in this report. When combined with the Annual Program Summary, there may be some repetition of information.

The Resource Management Plan directs that the Annual Program Summary will track the progress of plan implementation, state the findings made through monitoring, specifically address the implementation monitoring questions posed in each section of the Monitoring Plan and serve as a report to the public. The Resource Management Plan monitoring effort for Fiscal Year 1996 addressed the 86 implementation questions relating to the 20 land use allocations and resource programs contained in the Monitoring Plan.

There are 51 effectiveness and validation questions included in the Monitoring Plan. These questions generally require some time to elapse after management actions are implemented in order to evaluate results that would provide answers. Examples of effectiveness and validation questions in the Monitoring Plan are: "Is the forest ecosystem functioning as a productive and sustainable ecological unit?", "Is the health of the Riparian Reserve improving?", "Are stands growing at a rate that will produce the predicted yields?", "What are the effects of management on species richness (numbers and diversity)?" These kinds of questions are mostly not able to be addressed in the first years of plan implementation. Effectiveness and validation monitoring status, progress and results will be reported in subsequent year monitoring reports as appropriate.

Monitoring Results and Findings

The results of answering the implementation questions in the Monitoring Plan are not easily characterized. Some questions may be answered in a yes or no manner. Some questions because of lack of activity in a particular aspect of a resource program may not be applicable. Many questions ask for a brief status report of an activity. The status-type of questions often lack thresholds of acceptable activity. Examples of this type of question are: "What is the status of designing and implementing wildlife restoration projects?", "What is the status of the preparation of assessment and fire plans for the Late-Successional Reserves?", "What is the status of reviews of ongoing research in Key Watersheds to insure that significant risk to the watershed does not exist?"

Although the nature of the monitoring questions makes any meaningful statistical summary difficult, some generalizations and highlights may be made.

There were found to be two discrepancies the 86 implementation monitoring questions contained in the plan. Not all discrepancies equated to non-compliance with management action/direction; only one question found an instance of non-compliance. Activities in 19 of 20 land use allocations and resource programs identified for monitoring in the plan were found to be in full compliance with management action/direction. These generalizations require a more in depth examination of the implementation monitoring questions and monitoring results in order to be fully understood.

Discussion of Discrepancies

Riparian Reserves

There was one key question, where on-the-ground application did not comply with management action/direction.

The key question in which an instance of non-compliance was noted is question number two of the Riparian Reserve key questions: "Is the width and integrity of the Riparian Reserves being maintained?" For this question, five units within two timber sales were sampled. Of the total of five units sampled, the Riparian Reserve width of unit seven of the High Noon timber sale was found to be posted at an average 299 feet versus the required 360 feet for a fish bearing stream (reserve width requirement of two site potential trees, site potential tree in this instance equals 180 feet). This constitutes an average width discrepancy of 61 feet or 17%. However, there was a no harvest area of reserve trees between the Riparian Reserve and the actual area of unit 7 in which trees are harvested

which well exceeds the 61 feet shortfall. As a result of this no harvest area adjacent to the Riparian Reserve, the reserve was not compromised and there was no resource or ecological impacts that result. In actual effect, protection of the Riparian Reserve actually exceeded that prescribed by management action/direction with the design of the no harvest area of retention trees adjacent to the Riparian Reserve.

In addition, the Riparian Reserve on Unit 2 of Idleyld timber sale averaged 24 to 35 feet or 13% to 19% wider than requirements. In the case of both Idleyld and High Noon timber sales, the actual Riparian Reserve width average discrepancies resulted from boundaries being established on existing logical features to accomplish objectives. Existing features include terrain breaks, vegetation breaks (edge of a clearcut) and roads. Heavy brush and stream meander may have resulted in a few inconsequential discrepancies.

Timber Resources

In two questions having to do with timber resources, Fiscal Year 1996 activities and outputs differed from average annual projections. Except for the Roseburg declared Allowable Sale Quantity, projections are not intended as management action/direction requiring strict conformance. Projected levels of activities are the approximate level expected to support the Allowable Sale Quantity. Annual or periodic differences between projected and actual levels of activities will be examined during third year evaluation to determine if the goals and objectives outlined for timber resources are being or are likely to be met.

Timber Resource key monitoring question number one is: "By land use allocation, how do timber sale volumes, harvested acres, and the age and type of regeneration harvest stands compare to projections in the SEIS Record of Decision, Standards and Guidelines and RMP management objectives?". Discrepancies in this question involved the following:

	Fiscal Year 1996	Projected	Diff
Total Timber Sale Vol:	41.7 MMBF	49.5 MMBF	-14%
Matrix Timber Sale Vol:	36.7 MMBF	45.0 MMBF	-18%
Other wood	4.2 MMBF	4.5 MMBF	-6%
Key Watershed TS Vol:	7.4 MMBF	8.3 MMBF	-10%
Total Regen Harvest	950 acres	1190 acres	-20%
Total Comm Thinning	317 acres	84 acres	+277%
Total Density Mgt	247 acres	66 acres	+274%

The differences between Fiscal Year 1996 timber volumes and the projected average annual rates does not constitute non-compliance with management action direction. Management action/direction for timber resources states: "During the first several years, the annual allowable sale quantity will not likely be offered for sale. The Resource Management Plan represents a new forest management strategy. Time will be required to develop new timber sales that conform to the Resource Management Plan."

The shortfall between Fiscal Year 1996 and projected regeneration harvest acres is in approximate proportion to the volume differences discussed above.

The significant differences in Fiscal Year 1996 and projected commercial thinning and density management may be attributable to two factors. The first

factor is that the interdisciplinary teams have in this initial year of implementation found that thinning and density management projects are less complex and relatively easier to implement than regeneration harvests. A second factor may be that the "operability" of available acres to commercial thin or density manage may have been underestimated. This factor will continue to be tracked and addressed in the district's third year evaluation.

Timber Resource key monitoring question number two is: "Were the silvicultural (eg., planting with genetically selected stock, fertilization, release, and thinning) and forest health practices anticipated in the calculation of the expected sale quantity, implemented?". Discrepancies in this question involved the following:

	Fiscal Year 1996	Projected
Brushfield/hardwood conversion	0 acres	15 acres
Site Preparation, prescribed fire	304 acres	840 acres
Site Preparation, other	0 acres	50 acres
Planting, regular stock	737 acres	290 acres
Planting, genetic stock	269 acres	1140 acres
Stand maintenance/protection	2224 acres	830 acres
Stand release/precommercial thin	3629 acres	390 acres
Pruning	331 acres	460 acres
Fertilization	0 acres	1140 acres

Some of the above discrepancies represent small percentages of difference between Fiscal Year 1996 and projected annual average. The projected figures are an annual average for the first decade of the plan and as such the actual annual level of activity would vary from year to year. Activities that varied insignificantly within the annual averages are brushfield/hardwood conversion, site preparation other, and pruning.

The discrepancy between projected site preparation prescribed fire acres and the actual accomplishment in Fiscal Year 1996 largely represents available acres which vary with recent timber sale harvest activity. No adjustment of the site preparation program is indicated.

The planting of regular stock and the planting of genetic stock discrepancy is based on the start-up time lag at seed orchards in producing available genetic seed and seedlings. This situation is expected to be corrected in a few years. Since the planting of genetic stock has not contributed to the allowable sale quantity calculated for this decade, there is no program or resource effect resulting from this discrepancy.

The discrepancy in projected and Fiscal Year 1996 levels of stand maintenance/protection is a reflection of the high number of acres planted prior to this plan. The large amount of acres available for stand maintenance/protection resulting from actions previous to this plan will be eliminated over the next five years. Treatments will then more closely reflect acres projected under the current plan.

The discrepancy in projected and Fiscal Year 1996 levels of stand release and precommercial thinning is the result of a typographical error in the Roseburg District Record of Decision and Resource Management Plan. The correct projection of 3900 acres was published in the Proposed Resource Management Plan/Final Environmental Impact Statement. The discrepancy based on the

correct projected number of 3900 acres is less than 10% and would fall into the category of an insignificant variation within annual averages.

The discrepancy in projected and Fiscal Year 1996 levels of fertilization is a result of the fertilization environmental assessment being held up during administrative appeal. The appeal has been resolved and the fertilization planned for Fiscal Year 1996 will be accomplished in Fiscal Year 1997 or Fiscal Year 1998.

None of the discrepancies between projected levels of activity and the Fiscal Year 1996 levels indicate the need for program adjustment.

Recommendations

Implementation and Management

As a result of observed very high compliance with management action/direction in the Fiscal Year 1996 monitoring, no implementation or management adjustments are recommended.

Clarification of Management Action/Direction

The Resource Area monitoring submissions to the District indicated difficulties in interpreting the management action/direction. It is recommended that the Fiscal Year 1996 monitoring be reviewed by Resource Area and District staff to develop training for personnel and/or clarification language in the form of plan maintenance.

Improvements to the Monitoring Plan and Process

Fiscal Year 1996 monitoring revealed several minor errors and misprints in the monitoring plan. In addition, the language of some monitoring questions and requirements was found to be in need of clarification. The standard which constitutes compliance with a monitoring question was not always clear. It is recommended that, through plan maintenance, the monitoring language be clarified where necessary, and that compliance standards be explained in the monitoring plan where necessary.

Because this was the first monitoring report of the Resource Management Plan, there was not an existing format by which Resource Areas could report monitoring results to the District. As a result, the Resource Area reports are unnecessarily difficult to compare and to extract information. It is recommended that a consistent format be developed for the reporting of Fiscal Year 1997 monitoring results from the Resource Areas.

Also relating to the first year experience in monitoring the plan, the Resource Area individual who had overall responsibility for monitoring was not always clear. This caused some inefficiency and compressed work to meet due dates for completion of monitoring. It is recommended that the Resource Area monitoring coordinator be clearly identified.

There was some confusion both with BLM staff and members of the public as to when the Roseburg District Monitoring Report was due to be published. Initial goals for completion of the Fiscal Year 1996 Monitoring Report were delayed because of the necessity to direct staff effort towards biological consultation

with National Marine Fisheries Service concerning Umpqua River cutthroat trout. It is recommended that the District establish an "administrative" due date for the Fiscal Year 1997 Monitoring Report. If work or staff conflicts arise, the "administrative" due date should be changed and BLM staff and the public should be informed of the new date, or management should consider work or staff reassignments to meet the existing due date.

Conclusions

The results of Fiscal Year 1996 Implementation Monitoring indicate a very high degree of compliance with the management action/direction of the Resource Management Plan, and accordingly the standards and guidelines of the Northwest Forest Plan. In the two instances of non-compliance with management action/direction, the design of the projects in question resulted in resource protection beyond that called for in the plan with no resulting adverse resource or program effects. Discrepancies in some of the Fiscal Year 1996 activity and output levels compared to the average annual projections were either insignificant, within the range of variation provided by management action/direction, and/or had no immediate consequence requiring resource or program adjustment.

Analysis of the Fiscal Year 1996 monitoring results concludes that the Roseburg District had almost 100% compliance with management action/direction, and therefore no major changes in management direction or Resource Management Plan implementation is warranted at this time. The results indicate a very conscientious implementation of the plan by highly informed and knowledgeable staff and managers.

Resource Management Plan Monitoring Report



All Land Use Allocations

Expected Future Conditions and Outputs

Protection of SEIS special attention species so as not to elevate their status to any higher level of concern.

Implementation Monitoring

Question 1 - Are surveys for the species listed in Appendix H conducted before ground disturbing activities occur?

Compliance/Monitoring Results - Yes; Projects Sampled: Bit of Honey Timber Sale, Coon Creek Timber Sale, Lower Conley Timber Sale, Swiftwater Resource Area

Question 2 - Are protection buffers being provided for specific rare and locally endemic species and other species in the upland forest matrix?

Compliance/Monitoring Results - No species found that apply to this question in projects sampled. Projects Sampled: Bit of Honey Timber Sale, Coon Creek Timber Sale, Lower Conley Timber Sale, Swiftwater Resource Area.

Question 3 - Are the sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi, lichens, and arthropod species listed in Appendix H of the RMP being protected?

Compliance/Monitoring Results - No species found that apply to this question in projects sampled. Projects Sampled: Bit of Honey Timber Sale, Coon Creek Timber Sale, Lower Conley Timber Sale, Swiftwater Resource Area

Question 4 - Are the sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi, lichens and arthropod species listed in Appendix H of the RMP being surveyed?

Compliance/Monitoring Results - For those for whom surveys were required, no species found that apply to this question in projects sampled. Projects Sampled: Bit of Honey Timber Sale, Coon Creek Timber Sale, Lower Conley Timber Sale, Swiftwater Resource Area

Question 5 - Are high priority sites for species management being identified?

Compliance/Monitoring Results - No species found that apply to this question in projects sampled. Projects Sampled: Bit of Honey Timber Sale, Coon Creek Timber Sale, Lower Conley Timber Sale Swiftwater RA.

Question 6 - Are general regional surveys being conducted to acquire additional information and to determine necessary levels of protection for arthropods, fungi species that were not classed as rare and endemic, bryophytes, and lichens?

Compliance/Monitoring Results - For those whom surveys were required, no species found that apply to this question in projects sampled. Projects Sampled: Bit of Honey Timber Sale, Coon Creek Timber Sale, Lower Conley Timber Sale, Swiftwater Resource Area

Monitoring Requirements

1. At least 20 percent of all management actions will be examined prior to project initiation and re-examined following project completion, to determine if: surveys are conducted for species listed in Appendix H of the RMP, protection buffers are provided for specific rare and locally endemic species and other species in the upland forest matrix, and sites of species listed in Appendix H of the RMP are protected.
2. The Annual Program Summary will address Implementation Questions 4-6.
(Questions addressed above)

Riparian Reserves

Expected Future Conditions and Outputs

See Aquatic Conservation Strategy Objectives.

Provision of habitat for special status and SEIS special attention species.

Implementation Monitoring

Question 1 - Are watershed analyses being completed before on-the-ground actions are initiated in Riparian Reserves?

Compliance/Monitoring Results - Yes, lists of watershed analyses completed by the end of Fiscal Year 1996 are located in resource area files. Where applicable watershed analyses were used as a basis for project environmental analysis.

Question 2 - Is the width and integrity of the Riparian Reserves being maintained? (e.g., did the conditions that existed before management activities change in ways that are not in accordance with the SEIS Record of Decision Standards and Guidelines and RMP management direction?)

Compliance/Monitoring Results - Projects Sampled: No; High Noon Timber Sale, one unit noncompliance, South River Resource Area. Yes; Idleyld Timber Sale, 3 units Swiftwater Resource Area, High Noon Timber Sale, 3 units, South River Resource Area

Question 3 - What silvicultural practices are being applied to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy Objectives?

Compliance/Monitoring Results - See Timber Resources Question 2.

Question 4 - Are management activities in Riparian Reserves consistent with SEIS Record of Decision Standards and Guidelines, RMP management direction, and Aquatic Conservation Strategy Objectives?

Compliance/Monitoring Results - Yes; Projects Sampled: Plus Tree Cleaning, South River Resource Area; Sampson Butte, Swiftwater Resource Area

Question 5 - Are new structures and improvements in Riparian Reserves constructed to minimize the diversion of natural hydrologic flow paths, reduce the amount of sediment delivery into the stream, protect fish and wildlife populations, and accommodate the 100-year flood?

Compliance/Monitoring Results - No new structures or improvements in riparian reserves

Question 6 - A) Are all mining structures, support facilities, and roads located outside the Riparian Reserves? B) Are those located within the Riparian Reserves meeting the objectives of the Aquatic Conservation Strategy? C) Are all solid and sanitary waste facilities excluded from Riparian Reserves or located, monitored, and reclaimed in accordance with SEIS Record of Decision Standards and Guidelines and RMP management direction?

Compliance/Monitoring Results - No new approved mining Plans of Operations

Question 7 - Are new recreation facilities within the Riparian Reserves designed to meet, and where practicable, contribute to Aquatic Conservation Strategy Objectives? Are mitigation measures initiated where existing recreation facilities are not meeting Aquatic Conservation Strategy Objectives?

Compliance/Monitoring Results - Yes; None of existing recreation facilities in riparian reserves prevent attainment of Aquatic Conservation Strategy objectives. Further evaluation needed to determine if mitigation to further reduce conflicts is necessary.

Monitoring Requirements

1. The files on each year's on-the-ground actions will be checked annually to ensure that watershed analyses were completed prior to project initiation and to ensure the concerns identified in the watershed analysis were addressed in the project's Environmental Assessment.
2. At least 20 percent of management activities within each resource area will be examined prior to project initiation and re-examined following project completion, to determine whether the width and integrity of the Riparian Reserves were maintained.
3. The Annual Program Summary will report what silvicultural practices are being applied in order to attain Aquatic Conservation Strategy Objectives. (Annual Program Summary information shown above.)
4. At least 20 percent of the activities that are conducted or authorized within Riparian Reserves will be reviewed in order to identify whether the actions were consistent with the SEIS Record of Decision Standards and Guidelines, RMP management direction, and Aquatic Conservation Strategy Objectives. In addition to reporting the results of this monitoring, the Annual Program Summary will also summarize the types of activities that were conducted or authorized within Riparian Reserves. (Annual Program Summary information shown above.)
5. All new structures and improvements within a Riparian Reserve will be monitored during and after construction to ensure that it was constructed to: minimize the diversion of natural hydrologic flow paths, reduce the amount of sediment delivery into the stream, protect fish and wildlife populations, and accommodate the 100 year flood.
6. All approved mining Plans of Operations will be reviewed to determine if: A) both a reclamation plan and bond were required B) structures, support facilities and roads were located outside of Riparian Reserves, or in compliance with Aquatic Conservation Strategy objectives if located inside the Riparian Reserve C) and if solid and sanitary waste facilities were excluded from Riparian Reserves or located, monitored, and reclaimed in accordance with RMP management direction.
7. The Annual Program Summary will examine the status of evaluations of existing recreational facilities inside Riparian Reserves, to ensure that Aquatic Conservation Strategy Objectives are met. The Summary will also report on the status of the mitigation measures initiated where the Aquatic Conservation Strategy objectives cannot be met. (Annual Program Summary information shown above.)

Late-Successional Reserves

Expected Future Conditions and Outputs

Development and maintenance of a functional, interacting, late-successional, and old-growth forest ecosystem in Late-Successional Reserves.

Protection and enhancement of habitat for late-successional and old-growth forest-related species including the northern spotted owl and marbled murrelet.

Implementation Monitoring

Question 1- What is the status of the preparation of assessment and fire plans for Late-Successional Reserves?

Compliance/Monitoring Results - All major Late-Successional Reserves on the district have assessments either underway or under review that contain fire management strategies.

Question 2 - What activities were conducted or authorized within Late-Successional Reserves and how were they compatible with the objectives of the Late-Successional Reserve plan? Were the activities consistent with SEIS Record of Decision Standards and Guidelines, RMP management direction and Regional Ecosystem Office review requirements, and the Late-Successional Reserve assessment?

Compliance/Monitoring Results - Incidental removal of hazard trees and blowdown trees across roads. No density management or major salvage. Approximately 730 acres of precommercial thinning occurred in Late-Successional Reserve assessments. All activities were consistent with various requirements.

Question 3 - What is the status of development and implementation of plans to eliminate or control non-native species which adversely impact late-successional objectives?

Compliance/Monitoring Results - All major Late-Successional Reserves on the district have assessments either underway or under review that will address desired future conditions concerning vegetation.

Monitoring Requirements

1. The Annual Program Summary will address Implementation Questions 1-3. (Annual Program Summary information shown above.)

Adaptive Management Areas

Expected Future Conditions and Outputs

Utilization of Adaptive Management Areas for the development and application of new management approaches for the integration and achievement of ecological health, and economic and other social objectives.

Provision of well-distributed, late-successional habitat outside reserves; retention of key structural elements of late-successional forests on lands subjected to regeneration harvest; restoration and protection of riparian zones; and provision of a stable timber supply.

Implementation Monitoring

Question 1 - Are the Adaptive Management Area plans being developed, and do they establish future desired conditions?

Compliance/Monitoring Results - Yes

Monitoring Requirements

1. The Annual Program Summary will address Implementation Question 1. (Annual Program Summary information shown above.)

Matrix

Expected Future Conditions and Outputs

Production of a stable supply of timber and other forest commodities.

Maintenance of important ecological functions such as dispersal of organisms, carryover of some species from one stand to the next, and maintenance of ecologically valuable structural components such as down logs, snags, and large trees.

Assurance that forests in the Matrix provide for connectivity between Late-Successional Reserves.

Provision of habitat for a variety of organisms associated with early and late-successional forests.

Implementation Monitoring

Question 1 - Are suitable numbers of snags, coarse woody debris, and green trees being left, following timber harvest, as called for in the SEIS Record of Decision Standards and Guidelines-and RA/IP management direction?

Compliance/Monitoring Results - Yes; Projects Sampled: Lean Louis Timber Sale, South River Resource Area; Lower Conley Timber Sale, Four Gates Timber Sale, Swiftwater Resource Area

Question 2 - Are timber sales being designed to meet ecosystem goals for the Matrix?

Compliance/Monitoring Results - Yes; Projects Sampled: Curtin Creek Timber Sale, Old Dillard Timber Sale, South River Resource Area; Dead Dog Timber Sale, Swiftwater Resource Area

Question 3 - Are late-successional stands being retained in fifth-field watersheds in which federal forest lands have 15 percent or less late-successional forest?

Compliance/Monitoring Results - No projects proposed in watersheds that have 15 percent or less late-successional forests.

Monitoring Requirements

1. At least 20 percent of regeneration harvest timber sales in each resource area will be examined by pre and post-harvest (and after site preparation) inventories to determine snag and green tree numbers, heights, diameters, and distribution within harvest units. The measure of distribution of snags and green trees will be the percent in the upper, middle, and lower thirds of the sale units monitored. Snags and green trees left following timber harvest activities (including site preparation for reforestation) will be compared to those that were marked prior to harvest.

The same timber sales will also be inventoried pre- and post-harvest to determine if SEIS Record of Decision and RMP down log retention direction has been followed.

2. At least 20 percent of the files on each year's timber sales will be reviewed annually to determine if ecosystem goals were addressed in the silvicultural prescriptions.
3. All proposed regeneration harvest timber sales in watersheds with less than 15 percent late-successional forest remaining will be reviewed prior to sale to ensure that a watershed analysis has been completed.

Air Quality

Expected Future Conditions and Outputs

Attainment of National Ambient Air Quality Standards, Prevention of Significant Deterioration goals, and Oregon Visibility Protection Plan and Smoke Management Plan goals.

Maintenance and enhancement of air quality and visibility in a manner consistent with the Clean Air Act and the State Implementation Plan.

Implementation Monitoring

Question 1 - Were efforts made to minimize the amount of particulate emissions from prescribed burns?

Compliance/Monitoring Results - Yes; Projects Sampled: Curtin Creek Timber Sale, Old Dillard Timber Sale, South River Resource Area; Idlelyd Timber Sale, Swiftwater Timber Sale

Question 2 - Are dust abatement measures used during construction activities and on roads during BLM timber harvest operations and other BLM commodity hauling activities?

Compliance/Monitoring Results - Projects sampled have not been implemented yet, dust abatement measures are in place: Curtin Creek Timber Sale, Old Dillard Timber Sale, South River Resource Area; Project did not need to use measures that were planned: Idlelyd Timber Sale, Swiftwater Resource Area.

Question 3 - Are conformity determinations being prepared prior to activities which may contribute to a new violation of the National Ambient Air Quality Standards, increase the frequency or severity of an existing violation, or delay the timely attainment of a standard?

Compliance/Monitoring Results - No conformity determinations were required or are being done on district. All burning operations are tied to the Oregon Smoke Management Plan. The local protection agencies (Oregon Department of Forestry) in conjunction with Oregon Department of Environmental Quality manage, monitor, and audit the amount of smoke (emissions) produced by slash burning operations.

Monitoring Requirements

1. At least twenty percent of prescribed burn projects will be randomly selected for monitoring to assess what efforts were made to minimize particulate emissions, and whether the environmental analysis that preceded the decision to burn addressed the questions set forth in the SEIS discussion of Emission Monitoring (Chap. 3&4 p. 100).
2. At least twenty percent of the construction activities and commodity hauling activities will be monitored to determine if dust abatement measures were implemented.
3. The Annual Program Summary will address Implementation Question 3. (Annual Program Summary information shown above.)

Water and Soils

Expected Future Conditions and Outputs

Restoration and maintenance of the ecological health of watersheds. See Aquatic Conservation Strategy Objectives.

Improvement and/or maintenance of water quality in municipal water systems.

Improvement and/or maintenance of soil productivity.

Reduction of existing road mileage within Key Watersheds or at a minimum no net increase.

Implementation Monitoring

Question 1 - Are site specific Best Management Practices, identified as applicable during interdisciplinary review, carried forward into project design and execution?

Compliance/Monitoring Results - Yes; Projects Sampled: Lean Louis Timber Sale, Curtin Creek Timber Sale. South River Resource Area; Coon Creek Timber Sale, Swiftwater Resource Area

Question 2 - What watershed analyses have been or are being performed? Are watershed analyses being performed prior to management activities in Key Watersheds?

Compliance/Monitoring Results - There have been 7 watershed analyses performed in Fiscal Year 1996 that cover approximately 94,000 acres of BLM-administered lands within watersheds that total 413,000 acres. Total watershed analyses performed, including Fiscal Year 94, 95, and 96 cover approximately 277,000 acres of BLM-administered lands within watersheds that total 945,000 acres. Watershed analyses have been performed in key watersheds prior to management activities.

Question 3 - What is the status of identification of instream flow needs for the maintenance of channel conditions, aquatic habitat, and riparian resources?

Compliance/Monitoring Results - This is being addressed through analysis of disturbance history, roads, increased stream network through the National Marine Fisheries Service (NMFS) Matrix of Pathways and Indicators. No thresholds are being established through this analysis, but analyses may indicate the need to further examine flow regime.

Question 4 - What watershed restoration projects are being developed and implemented?

Compliance/Monitoring Results - Most restoration activities in Fiscal Year 1996 are focused on road related problems that effect aquatic habitat. These activities are accomplished through the Jobs-in-the-Woods program and timber sale contracts.

Question 5 - What fuel treatment and fire suppression strategies have been developed to meet Aquatic Conservation Strategy Objectives?

Compliance/Monitoring Results - Fuel treatment strategies to meet Aquatic Conservation Strategy objectives are those Best Management Practices outlined in Appendix D of the Roseburg District Record of Decision and Resource Management Plan.

Question 6 - What is the status of development of road or transportation management plans to meet Aquatic Conservation Strategy Objectives?

Compliance/Monitoring Results - Transportation Management Plan was completed in 1996.

Question 7 - What is the status of preparation of criteria and standards which govern the operation, maintenance, and design for the construction and reconstruction of roads?

Compliance/Monitoring Results - This has been accomplished through adoption of Best Management Practices.

Question 8 - What is the status of the reconstruction of roads and associated drainage features identified in watershed analysis as posing a substantial risk? What is the status of closure or elimination of roads to further Aquatic Conservation Strategy Objectives; and to reduce the overall road mileage within Key Watersheds? If funding is insufficient to implement road mileage reductions, are construction and authorizations through discretionary permits denied to prevent a net increase in road mileage in Key Watersheds?

Compliance/Monitoring Results - This has been addressed primarily through Jobs-in-the-Woods funding and timber sale contracts. Road renovation is also being accomplished under timber sale contracts. There will be no overall net increase in road mileage in key watersheds.

Question 9 - What is the status of reviews of ongoing research in Key Watersheds to insure that significant risk to the watershed does not exist?

Compliance/Monitoring Results - There is no on-going research in key watersheds.

Question 10 - What is the status of evaluation of recreation, interpretive, and user-enhancement activities/facilities to determine their effects on the watershed? What is the status of eliminating or relocating these activities/ facilities when found to be in conflict with Aquatic Conservation Strategy Objectives?

Compliance/Monitoring Results - None of existing recreation facilities in riparian reserves prevent attainment of Aquatic Conservation Strategy objectives. Further evaluation needed to determine possible mitigation.

Question 11 - What is the status of cooperation with other agencies in the development of watershed-based Research Management Plans and other cooperative agreements to meet Aquatic Conservation Strategy Objectives? What is the status of cooperation with other agencies to identify and eliminate wild ungulate impacts which are inconsistent with attainment of Aquatic Conservation Strategy objectives?

Compliance/Monitoring Results - Umpqua River Basin currently underway involving federal, state, county, private cooperation.

Monitoring Requirements

1. At least 20 percent of the timber sales and silviculture projects stratified by management category will be randomly selected for monitoring to determine whether or not Best Management Practices were implemented as prescribed. The selection of management actions to be monitored will be based on which Best Management Practices are being prescribed and on which beneficial uses are likely to be impacted.
2. Compliance checks will be completed for all agreements entered into with providers of municipal water.
3. The Annual Program Summary will address Implementation Questions 3-14. (Annual Program Summary information shown above.)

Wildlife Habitat

Expected Future Conditions and Outputs

Maintenance of biological diversity and ecosystem health to contribute to healthy wildlife populations.

Implementation Monitoring

Question 1 - Are suitable (diameter and length) numbers of snags, coarse woody debris, and green trees being left, in a manner that meets the needs of species and provides for ecological functions in harvested areas as called for in the SEIS Record of Decision Standards and Guidelines and RMP management direction?

Compliance/Monitoring Results - Yes; Projects Sampled: Lean Louis Timber Sale, South River Resource Area; Lower Conley Timber Sale, Four Gates Timber Sale, Swiftwater Resource Area

Question 2 - Are special habitats being identified and protected?

Compliance/Monitoring Results - Yes; Projects Sampled: U.S.M. Harvest Plan, South River Resource Area; Lower Conley Timber Sale, Swiftwater Resource Area

Question 3 - What is the status of designing and implementing wildlife restoration projects?

Compliance/Monitoring Results - Wildlife habitat restoration projects consisted of five density management projects in riparian reserves totaling 263 acres. The projects were designed to hasten acquisition of late-successional characteristics.

Question 4 - What is the status of designing and constructing wildlife interpretive and other user-enhancement facilities?

Compliance/Monitoring Results - In the Little River Adaptive Management Area, the Roseburg District and Umpqua National Forest have entered into a partnership with Glide Middle School to develop a program for ecosystem learning and student collection of water quality data.

Monitoring Requirements

1. At least 20 percent of regeneration harvest timber sales in each resource area will be examined by pre- and post-harvest (and after site preparation) inventories to determine snag and green tree numbers, heights, diameters, and distribution within harvest units. The measure of distribution of snags and green trees will be the percent in the upper, middle, and lower thirds of the sale units monitored. Snags and green trees left following timber harvest activities (including site preparation for reforestation) will be compared to those that were marked prior to harvest.

The same timber sales will also be inventoried pre- and post-harvest to determine if SEIS Record of Decision and RMP down log retention direction has been followed.

2. At least 20 percent of BLM actions, within each resource area, on lands including or near special habitats will be examined to determine whether special habitats were protected.
3. The Annual Program Summary will address Implementation Questions 4 and 5. (Annual Program Summary information shown above.)

Fish Habitat

Expected Future Conditions and Outputs

See Aquatic Conservation Strategy Objectives.

Maintenance or enhancement of the fisheries potential of streams and other waters, consistent with BLM's Anadromous Fish Habitat Management on Public Lands guidance, BLM's Fish and Wildlife 2000 Plan, the Bring Back the Natives initiative, and other nationwide initiatives.

Rehabilitation and protection of at-risk fish stocks and their habitat.

Implementation Monitoring

Question 1 - Are at-risk fish species and stocks being identified?

Compliance/Monitoring Results - Yes, Watershed analyses has focused on habitat condition and its implication for fish populations. Actual identification of at risk fish species and stocks has relied on cooperation with NMFS and United States Fish and Wildlife Service (USFWS).

Question 2 - Are fish habitat restoration and enhancement activities being designed and implemented which contribute to attainment of Aquatic Conservation Strategy Objectives?

Compliance/Monitoring Results - Most restoration activities in Fiscal Year 1996 are focused on road related problems that effect aquatic habitat. No instream habitat work has been completed or planned. Density management in riparian reserves was designed to accelerate attainment of Aquatic Conservation Strategy objectives.

Question 3 - Are potential adverse impacts to fish habitat and fish stocks being identified?

Compliance/Monitoring Results - Yes; Projects Sampled: Curtin Creek Timber Sale, Old Dillard Timber Sale, South River Resource Area; Dead Dog Timber Sale, Fish species and habitat documentation in fisheries report and environmental assessment, Swiftwater Resource Area

Monitoring Requirements

1. The Annual Program Summary will report on the status of watershed analysis to identify at-risk fish species and stocks, their habitat within individual watersheds, and restoration project needs. (Annual Program Summary information shown above.)
2. The Annual Program Summary will report on the status of the design and implementation of fish habitat restoration and habitat activities. (Annual Program Summary information shown above.)
3. The Annual Program Summary will report on the status of cooperation with federal, tribal, and state fish management agencies to identify and eliminate impacts associated with poaching, harvest, habitat manipulation, and fish stocking which threaten the continued existence and distribution of native fish stocks inhabiting federal lands. The Summary will also identify any management activities or fish interpretive and other user-enhancement facilities which have detrimental effects on native fish stocks. (Annual Program Summary information shown above.)
4. At least 20 percent of the files on each year's timber sales, and other relevant actions, will be reviewed annually to evaluate documentation regarding fish species and habitat and related recommendations and decisions in light of policy and SEIS Record of Decision Standards and Guidelines and RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.

Special Status and SEIS Special Attention Species Habitat

Expected Future Conditions and Outputs

Protection, management, and conservation of federal listed and proposed species and their habitats, to achieve their recovery in compliance with the Endangered Species Act and Bureau special status species policies.

Conservation of federal candidate and Bureau sensitive species and their habitats so as not to contribute to the need to list and recover the species.

Conservation of state listed species and their habitats to assist the state in achieving management objectives.

Maintenance or restoration of community structure, species composition, and ecological processes of special status plant and animal habitat.

Protection of Bureau assessment species and SEIS special attention species so as not to elevate their status to any higher level of concern.

Implementation Monitoring

Question 1 - Are special status species being addressed in deciding whether or not to go forward with forest management and other actions? During forest management and other actions that may disturb special status species, are steps taken to adequately mitigate disturbances?

Compliance/Monitoring Results - Yes; Projects Sampled: Old Dillard Timber Sale, South River Resource Area; Sampson Butte Timber Sale, Bit of Honey Timber Sale. Swiftwater Resource Area

Question 2 - Are the actions identified in plans to recover species being implemented in a timely manner?

Compliance/Monitoring Results - Yes; all approved recovery plans are being implemented as appropriate on the district.

Question 3 - What coordination with other agencies has occurred in the management of special status species?

Compliance/Monitoring Results - USFWS, NMFS consultation for listed species; REO coordination of SEIS special attention species, Little River watershed analysis has been completed through a joint Forest Service-BLM effort, The BLM and Forest Service have a cooperative agreement to monitor out-migrating juvenile fish in the Little River watershed.

Question 4 - What land acquisitions occurred or are under way, to facilitate the management and recovery of special status species?

Compliance/Monitoring Results - No land acquisitions occurred or are under way.

Question 5 - What site specific plans for the recovery of special status species were or are being developed?

Compliance/Monitoring Results - Conservation Plans for the recovery of *Calochortus unquensis* and *Cimicifuga elata*. The Recovery Plan for the northern spotted owl is out in draft form.

Question 6 - What is the status of analysis which ascertains species requirements or enhances the recovery or survival of a species?

Compliance/Monitoring Results - Northern spotted owl demographic study on-going. District fish distribution and abundance surveys. Yearly population monitoring conducted on *Calochortus umpquensis*, *Aster vialis*, and *Cimicifuga elata*. Inventory of neotropical birds and marbled murrelet surveys.

Question 7 - What is the status of efforts to maintain or restore the community structure, species composition, and ecological processes of special status plant and animal habitat?

Compliance/Monitoring Results - Approved recovery plans in conjunction with implementation of Northwest Forest Plan land use allocations and standards and guidelines. Efforts include density management in riparian reserves, road related restoration work, etc.

Monitoring Requirements

1. At least 20 percent of the files on each year's timber sales and other relevant actions (e.g., rights-of-way, instream structures) will be reviewed annually to evaluate documentation regarding special status species and related recommendations and decisions in light of Endangered Species Act requirements, policy and SEIS Record of Decision Standards and Guidelines, and RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.
2. Review implementation schedule and actions taken annually, to ascertain if the actions to recover species were carried out as planned.
3. The Annual Program Summary will address Implementation Questions 3-7. (Annual Program Summary information shown above.)

Special Areas

Expected Future Conditions and Outputs

Maintenance, protection, and/or restoration of the relevant and important values of the special areas which include: Areas of Critical Environmental Concern, Outstanding Natural Areas, Research Natural Areas, and Environmental Education Areas.

Provision of recreation uses and environmental education in Outstanding Natural Areas. Management of uses to prevent damage to those values that make the area outstanding.

Preservation, protection, or restoration of native species composition and ecological processes of biological communities in Research Natural Areas.

Provision and maintenance of environmental education opportunities in Environmental Education Areas. Management of uses to minimize disturbances of educational values.

Retention of existing Research Natural Areas and existing Areas of Critical Environmental Concern that meet the test for continued designation. Retention of other special areas. Provision of new special areas where needed to maintain or protect important values.

Implementation Monitoring

Question 1 - Are BLM actions and BLM authorized actions/uses near or within special areas consistent with RMP objectives and management direction for special areas?

Compliance/Monitoring Results - Yes

Question 2 - What is the status of the preparation, revision, and implementation of Areas of Critical Environmental Concern management plans?

Compliance/Monitoring Results - Nominations for ACECs made during the RMP process are being protected for important and relevant features.

Question 3 - Are interpretive programs and recreation uses being developed and encouraged in Outstanding Natural Areas? Are the outstanding values of the Outstanding Natural Areas being protected from damage?

Compliance/Monitoring Results - No Outstanding Natural Areas on Roseburg District

Question 4 - What environmental education and research initiatives and programs are occurring in the Research Natural Areas and Environmental Education Areas?

Compliance/Monitoring Results - Environmental education included conducted tour of North Bank ACEC with Native Plant Society. Bryophyte and lichen inventory conducted on Tater Hill, North Myrtle Creek, Beatty Creek, Bushnell-Irwin Rocks, Red Pond, and Myrtle Island ACEC/RNAs.

Question 5 - Are existing BLM actions and BLM authorized actions and uses not consistent with management direction for special areas being eliminated or relocated?

Compliance/Monitoring Results - No actions or uses not consistent with management direction exists in special areas.

Question 6 - Are actions being identified which are needed to maintain or restore the important values of the special areas? Are the actions being implemented?

Compliance/Monitoring Results - ACEC/RNA plans are being updated that would identify needs.

Question 7 - Are protection buffers being provided for specific rare and locally endemic species and other species in the upland forest matrix?

Compliance/Monitoring Results - This question does not pertain to special areas and represents a misprint in the monitoring plan.

Monitoring Requirements

1. Annually, the files on all actions and research proposals within and adjacent to special areas will be reviewed to determine whether the possibility of impacts on Area of Critical Environmental Concern values was considered, and whether any mitigation identified as important for maintenance of Area of Critical Environmental Concern values was required. If mitigation was required, the relevant actions will be reviewed on the ground, after completion, to ascertain whether it was actually implemented.
2. The Annual Program Summary will address Implementation Questions 2-7. (Annual Program Summary information shown above.)

Cultural Resources Including American Indian Values

Expected Future Conditions and Outputs

Identification of cultural resource localities for public, scientific, and cultural heritage purposes.

Conservation and protection of cultural resource values for future generations.

Provision of information on long-term environmental change and past interactions between humans and the environment.

Fulfillment of responsibilities to appropriate American Indian groups regarding heritage and religious concerns.

Implementation Monitoring

Question 1 - Are cultural resources being addressed in deciding whether or not to go forward with forest management and other actions? During forest management and other actions that may disturb cultural resources, are steps taken to adequately mitigate disturbances?

Compliance/Monitoring Results - Yes; Projects Sampled: Old Dillard Timber Sale, Curtin Creek Timber Sale, South River Resource Area; Dead Dog Timber Sale, Swiftwater Resource Area

Question 2 - What mechanisms have been developed to describe past landscapes and the role of humans in shaping those landscapes?

Compliance/Monitoring Results - Use of historical research and existing data. In addition, the gathering of archeological data that represents new data.

Question 3 - What efforts are being made to work the American Indian groups to accomplish cultural resource objectives and achieve goals outlined in existing memoranda of understanding and develop additional memoranda as needs arise?

Compliance/Monitoring Results - No existing Memoranda of Understanding

Question 4 - What public education and interpretive programs were developed to promote the appreciation of cultural resources?

Compliance/Monitoring Results - Susan Creek Passports in Time (PIT) Project involved public volunteers and media coverage of excavation of Native American archeological site. In addition, school talks were made during the year.

Monitoring Requirements

1. At least 20 percent of the files on each year's timber sales and other relevant actions (e.g., rights-of-way, instream structures) will be reviewed annually to evaluate documentation regarding cultural resources and American Indian values and decisions in light of requirements, policy and SEIS Record of Decision Standards and Guidelines and RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.
2. The Annual Program Summary will address Implementation Questions 2-4. (Annual Program Summary information shown above.)

Visual Resources

Expected Future Conditions and Outputs

Preservation or retention of the existing character of landscapes on BLM-administered lands allocated for Visual Resource Management Class I and II management; partial retention of the existing character on lands allocated for Visual Resource Management Class III management and major modification of the existing character of some lands allocated for Visual Resource Management Class IV management.

Continuation of emphasis on management of scenic resources in selected high-use areas to retain or preserve scenic quality.

Implementation Monitoring

Question 1 - Are visual resource design features and mitigation methods being followed during timber sales and other substantial actions in Class II and III areas?

Compliance/Monitoring Results - No projects in VRM II or III

Monitoring Requirements

1. Twenty percent of the files for timber sales and other substantial projects in Visual Resource Management Class II or III areas will be reviewed to ascertain whether relevant design features or mitigating measures were included.

Wild and Scenic Rivers

Expected Future Conditions and Outputs

Protection of the Outstandingly Remarkable Values of designated components of the National Wild and Scenic Rivers System through the maintenance and enhancement of the natural integrity of river-related values.

Protection of the Outstandingly Remarkable Values of eligible/suitable Wild and Scenic Rivers and the maintenance or enhancement of the highest tentative classification pending resolution of suitability and/or designation.

Protection of the natural integrity of river-related values for the maintenance or enhancement of the highest tentative classification determination for rivers found eligible or studied for suitability.

Designation of important and manageable river segments suitable for designation where such designation contributes to the National Wild and Scenic Rivers System.

Implementation Monitoring

Question 1 - Are BLM actions and BLM authorized actions consistent with protection of the Outstandingly Remarkable Values of designated, suitable, and eligible, but not studied rivers?

Compliance/Monitoring Results - Yes

Question 2 - Are existing plans being revised to conform to Aquatic Conservation Strategy Objectives? Are revised plans being implemented?

Compliance/Monitoring Results - No preparation or revision of the Wild and Scenic River plan is necessary to conform to Aquatic Conservation Strategy.

Monitoring Requirements

1. Annually, the files on all actions and research proposals within and adjacent to Wild and Scenic River corridors will be reviewed to determine whether the possibility of impacts on the Outstandingly Remarkable Values was considered, and whether any mitigation identified as important for maintenance of the values was required. If mitigation was required, the relevant actions will be reviewed on the ground, after completion, to ascertain whether it was actually implemented.
2. The Annual Program Summary report will summarize progress on preparation and revision of Wild and Scenic River management plans, their conformance with the Aquatic Conservation Strategy Objectives, and the degree to which these plans have been implemented. (Annual Program Summary information shown above.)

Rural Interface Areas

Expected Future Conditions and Outputs

Consideration of the interests of adjacent and nearby rural land owners, including residents, during analysis, planning, and monitoring related to managed rural interface areas. (These interests include personal health and safety, improvements to property and quality of life.)

Determination of how land owners might be or are affected by activities on BLM-administered land.

Implementation Monitoring

Question 1 -Are design features and mitigation measures developed and implemented to avoid/minimize impacts to health, life and property and quality of life and to minimize the possibility of conflicts between private and federal land management?

Compliance/Monitoring Results - No projects in Rural interface

Socioeconomic Conditions

Expected Future Conditions and Outputs

Contribution to local, state, national, and international economies through sustainable use of BLM-managed lands and resources and use of innovative contracting and other implementation strategies.

Provision of amenities for the enhancement of communities as places to live and work.

Implementation Monitoring

Question 1 -What strategies and programs have been developed, through coordination with state and local governments, to support local economies and enhance local communities?

Compliance/Monitoring Results - Jobs-in-the-Woods program is the principle strategy and program.

Question 2 -Are RMP implementation strategies being identified that support local economies?

Compliance/Monitoring Results - Contracting of implementation projects relating to resources and facilities have supported local economies.

Question 3 -What is the status of planning and developing amenities that enhance local communities, such as recreation and wildlife viewing facilities?

Compliance/Monitoring Results - Project planning and environmental assessment for Eagleview Campground completed. Restoration and upgrading of Millpond Campground including restrooms, paving, pipelines, revegetation, etc.

Monitoring Requirements

1. The Annual Program Summary will address Implementation Questions 1-3. (Annual Program Summary information shown above.)

Recreation

Expected Future Conditions and Outputs

Provision of a wide range of developed and dispersed recreation opportunities that contribute to meeting projected recreation demand within the planning area.

Provision of nonmotorized recreational opportunities and creation of additional opportunities consistent with other management objectives.

Implementation Monitoring

Question 1 -What is the status of the development and implementation of recreation plans?

Compliance/Monitoring Results - Cow Creek Backcountry Byway plan under development, kiosk for interpretive and public information purchased. Implementation of the North Umpqua Wild and Scenic River Plan proceeding in cooperation with Umpqua National Forest.

Monitoring Requirements

1. The Annual Program Summary will address Implementation Question 1. (Annual Program Summary information shown above.)

Timber Resources

Expected Future Conditions and Outputs

Provision of a sustained yield of timber and other forest products.

Reduction of the risk of stand loss due to fires, animals, insects, and diseases.

Provision of salvage harvest for timber killed or damaged by events such as wildfire, windstorms, insects, or disease, in a manner consistent with management objectives for other resources.

Implementation Monitoring

The projections for practices are located in Roseburg District Record of Decision and Resource Management Plan, Table R-1, page 8, except for the component of ASQ attributable to key watersheds which is located on page 20. Estimates of annual first decade levels of timber management activity is also given in Chapter 4 of the Roseburg District Proposed Resource Management Plan/ Environmental Impact Statement. The Little River Adaptive Management Area projection is taken from the draft plan for that AMA. The addition of the various categories does not sum to the total because of overlapping land use allocations and rounding of significant digits.

Projected figures are assumed average annual for first decade.

Question 1 -By land-use allocation, how do timber sale volumes, harvested acres, and the age and type of regeneration harvest stands compare to the projections in the SEIS Record of Decision Standards and Guidelines and RMP management objectives?

Compliance/Monitoring Results -

	<u>Fiscal Year 1996</u>	<u>Projected</u>
Total Timber Sale Vol.:	41.7 MMBF	49.5 MMBF
Matrix Timber Sale Vol.	36.7 MMBF	45.0 MMBF
GFMA Regen Timber Sale Vol.	31.1 MMBF	*
GFMA Comm. Thin TS Vol.	1.2 MMBF	*
GFMA Salvage TS Vol.	1.3 MMBF	*
C/D Block Regen TS Vol.	0.6 MMBF	*
C/D Block Comm Thin TS Vol.	2.4 MMBF	*
C/D Block Salvage TS Vol.	0 MMBF	*
RR Density Mgt TS Vol.	3.2 MMBF	**
RR Salvage TS Vol.	0 MMBF	**
LSR Density Mgt TS Vol.	0 MMBF	**
LSR Salvage TS Vol.1.	0 MMBF	**
Key Watershed TS Vol.	7.4 MMBF	8.3 MMBF
Little River AMA TS Vol	1.1 MMBF	4.6 MMBF
Little River AMA Salvage Vol.	0.1 MMBF	*

* No projections made by Record of Decision

** 4.5 MMBF was projected to be harvested from all reserves in combination. This category of "other wood" was estimated as a result of management for the reserve goals and objectives and was not computed as part of the 45 MMBF ASQ. It is included, however, in the total projected figure of 49.5 MMBF in this table.

Little River AMA projected volume from draft AMA plan.

	<u>Fiscal Year 1996</u>	<u>Projected</u>
Total Regeneration Harvest	950 acres	1,190 ac
Total Commercial Thinning	317 acres	84 acres
Total Density Management	247 acres	66 acres
GFMA Regeneration Harvest	910 acres	*
GFMA Commercial Thinning	97 acre	s*
GFMA Salvage	55 acres	*
C/D Block Regen. Harvest	40 acres	*
C/D Block Comm. Thinning	220 acres	*
C/D Block Salvage	0 acres	*
RR Density Mgt	263 acres	*
RR Salvage	0 acres	*
LSR Density MGT	0 acres	*
LSR Salvage	101 acres	*
Little River AMA Regen	0 acres	*
Little River AMA Thin	52 acres	*
Little River AMA Salvage	0 acres	*

* No projections made by Record of Decision

All regeneration harvest occurred in stands over minimum harvest age of 60 years. No stands in Fiscal Year 1996 were harvested that were less than the culmination of mean annual increment (CMAI) age of 80-110 years.

Question 2 -Were the silvicultural (e.g., planting with genetically selected stock, fertilization, release, and thinning) and forest health practices anticipated in the calculation of the expected sale quantity, implemented?

Compliance/Monitoring Results -

	<u>Fiscal Year 1996</u>	<u>Projected</u>
Brushfield/hardwood conversion	0 acres	15 acres
Site Preparation, prescribed fire	252 acres	840 acres
Site Preparation, other	0 acres	50 acres
Planting, regular stock	737 acres	290 acres
Planting, genetic stock	269 acres	1140 acres
Stand maintenance/protection	2224 acres	830 acres
Stand release/precommercial thin	3629 acres	390 acres
Pruning	331 acres	460 acres
Fertilization	0 acres	1140 acres

Monitoring Requirements

1. The Annual Program Summary will report both planned and non-planned volumes sold. The report will also summarize annual and cumulative timber sale volumes, acres to be harvested, and stand ages and types of regeneration harvest for General Forest Management Areas, Connectivity/Diversity Blocks and Adaptive Management Areas, stratified to identify them individually.
2. An annual district wide report will be prepared to determine if the silvicultural and forest health practices identified and used in the calculation of the Allowable Sale Quantity were implemented. This report will be summarized in the Annual Program Summary.

Special Forest Products

Expected Future Conditions and Outputs

Production and sale of special forest products when demand is present and where actions taken are consistent with primary objectives for the land use allocation.

Utilization of the principles of ecosystem management to guide the management and harvest of special forest products.

Implementation Monitoring

Question 1 -Is the sustainability and protection of special forest product resources ensured prior to selling special forest products?

Compliance/Monitoring Results - Use of special provisions on permits that restrict the amount of plant material or plant area to be harvested. Heavily harvested areas rotated or rested as appropriate for at least two years. None sold if special status species cannot be clearly identified to permittee.

Question 2 -What is the status of the development and implementation of specific guidelines for the management of individual special forest products?

Compliance/Monitoring Results - Draft Handbook on Guidance for Special Forest Products reviewed and finalized during Fiscal Year 1996. Final Handbook was published at end of Fiscal Year 1996.

Monitoring Requirements

1. The Annual Program Summary will address Implementation Questions 1 and 2. (Annual Program Summary information shown above.)

Noxious Weeds

Expected Future Conditions and Outputs

Containment and/or reduction of noxious weed infestations on BLM-administered land using an integrated pest management approach.

Avoidance of the introduction or spread of noxious weed infestations in all areas.

Implementation Monitoring

Question 1 -Are noxious weed control methods compatible with Aquatic Conservation Strategy Objectives?

Compliance/Monitoring Results - One overall project for district that is compatible with Northwest Forest Plan Aquatic Conservation Strategy and Integrated Pest Management, Northwest Noxious Weed EIS.

Monitoring Requirements

1. Review the files of at least 20 percent of each year's noxious weed control applications to determine if noxious weed control methods were compatible with Aquatic Conservation Strategy Objectives.

Fire/Fuels Management

Expected Future Conditions and Outputs

Provision of the appropriate suppression responses to wildfires in order to meet resource management objectives and minimize the risk of large-scale, high intensity wildfires.

Utilization of prescribed fire to meet resource management objectives. (This will include, but not be limited to, fuels management for wildfire hazard reduction, restoration of desired vegetation conditions, management of habitat, and silvicultural treatments.)

Adherence to smoke management/air quality standards of the Clean Air Act and State Implementation Plan standards for prescribed burning.

Implementation Monitoring

Question 1 -What is the status of the preparation and implementation of fire management plans for Late Successional Reserves and Adaptive Management Areas?

Compliance/Monitoring Results - Late-Successional Reserve Assessments and Little River Adaptive Management Area Plan underway in Fiscal Year 1996. These assessments and plan which will address fire and fuels will be mostly complete in Fiscal Year 97.

Question 2 -Have additional analysis and planning been completed to allow some natural fires to burn under prescribed conditions?

Compliance/Monitoring Results - Initial analysis and planning indicates that natural fires will not be allowed to burn under prescribed conditions.

Question 3 -Do wildfire suppression plans emphasize maintaining late-successional habitat?

Compliance/Monitoring Results - Wildfire suppression plans include protecting multiple resources including late-successional habitat. The plans and assessments for Late-Successional Reserves and Little River AMA will further address this issue.

Question 4 -Are Wildfire Situation Analyses being prepared for wildfires that escape initial attack?

Compliance/Monitoring Results - Wildfire Situation Analyses are prepared for escaped fire situation from slash burns. Douglas Forest Protection Agency (DFPA) is contracted for wildfire suppression and prepares similar analyses.

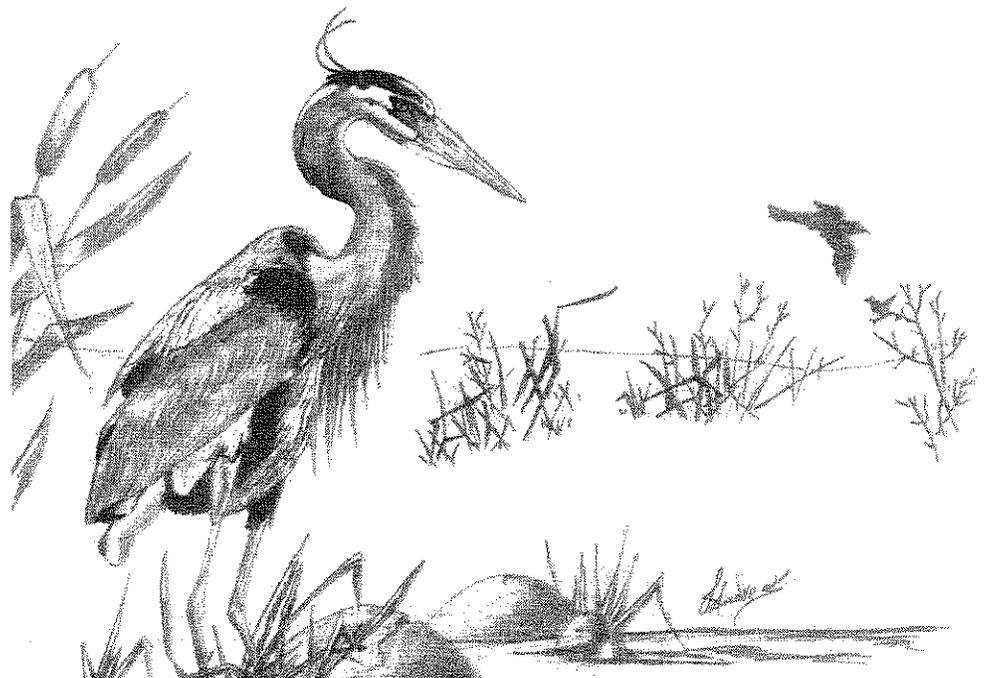
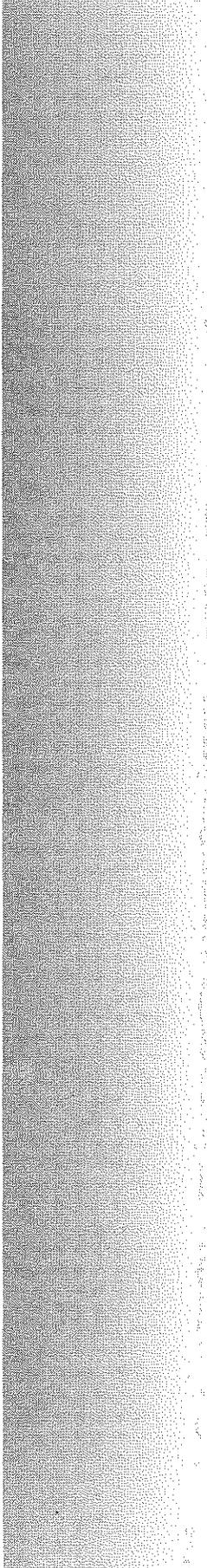
Question 5 -What is the status of the interdisciplinary team preparation and implementation of fuel hazard reduction plans?

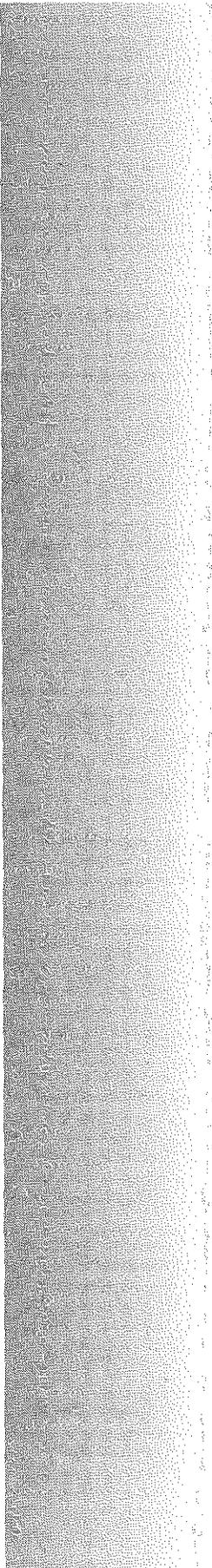
Compliance/Monitoring Results - Fuels and Fire Management Plans have been begun. Some analyses is being done in conjunction with Late-Successional Reserve Assessments.

Monitoring Requirements

1. The Annual Program Summary will address Implementation Questions 1-5. (Annual Program Summary information shown above.)

Appendices





Swiftwater Resource Area

RMP Monitoring Information

Bit-of-Honey

Protection of SEIS special attention species. (Appendix I, pg. 189)

Management action will be examined prior to project initiation and re-examined following project completion, to determine if: surveys are conducted for species listed in Appendix H, protection buffers are provided for specific rare and locally endemic species and other species in the upland forest matrix, and sites of species listed in Appendix H are protected.

Monitors: Wickline / Witt

Questions to be answered:

1. Are surveys for the species listed in Appendix H conducted before ground disturbing activities occur? (pg. 41)

Remarks: Surveys were conducted before ground disturbing activities under the guidelines and protocols that were in place at the time.

2. Are protection buffers being provided for specific rare and locally endemic species and other species in the upland forest matrix? (pg 43)

Remarks: No species requiring protection buffers were found on the sale area.

3. Are the sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi and arthropod species listed in Appendix H being protected?

Remarks:

Botanical - There were no known sites of bryophytes, vascular plants or fungi requiring protection in the sale area.

Wildlife - No species requiring protection buffers were found on the sale area.

4. Are the sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi and arthropod species listed in Appendix H being surveyed?

Remarks:

Botanical - Area was surveyed for bryophytes, vascular plants or fungi under the guidelines and protocols that were in place at the time.

Wildlife - Red tree vole survey protocol not in place at the time.

5. Are high priority sites for species management being identified?

Remarks: Areas known or suspected to contain special habitat were buffered out or not included in this sale. Three spotted owl site centers are 1.0 to 1.2 miles from the proposed project area and seral development (i.e. not suitable) within the project area suggest a extremely low probability of a owl occurring within the project area.

6. Are general regional surveys being conducted to acquire additional information and to determine necessary levels of protection for arthropods, fungi species that were not classed as rare and endemic, bryophytes and lichens?

Remarks: Some general surveys are being done and some have been done. This is an on-going project and protocols and guidelines are being developed and implemented as they are received (This question does not apply to wildlife).

Management and conservation of special status species and SEIS special attention species habitat. (Appendix I, pg. 199)

Evaluate documentation regarding special status species and related recommendations and decisions in light of Endangered Species Act requirements, policy and SEIS Record of Decision Standard and Guidelines, and RMP management direction. If mitigation was required, review will ascertain

whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.

Monitors: Wickline, Witt, Waters

Questions to be answered:

1. Are special status species being addressed in deciding whether or not to go forward with forest management and other actions? During forest management and other actions that may disturb special status species, are steps taken to adequately mitigate disturbances? (pg. 41)

Remarks:

Botanical - All special status plants have been surveyed for under present guidelines and protocols. No management actions were authorized unless their status was mitigated. No species requiring protection buffers were found on the sale area.

Fisheries - Special status fish species (coho salmon and coastal cutthroat trout) are identified in the fisheries report and also in the EA (pg 7). A finding of a migratory cutthroat was mentioned in the fisheries report, but not in the EA. The EA acknowledges that the proposed action is a "may affect" for proposed fish species, and that consultation will have to be conducted should a species be listed (pg 9). No ground disturbance has occurred as of yet on the proposed action, so part two of the question is not applicable.

Wildlife - Species of concern (Peregrine Falcon and Spotted Owl) were addressed and found not to be in conflict, and numerous other species of concern were addressed in the EA.

2. Are the actions identified in plans to recover species being implemented in a timely manner? (pg. 42)

Remarks: There are two botanical species conservation plans in place and are being implemented. No wildlife or fisheries species conservation plans are in place at this time.

3. What coordination with other agencies has occurred in the management of special status species? (pg. 41)

Remarks: Formal consultation with U.S. Fish and Wildlife Service, section 7 formal consultation. Consultation with the National Marine Fisheries Service is in progress. A biological assessment has been submitted, but a biological opinion has not been received as of 11/15/96.

4. What land acquisitions occurred or are under way, to facilitate the management and recovery of special status species? (pg. 42)

Remarks: No opportunities have surfaced to acquire land to facilitate the management of special status species.

5. What site specific plans for the recovery of special status species were or are being developed?

Remarks: There are Conservation Plans for the recovery of Calochortus umpquensis and Cimicfuga elata. Neither of these species were found or are suspected to occur in this project area. The Recovery Plan for the northern spotted owl is in draft form. There are no Conservation plans for fish species.

6. What is the status of analysis which ascertains species requirements or enhances the recovery or survival of a species?

Remarks:

Botanical - Yearly population monitoring is being conducted on Calochortus umpquensis, Aster vialis and Cimicfuga elata

Fisheries - Other state and federal agencies have ongoing research projects which address these questions. The BLM has fish distribution and abundance surveys that have occurred over the last two summers, and are planned for next summer.

Wildlife - Ongoing research (demographic studies) on the spotted owl analysis is continuing to address the needs of the species in the District.

7. What is the status of efforts to maintain or restore the community structure, species composition and ecological processes of special status plant and animal habitat?

Remarks:

Botanical - No Special Status plant species or habitat was identified as requiring efforts to maintain or restore the community structure, species composition and ecological processes maintain or on this project

Fisheries - Thinnings in riparian reserves are occurring to encourage the recruitment of LWD. Also, road related restoration work is planned in this watershed and others.

Wildlife - Within the confines of the implementation of the ROD, the status and restoration of the community structure, species composition, and ecological processes are in a developmental stage.

Coon Creek

Protection of SEIS special attention species. (Appendix I, pg. 189)

Management action will be examined prior to project initiation and re-examined following project completion, to determine if: surveys are conducted for species listed in Appendix H, protection buffers are provided for specific rare and locally endemic species and other species in the upland forest matrix, and sites of species listed in Appendix H are protected.

Monitors: Wickline / Foster

Questions to be answered:

1. Are surveys for the species listed in Appendix H conducted before ground disturbing activities occur? (pg. 41)
Remarks: Botanical surveys were conducted before ground disturbing activities under the guidelines and protocols that were in place at the time. Red tree vole survey protocol was not in place at the time but area was surveyed for possible nests.
2. Are protection buffers being provided for specific rare and locally endemic species and other species in the upland forest matrix? (pg 43)
Remarks: No species requiring protection buffers were found on the sale area.
3. Are the sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi and arthropod species listed in Appendix H being protected?
Remarks: There were no known sites of bryophytes, vascular plants or fungi requiring protection in the sale area. Suspected red tree vole nests were located and will be protected by a one tree uncut buffer.
4. Are the sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi and arthropod species listed in Appendix H being surveyed?
Remarks:
Botanical - Area was surveyed for bryophytes, vascular plants or fungi under the guidelines and protocols that were in place at the time.
Wildlife - The project was surveyed for red tree voles, although not to REO protocol. Listed amphibian species are not expected to occur here.
5. Are high priority sites for species management being identified?
Remarks: Areas known or suspected to contain special habitat were buffered out or not included in this sale.
6. Are general regional surveys being conducted to acquire additional information and to determine necessary levels of protection for arthropods, fungi species that were not classed as rare and endemic, bryophytes and lichens?
Remarks: Some general surveys are being done and some have been done. This is an on-going project and protocols and guidelines are being developed and implemented as they are received (This question does not apply to wildlife).

Best Management Practices (Water and Soils) (Appendix I, pg. 196)

Determine whether or not Best Management Practices were implemented as prescribed. The selection of management actions to be monitored will be based on which Best Management Practices are being prescribed and on which beneficial uses are likely to be impacted.

Monitors: Rhodes-Flock, Cressy

Questions to be answered:

1. Are site specific Best Management Practices, identified as applicable during interdisciplinary review, carried forward into project design and execution? (pg. 129, para. 4)

Remarks: Since on-the-ground operations have not begun, the execution part can not be addressed at this time.

Soils

There was one discrepancy between the Ralph Klein's soils report and the EA. He states that the project design features (PDF's) include tilling with a winged subsoiler both temporary roads and utilized skid trails. The EA (page 4) only states that the temporary roads would be ripped and that the utilized skid trails would be ripped with a winged subsoiler. The intent in the EA was obviously to have all tilling done by a winged subsoiler. Using the winged subsoiler for both temporary roads and utilized skid trails was carried forward into the contract.

The contract provisions do not give the 35 percent slope maximum for ground based yarding, a best management practice (BMP) given as a project design feature in the EA. This may be a moot point if area designated for ground based yarding contains no slopes over 35 percent.

The EA (page 4) states that 80 to 90 percent of the skid trails would be tilled with a winged subsoiler so that a comparison can be made between treatment and no treatment on the growth of the trees. The contract special provision on page 9 states that all skid trails would be subsoiled. There shouldn't be any implications here and this requirement can be met through contract administration.

There is a question about compliance with the Resource Management Plan's (RMP) productivity loss requirements for ground based compaction in thinnings. The RMP states on page 62, "Plan timber sales involving ground yarding systems with skid trails (including trails from previous harvest entries) to have insignificant (less than one percent) productivity loss." This has been interpreted to mean that the cumulative productivity loss of both previous and present entries remaining after mitigation will be less than one percent. The RMP goes on to state that skid trails need only be selectively tilled after a harvest which is not the final one in a rotation. After final harvest any remaining trails would be tilled. The problem is that most old entries, including this one, have extensive skid trails and compaction because of the practice of loggers choice and in some cases cat piling site preparation. Even with the subsoiling of all the old utilized skid trails and new skid trails, residual productivity loss would calculate to be more than one percent in most cases. The RMP seems to have embraced, in the case of thinnings, a productivity loss threshold which can not be realistically met by its best management practices. The logic for this conclusion is addressed in the Specialist Report (available upon request).

Subsoiling old trails not utilized in order to meet the criteria is not desirable in most cases because many more trees would have to be removed in order to make room for the subsoiler. Another problem is accurately locating enough trails. Then there are the questions raised about root damage caused by subsoiling. Would net productivity be less by subsoiling the more minor trails because of root damage and the possible introduction of root disease? To date this question has not been adequately answered. Even though the RMP productivity loss requirements can not be fully met as stated above, the mitigation embraced would not result in a net productivity loss and would likely have a net productivity increase. The conclusion is that the BMP's for subsoiling were adequately adopted and incorporated into the special provisions of the contract.

Hydrology

The specialist Soils/Hydro reports were reviewed, no BMP's were recommended for hydrology. The Fisheries report did identify BMP's/specific design features and stipulations.

The identified specific design features and stipulations included:

1. No new permanent road construction; roads will be temporary and outsloped.
2. Rock existing main line haul routes
3. No yarding through riparian reserves (additional measure)
4. 20 ft. no-touch buffer on all streams (additional measure)
5. Trees harvested in riparian reserve will be directionally felled and yarded away from stream

The EA project design features (Pages 4-5) addresses each of the recommended design features listed in the fisheries report except "No yarding through riparian reserves". This additional measure BMP was not specifically addressed in the PDF's. Upon reviewing the contract special provisions, it is addressed as: "no cable or ground-based yarding is permitted across streams [page 4, #12 and page 6, # 20]."

The Best Management Practices/additional measures identified for water resources in the fisheries report were included in the EA PDF's and the special provisions of the contract. The only exception was the absence of yarding through riparian reserves in the PDF's of the EA.

Thinning within Riparian Reserves was part of the action to promote growth and improve vigor within the Riparian Reserves.

Questions #2 - #11 N/A These questions do not apply to the monitoring requirement.

Lower Conley

Protection of SEIS special attention species. (Appendix I, pg. 189)

Management action will be examined prior to project initiation and re-examined following project completion, to determine if: surveys are conducted for species listed in Appendix H, protection buffers are provided for specific rare and locally endemic species and other species in the upland forest matrix, and sites of species listed in Appendix H are protected.

Monitors: Wickline / Mires

Questions to be answered:

1. Are surveys for the species listed in Appendix H conducted before ground disturbing activities occur? (pg. 41)

Remarks: Surveys were conducted before ground disturbing activities under the guidelines and protocols that were in place at the time. The only vertebrate species listed in appendix H that occurs within or near the vicinity of the sale units is the Red Tree Vole. No intensive surveys were done for this species during pre-sale work. Under current Interim Guidance, dated November 4, 1996, no inventories or surveys will be needed for Red Tree Voles in the sale area due to the amount of habitat left in the fifth field watershed analysis area in which the sale is located.
2. Are protection buffers being provided for specific rare and locally endemic species and other species in the upland forest matrix? (pg 43)

Remarks: No botanical species requiring protection buffers were found on the sale area. No rare or endemic vertebrate species are known or suspected to occur in the sale units or area.
3. Are the sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi and arthropod species listed in Appendix H being protected?

Remarks: There were no known sites of amphibians, bryophytes, mollusks, vascular plants, fungi and arthropod species requiring protection in the sale area. The only mammalian species suspected to occur in the sale units is the Red Tree Vole. Under current guidance, the species does not require protection within the sale area if they are found.
4. Are the sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi and arthropod species listed in Appendix H being surveyed?

Remarks: Area was surveyed for bryophytes, vascular plants or fungi under the guidelines and protocols that were in place at the time. Sites of vertebrate species listed in appendix H are not being surveyed at this time. Protocols are being developed for some species, and for those for which a protocol is available, there is no requirement for surveys for the species that occur in the Swiftwater Resource Area.
5. Are high priority sites for species management being identified?

Remarks: Areas known or suspected to contain special habitat were buffered out or not included in this sale.
6. Are general regional surveys being conducted to acquire additional information and to determine necessary levels of protection for arthropods, fungi species that were not classed as rare and endemic, bryophytes and lichens?

Remarks: Some general surveys are being done and some have been done. This is an on-going project and protocols and guidelines are being developed and implemented as they are received (This question does not apply to wildlife).

Maintenance of sufficient green tree retention, snags and down woody debris (Appendix I, pg. 193)

Timber sales will be examined by pre- and post-harvest (after site preparation) inventories to determine snag and green tree numbers, heights, diameters and distribution within harvest units. The same timber sales will also be inventoried pre- and post-harvest to determine if SEIS Record of Decision and RMP down log retention direction has been followed.

Monitors: Weber

Questions to be answered:

1. Are suitable numbers of snags, course woody debris and green trees being left, following harvest, as called for in the SEIS Record of Decision Standards and Guidelines and RMP management direction?

Remarks: This sale has not been harvested yet. Retention trees were marked with orange paint and all existing down wood (CWD) was reserved in the contract. Overall 8.8 retention trees per acre meeting ROD requirements were left (the ROD requires 6-8), 1.6 snags per acre were left (the ROD requires 1.2 snags) and 51.3 lineal feet per acre of CWD was left (the ROD requires 120 ft.). The sale overall is lacking 68.7 feet per acre (9270 ft. total). This deficit was more than compensated for by the extra standing snags and green tree retention (1.2 trees per acre above RMP requirements) that were left.

Wildlife Habitat (Appendix I, pg. 196-7)

Timber sales will be examined by pre- and post-harvest (after site preparation) inventories to determine snag and green tree numbers, heights, diameters and distribution within harvest units. The same timber sales will also be inventoried pre- and post-harvest to determine if SEIS Record of Decision and RMP down log retention direction has been followed.

Monitor: Mires

Questions to be answered:

1. Are suitable (diameter and length) numbers of snags, course woody debris and green trees being left, in a manner that meets the needs of species and provides for ecological functions in harvested areas as called for in the SEIS Record of Decision Standards and Guidelines and RMP management direction? (pg. 38)

Remarks: Adequate numbers of trees and snags have been marked to ensure adequate amounts of standing trees/snags and down wood will be left to meet ROD requirements. Data show that trees/snags greater than 20" DBH were marked in the units as follows:

Unit 19A 18 acres	63 snags (3.4/acre)	152 trees (8.4/acre)
Unit 29A 94 acres	74 snags (<1.0/acre)	845 trees (9.0/acre)
Unit 29 B23 acres	61 snags (2.6/acre)	198 trees (8.6/acre)

2. Are special habitats being identified and protected? (pg. 39)

Remarks: Special habitats were identified during pre-sale planning and survey work. Those identified have not been included in the units or have been buffered if within the units.

3. What is the status of designing and implementing wildlife restoration projects? (pg. 37)

Remarks: N/A - This is not a wildlife restoration project.

4. What is the status of designing and constructing wildlife interpretive and other user- enhancement facilities? (pg. 38)

Remarks: N/A - This project is not a wildlife interpretive or other user-enhancement facility.

Sampson Butte

Riparian Reserves (Appendix I, pg. 190)

Activities that are conducted or authorized within Riparian Reserves will be reviewed in order to identify whether the actions were consistent with the SEIS Record of Decision Standard and Guidelines, RMP management direction and Aquatic Conservation Strategy Objectives.

Monitors: Couch

Question #1 - #3 do not apply. These questions do not apply to the monitoring requirement.

4. Are management activities in Riparian Reserves consistent with SEIS Record of Decision Standards and Guidelines and RMP management direction and Aquatic Conservation Strategy Objectives?

Remarks: The Sampson Butte Commercial Thinning is located in the Little River AMA. The primary objective for this AMA as stated in the SEIS ROD of the NW Forest Plan (NWFP) is "Development and testing of approaches to integration of intensive timber production with restoration and maintenance of high quality riparian habitat." (pg D-12). This particular timber sale was developed as a "New Forestry" type commercial thinning before the NWFP and was adapted to fit the NWFP. Specifically thinning within as well as road construction through the Riparian Reserves became a major discussion and debate topic during the Environmental Assessment (EA) process. Discussion centered around the sale design in relation to the ACS objectives and Standards and Guidelines.

As part of the interdisciplinary discussion some people initially felt that a more conservative approach was needed in protection of the Riparian Reserves. This meant no thinning of the Riparian Reserve. Others felt that testing a new approach for developing and encouraging Riparian Reserve habitat toward late successional type stands was needed. This was especially desired since some previous silviculture study plots could be incorporated into the long term effects of thinning. In the process everyone came to agreement on the basic concept of encouraging late successional type stands by thinning in the Riparian Reserves. This was in line with page C-32 of the Standards and Guidelines which encourages the application of, "silvicultural practices for Riparian Reserves to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain ACS objectives." The greatest concern became the methodology for thinning the Riparian Reserves. Two of the specific issues that were of greatest concern as they relate to the ACS objectives were sedimentation effects on downstream cutthroat trout and potential effects on stream temperatures as a result of possible shade loss. Thus the two action alternatives considered were helicopter logging or cable/horse logging. The greatest amount of concern was expressed between these two alternatives with those wanting a more conservative approach favoring the helicopter logging alternative. In the cable/logging alternative how much new road construction and drainage structures contribute sediment to the streams was of highest concern. The cable/horse logging alternative was chosen by the decision maker.

The greatest concern in the cable/horse logging alternative was the potential increases of sediment to the stream as well as increased temperature from cable logging corridors across stream channels. The crux of the sediment issue was/is not that the potential for sediment inputs would be higher, but would they be significant. The specific mitigation measures and design features for the sale addressing these concerns are listed in the EA and will not be reiterated here. To test this new approach (according to the AMA objective) a monitoring scheme was set up to measure these specific concerns (EA, pg. 11). To measure direct sunlight effects on stream temperature the amount of shade over streams was monitored. To measure sediment changes as a result of the unique rock drainage and road construction, turbidity is being measured above and below the impacted area.

In answering the implementation monitoring question, whether this specific thinning maintains or does not prevent the attainment of the ACS objectives, it is a matter of interpretation and debate. In a memo from Phil Hall (Roseburg District Resource Advisor) to Dayne Barron (Little River AMA Coordinator) Phil cites the Record of Decision that states that ACS objectives are to be interpreted in the context of

long-term changes over the broad landscapes, not specific projects. The Standards and Guidelines on page D-9 allow AMA's flexibility when working in Riparian Reserves to achieve ACS objectives. The sale design tests new methods for intensive timber production and measures these effects on the stream and riparian condition with monitoring and silviculture test sites.

The only ACS objective that might not be met in the short term is #5, "Maintain and restore the sediment regime . . . (NWFP, pg. B-11). Potential sediment changes from new road construction, the rock drainage structure, and horse/cable yarding are currently being measured by the monitoring design for the thinning. The long term effect of the thinning design is expected to meet the ACS objectives.

Although there is a great amount of debate and varying interpretations, it is felt that the Sampson Butte thinning design is consistent with SEIS ROD, Standards and Guidelines, and RMP management direction and Aquatic Conservation Strategy (ACS) Objectives. The monitoring of the stream shade component and sedimentation is measuring effectiveness of the thinning design features and should be reviewed and evaluated when the sale is completed.

Question #5 - #7 do not apply. These questions do not apply to the monitoring requirement.

Management and conservation of special status species and SEIS special attention species habitat. (Appendix I, pg. 199)

Evaluate documentation regarding special status species and related recommendations and decisions in light of Endangered Species Act requirements, policy and SEIS Record of Decision Standard and Guidelines, and RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.

Monitors: Wickline, Foster, Waters

Questions to be answered:

1. Are special status species being addressed in deciding whether or not to go forward with forest management and other actions? During forest management and other actions that may disturb special status species, are steps taken to adequately mitigate disturbances? (pg. 41)

Remarks:

Botanical - All special status plants have been surveyed for under present guidelines and protocols. No management actions were authorized unless their status was mitigated. All Special Status plants and habitat were either buffered or excluded from the sale area.

Fisheries - Special status fish species (coastal cutthroat trout) are identified in the fisheries report and also in the EA (pg 7). A finding of a migratory cutthroat was mentioned in the fisheries report and in the EA. The fisheries report acknowledges that the proposed action is a "may affect" for proposed fish species, and that consultation will have to be conducted should the species be listed. This was not included in the EA, however this action is being consulted with the National Marine Fisheries Service. The seasonal closure and "winterizing" of the roads has occurred.

Wildlife - Special status species that were addressed in the EA were the northern spotted owl, clouded salamander, and red-legged frog. No SEIS special attention species were addressed in the EA. No survey protocol have been completed for these species, although "walk through" red tree vole surveys have been accomplished in these stands.

2. Are the actions identified in plans to recover species being implemented in a timely manner? (pg. 42)

Remarks: There are two botanical species conservation plans in place and are being implemented. No wildlife or fisheries T&E species with final recovery plans were impacted by this project.

3. What coordination with other agencies has occurred in the management of special status species? (pg. 41)

Remarks: Formal consultation with U.S. Fish and Wildlife Service (section 7 formal consultation).

Consultation with the National Marine Fisheries Service has been completed. A biological assessment was submitted, and a biological opinion has been received. The project was determined to "not likely adversely effect" coastal cutthroat trout. The Little River Watershed analysis has been completed in conjunction with the USFS. The BLM and USFS has a cooperative agreement to monitor outmigrating juvenile fish in the Little River watershed, which includes the vicinity of the action.

4. What land acquisitions occurred or are under way, to facilitate the management and recovery of special status species? (pg. 42)

Remarks: Not pertinent to this project.

5. What site specific plans for the recovery of special status species were or are being developed?

Remarks: Calochortus umpquensis and Cimicfuga elata Conservation Plan. Recovery plan for the northern spotted owl is in draft form. There are no Conservation plans for fish species.

6. What is the status of analysis which ascertains species requirements or enhances the recovery or survival of a species?

Remarks:

Botanical - Yearly population monitoring is being conducted on Calochortus umpquensis, Aster vialis and Cimicfuga elata.

Fisheries - Other state and federal agencies have ongoing research projects which address these questions. The BLM has fish distribution and abundance surveys that have occurred over the last two summers, and are planned for next summer. Also, note question three which deals with the Little River smolt trapping project.

Wildlife - Sampson Butte was surveyed for red tree voles as part of an effort to identify the use of younger stands by the species.

7. What is the status of efforts to maintain or restore the community structure, species composition and ecological processes of special status plant and animal habitat?

Remarks: PDF's are to retain all CWD larger than 20 inches; the goal of the project is to speed up the development of large diameter trees. Thinnings in riparian reserves are occurring to encourage the recruitment of LWD, including thinnings in this sale. Also, road related restoration work is planned in this watershed and others. Oregon Department of Fish and Wildlife has completed an instream habitat restoration project in Cavitt Creek.

Idleyld

Riparian Reserves (Appendix I, pg. 190)

Management activities will be examined prior to project initiation and re-examined following project completion, to determine whether the width and integrity of the Riparian Reserves were maintained.

Monitors: Couch, Luse

Question #1 does not apply

2. Is the width and integrity of the Riparian Reserves being maintained? (eg. did the conditions that existed before management activities change in ways that are not in accordance with the SEIS Record of Decision Standards and Guidelines and RMP management direction?)

Remarks: The RMP specifies that the Riparian Reserve widths be equal to the height of one site potential tree on each side of intermittent and perennial nonfish bearing streams (RMP pg. 24). The site potential tree height was determined by analyzing inventory data and determined to be 180 feet slope distance for this watershed. During sale layout, widths are measured using a string measuring machine and/or tape. An accuracy of 10% is expected.

Riparian Reserve widths were measured on the ground, pre-harvest, on three separate streams. A total of 17 measurements were taken, using a tape and a distance meter. The presence of brush and steep terrain makes measurements difficult. Where clear shots were possible the distance meter was used, otherwise the distance was taped. The width and integrity of the Riparian Reserves is being maintained per-harvest. The overall average width was 207 feet with a range from 150 to 282 ft. (i.e. 15% greater than that required by the RMP).

Measurement	Location	Slope Distance	Horizontal Distance
1	Unit #2 - western stream NOTE: This stream was not buffered on a strict 180' basis but along a terrain break, therefore the widths are wider than expected.	207 ft.	178 ft.
2		213	171
3		183	146
4		246	128
5		209	186
6		163	146
7		195	175
8		212	193
average		204	165
1	Unit #2 - Middle draw	231 ft.	229 ft.
2		198	196
3		195	195
4		198	190
average		205	202
1	Unit #2 - eastern draw	189	189
2		206	198
3		248	238
4		150	149
5		282	261
average		215	207

Questions #3 - 7 do not apply.

Air Quality (Appendix I, pg. 194)

Prescribed burn projects will be monitored to assess what efforts were made to minimize particulate emissions, and whether the environmental analysis that preceded the decision to burn addressed the questions set forth in the SEIS discussion of Emission Monitoring (Chap. 3&4, pg. 100).

Construction activities and commodity hauling activities will be monitored to determine if dust abatement measures were implemented.

Monitor: Cleary

1. Were efforts made to minimize the amount of particulate emissions from prescribed burns?
Remarks: This project has not been slash burned yet. Any burning that may be done in the future will be completed in accordance with the requirements of the Federal Clean Air Act. The Oregon Department of Environmental Quality is responsible for the implementation of this Act. The Oregon Department of Forestry (ODF) utilizes the Oregon Smoke Mgt. Plan to manage and monitor the amount of smoke (emissions) released into the airshed. All burning will be conducted according to the direction of the ODF.
2. Are dust abatement measures used during construction activities and on roads during BLM timber harvest operations and other BLM commodity activities?
Remarks: Dust abatement operations have not been required or used on this timber sale. Three natural surfaced (dirt) roads have been constructed, and the soil moisture was high enough to provide for easy packing of the road surface. Typically, dust abatement operations are used only if significant dust is produced during hauling operations, and then only if local residents are being impacted. Any negative air quality impacts from dust would be local in nature, of short duration, and have negligible impact on the regional air quality.
3. Are conformity determinations being prepared prior to activities which may contribute to a new violation of the National Ambient Air Quality Standards, increase the frequency and severity of an existing violation, or delay the timely attainment of a standard?
Remarks: No conformity determinations are being done on District. All burning operations are tied to the Oregon Smoke Mgt. Plan. The local protection agencies (ODF) in conjunction with Oregon DEQ manage, monitor, and audit the amount of smoke (emissions) produced by slash burning operations.

Dead Dog

Ecosystem Goals (Appendix I, pg. 193)

Timber sales will be reviewed to determine if ecosystem goals were addressed in the silvicultural prescription.

Monitor: James

Questions #1 and #3 do not apply.

2. Are timber sales being designed to meet ecosystem goals for the Matrix?

Remarks: A review of the silviculture prescription and the timber sale contract was done to determine if ecosystem goals were considered in planning and implementation.

The prescription calls for the following:

A proportional thinning to meet a desired future condition.

- The desired condition immediately following harvest is a stand with about 50 percent crown closure. A variety of conifers, hardwoods and hardwood clumps are retained to maintain species diversity. Eight red tree vole nest trees and the trees that have crowns touching the nest tree were reserved. Six areas that are about 50 feet in diameter and contain about 10 trees are left untreated in the Riparian Reserve to promote stand diversity. All streams have a 20 foot no cut buffer to protect stream bank stability and provide stream shade.
- The desired future condition in the riparian areas is old growth structure, and in upland areas large diameter trees with a scattered shade tolerant understory.
- The marking guide describes the selection of leave trees. Retained trees would have crowns released on at least two sides. Any old trees that were left after the original harvest were reserved. Existing snags were reserved, and trees were marked to protect them from logging damage.

The timber sale contract specified that all down logs and snags were to be reserved. The prescription and timber sale contract are designed to meet some of the ecosystem goals for the Matrix.

- An ecosystem is extremely complex and inherently hard to define. If the area continues to grow trees can it be assumed that it is functioning?
- Whether or not we have provided for the continuance and dispersal of some organisms is likely, but also extremely difficult to prove.
- We can predict and easily monitor the development of forest structures. Other objectives are more difficult to ascertain.

Fish Habitat (Appendix I, pg. 198)

Timber sales will be reviewed to evaluate documentation regarding fish species and habitat and related recommendations and decisions in light of policy and SEIS Record of Decision Standards and Guidelines and RMP management direction.

Monitor: Waters

Questions:

1. Are at-risk fish species and stocks being identified?

Remarks: At the time of the EA preparation, no fish species in the Elk Creek basin were considered at-risk. Also, it was noted in the fisheries report and in the EA that the streams in the immediate vicinity of the project were not fish bearing.

2. Are fish habitat restoration and enhancement activities being designed and implemented which contribute to attainment of Aquatic Conservation Strategy Objectives?

Remarks: No instream habitat work has been completed or planned. However, thinnings in the riparian reserves were designed to accelerate attainment of Aquatic Conservation Strategy Objectives.

3. Are potential adverse impacts to fish habitat and fish stocks being identified?

Remarks: Yes, both in the fisheries report and in the EA (pgs. 6-10).

Cultural Resources (Appendix I, pg. 201)

Timber sales will be reviewed to evaluate documentation regarding cultural resources and American Indian values and decisions in light of policy and SEIS Record of Decision Standards and Guidelines and RMP management direction.

Monitor: Barner

Questions:

1. Are cultural resources being addressed in deciding whether or not to go forward with forest management and other actions? During forest management activities that may disturb cultural resources, are steps being taken to adequately mitigate disturbances?

Remarks: A Cultural Clearance Worksheet was done on this project and the Cultural Resources Specialist concluded that "No known Cultural Resources will be impacted by this action". This project was also consulted by the State Historical Preservation Office (SHPO) who concurred with a "no effect" determination.

Questions #2 - 4 do not apply.

Four Gates

Riparian Reserves (Appendix I, pg. 190)

Management activities will be examined prior to project initiation and re-examined following project completion, to determine whether the width and integrity of the Riparian Reserves were maintained.

Monitors: Luse

Question #1 does not apply

2. Is the width and integrity of the Riparian Reserves being maintained? (eg. did the conditions that existed before management activities change in ways that are not in accordance with the SEIS Record of Decision Standards and Guidelines and RMP management direction?)

Remarks: The Watershed Analysis for this sale allowed half SAT (one half site potential tree height) on intermittent streams. This approach was concurred with by the Regional Ecosystem Office (REO). This sale is currently awaiting a "Biological Opinion" from the National Marine Fisheries Service. There is a possibility that the Riparian Reserves would have to be extended, therefore this sale will not be monitored until a definite opinion has been rendered.

Questions #3 - 7 do not apply.

Maintenance of sufficient green tree retention, snags and down woody debris (Appendix I, pg. 193)

Timber sales will be examined by pre- and post-harvest (after site preparation) inventories to determine snag and green tree numbers, heights, diameters and distribution within harvest units. The same timber sales will also be inventoried pre- and post-harvest to determine if SEIS Record of Decision and RMP down log retention direction has been followed.

Monitor: Weber

Question to be answered:

1. Are suitable numbers of snags, coarse woody debris and green trees being left, following harvest, as called for in the SEIS Record of Decision Standards and Guidelines and RMP management direction?

Remarks: This sale has not been harvested yet. It was sold in March 1996 as a three year contract. Retention trees were marked with orange paint and all existing down wood (CWD) was reserved in the contract. Overall eight retention trees per acre meeting ROD requirements were left (the ROD requires 6-8), 2.4 snags per acre were left (the ROD requires 1.2 snags) and 113.5 lineal feet per acre of CWD was left (the ROD requires 120 ft.). The sale overall is lacking 6.5 feet per acre (914 ft. total). This deficit is more than compensated for by the extra standing snags that were left.

Wildlife Habitat (Appendix I, pg. 196-7)

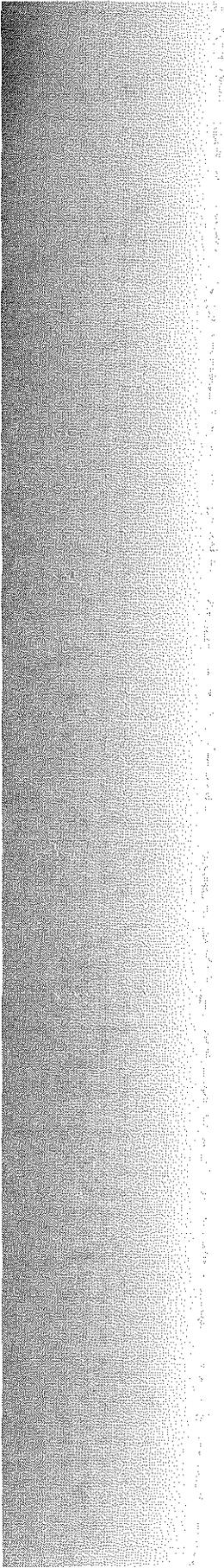
Timber sales will be examined by pre- and post-harvest (after site preparation) inventories to determine snag and green tree numbers, heights, diameters and distribution within harvest units. The same timber sales will also be inventoried pre- and post-harvest to determine if SEIS Record of Decision and RMP down log retention direction has been followed.

Monitors: Witt

Questions to be answered:

1. Are suitable (diameter and length) numbers of snags, coarse woody debris and green trees being left, in a manner that meets the needs of species and provides for ecological functions in harvested areas as called for in the SEIS Record of Decision Standards and Guidelines and RMP management direction? (pg. 38)

Remarks: Adequate numbers of trees and snags have been marked to ensure adequate amounts of standing trees/snags and down wood will be left to meet ROD requirements (See writeup above for specific numbers and amounts).



South River Resource Area RMP Monitoring Information

Riparian Reserves

Width and Integrity Maintained

Question:

190-2. Is the width and integrity of the Riparian Reserves being maintained? (e.g. did the conditions that existed before management activities change in ways that are not in accordance with the SEIS Record of Decision Standards and Guidelines and RMP management direction?)

Monitoring Requirement:

190-2. Twenty percent of management activities within each resource area will be examined prior to project initiation and re-examined following project completion to determine whether the width and integrity of the Riparian Reserves were maintained.

Analysis: High Noon Timber Sale - Todd Kuck

Four of the nine harvest areas on this sale are next to or contain a Riparian Reserve. The site potential tree height for this watershed has been determined to be 180 feet. The Riparian Reserve next to Harvest Area 7 is a fish-bearing stream that requires a Riparian Reserve width of 360 feet. An accuracy of 10% is expected during layout of the sale. Measurements were taken using a string machine, loggers' tape, and/or a range finder. The table below summarizes Riparian Reserve transect measurements.

High Noon Riparian Reserve Monitoring

Harvest Area	Transect Number	Distance (ft)	Average Distance (ft)
Three	1	186	
Three	2	176	
Three	3	185	182
Five	1	212	
Five	2	186	199
Seven	1	201	
Seven	2	402	
Seven	3	295	299
Eight	1	203	
Eight	2	208	
Eight	3	194	
Eight	4	228	
Eight	5	180	
Eight	6	190	
Eight	7	179	
Eight	8	86	
Eight	9	144	
Eight	10	206	
Eight	11	129	177

Additional measurements were taken in Harvest Area 8, but since the area was not tagged in these areas, these distances were not used in calculating the average width. The Riparian Reserve widths for Harvest Areas 3, 5, and 8 were all within 10% of the site potential tree height for this watershed, the width and integrity of the Riparian Reserves is being maintained pre-harvest. The Riparian Reserve next to Harvest Area 7, which required a distance equal to twice the height of the site potential tree averaged 299 feet in width, approximately 17% less than the 360 feet required. One possible reason for this discrepancy is the fact that the stream channel appears to have moved during the storms that occurred in November of 1997. Even though this Riparian Reserve is less than

that required, the integrity of this Riparian Reserve has been maintained. The retention tree block next to the boundary of the harvest area will function the same as the Riparian Reserve. **Post-harvest monitoring will be required following project completion.**

Management Activities within Riparian Reserves

Question:

190-4. Are management activities in Riparian Reserves consistent with SEIS Record of Decision Standards and Guidelines, RMP management direction, and Aquatic Conservation Strategy Objectives?

Monitoring Requirement:

190-4. Activities conducted in Riparian Reserves or authorized within Riparian Reserves will be reviewed in order to identify whether the actions were consistent with the SEIS Record of Decision Standards and Guidelines, RMP management direction, and Aquatic Conservation Strategy Objectives.

Analysis: Plus Tree Cleaning (EA#105-95-16) - Sigrid Barron

Fifty-nine plus trees (of 161 total for the project) are in Riparian Reserves. The project was designed to remove competing trees (6-40" dbh) within a radius of up to 35' of the plus tree. The average number of trees to be cut at each site is ten.

Only one Standard & Guideline identified applicable to the project.

"TM-1 Prohibit timber harvest, including fuelwood cutting, in Riparian Reserves, except as described below. Riparian Reserve acres shall not be included in calculations of the timber base.

- a. (does not apply)
- b. Salvage trees only when watershed analysis determines that the present and future coarse woody debris needs are met and other aquatic Conservation Strategy objectives are not adversely affected.
- c. Apply silvicultural practices for Riparian Reserves to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy objectives."(pp C-31&32-SEIS)

The project was consistent with the objectives in that the described features were maintained or restored. Part of the timber felled in the Riparian Reserve area was left to provide coarse woody debris. In order to maintain the existing sediment regime, no new roads or skid trails were constructed. The timber not accessible to existing roads was felled and left as down woody debris.

Matrix

Structural Components Maintained

Question:

193-1. Are suitable numbers of snags, coarse woody debris, and green trees being left, following timber harvest, as called for in the SEIS Record of Decision Standards and Guidelines and RMP management direction?

Monitoring Requirement:

193-1. Twenty percent of regeneration harvest timber sales in each resource area will be examined by pre- and post-harvest (and after site preparation)

inventories to determine snag and green tree numbers, heights, diameters, and distribution within harvest units. The measure and distribution of snags and green trees will be the percent in the upper, middle, and lower thirds of the sale units monitored. Snags and green trees left following timber activities (including site preparation for reforestation) will be compared to those that were marked prior to harvest. The same timber sales will also be inventoried pre- and post-harvest to determine if SEIS Record of Decision and RMP down log retention direction has been followed.

Analysis: Lean Louis Timber Sale - Dale Pospisil & John Royce

The environmental analysis identified the following related to green tree, snag, and coarse woody debris retention:

- 1) Retain 6 to 8 green trees/acre greater than 20 inches, d.b.h., irregularly scattered and/or grouped throughout areas.
- 2) Retain snags at levels sufficient to support species of cavity-nesting birds at 40 percent of potential levels. Additional green trees would be left where snags do not already exist and/or cannot be safely retained.
- 3) Retain coarse woody debris (minimum of 120 linear feet/acre, greater than or equal to 16 inches (large end) and 16 feet in length per IM-95-028, 11/94).

The silvicultural prescription also identified maintaining within stand diversity and promoting natural regeneration by leaving "mainly Douglas-fir trees but will include a natural mix of minor conifer species (ponderosa pine, sugar pine, and incense cedar) and occasional large hardwoods (madrone, chinkapin, and big leaf maple). Diverse species seed sources will help contribute to natural regeneration success thereby complementing artificial regeneration efforts." The prescription identified maintaining existing regeneration pockets where topographically feasible and to clump leave trees around these areas to minimize falling and yarding damage.

The wildlife biologist and fisheries biologist also identified two moist areas (less than one acre in size) in Harvest Area 4 to clump retention trees. Retention tree marking in the harvest areas was coordinated between the wildlife biologist and cruising staff. Following is a summary of trees marked for retention by harvest area.

Lean Louis Retention Trees

Area DBH	#1		#2		#3		#4		Total Sale	
	GTR	Snag	GTR	Snag	GTR	Snag	GTR	Snag	GTR	Snag
8	43	0	229	0	10	0	65	0	347	0
12	87	6	138	1	5	1	51	3	281	11
16	109	5	57	3	4	1	28	0	198	9
20	445	11	41	2	26	1	78	6	590	20
24	272	9	32	3	17	0	77	4	398	16
28	90	2	37	4	6	2	40	2	173	10
32	51	2	34	2	5	1	46	1	136	6
36	47	5	43	4	14	4	26	2	130	15
40	34	3	13	4	7	2	16	0	70	9
44	28	2	25	1	6	1	24	2	83	6
48	20	3	15	0	9	2	24	0	68	5
52	8	1	12	0	5	1	17	2	42	4
56	1	0	7	0	2	1	15	1	25	2
60	0	0	0	0	2	0	10	0	12	0
Total	1235	49	683	24	118	17	517	23	2253	113
> =20	996		259		99		373		1727	

Per Acre Summary

AREA	#1	#2	#3	#4	TOTAL
GRT/AC	10.9	22.0	9.83	12.3	12.8
GRT > =20"	8.81	8.35	8.25	8.88	8.72
SNAGS/AC	0.43	0.77	1.41	0.54	0.57

All four of the harvest areas on this sale have been salvaged logged several times and are lower valley south slopes with frequent fire return intervals. Therefore less than 10% of the desired decay class 1 and 2 down wood per acre existing prior to harvest. One additional retention tree per acre was marked to provide down wood requirements. The resource area has adopted Scenario #4 of the CWD guidelines from IB No. OR-97-065 to implement the coarse woody debris requirements on this sale. One additional tree per acre was marked to meet the long term snag component. **Harvest of this sale has not occurred to date monitoring will be required post-harvest and post-site preparation.**

Silvicultural Ecosystem Goals

Question:

193-2. Are timber sales being designed to meet ecosystem goals for the Matrix?

Monitoring Requirement:

193-2. Twenty percent of the files on each years timber sales will be reviewed annually to determine if ecosystems goals were addressed in the silvicultural prescriptions.

Analysis: Curtin Creek - Tom Katwyk

The Ecosystem objectives or goals are stated on page 33 of the RMP under Matrix as follows:

“Provide . . . ecologically valuable structural components such as down logs, snags, and large trees.”

Management direction for stand structural species composition is also address in Appendix E of the RMP pages 150-151 and is summarized as follows:

Structural Composition: Maintain site productivity and wildlife values through retention of structure and the design of practices required to maintain ecosystem processes throughout the management cycle (e.g. retain large green trees, CWD, and snags)

Species Composition: Manage so that tree species trend over time toward average species compositions consists of approximately 89 percent Douglas-fir, 3 percent pines, 4 percent grand fir, 2 percent other conifers. Manage shrubs, forbs, and other vegetation consistent with Land Use Allocation objectives.

A review of the silvicultural prescription and the EA was done to determine the extent ecosystem goals were considered in the planning process. Harvest Area 1 of the Curtin Creek Sale (changed to Olalla Wildcat Area 8), is in Matrix that is both General Forest Management(GFMA) and Connectivity. The silviculture prescription identified this area for regeneration harvest as a majority of the trees were greater than 28" dbh and had reached or passed CMAI. Reforestation prescriptions included a mix of Douglas-fir, sugar pine, and incense cedar. The EA also addressed the following objectives:

- 1) Retain 6 to 8 green trees/acre greater than 20 inches in diameter, irregularly scattered and/or grouped.
- 2) Retain 1.2 snags/acre to support species of cavity-nesting birds at 40% of potential population levels.

- 3) Retain 120 linear feet/acre of down logs greater than or equal to 16 inches in diameter at the large end and 16 feet in length.

The Decision Record required that a minimum of six trees per acre be left as retention trees in the east portion (GFMA) and 12-18 in the west portion (Connectivity).

Harvest Area 2 of the Curtin Creek Sale (Olalla Wildcat Area 9) is a commercial thinning in GFMA. This 10 acre stand is a uniform stand of Douglas-fir approximately 70 years old with a relative density of 98. Thinning would remove suppressed and intermediate trees; spacing dominates and codominates on a 20 to 25 foot spacing. This would leave approximately 100 trees per acre. There is no down wood component or snag component presently and no opportunity to develop one. The prescription identified that growth on the residual trees should increase because of the reduction in competition and provide for large trees and down wood in the future.

Old Dillard - Tom Katwyk

The silvicultural prescription described the harvest area containing multi level stands 100 plus years of age predominately Douglas-fir with a few scattered ponderosa pine, incense cedar, and grand fir. Hardwoods (madrone and chinkapin) still existed in the lower canopy though past girdling and chemical treatments were successful in removing some. Large down wood was "relatively scarce" as most had been removed from fire, salvage, and firewood cutting. The following regeneration harvest treatment recommendations were made and followed through to the EA (pp 3&4):

- 1) Retain 6 to 8 green trees/acre greater than 20 inches in diameter scattered and/or grouped. Species diversity of the leave trees should mimic the stand before logging. Douglas-fir would be the primary leave tree species selected. In addition, a natural mix (based on both species occurrence and vigor) of other conifer species (ponderosa pine, sugar pine and incense cedar) and occasional large hardwoods (madrone, chinkapin, California black oak, and big leaf maple) would be left. This would assure stand diversity and promote natural regeneration.
- 2) Reserve 1.2 existing snags per acre. Where existing snags do not occur or cannot be safely retained, additional green trees would be reserved for snag recruitment.
- 3) Retain a minimum of 120 linear feet/acre of down woody debris 16 inches or larger at the large end and 16 feet inn length.
- 4) Green trees would be left adjacent to wet areas less than 1 acre in size to help maintain and protect the integrity of these wet areas.
- 5) Regeneration would occur through planting and/or natural seeding. Planting stock would be Douglas-fir, ponderosa pine, sugar pine, incense cedar and possibly grand fir.

Air Quality

Particulate Emissions

Question:

194-1. Were efforts made to minimize the amount of particulate emissions from prescribed burns.

Monitoring Requirement:

194-1. Twenty percent of prescribed burn projects will be randomly selected for monitoring to assess what efforts were made to minimize particulate emissions, and whether the environment analysis that preceded the decision to burn addressed the questions set forth in the SEIS discussion of Emission Monitoring (Chapter 3&4 p. 100).

Analysis: Curtin Creek - Bill Adams

Discussion on planned prescribed burning exists throughout the environmental document. Mention of Air Quality occurs three times. Air Quality is checked as "Not Affected" in Appendix B, Critical Elements of the Human Environment. The EA states that Best Management Practices "would be required" for site preparation and that prescribed fire treatments would be:

- 1) planned and implemented after harvest
- 2) developed using the ID team approach
- 3) planned in order to minimize intensive burns, consumption of litter and coarse woody debris, damage to residual live trees, and impacts to air quality. A combination of hand piling, machine piling and broadcast burning would be utilized.

The Emission Monitoring discussion in the FSEIS (pp 100-101) lists 9 key points and states that "All levels of planning should assess air quality impacts using these steps." The Curtin Creek EA does not address all these points. Some of these 9 points are required elements in a Prescribed Fire Plan. The EA avoids discussion on these points in that the prescribed fire treatments would be "planned and implemented after harvest." The RMP/EIS includes much discussion on Air Quality and requires all prescribed burning comply with the Oregon Smoke Management Plan. To include these 9 key points in every timber sale EA would add unnecessary length to an analysis. The "Not Affected" determination concerning Air Quality is a professional judgement based on the size and location of these proposed areas. It could be argued that Air Quality might be affected and more discussion should have been included in the text of the EA.

KEY POINTS (FEIS chapter 3&4, pp. 100-101)

- 1) Staff reports recommended prescribed burning Harvest Area 1, hand pile yarding corridors on Harvest Area 3, and burning landings on both areas. If alternate fuel reduction or site preparation methods were considered it was not documented in the EA.
- 2) Acreage is identified, amount and type of material to be burned is not quantified in the EA.
- 3) EA does identify the type of burn proposed by area. These might change after post harvest evaluation.

- 4) EA does not quantify emissions. This is a required element in a prescribed fire plan and must be reported under Smoke Management reporting system to register areas prior to burning.
- 5) EA does mention mitigation measures to reduce emissions but the EA does not specifically state that reduced emissions would result from "minimizing intensive burns, consumption of litter and coarse woody debris, damage to residual live trees, and impacts to air quality." Again, this is in a discussion on treatments that will be planned after harvest.
- 6) The EA does not discuss applicable regulatory, permit, or smoke management requirements. These are required of every prescribed fire plan.
- 7) The EA does not describe or quantify air quality impacts on downwind communities and/or visibility impacts in Class I areas.
- 8) No modeling was done. DFPA monitors smoke by aircraft when we burn. Harvest areas have not been burned. N/A
- 9) EA did not discuss monitoring network.

Analysis: OLD DILLARD EA - Bill Adams

Discussion on planned prescribed burning exists throughout the environmental document. Mention of Air Quality occurs only twice. Air Quality is checked as "Not Affected" in Appendix B, Critical Elements of the Human Environment. The EA states that Best Management Practices "would be required" for site preparation and that prescribed fire treatments would be:

- 1) planned and implemented after harvest
 - 2) developed using the ID team approach
 - 3) planned in order to minimize intensive burns, consumption of litter and coarse woody debris, damage to residual live trees, and impacts to air quality. A combination of hand piling, machine piling, hand scalping and broadcast burning would be utilized.
- 1) The specific fuels treatments will be determined after harvest. A new contract stip. has been developed to give flexibility in using appropriate site preparation based on post harvest conditions. This is intended to provide options for alternative site preparation treatments. Although not specifically tied to air quality in the EA, alternative treatments were considered.
 - 2) Acreage is identified, amount and type of material to be burned is not quantified in the EA.
 - 3) EA does not identify the type of burn proposed by area. This will be determined after harvest. The EA does identify that hand piling, machine piling, and broadcast burning are all possible options
 - 4) EA does not quantify emissions. This is a required element in a prescribed fire plan and must be reported under Smoke Management reporting system to register areas prior to burning.
 - 5) EA does mention mitigation measures to reduce emissions but the EA does not specifically state that reduced emissions would result from "minimizing

intensive burns, consumption of litter and coarse woody debris, damage to residual live trees, and impacts to air quality." Again, this is in a discussion on treatments that will be planned after harvest.

- 6) The EA does not discuss applicable regulatory, permit, or smoke management requirements. These are required of every prescribed fire plan.
- 7) The EA does not describe or quantify air quality impacts on downwind communities and/or visibility impacts in Class I areas.
- 8) No modeling was done. DFPA monitors smoke by aircraft when we burn. Areas have not been burned and might not require burning. N/A
- 9) EA did not discuss monitoring network.

Special Note:

It does not seem appropriate that every timber sale EA must address these 9 points concerning air quality. These points would be better addressed in a programmatic EA such as the Vegetation Management EA. Area specific prescribed fire plans and the Smoke Management reporting system are the appropriate documents for most of this air quality information.

Dust Abatement

Question:

194-2. Are dust abatement measures used during construction activities and on roads during BLM timber harvest operations and other BLM commodity hauling activities.

Monitoring Requirement:

194-2. Twenty percent of the construction activities and commodity hauling activities will be monitored to determine if dust abatement measures were implemented.

Analysis: Joe Ross

Where needed, dust abatement measures will be used on roads during BLM timber harvest operations on the Old Dillard and Curtin Creek sales. BLM will also encourage dust abatement measures when haulers use BLM roads under permits and ROW agreements. While none of the BMPs in Appendix D of the RMP specifically address dust abatement, the following stipulations have been included in the respective sales:

Old Dillard:

Watering Stipulations # 601, 603 and 605

Stipulation 601 specifically states that "The work shall consist of furnishing and applying water required for the compaction of embankments, roadbeds, backfills, base courses, surface courses, finishing and reconditioning of existing roadbeds laying dust, or for other uses in accordance with these specifications."

Curtin Creek:

Watering Stipulations # 601, 602, 603 and 606 are included in the Olalla Wildcat contract (which will also apply to Curtin Creek sale).

Stipulation 601 specifically states that "The work shall consist of furnishing and applying water required for the compaction of embankments, roadbeds, backfills, base courses, surface courses, finishing and reconditioning of existing roadbeds laying dust, or for other uses in accordance with these specifications."

Stipulation 602 states that "Water, when needed for compaction or laying dust, shall be applied at the locations, in the amounts, and during the hours as directed by the Authorized Officer. Amounts of water to be provided will be the minimum needed to properly execute the compaction requirements in conformance with these specifications, and for laying dust during work periods."

Evaluation:

The existing contract stipulations are adequate to meet the RMP's management direction regarding dust abatement. The Old Dillard sale could have also included stipulation 602 that was found in the Olalla Wildcat/Curtin Creek contract (to address location, amounts and timing of watering). Further, the Resource Area routinely calls for the implementation of dust abatement watering in response to any requests received from landowners experiencing detrimental impacts adjacent to construction and hauling activities.

Water and Soils

Implementation of Best Management Practices

Question:

195-1. Are site specific Best Management Practices, identified as applicable during interdisciplinary review, carried forward into project design and execution?

Monitoring Requirement:

195-1. Twenty percent of the timber sales and silviculture projects stratified by management category will be randomly selected for monitoring to determine whether or not Best Management Practices were implemented as prescribed. The selection of management actions to be monitored will be based on which Best Management Practices are being prescribed and on which beneficial uses are likely to be impacted.

Analysis: Curtin Creek & Lean Louis - Dennis Hutchison

A "paper track" monitoring of soil and water related concerns for Lean Louis and Curtin Creek (Olalla Wildcat Areas 8&9) was conducted. IDT members field reports were tracked through the EA into the timber sale.

All items of concern identified during the interdisciplinary review were carried forward into project design and scheduled for implementation through project on-the-ground layout or contract specifications. Examples of the items of concern included: decommissioning of temporary roads, tillage of compacted soils areas, additional leave trees in wet areas that are less than one acre in size, revegetation of bare soil, seasonal restrictions for operations, and special provisions for managing granitic soil areas.

These projects have not been implemented to date. Monitoring will be needed to determine whether or not Best Management Practices were implemented as prescribed and if those practices were effective. This phase will be completed after the contract has been completed.

Wildlife Habitat

Biological Diversity Maintained

Question:

196-1. Are suitable (diameter and length) numbers of snags, coarse woody debris, and green trees being left in a manner that meets the needs of species and provides for ecological functions in harvested areas as called for in the SEIS Record of Decision Standards and Guidelines and RMP management direction?

Monitoring Requirement:

Twenty percent of regeneration harvest timber sales in each resource area will be examined by pre- and post- harvest (and after site preparation) to determine snag and green tree numbers, heights, diameters, and distribution within harvest units. The measure and distribution of snags and green trees will be the percent in the upper, middle, and lower thirds of the sale units monitored. Snags and green trees left following timber activities (including site preparation for reforestation) will be compared to those that were marked prior to harvest. The same timber sales will also be inventoried pre- and post-harvest to determine if SEIS Record of Decision and RMP down log retention direction has been followed.

Analysis: Lean Louis - Frank Oliver

Management Objective - Retain snags within a timber harvest area at levels sufficient to support species of cavity nesting birds at 40 percent of potential population levels. Meet the 40 percent minimum throughout the Matrix with per acre requirements met on average areas no larger than 40 acres.

Meeting the 40 percent potential population was interpreted as met by retaining 1.2 snags per acre. Depending on which of the two snag definitions stated below are used in evaluation of the Lean Louis timber sale the results can be different.

1. Snag - Any standing dead, partially-dead, or defective (cull) tree at least ten (10) inches at breast height (d.b.h.) and at least six (6) feet tall. A hard snag is composed primarily of sound wood, generally merchantable. A soft snag is composed primarily of wood in advanced stages of decay and deterioration, generally not merchantable.
2. Any standing dead tree ten (10) inch d.b.h. plus and six (6) foot tall or taller.

Cruise data from the sale identified 239 snags (1.2 per acre) prior to harvest. During sale layout 113 snags (.57 per acre) were retained base on logging and site preparation safety considerations. Additional green trees (1 per acre) were reserved to make up the deficit as identified in the environmental analysis. (Lean Louis, p. 3) By using definition one above the snag requirement is exceeded by harvest area and the sale as a whole. If definition two is selected then the snag requirement falls short for Harvest Area 1 (0.43 snags/acre), Harvest Area 2 (0.77 snags/acre), and Harvest Area 4 (0.54 snags/acre). Harvest Area 3 meets the snag requirement with 1.41 snags/acre. As a whole under definition two the 40 percent population would not be met.

Coarse Woody Debris:

Management Objective - Leave 120 linear feet of logs per acre greater than or equal to 16 inches in diameter and 16 feet long. Existing decay Class 1 and 2 logs count toward this requirement. Down logs will reflect the species mix of

original stands. Where this management action/direction cannot be met with existing coarse woody debris, merchantable material will be used to make up the deficit.

To meet the coarse woody debris objective all Class 3, 4, and 5 logs in the harvest areas are reserved. Meeting the Class 1 and 2 log needs was accomplished by marking one additional green retention tree per acre by harvest area. (See retention tree summary and discussion in Matrix section.)

Green Tree Retention:

Management Objective - Retain six (6) to eight (8) green conifer trees per acre after regeneration harvest to provide a source of snag recruitment and a legacy bridging past and future forests. Retained trees will be distributed in variable patterns (e.g., single trees, clumps, and stringers) to contribute to stand diversity.

In addition to the previous green tree retention management action/direction, retain green trees for snag recruitment in harvest areas where there is an identified, near-term (less than three decades) snag deficit. These trees do not count toward green tree retention requirements.

Green retention trees have been marked in each harvest area in excess of the minimum number required to provide for future coarse woody debris and snag recruitment (See retention tree summary in Matrix section). During project layout trees were marked, in coordination with wildlife biologists and foresters, across the landscape as single trees or groups where they would provide additional protection for habitat features such as wet areas in Harvest Area 4, large down logs or tall snags of high value for wildlife. In addition to the conifers all hardwood trees eight (8) inches d.b.h. or greater are reserved.

Ecological Function:

Management Objective- Provide for important ecological functions such as dispersal of organisms, carryover of some species from one stand to the next, and maintenance of ecological valuable structural components such as down logs, snags, and large trees.

The stated objectives of ecological functions are partially met; in that, in the short term, maintenance of all ecological function of a mature forest stand and "regeneration harvest" cannot occur simultaneously. One example is dispersal of organisms that require the forest environment in total for dispersal, (i.e., the harvest area still functions as an open area after harvest even though single trees and clumps have been left across the harvest area). It would not function for dispersal habitat of northern spotted owls, but would maintain function for other species such as woodpeckers and bats. Valuable structural components green trees, snags, and down wood were reserved and the net result is a shorter recovery time for most ecological function of a mature forest. GFMA lands by management decision are to be harvested in a shorter time frame, 80 years, and may never achieve 100 percent of mature forest function. Harvest of this timber sale has not occurred to date and post-harvest and post site preparation evaluations will be required.

Special Habitat Protection

Question:

196-2. *Are special habitats being identified and protected?*

Management Requirement:

197-2. Twenty percent of BLM actions, within each resource area, on lands including or near special habitats will be examined to determine whether special habitats were protected.

Analysis: U.S.M. Harvest Plan - Sigrid Barron

The project area has cliffs near regeneration harvest. It was determined that the cliffs were not considered Special Habitat since the Threatened & Endangered Species requirements are more restrictive under the ESA because of sightings of peregrine falcons using the area.

The project area identified regeneration harvest adjacent to the Tater Hill ACEC. The harvest area was designed to avoid the ACEC during scoping of the environmental analysis.

Fish Habitat

Potential Impacts Identified

Questions:

197-3. Are potential adverse impacts to fish habitat and fish stocks being identified?

Monitoring Requirement:

198-4. Twenty percent of the files on each years' timber sales, and other relevant actions, will be reviewed annually to evaluate documentation regarding fish species and habitat and related recommendations and decisions in light of policy and SEIS Record of Decision Standards and Guidelines and RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorized documentation and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.

Analysis: Old Dillard Timber Sale - Rob Hurt

Most of the potential adverse impacts to fish from the harvest activity are mitigated by the application SEIS Record of Decision Standards Guidelines and RMP Best Management Practices. There are no fish-bearing streams adjacent to any of the five harvest areas on this timber sale. Non fish bearing streams received a riparian reserve of 160 feet each side of the stream

Roads Concerns:

According to the fisheries staff report several road related concerns were identified. Road renovation/upgrading was needed to facilitate better water routing from the existing road system. Approximately 4.0 miles of road would be renovated/upgraded with this timber sale action and has been incorporated into the road construction specifications of the authorizing document.

Road density in the Mt. Shep Watershed (Harvest Areas 3, 4, and 5) was identified as a concern in the fisheries staff report and the environmental assessment (EA). During the interdisciplinary team (IDT) process, an existing road near the timber sale was identified for decommissioning. Following the harvest activities the BLM maintenance crew would decommission the road. A note to the contract administrator has been incorporated into the contract file to carry out this action.

The soil scientist also identified existing skid roads that are to be decommissioned upon completion of harvest activities. Newly constructed skid roads would also be decommissioned following harvest activities. The authorizing document contains specifications to implement these mitigations.

Harvest Concerns:

During the environmental analysis additional measures were identified which may further protect the fisheries and aquatic resources from the potential adverse impacts associated with the proposed project.

1. Livestock grazing has occurred in the riparian reserve area located between Harvest Areas 1 and 2. These impacts were determined to have been degrading stream channel conditions. Project design features required a fence be placed around the Squaw Creek harvest areas to reduce the potential of livestock trespass and livestock related damages caused on timber reproduction, riparian health, and the aquatic ecosystem on BLM-administered lands. The authorizing document contains specifications to implement this mitigation.
2. Green trees would be left adjacent to wet areas less than one acre in size to maintain and protect the integrity of these wet areas. Retention trees would also be retained in draws and/or swales to protect these areas from the impacts associated with yarding. This mitigation was implemented during on-the-ground layout.
3. Directionally fall timber away from riparian reserves, potentially unstable, wet, and special habitat areas. The authorizing document contains a special provision for directional falling.

Harvest has not occurred on this timber sale to date and actions will need to be reviewed on the ground after completion of the contract to determine whether the mitigation was carried out as planned.

Special Note:

The EA stated that prior to harvest activities, approximately one mile of existing skid road be decommissioned to reduce compaction and increase infiltration. The timing of such activities may be difficult as the purchaser has elected to buy out on tilling of skid roads requiring this action be complete by BLM road maintenance. Tilling of skid roads should be accomplished prior to harvest activities by the timber sale purchaser to meet project design features discussed in the environmental analysis.

Analysis: Curtin Creek - Rob Hurt

There are two harvest areas in this timber sale. One area would be commercially thinned and the other would be regeneration harvested. Approximately 0.21 miles of new (temporary) road construction would be required to access portions of the commercially thinned area. Road construction and maintenance would meet the Standards & Guidelines and the BMP's. The temporary spur road would be decommissioned upon completion of this project by the BLM road maintenance. The regeneration harvest area would be yarded to existing surfaced/rocked roads. There are no fish-bearing streams adjacent to the two areas proposed for harvest. Riparian Reserves were identified with a width of 160 feet each side of the stream. There were no adverse impacts to fish stocks identified for this project that would not be mitigated by Standards and Guidelines of the SEIS Record of Decision.

The authorizing document contains specifications to construct and decommission temporary roads in the same season. Riparian Reserves were identified during environmental analysis and project layout. The authorizing document restricts harvest in these areas and requires trees be directionally felled away.

Harvest has not occurred on this timber sale to date and actions will need to be reviewed on the ground after completion of the contract to determine whether the mitigation was carried out as planned.

Special Status Species Habitat

Special Status Species Addressed

Questions:

199-1. Are Special status species being addressed in deciding whether or not to go forward with forest management and other actions? During forest management and other actions that may disturb special status species, are steps taken to adequately mitigate disturbance? What coordination with other agencies has occurred in the management of special status species?

Monitoring Requirements:

Twenty percent of the files on each year's timber sales and other relevant actions (e.g. right-of-ways, in stream structures) will be reviewed annually to evaluate documentation regarding special status species and related recommendations and decisions in light of the Endangered Species Act requirements, policy, and SEIS Record of Decision Standards and Guidelines, and RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.

Analysis: Old Dillard T.S. - Roli Espinosa

Terrestrial Species

The environmental assessment evaluated the presence of threatened and endangered species in or the vicinity of the project area. Specifically the northern spotted owl was present in two different locations within 1.3 miles of the project area. Under guides of the Endangered Species Act (1973) the agency made a "may affect" determination and initiated consultation with the USFWS. An incidental take permit was granted by USFWS that included terms and conditions to minimize potential impacts to the northern spotted owl.

The project area was also evaluated to have marbled murrelet habitat and located within 50 miles from the Oregon coast. A "may affect" determination was made and consultation initiated with USFWS. Incidental take permit was granted by USFWS that included terms and conditions to minimize potential impacts to the marbled murrelet.

Surveys to detect use of the project area by murrelets or spotted owls were done prior to implementation. The spotted owl was shown to be present in the vicinity of the project area and the murrelet was not detected following two years of surveys.

Plants

Field surveys were conducted to determine presence of special status plant

species. No special status plants were identified. A natural meadow was identified adjacent to Harvest Area 4 and considered a special habitat feature. This habitat area was protected by incorporation into the "one site potential" riparian reserve area and provides the 100 feet buffer recommended by the district botanist. This process of identifying and protecting the special habitat feature is not described in the EA but did occur through project layout.

Fisheries

The Umpqua River Cutthroat Trout (URCT) was proposed for listing as endangered when the Old Dillard timber sale was initiated. Subsequent listing of the URCT (Federal Register 61(155):41514-41522) (after contract award) triggered consultation with National Marine Fisheries Service (NMFS) on the "may affect" of the timber sale. The Bureau has not yet received an incidental take permit and opinion on the Old Dillard project and no harvest has occurred on the sale. Road construction on private land has taken place and was authorized by NMFS. Coho salmon and steelhead are currently proposed for listing as threatened (Federal Register 60(142):38011-38029 and 61(155):41541-41561 respectively). Request for concurrence of a "may affect" determination and no jeopardy call on coho salmon and steelhead has not been received from NMFS.

Inter-Agency Coordination

Biological assessments were completed and sent to the USFWS and NMFS to initiate formal consultation. Consultation with USFWS is completed but consultation with NMFS is in progress. Biological opinion was received from USFWS, but NMFS has not yet provided a biological opinion.

Authorizing Document Review

Special provisions for environmental protection are included in the authorizing document (OR-100-TS96-21). The purchaser would immediately cease harvest or construction operations upon written notification from the contract officer that:

- 1) A threatened or endangered plant or animal species protected under the ESA may be affected by the operation and a determination is made that consultation is needed or re-initiation
- 2) federal candidate (Categories 1 & 2), sensitive or State listed Special Status Species listed under BLM manual 6840 or its habitat that may be affected
- 3) discovery of species identified for protection under survey and manage or buffer protection standards outlined in the ROD for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (1994) or
- 4) discovery of other raptor or owl nests.

Special mitigation (e.g. seasonal restrictions) outlined in the USFWS terms and conditions do not apply to this project because known spotted owl sites are greater than 1/4 mile from the project boundaries. Two years of surveys for murrelets have been completed in the project area.

Special Note

For future reference, the biologist's report and EA should include the physical distance of project area to nearest owl or other T&E species activity area or habitat. Threshold distances for implementation of seasonal restrictions, survey

requirements (1/4, or 1.0 mile) are outlined in terms and conditions or other management direction to mitigate impacts from planned actions and require addition specifications in the authorizing document.

Cultural Resources

Cultural Resources Addressed

Questions:

201-1 Are cultural resources being addressed in deciding whether or not to go forward with forest management and other actions? During forest management and other actions that may disturb cultural resources, are steps taken to adequately mitigate disturbances?

Monitoring Requirements:

201-1. Twenty percent of the files on each year's timber sales and other relevant actions (e.g. right-of -ways, in stream structures) will be reviewed annually to evaluate documentation regarding cultural resources and American Indian values and decisions in light of requirements, policy, and SEIS Record of Decision Standards and Guidelines, and RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.

Analysis: Old Dillard T.S. & Curtin Creek T.S. - Don Scheleen

A cultural clearance worksheet was completed on the Old Dillard timber sale and the Cultural Resource Specialist concluded that "no known cultural resources will be impacted by this action." The project was consulted by the State Historic Preservation Office (SHPO) who agreed with the "no effect" determination.

A cultural clearance worksheet was completed on the Curtin Creek timber sale. A cabin site and prehistoric evidence were identified in the project area. Both sites are within Riparian Reserves and, therefore, will be avoided to preclude any destruction or loss. The project was consulted by the State Historic Preservation Office (SHPO) who concurred with a "no effect" determination.

Visual Resources

Project Design & Mitigation Followed

Questions:

202-1. Are visual design features and mitigation methods being followed during timber sales and other substantial actions in Class II and III Areas?

Monitoring Requirements:

202-1. Twenty percent of the files for timber sales and other substantial projects in Visual Resource Management Class II or III areas will be reviewed to ascertain whether relevant design features or mitigating measures were included?

Analysis: Sigrid Barron

There were no projects in either VRM II or III.

Rural Interface Areas

Design Features and Mitigation Developed

Questions:

204-1. Are design features and mitigation measures developed and implemented to avoid/minimize impacts to health, life, and property and quality of life and to minimize the possibility of conflicts between private and federal land management?

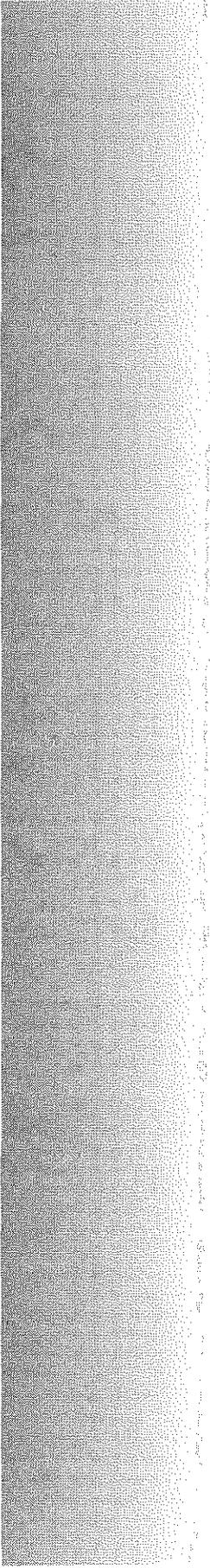
Monitoring Requirements:

204-1. Twenty percent of actions with the identified rural interface areas which had design features or mitigation measures will following completion to assess the effectiveness of the action.

Analysis: Sigrid Barron

There were no projects in rural interface areas.

RMP Monitoring Plan



All Land Use Allocations

Expected Future Conditions and Outputs

Protection of SEIS special attention species so as not to elevate their status to any higher level of concern.

Implementation Monitoring

Questions

1. Are surveys for the species listed in Appendix H conducted before ground disturbing activities occur?
2. Are protection buffers being provided for specific rare and locally endemic species and other species in the upland forest matrix?
3. Are the sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi, lichens, and arthropod species listed in Appendix H being protected?
4. Are the sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi, lichens and arthropod species listed in Appendix H being surveyed?
5. Are high priority sites for species management being identified?
6. Are general regional surveys being conducted to acquire additional information and to determine necessary levels of protection for arthropods, fungi species that were not classed as rare and endemic, bryophytes, and lichens?

Monitoring Requirements

1. At least 20 percent of all management actions will be examined prior to project initiation and re-examined following project completion, to determine if: surveys are conducted for species listed in Appendix H, protection buffers are provided for specific rare and locally endemic species and other species in the upland forest matrix, and sites of species listed in Appendix H are protected.
2. The Annual Program Summary will address Implementation Questions 4-6.

Effectiveness and Validation Monitoring

Questions

1. Are measures taken to protect the SEIS special attention species effective?
2. Is the forest ecosystem functioning as a productive and sustainable ecological unit?

Monitoring Requirements

Deferred to SEIS Monitoring Plan.

Riparian Reserves

Expected Future Conditions and Outputs

See Aquatic Conservation Strategy Objectives.

Provision of habitat for special status and SEIS special attention species.

Implementation Monitoring

Questions

1. Are watershed analyses being completed before on-the-ground actions are initiated in Riparian Reserves?
2. Is the width and integrity of the Riparian Reserves being maintained? (e.g., did the conditions that existed before management activities change in ways that are not in accordance with the SEIS Record of Decision Standards and Guidelines and RMP management direction?)
3. What silvicultural practices are being applied to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy Objectives?
4. Are management activities in Riparian Reserves consistent with SEIS Record of Decision Standards and Guidelines, RMP management direction, and Aquatic Conservation Strategy Objectives?
5. Are new structures and improvements in Riparian Reserves constructed to minimize the diversion of natural hydrologic flow paths, reduce the amount of sediment delivery into the stream, protect fish and wildlife populations, and accommodate the 1 00-year flood?
6. A) Are all mining structures, support facilities, and roads located outside the Riparian Reserves? B) Are those located within the Riparian Reserves meeting the objectives of the Aquatic Conservation Strategy? C) Are all solid and sanitary waste facilities excluded from Riparian Reserves or located, monitored, and reclaimed in accordance with SEIS Record of Decision Standards and Guidelines and RMP management direction?
7. Are new recreation facilities within the Riparian Reserves designed to meet, and where practicable, contribute to Aquatic Conservation Strategy Objectives? Are mitigation measures initiated where existing recreation facilities are not meeting Aquatic Conservation Strategy Objectives?

Monitoring Requirements

1. The files on each year's on-the-ground actions will be checked annually to ensure that watershed analyses were completed prior to project initiation and to ensure the concerns identified in the watershed analysis were

addressed in the project's Environmental Assessment.

2. At least 20 percent of management activities within each resource area will be examined prior to project initiation and re-examined following project completion, to determine whether the width and integrity of the Riparian Reserves were maintained.
3. The Annual Program Summary will report what silvicultural practices are being applied in order to attain Aquatic Conservation Strategy Objectives.
4. At least 20 percent of the activities that are conducted or authorized within Riparian Reserves will be reviewed in order to identify whether the actions were consistent with the SEIS Record of Decision Standards and Guidelines, RMP management direction, and Aquatic Conservation Strategy Objectives. In addition to reporting the results of this monitoring, the Annual Program Summary will also summarize the types of activities that were conducted or authorized within Riparian Reserves.
5. All new structures and improvements within a Riparian Reserve will be monitored during and after construction to ensure that it was constructed to: minimize the diversion of natural hydrologic flow paths, reduce the amount of sediment delivery into the stream, protect fish and wildlife populations, and accommodate the 100 year flood.
6. All approved mining Plans of Operations will be reviewed to determine if:
A) both a reclamation plan and bond were required B) structures, support facilities and roads were located outside of Riparian Reserves, or in compliance with Aquatic Conservation Strategy objectives if located inside the Riparian Reserve C) and if solid and sanitary waste facilities were excluded from Riparian Reserves or located, monitored, and reclaimed in accordance with RMP management direction.
7. The Annual Program Summary will examine the status of evaluations of existing recreational facilities inside Riparian Reserves, to ensure that Aquatic Conservation Strategy Objectives are met. The Summary will also report on the status of the mitigation measures initiated where the Aquatic Conservation Strategy objectives cannot be met.

Effectiveness and Validation Monitoring

Questions

1. Is the health of Riparian Reserves improving?
2. Are management actions designed to rehabilitate Riparian Reserves effective?

Monitoring Requirements

Deferred to SEIS Monitoring Plan.

Late-Successional Reserves

Expected Future Conditions and Outputs

Development and maintenance of a functional, interacting, late-successional, and old-growth forest ecosystem in Late-Successional Reserves.

Protection and enhancement of habitat for late-successional and old-growth forest-related species including the northern spotted owl and marbled murrelet.

Implementation Monitoring

Questions

1. What is the status of the preparation of assessment and fire plans for Late-Successional Reserves?
2. What activities were conducted or authorized within Late-Successional Reserves and how were they compatible with the objectives of the Late-Successional Reserve plan? Were the activities consistent with SEIS Record of Decision Standards and Guidelines, RMP management direction and Regional Ecosystem Office review requirements, and the Late-Successional Reserve assessment?
3. What is the status of development and implementation of plans to eliminate or control non-native species which adversely impact late-successional objectives?

Monitoring Requirements

1. The Annual Program Summary will address Implementation Questions 1-3.

Effectiveness and Validation Monitoring

Questions

1. Are forest management activities (e.g., special forest product harvest activities) within Late-Successional Reserves compatible with the goal of developing and maintaining a functional, interacting, late-successional and old-growth forest ecosystem?
2. Does the harvest of special forest products have adverse effects on Late-Successional Reserve objectives?
3. Is a functional, interacting, late-successional ecosystem maintained where adequate and restored where inadequate?
4. Did silvicultural treatments benefit the creation and maintenance of late-successional conditions?
5. What is the relationship between levels of management intervention and the health and maintenance of late-successional and old-growth ecosystems?

Monitoring Requirements

Deferred to SEIS Monitoring Plan

Adaptive Management Areas

Expected Future Conditions and Outputs

Utilization of Adaptive Management Areas for the development and application of new management approaches for the integration and achievement of ecological health, and economic and other social objectives.

Provision of well-distributed, late-successional habitat outside reserves; retention of key structural elements of late-successional forests on lands subjected to regeneration harvest; restoration and protection of riparian zones; and provision of a stable timber supply.

Implementation Monitoring

Questions

1. Are the Adaptive Management Area plans being developed, and do they establish future desired conditions?

Monitoring Requirements

1. The Annual Program Summary will address Implementation Question 1.

Effectiveness and Validation Monitoring

Deferred to SEIS Monitoring Plan and individual Adaptive Management Area management plans.

Matrix

Expected Future Conditions and Outputs

Production of a stable supply of timber and other forest commodities.

Maintenance of important ecological functions such as dispersal of organisms, carryover of some species from one stand to the next, and maintenance of ecologically valuable structural components such as down logs, snags, and large trees.

Assurance that forests in the Matrix provide for connectivity between Late-Successional Reserves.

Provision of habitat for a variety of organisms associated with early and late-successional forests.

Implementation Monitoring

Questions

1. Are suitable numbers of snags, coarse woody debris, and green trees being left, following timber harvest, as called for in the SEIS Record of Decision Standards and Guidelines-and RA/IP management direction?
2. Are timber sales being designed to meet ecosystem goals for the Matrix?
3. Are late-successional stands being retained in fifth-field watersheds in which federal forest lands have 15 percent or less late-successional forest?

Monitoring Requirements

1. At least 20 percent of regeneration harvest timber sales in each resource area will be examined by preand post-harvest (and after site preparation) inventories to determine snag and green tree numbers, heights, diameters, and distribution within harvest units. The measure of distribution of snags and green trees will be the percent in the upper, middle, and lower thirds of the sale units monitored. Snags and green trees left following timber harvest activities (including site preparation for reforestation) will be compared to those that were marked prior to harvest.

The same timber sales will also be inventoried pre- and post-harvest to determine if SEIS Record of Decision and RMP down log retention direction has been followed.

2. At least 20 percent of the files on each year's timber sales will be reviewed annually to determine if ecosystem goals were addressed in the silvicultural prescriptions.
3. All proposed regeneration harvest timber sales in watersheds with less than 15 percent late-successional forest remaining will be reviewed prior to sale to ensure that a watershed analysis has been completed.

Effectiveness and Validation Monitoring

Questions

1. Are stands growing at a rate that will produce the predicted yields?
2. Are forests in the Matrix providing for connectivity between Late-Successional Reserves?

Monitoring Requirements

Deferred to the SEIS Monitoring Plan.

Air Quality

Expected Future Conditions and Outputs

Attainment of National Ambient Air Quality Standards, Prevention of Significant Deterioration goals, and Oregon Visibility Protection Plan and Smoke Management Plan goals.

Maintenance and enhancement of air quality and visibility in a manner consistent with the Clean Air Act and the State Implementation Plan.

Implementation Monitoring

Questions

1. Were efforts made to minimize the amount of particulate emissions from prescribed burns?
2. Are dust abatement measures used during construction activities and on roads during BLM timber harvest operations and other BLM commodity hauling activities?
3. Are conformity determinations being prepared prior to activities which may contribute to a new violation of the National Ambient Air Quality Standards, increase the frequency or severity of an existing violation, or delay the timely attainment of a standard?

Monitoring Requirements

1. At least twenty percent of prescribed burn projects will be randomly selected for monitoring to assess what efforts were made to minimize particulate emissions, and whether the environmental analysis that preceded the decision to burn addressed the questions set forth in the SEIS discussion of Emission Monitoring (Chap. 3&4 p. 100).
2. At least twenty percent of the construction activities and commodity hauling activities will be monitored to determine if dust abatement measures were implemented.
3. The Annual Program Summary will address Implementation Question 3.

Effectiveness and Validation Monitoring

Questions

1. What techniques were the most effective in minimizing the amount of particulate emissions from prescribed burns?
2. Are BLM prescribed burns contributing to intrusions into Class I areas or nonattainment areas?
3. Of the intrusions that the BLM is reported to be responsible for, what was the cause and what can be done to minimize future occurrences?

4. Are BLM prescribed underburns causing adverse air quality impacts to rural communities?
5. Are prescribed fires decreasing the actual or potential impacts from wildfire emissions?

Monitoring Requirements

Deferred to SEIS Monitoring Plan.

Water and Soils

Expected Future Conditions and Outputs

Restoration and maintenance of the ecological health of watersheds. See Aquatic Conservation Strategy Objectives.

Improvement and/or maintenance of water quality in municipal water systems.

Improvement and/or maintenance of soil productivity.

Reduction of existing road mileage within Key Watersheds or at a minimum no net increase.

Implementation Monitoring

Questions

1. Are site specific Best Management Practices, identified as applicable during interdisciplinary review, carried forward into project design and execution?
2. What watershed analyses have been or are being performed? Are watershed analyses being performed prior to management activities in Key Watersheds?
3. What is the status of identification of instream flow needs for the maintenance of channel conditions, aquatic habitat, and riparian resources?
4. What watershed restoration projects are being developed and implemented?
5. What fuel treatment and fire suppression strategies have been developed to meet Aquatic Conservation Strategy Objectives?
6. What is the status of development of road or transportation management plans to meet Aquatic Conservation Strategy Objectives?
7. What is the status of preparation of criteria and standards which govern the operation, maintenance, and design for the construction and reconstruction of roads?
8. What is the status of the reconstruction of roads and associated drainage features identified in watershed analysis as posing a substantial risk? What is the status of closure or elimination of roads to further Aquatic Conservation Strategy Objectives; and to reduce the overall road mileage within Key Watersheds? If funding is insufficient to implement road

mileage reductions, are construction and authorizations through discretionary permits denied to prevent a net increase in road mileage in Key Watersheds?

9. What is the status of reviews of ongoing research in Key Watersheds to insure that significant risk to the watershed does not exist?
10. What is the status of evaluation of recreation, interpretive, and user-enhancement activities/facilities to determine their effects on the watershed? What is the status of eliminating or relocating these activities/facilities when found to be in conflict with Aquatic Conservation Strategy Objectives?
11. What is the status of cooperation with other agencies in the development of watershed-based Research Management Plans and other cooperative agreements to meet Aquatic Conservation Strategy Objectives? What is the status of cooperation with other agencies to identify and eliminate wild ungulate impacts which are inconsistent with attainment of Aquatic Conservation Strategy objectives?

Monitoring Requirements

1. At least 20 percent of the timber sales and silviculture projects stratified by management category will be randomly selected for monitoring to determine whether or not Best Management Practices were implemented as prescribed. The selection of management actions to be monitored will be based on which Best Management Practices are being prescribed and on which beneficial uses are likely to be impacted.
2. Compliance checks will be completed for all agreements entered into with providers of municipal water.
3. The Annual Program Summary will address Implementation Questions 3-14.

Effectiveness and Validation Monitoring

Questions

1. Is the ecosystem function of the watersheds improving?
2. Are State water quality criteria being met? When State water quality criteria is met, are the beneficial uses of riparian areas protected?
3. Are prescribed Best Management Practices maintaining or restoring water quality consistent with basin specific State water quality criteria for protection of specified beneficial uses?

Monitoring Requirements

Deferred to SEIS Monitoring Plan

Wildlife Habitat

Expected Future Conditions and Outputs

Maintenance of biological diversity and ecosystem health to contribute to healthy wildlife populations.

Implementation Monitoring

Questions

1. Are suitable (diameter and length) numbers of snags, coarse woody debris, and green trees being left, in a manner that meets the needs of species and provides for ecological functions in harvested areas as called for in the SEIS Record of Decision Standards and Guidelines and RMP management direction?
2. Are special habitats being identified and protected?
3. What is the status of designing and implementing wildlife restoration projects?
4. What is the status of designing and constructing wildlife interpretive and other user-enhancement facilities?

Monitoring Requirements

1. At least 20 percent of regeneration **harvest timber sales in each resource area will be examined by pre- and post-harvest** (and after site preparation) inventories to determine snag and green tree numbers, heights, diameters, and distribution within harvest units. The measure of distribution of snags and green trees will be the percent in the upper, middle, and lower thirds of the sale units monitored. Snags and green trees left following timber harvest activities (including site preparation for reforestation) will be compared to those that were marked prior to harvest.

The same timber sales will also be inventoried pre- and post-harvest to determine if SEIS Record of Decision and RMP down log retention direction has been followed.

2. At least 20 percent of BLM actions, within each resource area, on lands including or near special habitats will be examined to determine whether special habitats were protected.
3. The Annual Program Summary will address Implementation Questions 4 and 5.

Effectiveness and Validation Monitoring

Questions

1. Are habitat conditions for late-successional forest associated species maintained where adequate, and restored where inadequate?

2. Are the snags, green trees, and coarse woody debris being left, achieving the habitat necessary to attain the desired population at a relevant landscape level?
3. Are BLM actions intended to protect special habitats actually protecting the habitat? Is the protection of special habitats helping to protect the species population?
4. What are the effects of management on species richness (numbers and diversity)?

Monitoring Requirements

Deferred to SEIS Monitoring Plan
(Which will address a variety of wildlife species such as amphibians, mollusks, neotropical migratory birds, etc.)

Fish Habitat

Expected Future Conditions and Outputs

See Aquatic Conservation Strategy Objectives.

Maintenance or enhancement of the fisheries potential of streams and other waters, consistent with BLM's Anadromous Fish Habitat Management on Public Lands guidance, BLM's Fish and Wildlife 2000 Plan, the Bring Back the Natives initiative, and other nationwide initiatives.

Rehabilitation and protection of at-risk fish stocks and their habitat.

Implementation Monitoring

Questions

1. Are at-risk fish species and stocks being identified?
2. Are fish habitat restoration and enhancement activities being designed and implemented which contribute to attainment of Aquatic Conservation Strategy Objectives?
3. Are potential adverse impacts to fish habitat and fish stocks being identified?

Monitoring Requirements

1. The Annual Program Summary will report on the status of watershed analysis to identify at-risk fish species and stocks, their habitat within individual watersheds, and restoration project needs.
2. The Annual Program Summary will report on the status of the design and implementation of fish habitat restoration and habitat activities.
3. The Annual Program Summary will report on the status of cooperation with federal, tribal, and state fish management agencies to identify and eliminate

impacts associated with poaching, harvest, habitat manipulation, and fish stocking which threaten the continued existence and distribution of native fish stocks inhabiting federal lands. The Summary will also identify any management activities or fish interpretive and other user-enhancement facilities which have detrimental effects on native fish stocks.

4. At least 20 percent of the files on each year's timber sales, and other relevant actions, will be reviewed annually to evaluate documentation regarding fish species and habitat and related recommendations and decisions in light of policy and SEIS Record of Decision Standards and Guidelines and RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.

Effectiveness and Validation Monitoring

Questions

1. Is the ecological health of the aquatic ecosystems recovering or sufficiently maintained to support stable and well-distributed populations of fish species and stocks?
2. Is fish habitat in terms of quantity and quality of rearing pools, coarse woody debris, water temperature, and width to depth ratio being maintained or improved as predicted?
3. Are desired habitat conditions for listed, sensitive, and at-risk fish stocks maintained where adequate, and restored where inadequate?

Monitoring Requirements

Deferred to SEIS Monitoring Plan

Special Status and SEIS Special Attention Species Habitat

Expected Future Conditions and Outputs

Protection, management, and conservation of federal listed and proposed species and their habitats, to achieve their recovery in compliance with the Endangered Species Act and Bureau special status species policies.

Conservation of federal candidate and Bureau sensitive species and their habitats so as not to contribute to the need to list and recover the species.

Conservation of state listed species and their habitats to assist the state in achieving management objectives.

Maintenance or restoration of community structure, species composition, and ecological processes of special status plant and animal habitat.

Protection of Bureau assessment species and SEIS special attention species so as not to elevate their status to any higher level of concern.

Implementation Monitoring

Questions

1. Are special status species being addressed in deciding whether or not to go forward with forest management and other actions? During forest management and other actions that may disturb special status species, are steps taken to adequately mitigate disturbances?
2. Are the actions identified in plans to recover species being **implemented in a timely manner**?
3. What coordination with other agencies has occurred in the management of special status species?
4. What land acquisitions occurred or are under way, to facilitate the management and recovery of special status species?
5. What site specific plans for the recovery of special status species were or are being developed?
6. What is the status of analysis which ascertains species requirements or enhances the recovery or survival of a species?
7. What is the status of efforts to maintain or restore the community structure, species composition, and ecological processes of special status plant and animal habitat?

Monitoring Requirements

1. At least 20 percent of the files on each year's timber sales and other relevant actions (e.g., rights-of-way, instream structures) will be reviewed annually to evaluate documentation regarding special status species and related recommendations and decisions in light of Endangered Species Act requirements, policy and SEIS Record of Decision Standards and Guidelines, and RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.
2. Review implementation schedule and actions taken annually, to ascertain if the actions to recover species were carried out as planned.
3. The Annual Program Summary will address Implementation Questions 3-7.

Effectiveness and Validation Monitoring

Questions

1. Are trends for special status species meeting the objectives of mitigation and/or conservation actions?
2. Have any Federal Candidates, Bureau Assessment, or Bureau Sensitive species been elevated to higher levels of concern due to BLM management?

3. Were desired habitat conditions for the northern spotted owl and marbled murrelet maintained where adequate and restored where inadequate?

Monitoring Requirements

Deferred to SEIS Monitoring Plan
(Which will address a variety of special status species including marbled murrelet, bald eagle, northern spotted owl, anadromous fish species, etc.)

Special Areas

Expected Future Conditions and Outputs

Maintenance, protection, and/or restoration of the relevant and important values of the special areas which include: Areas of Critical Environmental Concern, Outstanding Natural Areas, Research Natural Areas, and Environmental Education Areas.

Provision of recreation uses and environmental education in Outstanding Natural Areas. Management of uses to prevent damage to those values that make the area outstanding.

Preservation, protection, or restoration of native species composition and ecological processes of biological communities in Research Natural Areas.

Provision and maintenance of environmental education opportunities in Environmental Education Areas. Management of uses to minimize disturbances of educational values.

Retention of existing Research Natural Areas and existing Areas of Critical Environmental Concern that meet the test for continued designation. Retention of other special areas. Provision of new special areas where needed to maintain or protect important values.

Implementation Monitoring

Questions

1. Are BLM actions and BLM authorized actions/uses near or within special areas consistent with RMP objectives and management direction for special areas?
2. What is the status of the preparation, revision, and implementation of Areas of Critical Environmental Concern management plans?
3. Are interpretive programs and recreation uses being developed and encouraged in Outstanding Natural Areas? Are the outstanding values of the Outstanding Natural Areas being protected from damage?
4. What environmental education and research initiatives and programs are occurring in the Research Natural Areas and Environmental Education Areas?

5. Are existing BLM actions and BLM authorized actions and uses not consistent with management direction for special areas being eliminated or relocated?
6. Are actions being identified which are needed to maintain or restore the important values of the special areas? Are the actions being implemented?
7. Are protection buffers being provided for specific rare and locally endemic species and other species in the upland forest matrix?

Monitoring Requirements

1. Annually, the files on all actions and research proposals within and adjacent to special areas will be reviewed to determine whether the possibility of impacts on Area of Critical Environmental Concern values was considered, and whether any mitigation identified as important for maintenance of Area of Critical Environmental Concern values was required. If mitigation was required, the relevant actions will be reviewed on the ground, after completion, to ascertain whether it was actually implemented.
2. The Annual Program Summary will address Implementation Questions 2-7.

Effectiveness and Validation Monitoring

Questions

1. Are the implemented management actions, designed to protect the values of the special areas, effective?
2. Are the special areas managed to restore or prevent the loss of outstanding values and minimize disturbance?

Monitoring Requirements

1. Each special area will be monitored at least every three years to determine if the values for which it was designated are being maintained.
2. Each Area of Critical Environmental Concern will be monitored annually to determine if proactive management actions met their objectives.

Cultural Resources Including American Indian Values

Expected Future Conditions and Outputs

Identification of cultural resource localities for public, scientific, and cultural heritage purposes.

Conservation and protection of cultural resource values for future generations.

Provision of information on long-term environmental change and past interactions between humans and the environment.

Fulfillment of responsibilities to appropriate American Indian groups regarding heritage and religious concerns.

Implementation Monitoring

Questions

1. Are cultural resources being addressed in deciding whether or not to go forward with forest management and other actions? During forest management and other actions that may disturb cultural resources, are steps taken to adequately mitigate disturbances?
2. What mechanisms have been developed to describe past landscapes and the role of humans in shaping those landscapes?
3. What efforts are being made to work the American Indian groups to accomplish cultural resource objectives and achieve goals outlined in existing memoranda of understanding and develop additional memoranda as needs arise?
4. What public education and interpretive programs were developed to promote the appreciation of cultural resources?

Monitoring Requirements

1. At least 20 percent of the files on each year's timber sales and other relevant actions (e.g., rights-of-way, instream structures) will be reviewed annually to evaluate documentation regarding cultural resources and American Indian values and decisions in light of requirements, policy and SEIS Record of Decision Standards and Guidelines and RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.
2. The Annual Program Summary will address Implementation Questions 2-4.

Effectiveness and Validation Monitoring

Questions

1. Are sites of religious and cultural heritage adequately protected?
2. Do American Indians have access to and use of forest species, resources and places important for cultural, subsistence, or economic reasons; particularly those identified in treaties?

Monitoring Requirements

3. All cultural resource sites, where management and/or mitigation measures are utilized to protect the resource, will be monitored at least once a year to determine if the measures were effective.

The balance is deferred to SEIS Monitoring Plan.

Visual Resources

Expected Future Conditions and Outputs

Preservation or retention of the existing character of landscapes on BLM-administered lands allocated for Visual Resource Management Class I and II management; partial retention of the existing character on lands allocated for Visual Resource Management Class III management and major modification of the existing character of some lands allocated for Visual Resource Management Class IV management.

Continuation of emphasis on management of scenic resources in selected high-use areas to retain or preserve scenic quality.

Implementation Monitoring

Questions

1. Are visual resource design features and mitigation methods being followed during timber sales and other substantial actions in Class II and III areas?

Monitoring Requirements

1. Twenty percent of the files for timber sales and other substantial projects in Visual Resource Management Class II or III areas will be reviewed to ascertain whether relevant design features or mitigating measures were included.

Effectiveness and Validation Monitoring

Questions

1. Are timber sales and other major actions in Class II and Class III areas meeting or exceeding Visual Resource Management objectives?
2. Are Visual Resource Management objectives being met consistently, over long periods of time, in Class II in management areas?

Monitoring Requirements

1. All timber sales and other selected projects in Visual Resource Management Class II areas and at least 20 percent of sales or projects in Class III areas that have special design features, or mitigating measures for visual resource protection, will be monitored to evaluate the effectiveness of the practices used to conserve visual resources.
2. in Visual Resource Management Class II management areas, where two or more sales or actions have occurred, impacts will be monitored at a minimum interval of five years.

Wild and Scenic Rivers

Expected Future Conditions and Outputs

Protection of the Outstandingly Remarkable Values of designated components of the National Wild and Scenic Rivers System through the maintenance and enhancement of the natural integrity of river-related values.

Protection of the Outstandingly Remarkable Values of eligible/suitable Wild and Scenic Rivers and the maintenance or enhancement of the highest tentative classification pending resolution of suitability and/or designation.

Protection of the natural integrity of river-related values for the maintenance or enhancement of the highest tentative classification determination for rivers found eligible or studied for suitability.

Designation of important and manageable river segments suitable for designation where such designation contributes to the National Wild and Scenic Rivers System.

Implementation Monitoring

Questions

1. Are BLM actions and BLM authorized actions consistent with protection of the Outstandingly Remarkable Values of designated, suitable, and eligible, but not studied, rivers?
2. Are existing plans being revised to conform to Aquatic Conservation Strategy Objectives? Are revised plans being implemented?

Monitoring Requirements

1. Annually, the files on all actions and research proposals within and adjacent to Wild and Scenic River corridors will be reviewed to determine whether the possibility of impacts on the Outstandingly Remarkable Values was considered, and whether any mitigation identified as important for maintenance of the values was required. If mitigation was required, the relevant actions will be reviewed on the ground, after completion, to ascertain whether it was actually implemented.
2. The Annual Program Summary report will summarize progress on preparation and revision of Wild and Scenic River management plans, their conformance with the Aquatic Conservation Strategy Objectives, and the degree to which these plans have been implemented.

Effectiveness and Validation Monitoring

Questions

1. Are the Outstandingly Remarkable Values for which the Wild and Scenic Rivers were designated being maintained?
2. Are the Outstandingly Remarkable Values of the rivers which were found suitable or eligible, but not studied, protected?

Monitoring Requirements

1. Each Wild and Scenic River will be monitored at least once a year to determine if the Outstandingly Remarkable Values are being maintained.
2. Each river which was found suitable or eligible, but not studied, will be monitored at least once a year to determine if the Outstandingly Remarkable Values are being maintained.

Rural Interface Areas

Expected Future Conditions and Outputs

Consideration of the interests of adjacent and nearby rural land owners, including residents, during analysis, planning, and monitoring related to managed rural interface areas. (These interests include personal **health and safety**, improvements to property and quality of life.)

Determination of how land owners might be or are affected by activities on BLM-administered land.

Implementation Monitoring

Questions

1. Are design features and mitigation measures developed and implemented to avoid/minimize impacts to health, life and property and quality of life and to minimize the possibility of conflicts between private and federal land management?

Monitoring Requirements

1. At least 20 percent of all actions within the identified rural interface areas will be examined to determine if special project design features and mitigation measures were included and implemented as planned.

Effectiveness and Validation Monitoring

Questions

1. Are the rural interface area design features and mitigation measures effective in minimizing impacts to health, life, and property?

Monitoring Requirement

1. At least 20 percent of actions within the identified rural interface areas which had design features or mitigation measures will be examined following completion to assess the effectiveness of the action.

Socioeconomic Conditions

Expected Future Conditions and Outputs

Contribution to local, state, national, and international economies through sustainable use of BLM-managed lands and resources and use of innovative contracting and other implementation strategies.

Provision of amenities for the enhancement of communities as places to live and work.

Implementation Monitoring

Questions

1. What strategies and programs have been developed, through coordination with state and local governments, to support local economies and enhance local communities?
2. Are RMP implementation strategies being identified that support local economies?
3. What is the status of planning and developing amenities that enhance local communities, such as recreation and wildlife viewing facilities?

Monitoring Requirements

1. The Annual Program Summary will address Implementation Questions 1-3.

Effectiveness and Validation Monitoring

Questions

1. What level of local employment is supported by BLM timber sales and forest management practices?
2. What were O&C and Coos Bay Wagon Road payments to counties?

Monitoring Requirements

Deferred to SEIS Monitoring Plan.

Recreation

Expected Future Conditions and Outputs

Provision of a wide range of developed and dispersed recreation opportunities that contribute to meeting projected recreation demand within the planning area.

Provision of nonmotorized recreational opportunities and creation of additional opportunities consistent with other management objectives.

Implementation Monitoring

Questions

1. What is the status of the development and implementation of recreation plans?

Monitoring Requirements

1. The Annual Program Summary will address Implementation Question 1.

Effectiveness and Validation Monitoring

Questions

1. Based on the Statewide Comprehensive Outdoor Recreation Plan, supply and demand data, and public comments, is the range of recreation opportunities on BLM lands (i.e., roaded vs. unroaded) meeting public needs?
2. Are BLM developed recreation facilities meeting public needs and expectations, including facility condition and visitor safety considerations?
3. Are Off Highway Vehicle designations adequate to protect resource values while providing appropriate motorized vehicle recreation opportunities?

Monitoring Requirements

1. Each Special Recreation Management Area will be monitored at least every three years to determine if the types of recreation opportunities being provided are appropriate.
2. All developed recreation sites will be monitored annually to determine if facilities are being properly managed and all deficiencies documented.
3. All Off Highway Vehicle designations will be reviewed annually to determine if revisions are necessary to protect resource values and resolve user conflicts.

Timber Resources

Expected Future Conditions and Outputs

Provision of a sustained yield of timber and other forest products.

Reduction of the risk of stand loss due to fires, animals, insects, and diseases.

Provision of salvage harvest for timber killed or damaged by events such as wildfire, windstorms, insects, or disease, in a manner consistent with management objectives for other resources.

Implementation Monitoring

Questions

1. By land-use allocation, how do timber sale volumes, harvested acres, and the age and type of regeneration harvest stands compare to the projections in the SEIS Record of Decision Standards and Guidelines and RMP management objectives?
2. Were the silvicultural (e.g., planting with genetically selected stock, fertilization, release, and thinning) and forest health practices anticipated in the calculation of the expected sale quantity, implemented?

Monitoring Requirements

1. The Annual Program Summary will report both planned and non-planned volumes sold. The report will also summarize annual and cumulative timber sale volumes, acres to be harvested, and stand ages and types of regeneration harvest for General Forest Management Areas, Connectivity/Diversity Blocks and Adaptive Management Areas, stratified to identify them individually.
2. An annual district wide report will be prepared to determine if the silvicultural and forest health practices identified and used in the calculation of the Allowable Sale Quantity were implemented. This report will be summarized in the Annual Program Summary.

Effectiveness and Validation Monitoring

Questions

1. Is reforestation achieving desired stocking?

Implementation Monitoring

Questions

1. Are noxious weed control methods compatible with Aquatic Conservation Strategy Objectives?

Monitoring Requirements

1. Review the files of at least 20 percent of each year's noxious weed control applications to determine if noxious weed control methods were compatible with Aquatic Conservation Strategy Objectives.

Effectiveness and Validation Monitoring

Questions

1. Are management actions effectively containing or reducing the extent of noxious weed infestations?

Monitoring Requirements

1. At least twenty percent of the noxious weed sites subjected to treatment will be monitored to determine if the treatment was effective.

Fire/Fuels Management

Expected Future Conditions and Outputs

Provision of the appropriate suppression responses to wildfires in order to meet resource management objectives and minimize the risk of large-scale, high intensity wildfires.

Utilization of prescribed fire to meet resource management objectives. (This will include, but not be limited to, fuels management for wildfire hazard reduction, restoration of desired vegetation conditions, management of habitat, and silvicultural treatments.)

Adherence to smoke management/air quality standards of the Clean Air Act and State Implementation Plan standards for prescribed burning.

Implementation Monitoring

Questions

1. What is the status of the preparation and implementation of fire management plans for Late Successional Reserves and Adaptive Management Areas?
2. Have additional analysis and planning been completed to allow some natural fires to burn under prescribed conditions?
3. Do wildfire suppression plans emphasize maintaining late-successional habitat?

Are Wildfire Situation Analyses being prepared for wildfires that escape initial attack?

5. What is the status of the interdisciplinary team preparation and implementation of fuel hazard reduction plans?

Monitoring Requirements

1. The Annual Program Summary will address Implementation Questions 1-5.

Effectiveness and Validation Monitoring

Questions

1. Are fire suppression strategies, practices, and activities meeting resource management objectives and concerns?

2. Are prescribed fires applied in a manner which retains the amount of coarse woody debris, snags, and duff at levels determined through watershed analysis?
3. Are fuel profiles being modified in order to lower the potential of fire ignition and rate of spread; and to protect and support land use allocation objectives by lowering the risk of high intensity, stand-replacing wildfires?

Monitoring Requirements

Deferred to SEIS Monitoring-Plan

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

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