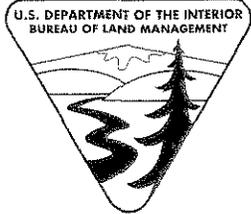




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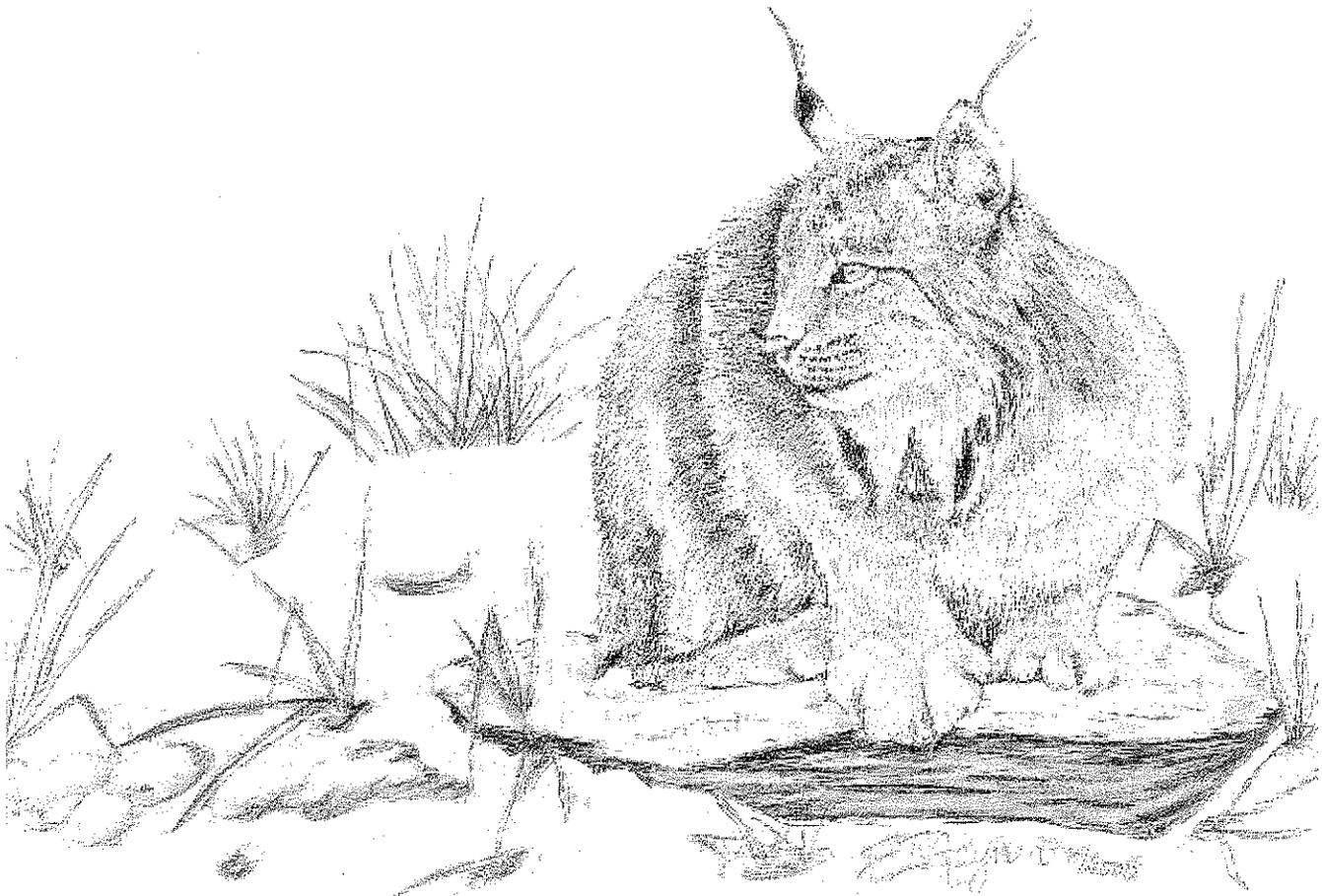
Roseburg District Office
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Roseburg, Oregon 97470

JULY 2002



Roseburg District *Annual Program Summary* and

Monitoring Report Fiscal Year 2001



As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the 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 U.S. administration.

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U.S. Department of Interior
Bureau of Land Management

ROSEBURG DISTRICT

ANNUAL PROGRAM SUMMARY

AND

MONITORING REPORT

FISCAL YEAR 2001

May 2002

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ROSEBURG DISTRICT ANNUAL PROGRAM SUMMARY FISCAL YEAR 2001



Executive Summary

This document combines the Roseburg District Annual Program Summary and Monitoring Report for fiscal year 2001. These reports are a requirement of the Roseburg District Record of Decision and Resource Management Plan. 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 results of the fiscal year 2001 Annual Program Summary show that the Roseburg District is implementing the Northwest Forest Plan, however, the ability to fully implement some programs or program elements such as restoration, recreation and particularly timber has been affected by uncertainty surrounding the Survey and Manage standard and guideline and ongoing litigation.

The Monitoring Report compiles the results and findings of implementation monitoring for fiscal year 2001. The Monitoring Report, which is basically a "stand alone" document with a separate executive summary follows the Annual Program Summary in this document.

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.

Table 1 - Roseburg RMP, Summary of Renewable Resource Management Actions, Directions and Accomplishments

RMP Resource Allocation or Management Practice or Activity	Fiscal Year 2001 Accomplishments	Cumulative Accomplishments 1995-2001 Timber 1996-2001 Others	Projected Decadal Practices
Regeneration harvest (acres sold)	0	3,052	11,900
Commercial thinning/density management (acres sold)	87-0	2,555-690	840 - 1,660
Site preparation (acres)	336	2,492	8,400
Vegetation control, fire (acres)	0	0	-
Prescribed burning (hazard reduction acres)	0	0	-
Prescribed burning (wildlife habitat and forage reduction acres)	0	0	-
Natural or artificial ignition prescribed fire for ecosystem enhancement (acres)	0	0	-
Plantation Maintenance/Animal damage control (acres)663	9,285	8,300	
Pre-commercial thinning (acres)	5,423	24,415	39,000
Brush field/hardwood conversion (acres)	0	0	150
Planting/ regular stock (acres)	509	4,138	2,900
Planting/ genetically selected (acres)	138	1,640	11,400
Fertilization (acres)	0	5,338	11,400
Pruning (acres)364	2,825	4,600	
New permanent road const. (miles/acres*)	1.7	20.9	65
Roads fully decommissioned/ obliterated (miles*)	10.9	39.4	-
Roads closed/ gated (miles**)	0	12.3	-
Open road density (per square mile*)	4.59	4.59	-
Timber sale quantity sold (m board feet)	2,723	174,455	495,000
Timber sale quantity sold (mm cubic feet)	0.4	25.8	70
Noxious weed control, chemical (acres)	571	902	-
Noxious weed control, other (acres)	289	1,927	

* Bureau managed lands only: ** Roads closed to the general public, but retained for administrative or legal access

Table 2 - Roseburg RMP, Summary of Non-Biological Resource or Land Use Management Actions, Directions and Accomplishments

RMP Resource Allocation or Management Practice	Activity Units	Fiscal Year 2001 Accomplishments	Cumulative Accomplishments 1995-2001
Realty, land sales	(actions/acres)	0	0
Realty, land exchanges	(actions/acres acquired/disposed)	0	0
Realty, R&PP leases/patents	(actions/acres)	0	0
Realty, road rights-of-way acquired for public/agency use	(actions/miles)	0	8
Realty, road rights-of-way, permits or leases granted	(actions/miles)	3	71
Realty, utility rights-of-way granted (linear/areal)	(actions/miles/acres)	0	13
Realty, withdrawals completed	(actions/acres)	0	0
Realty, withdrawals revoked	(actions/acres)	0	0
Mineral/energy, total oil and gas leases	(actions/acres)	0	0
Mineral/energy, total other leases	(actions/acres)	0	0
Mining plans approved	(actions/acres)	0	1
Mining claims patented	(actions/acres)	0	0
Mineral material sites opened	(actions/acres)	0	0
Mineral material sites, closed	(actions/acres)	0	0
Recreation, maintained off highway vehicle trails	(units/miles)	0	0
Recreation, maintained hiking trails	(units/miles)	8/14	40/70
Recreation, maintained sites	(units/acres)	14/405	56/1,620
Cultural resource inventories	(sites/acres)	12/1447	83/4,257
Cultural/historic sites nominated	(sites/acres)	0	0
Hazardous material sites	(incidents)	1	16

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 October 1999 through September 2001. 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 2001. 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 2001 represents the sixth 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. Further details concerning individual programs on the Roseburg District may be obtained by contacting the Roseburg District office.

Budget

In fiscal year 2001, Roseburg District had a total appropriation of \$21,226,000.

This included \$13,083,000 for Oregon & California Railroad Lands (O&C); \$775,000 Management of Lands and Resources (MLR); \$876,000 for the Jobs-in-the-Woods program; \$166,000 fire; \$1,158,000 timber pipeline; and \$321,000 recreation pipeline. One time additions in fiscal year 2001 included \$4,291,000 for the Umpqua Land Exchange Proposal (ULEP), \$280,000 Deferred Maintenance, \$35,000 for the Acquisition program; \$207,000 for Emergency Road Repair; and \$34,000 for Forest Pest Control.

In fiscal year 2001, there were 159 full-time employees. A total of 48 term or cooperative student employees were on board at various times throughout the year.

Appropriations for the years 1996 thru 2000 are as follows:

1996	\$13,061,000
1997	\$12,463,000
1998	\$12,487,000
1999	\$13,376,000
2000	\$16,060,000

Land Use Allocations

There have been no changes to land use allocations during fiscal year 2001

Aquatic Conservation Strategy Implementation

Riparian Reserves

Restoration projects, density management, culvert and road upgrade are described under the programs of Water and Soil, Jobs-in-the-Woods, and road maintenance.

Watershed Analyses

Watershed analysis is required by the Northwest Forest Plan (NFP) Record of Decision (ROD). The primary purpose is to provide decision makers with information about the natural resources and human uses in an area. This information will be utilized in National Environmental Policy Act (NEPA) documentation for specific projects and to facilitate compliance with the Endangered Species Act (ESA) and Clean Water Act (CWA) by providing additional information for consultation with other agencies.

Watershed analyses include:

- Analysis of at-risk fish species and stocks, their presence, habitat conditions and restoration needs;
- Descriptions of the landscape over time, including the impacts of humans, their role in shaping the landscape, and the effects of fire;
- The distribution and abundance of species and populations throughout the watershed;
- Characterization of the geologic and hydrologic conditions.

This information was obtained from a variety of sources, including field inventory and observation, history books, agency records and old maps and survey records.

As of the end of fiscal year 2001, thirty-five 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), St. 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), North Bank Ranch, Myrtle Creek, Deadman Creek, Dompier Creek (Upper South Umpqua), Cow Creek, Olalla-Lookingglass, Elkton-Umpqua, Canyonville/Canyon Creek, Upper Middle Fork Coquille and Middle South Umpqua, Lower South Umpqua, Calapooya, Middle North Umpqua, Lower Cow Creek, South Umpqua River. These watershed analyses involved over 1,000,000 acres, including 403,824 acres of public land administered by the BLM. This watershed analysis effort has encompassed 96% of the Roseburg District by the end of fiscal year 2001.

Watershed analysis ongoing or proposed in fiscal year 2002 or beyond include: Myrtle Creek and Upper Umpqua River.

Table 3 - Watershed Analysis Status

	Watershed Analysis Areas	Number of key watersheds	BLM Acres	Percent of total acres
Completed through FY01	35	11	409,697	96%
Ongoing FY02	2	0	15,303	4%
Total	37	11	425,000	100%

Watershed Restoration Projects

The District completed a variety of restoration projects in fiscal year 2001 using Jobs-In-The-Woods and other appropriated funding. Work occurred in many areas of the District; however, three areas were emphasized: Fate Creek, Days Creek, and Upper Smith River. All of these areas are within Tier 1 Key watersheds.

Fate Creek

The District provided funds and staff to help the Umpqua Basin Watershed Council and a private land owner restore fish passage and improve stream habitat along a section of Fate Creek, a tributary of Days Creek that flows through both BLM and private land. The specific projects included the following:

- Restoration of fish passage through an existing dam
- Installation of a livestock crossing over the stream
- Installation of an off-channel watering system

In December, three months after the project was completed, the landowner spotted fish above the dam.

Days Creek

The District completed a number of projects along Days Creek to reduce sediment input and improve fish habitat. The specific projects included the following:

- Stabilization of approximately 100 yards of stream bank that was major source of sediment.
- Restoration of fish passage by replacing an old culvert with an open-bottomed arch.
- Placement of logs in the stream to improve fish habitat

Upper Smith River

The District continued to work with numerous partners in Upper Smith River to complete watershed restoration projects. Work in this watershed began in 1998 and will continue at least through 2003. The partners who participated in fiscal year 2001 and their contributions are shown in Table 4.

Table 4. Partners in Upper Smith River Restoration in FY 2001.

Organization	Role	Funding
Umpqua Basin Watershed Council	Coordinating Organization	Administration
OWEB	Oregon Plan Funding	\$450,000
Roseburg District BLM	Land Manager	\$355,000
Coos Bay District BLM	Land Manager	\$100,000
Seneca Jones Timber Company	Land Manager	\$28,000
Roseburg Resources	Land Manager	\$22,000
Weyerhaeuser Company	Land Manager	\$7,200
US Fish and Wildlife Service	Technical Consultation	\$2,500
ODF&W	Technical Consultation and Design	\$5000

The specific projects accomplished with this funding include the following:

- Culvert Removal/Replacement. Ten culverts (6 on Roseburg BLM lands) were either removed or replaced in order to restore fish passage and reduce risk of failure.
- Road Decommissioning and Risk Reduction. In order to decrease sedimentation, 4.8 miles of road were decommissioned and 3.5 miles improved. This work all occurred on BLM Roseburg lands.
- Instream and Riparian Habitat Improvement. Large wood and boulders were placed in streams to improve fish habitat. This work occurred on BLM, Seneca Jones, and Weyerhaeuser lands.

Jobs-in-the-Woods

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. Budgets for Jobs-in-the-Woods on the Roseburg District have been as follows:

- FY 1996 \$1,075,000
- FY 1997 \$1,000,000
- FY 1998 \$1,200,000
- FY 1999 \$768,000
- FY 2000 \$890,000
- FY 2001 \$876,000

Fifty-two projects were funded through contracts on the district under this program from 1996 through 2001. These projects include work such as road restoration and renovation to reduce sedimentation, culvert replacement to restore fish passage, and placement of trees in streams to improve fish habitat. The district continues to work closely with private industry and watershed councils to accomplish this work and provide displaced workers with the opportunity to have jobs in the forest environment.

Specific projects completed with Jobs-in-the-Woods funding in fiscal year 2001 include the following:

- Little Wolf Creek culvert replacement to restore fish passage. The contract has been awarded but work will not begin until the summer of 2002.
- Spring Creek culvert replacement to restore fish passage.

- Deere Creek Culvert replacement to restore fish passage.
- Lees Creek Culvert replacement to restore fish passage. The contract has been awarded, but work will not begin until the summer of 2002.
- Days Creek bank stabilization to reduce the amount of sediment entering Days Creek.
- Days Creek road renovation to reduce sediment from running off the road surface into streams.

Watershed Councils

Most of the district's lands are interspersed with privately-owned lands in a checkerboard pattern of alternating square mile sections. This ownership patterns forces us to work with our neighbors in order to accomplish meaningful watershed restoration. The Watershed Council serves as a coordinating organization, bringing many other partners together to work jointly on projects (See *Watershed Restoration Projects* in the Section on *Aquatic Conservation Strategy Implementation* for more details about the other partners with whom we have worked). The Roseburg District's Restoration Coordinator attends all watershed council meetings. In addition, the district's lead Fisheries Biologist co-chairs the watershed council's Technical Advisory Committee. The district contributes to specific projects in a couple of ways: (1) it conducts projects on district lands that contribute to restoration goals in areas with multiple land owners. (2) It transfers funds to the watershed council for restoration projects. In return, not only does the district gain many partners, but it leverages money from other sources. The watershed council has successfully applied for and received numerous grants from organizations such as the Oregon Watershed Enhancement Board, the Department of Environmental Quality's 319 program, the US Fish and Wildlife Service, the Soil Conservation Service, and the Umpqua Fisherman's Derby. The money we contribute often serves as matching funds needed for these grants.

Late-Successional Reserves and Assessments

Late-Successional Reserve Assessments have been completed and reviewed by the Regional Ecosystem Office for late-successional reserves RO 151, 222, 223, 251, 257, 259, 260, 261, 2663, 254, 265, 266 and 268. All large LSRs on the Roseburg District are now covered by a completed and REO reviewed LSR assessment. Many of the LSR assessments were joint efforts involving the US Forest Service and other BLM districts.

During fiscal year 2001, there was no density management or salvage that occurred in late-successional reserves. During the period of 1996 through 2001, there were 886 acres of density management and 134 acres of salvage that took place in late-successional reserves. Other activities that occurred in LSRs include planting, precommercial thinning and fertilization. All of these activities were accomplished under either initial LSR assessments completed prior to fiscal year 1997 or subsequent LSR assessments which met applicable standards and guidelines.

Little River Adaptive Management Area

Little River Adaptive Management Area is one of ten AMAs designated under the Northwest Forest Plan for ecosystem management innovation including community collaboration and management applications. The management emphasis of Little River AMA as set forth in the Northwest Forest Plan is the development and testing of approaches to the integration of intensive timber production with restoration and maintenance of high quality riparian habitat. Working with other agencies, organizations, and the public are other areas of learning.

In January 1997, the Roseburg District BLM and the Umpqua National Forest released a draft of the Little River Adaptive Management Area (AMA) Plan. A requirement of the Northwest

Forest Plan, the AMA document frames a direction for adaptive management on the Federally managed experimental area. It reflects diverse input received from interested citizens, organizations, and agencies. Both Roseburg BLM and the Umpqua National Forest are currently managing the Little River AMA under the draft AMA plan and in accordance with the Northwest Forest Plan.

The Little River Watershed Analysis (WA) described a need to control and prevent road-related impacts to the riparian and aquatic resources within the Cavitt Creek area of the Little River watershed. Cavitt Creek was listed as the highest priority area for aquatic restoration due primarily to its position as a cutthroat and coho stronghold within the Little River watershed.

In addition, The Little River Water Quality Restoration Plan (WQRP), developed jointly by the BLM and USFS, recommended road restoration as the single most important measure that should be taken throughout the Little River watershed.

In 1998, the major landholders in the Cavitt Creek area (BLM, USFS, and Seneca Jones Timber Company) along with the Umpqua Basin Watershed Council (UBWC) initiated an effort to inventory and prioritize road-related risks. This process identified the roads that are high risk to aquatic resources and in need of restoration. This cooperative effort was intended to more effectively address water quality and fisheries concerns in areas with intermingled private and public lands. Surveys of 204 miles of roads were completed in February, 2001.

A team comprised of a hydrologist, fish biologist, engineer, soil scientist, and GIS specialist reviewed the road inventory data along with other information to identify and prioritize potential restoration. Using the road data, problem sites were identified.

An Environmental Assessment (EA) was prepared that analyzed the proposed BLM and USDA-Forest Service road related restoration. A public review of the EA was completed in December, 2001.

The proposed action meets the management objective for the AMA by testing how road-related restoration can improve water quality and aquatic habitat in areas that have experienced extensive management activities.

A shared BLM/USFS database for the AMA was implemented in March, 2001. The goal was to provide a single location with easy access to AMA spatial data. This data consists of such information as streams, roads, geology, ownership, and recreation sites. Some seamless data layers for the AMA are included and maintained. This means that rather than separate data layers for the USFS and BLM, there is now a single layer. For example, there will be a single roads layer containing all BLM and USFS roads. The project also includes metadata (descriptive information about how the data was collected) for all layers. All downloadable zipped (WinZip) files contain the GIS dataset and complete metadata. The user has the option to download ArcView shape files or Arc Info coverages. Files are accessed from the Little River AMA web site.

Implementation of the joint BLM/USFS Sugar Pine restoration project continued in 2001. The purpose of this project is to study ways to restore populations of sugar pine (*pinus labertiana*) and Western white pine (*pinus monicola*) that are declining in southwest Oregon. Mountain pine beetle is responsible for much mortality in older trees but it is white pine blister rust that kills seedling, sapling, and pole size individuals.

There are two parts to this project. The first is to evaluate techniques for establishing and maintaining sugar pine in existing plantations where white pine blister rust is operative. The planting of more than 3,800 seedlings was completed in February, 2000. Pruning of the young trees occurred in fall, 2001.

The second part of the project is the Wolf Pine Timber Sale. The purpose of this portion of the study is to develop and test methods of thinning around remaining live sugar pine trees (variable radius) to maintain sugar pine populations. Harvest treatments were completed in December, 2000. This year crews worked to clear vegetation around the remaining sugar pine trees.

Water quality monitoring continues to be a major emphasis for the Little River AMA. The monitoring program is an interagency effort that includes temperature stations, multi-parameter grab sample measurement by volunteers and the Glide School students, and continuous monitoring. A gauging station was installed to provide continuous telemetered flow measurements and other data to phone or internet. Related to water quality monitoring is outmigrant smolt monitoring that has so far amassed three years worth of data on Little River. All water quality data will be linked to an interagency GIS.

Other projects already developed or still under development include research that investigates the endangered mariposa lily, and fertilization effects on water quality. More information about projects in Little River can be obtained on the AMA web site, www.teleport.com/~lrama.

Air Quality

Special care is taken to ensure that all prescribed fire projects are done in compliance with the Oregon Smoke Management Plan.

Fire/Fuels Management -	June to September 1995
Prescribed Fire:	332 acres
On district wildfires:	9 fires for a total of 1.95 acres - all lightning caused
Off district wildfires:	13 district personnel accepted assignments to 12 fires.
Fire/Fuels Management -	1996
Prescribed Fire:	304 acres
On district wildfires:	21 fires for a total of 15.17 acres - 17 caused by lightning, 4 human caused
Off district wildfires:	57 district personnel accepted assignments to 35 fires.
Fire/Fuels Management -	1997
Prescribed Fire:	872 acres
On district wildfires:	4 fires for a total of 1.61 acres; all were human caused.
Off district wildfires:	No district personnel were assigned to any off district fires in 1997. One employee was detailed to the Redmond Hot Shots during 1997.
Fire/Fuels Management -	1998
Prescribed Fire:	161 acres
On district wildfires:	21 fires for a total of 13.27 acres - 19 were lightning caused and 2 were human caused
Off district wildfires:	28 district personnel accepted assignments to 27 wildfires
Fire/Fuels Management -	1999
Prescribed Fire:	198 acres
On district wildfires:	3 fires for a total of 3.57 acres - 2 lightning caused, and 1 human caused
Off district wildfires:	66 district personnel accepted assignments to 29 wildfires

Fire/Fuels Management -	2000
Prescribed Fire:	530 acres
On district wildfires:	4 fires for a total of 2.37 acres - 2 lightning caused and 2 human caused
Off district wildfires:	73 people, 11 engines, 5 Probeye Irs were assigned to 43 wildfires
Fiscal Year 2001	
Prescribed Fire:	372 acres (assisted the Umpqua National Forest / Tiller Ranger District with the loan of 1 probeye and Coos Bay BLM with 1 Type 3 engine)
On district wildfires:	11 fires for a total of 2.76 acres - 9 were lightning caused and 2 were human caused (Lightning - 2.65 acres, Human - .11 acres)
Off district wildfires:	143 people, 25 engines, 12 Probeye/Palm Ir's, and 3 pumps; 10 cubies and 4 pickups were assigned to 43 wildfires.
Fire/Fuels Management - Total, June 1995-September 2001	
Prescribed Fire:	2769 acres
On district wildfires:	72 fires for a total of 43 acres - 57 lightning caused and 15 human caused
Off district wildfires:	380 district personnel accepted assignments to 189 wildfires across the nation.

Water and Soils

Water temperature was monitored at 100 streams on the Roseburg District. These data will be used in watershed analysis, water quality management plans, and will be provided to DEQ for basin assessment.

A water quality study was completed in cooperation with the US Geological Survey on trace elements in the South River resource area of the district. These data will be used as baseline data for watershed analysis, water quality management plans, and for abandoned mine use inventory.

Methods taught at Rosgen training courses were used by BLM personnel to survey 3 stream gaging sites in the ongoing effort to develop regional curves of channel geomorphology used for improved accuracy of flow predictions, better design of instream structures, improve our ability to assess changes in peak flow as a result of management activities, monitor changes over time, and classify streams.

Turbidity and sediment data were collected and analyzed through the cooperative study with the Umpqua National Forest.

Stream water quality was monitored and will be published in the North Umpqua River Wild and Scenic Section through the cooperative study (an ongoing annual effort) with Douglas County Water Resources Survey.

Stream flow was monitored at selected sites through the cooperative study (an ongoing annual effort) with the Douglas County Water Resources Survey.

Watershed activity information for fiscal year 1996-2001

The Roseburg District:

- Surveyed 555 miles of streams for proper functioning condition;
- Operated 6 gauging stations;

- Five studies for sediment;
- Water temperature was monitored for 100 streams;
- 23 sites for water chemistry;
- Cooperatively monitored water quality on the North Umpqua Wild and Scenic River;
- Completed a cooperative study with the USGS;
- Continued to cooperatively develop a study with USGS for timber fertilization in the Little River Adaptive Management Area;
- Over 500 acres of brushed conifer reestablishment;
- 500 acres of density management in riparian reserves to attain aquatic conservation strategy objectives;
- Re-established a cooperative gage with USGS; Forest Service and Douglas County;
- Established a district macro-invertebrate monitoring program; completed 44 water rights applications with Oregon Water Resources
- Completed densification of GIS stream layer and began ARIMS streamflow routing of stream layer;
- Prepared five Water Quality Restoration Plans for submittal to ODEQ;
- Completed watershed analysis on 96% of BLM-administered lands of Roseburg District
- Numerous hydromulching projects to reduce sediment.

State-listed Clean Water Act 303d streams

The Roseburg District has 54 state-listed streams identified by the Department of Environmental Quality (DEQ). See Table 4.

Municipal Watersheds

There are 26 community water systems with BLM-administered lands within the Roseburg District. The district has entered into memorandums of understanding with the cities of Drain, Riddle, and Canyonville. The objectives of these agreements is to maintain the best water quality through Best Management Practices. A Special Land Use Permit has been issued to the City of Myrtle Creek for watershed protection which includes the city intake and the adjoining 190 acres. There have been no reports of contamination or water quality violations from BLM-administered lands.

Best Management Practices

Best Management Practices are identified and required by the Clean Water Act as amended by the Water Quality Act of 1987. Best Management Practices are defined as methods, measures, or practices to protect water quality or soil properties. Best Management Practices are selected during the NEPA interdisciplinary process on a site specific basis to meet overall ecosystem management goals. The Roseburg District Record of Decision and Resource Management Plan lists Best Management Practices for various projects or activities that may be considered during the design of a project. Monitoring of the RMP during 1996-2001 has shown that Best Management Practices have been appropriately implemented with a high degree of success.

Wildlife Habitat

Green tree retention

The RMP management direction is to retain six to eight green conifer trees per acre in the General Forest Management Area and 12 to 18 green conifer trees per acre in the Connectivity/Diversity Blocks. The retained trees are to be distributed in variable patterns to contribute to stand diversity. The implementation of this management direction has been

Table 5. 1998 303(d) Listed Waterbodies in the Roseburg District.

Stream or Waterbody Name	Basin/Sub Basin	Criteria for listing	Resource Area
Beals Creek	Umpqua/South Umpqua	Habitat Modification	South River
Cattle Creek	Umpqua/South Umpqua	Temperature-Summer	South River
Coquille River, Middle Fork	South Coast/Coquille	Temperature-Summer	South River
Cow Creek	Umpqua/South Umpqua	Toxics, pH-Summer, Temperature-Summer, Habitat Modification	South River
Days Creek	Umpqua/South Umpqua	Habitat Modification	South River
Deadman Creek, West Fork	Umpqua/South Umpqua	Temperature-Summer	South River
Deadman Creek, Middle Fork	Umpqua/South Umpqua	Temperature-Summer	South River
Deadman Creek	Umpqua/South Umpqua	Temperature-Summer	South River
Fate Creek	Umpqua/South Umpqua	Temperature-Summer	South River
Iron Mountain Creek	Umpqua/South Umpqua	Temperature-Summer	South River
Kent Creek	Umpqua/South Umpqua	Habitat Modification	South River
Lane Creek	Umpqua/South Umpqua	Habitat Modification	South River
Lookingglass Creek	Umpqua/South Umpqua	Flow Modification	South River
Martin Creek	Umpqua/South Umpqua	Temperature-Summer	South River
Middle Creek	Umpqua/South Umpqua	Temperature-Summer, Habitat Modification	South River
Middle Creek, South Fork	Umpqua/South Umpqua	Temperature Summer	South River
Myrtle Creek, North	Umpqua/South Umpqua	Habitat Modification	South River
Myrtle Creek, South	Umpqua/South Umpqua	Flow Modification, Temperature-Summer	South River
Olalla Creek	Umpqua/South Umpqua	Temperature-Summer, Biological Criteria	South River
Panther Creek	Umpqua/South Umpqua	Temperature-Summer, Habitat Modification	South River
Rice Creek	Umpqua/South Umpqua	Habitat Modification	South River
Riser Creek	Umpqua/South Umpqua	Temperature-Summer	South River
Shively Creek	Umpqua/South Umpqua	Habitat Modification	South River
Stouts Creek, East Fork	Umpqua/South Umpqua	Temperature-Summer	South River
Stouts Creek, West Fork	Umpqua/South Umpqua	Temperature-Summer	South River
Thompson Creek	Umpqua/South Umpqua	Habitat Modification	South River
Umpqua River, South	Umpqua/South Umpqua	Aquatic Weeds or Algae, Bacteria, Biological Criteria, Dissolved Oxygen, Flow and Habitat Modification, pH-Summer, Sediment, Temperature-Summer, Toxics	South River
Big Tom Folley Creek	Umpqua/Umpqua	Temperature-Summer	Swiftwater
Brush Creek	Umpqua/Umpqua	Temperature-Summer	Swiftwater
Buck Creek	Umpqua/Umpqua	Temperature-Summer	Swiftwater
Calapooya Creek	Umpqua/Umpqua	Bacteria, Dissolved Oxygen-Cold Water Aquatics, Dissolved Oxygen-Salmonid Spawning: September through December, Flow and Habitat Modification, pH-Summer, Temperature-Summer	Swiftwater
Canton Creek	Umpqua/North Umpqua	Habitat Modification, Sediment, Temperature - Summer and Spawning	Swiftwater

Table 5. 1998 303(d) Listed Waterbodies in the Roseburg District. (continued)

Stream or Waterbody Name	Basin/Sub Basin	Criteria for listing	Resource Area
Cavitt Creek	Umpqua/North Umpqua	Habitat Modification, Sediment, Temperature and pH-Summer	Swiftwater
Cleghorn Creek (Smith River)	Umpqua/Umpqua	Temperature-Summer	Swiftwater
Elk Creek	Umpqua/Umpqua	Bacteria, Dissolved Oxygen-Salmonid Spawning: September through March, Flow Modification, Temperature-Summer	Swiftwater
Emile Creek	Umpqua/North Umpqua	Temperature and pH-Summer	Swiftwater
Harrington Creek	Umpqua/North Umpqua	Temperature-Summer	Swiftwater
Hubbard Creek	Umpqua/Umpqua	Habitat Modification	Swiftwater
Jim Creek	Umpqua/North Umpqua	Temperature-Summer	Swiftwater
Little River	Umpqua/North Umpqua	Habitat Modification, pH-Summer, Sediment, Temperature-Summer	Swiftwater
Little Wolf Creek	Umpqua/Umpqua	Temperature Summer	Swiftwater
Miner Creek	Umpqua/Umpqua	Temperature Summer	Swiftwater
Rader Creek	Umpqua/Umpqua	Temperature Summer	Swiftwater
Rock Creek, Northeast Fork	Umpqua/North Umpqua	Temperature-Summer	Swiftwater
Rock Creek	Umpqua/North Umpqua	Temperature-Summer	Swiftwater
Scaredman Creek	Umpqua/North Umpqua	Temperature-Summer	Swiftwater
Smith River	Umpqua/Umpqua	Temperature-Summer	Swiftwater
Squaw Creek	Umpqua/Umpqua	Temperature Summer	Swiftwater
Thistleburn Creek	Umpqua/Umpqua	Temperature Summer	Swiftwater
Umpqua River	Umpqua/Umpqua	Flow Modification, Temperature-Summer, Water Contact Recreation (Fecal Coliform)- Fall through Spring	Swiftwater
Umpqua River, North	Umpqua/North Umpqua	Flow Modification, Temperature-Summer, Temperature-Spawning	Swiftwater
Wolf Creek	Umpqua/North Umpqua	pH-Summer, Temperature-Summer	Swiftwater
Wolf Creek	Umpqua/Umpqua	Temperature Summer, Habitat Modification	Swiftwater
Yellow Creek	Umpqua/Umpqua	Temperature Summer	Swiftwater

complex due to the many variables involved including ecological objectives and operational feasibility. Monitoring has shown no instances in which this RMP management direction was not implemented successfully.

Snag and snag recruitment

Approximately two snags per acre are being left on each regeneration harvest unit. As many existing snags as possible that are not safety hazards are attempted to be retained. In areas where adequate number of snags are not present or are not retained due to operational limitations, additional green trees are being reserved during project design and layout. The implementation of this management direction, similar to green tree retention, has been complex due to the many variables involved including ecological objectives and operational feasibility. Monitoring has shown no instances in which this RMP management direction was not implemented successfully.

Coarse woody debris retention and recruitment

RMP management direction is to leave 120 linear feet of logs per acre greater than or equal to 16 inches in diameter and 16 inches long. Where this management direction cannot be met with existing coarse woody debris, merchantable material is used to make up the deficit. Monitoring has shown no instances in which this RMP management direction was not implemented successfully.

Connectivity/Diversity Blocks

There has been no regeneration harvests or commercial thinning in Connectivity/Diversity Blocks in fiscal year 2001. There has been 362 acres of regeneration harvest, 908 acres of commercial thinning, and 116 acres of salvage in connectivity/diversity blocks cumulative during fiscal years 1996-2001. Twenty-five percent of connectivity/diversity blocks is maintained in late-successional forest at any point in time.

Special habitats

Special habitats are forested or non-forested habitat which contributes to overall biological diversity with the district. Special habitats may include: ponds, bogs, springs, swamps, marshes, dunes, meadows, balds, cliffs, salt licks, and mineral springs. Interdisciplinary teams identify special habitat areas and determine relevance for values protection or management on a case by case basis. Special habitats have not been a frequently used management tool because of overlapping management action/direction for streams, wetlands, survey and manage species, and protection buffer species. For example, wetlands are frequently identified and protected as riparian reserves during project design and layout.

Nest site, activity centers and rookeries

Golden Eagle

Six golden eagle nest sites are known to occur on the district. No regular monitoring of these nest sites is conducted. It is not known how many of the sites are active. Since 1995, no timber sales or other projects were initiated which would have disturbed active golden eagle nest sites.

Osprey

No active management or mitigation was required for osprey in fiscal year 2001.

Late-Successional Reserve habitat improvement

There was no active habitat improvement in Late-Successional Reserve habitat through density management or prescribed burning in fiscal year 2001.

Special Status and Special Attention Species, Wildlife

Survey and Manage

The Forest Service and Bureau of Land Management have modified the Survey and Manage standards and guidelines. A draft supplemental environmental impact statement was issued in December 1999 that presented three action alternatives that were intended to better identify species protection needed, clarify language, eliminate inconsistent and redundant direction, and establish a process that will be responsive to new information. The alternatives did not change the underlying purpose of the Northwest Forest Plan and did not address other elements of the plan. A Final Supplemental Environmental Impact Statement was published in November 2000 followed by a Record of Decision in January 2001.

This Decision made it possible for the Agencies to more efficiently provide the level of species protection intended in the Northwest Forest Plan. The major elements of Survey and Manage are retained; restructured for clarity, describing criteria and processes for changing species assignments in the future, and removing 72 species in all or part of their range because new information indicated they were secure or otherwise did not meet the basic criteria for Survey and Manage.

Surveys were conducted and sites were managed in fiscal year 2001 in accordance with the FSEIS Record of Decision.

Threatened/Endangered Species

A large portion of the District wildlife program's resources are directed toward gathering and interpreting information to ensure compliance with the Endangered Species Act and the land use plan. Consultation under Section 7 of the Endangered Species Act occurs on all activities proposed within habitat of listed species. Consultation was completed for all fiscal year 2001-2002 activities that were not likely to adversely affect threatened and endangered species May 31, 2001. Consultation for the fiscal year 2001-2002 timber sale program, and other activities that may likely adversely affect threatened and endangered species, has not been completed due to litigation involving the U.S. Fish and Wildlife Service.

Northern Spotted Owl

The Roseburg District currently contains 192,990 acres of suitable owl habitat. An additional 215,426 acres are considered "habitat - capable". A total of 110,665 acres are considered Critical Habitat suitable for nesting, roosting, or foraging. One hundred acre retention areas of best northern spotted owl habitat were established around all owl activity centers that were known as of January 1, 1994. A total of 142 owl activity centers covering 134,421 acres were established.

Annual monitoring is conducted to determine owl nesting activity on the District. Detailed information is gathered on spotted owl sites on federal land as well as some sites on private land adjacent to federal land. Much of the monitoring information is used to assist in evaluating the success of the Forest Plan for supporting viable owl populations; this is part of the larger monitoring plan for the Northwest Forest Plan (Lint, *et al.* 1999). Results of these efforts are as follows:

Columbia White-tailed Deer

The Roseburg District acquired the former Dunning Ranch through a land exchange in 1994. This area contains 6,581 acres of Columbia white-tailed deer habitat. The area was

Table 6. Northern Spotted Owl Survey Results for Roseburg District.

Survey Year	Sites-Surveyed ¹	No. Pairs Observed ²	Proportion of Sites Occupied
1996	328	149	45%
1997	301	123	41%
1998	302	132	44%
1999	284	115	40%
2000	263	122	46%
2001	264	128	48%

¹ Sites which had one or more visits. May include some sites which did not receive 4 visits.

² Includes only pairs. Does not include single birds or 2 bird pairs of unknown status.

designated the North Bank Habitat Management Area/Area of Critical Environmental Concern. The District released a Draft Environmental Impact Statement in December 1999 followed by a Final Environmental Impact Statement in September 2000. The Record of Decision was issued in June 2001. The U.S. Fish and Wildlife Service has proposed delisting this species. If delisted, the BLM will continue to coordinate with the Fish and Wildlife Service and the Oregon Department of Fish and Wildlife in the management of this species.

Marbled Murrelet

Surveys have been conducted for marbled murrelet on the Roseburg District since 1992. Of the 189,499 acres of public land within the zones of potential habitat for the murrelet, 83,285 acres have been classified as suitable habitat. In fiscal year 2001, 3462 acres were surveyed for marbled murrelet. Two of five historically occupied sites were occupied in fiscal year 2001. Marbled murrelets were detected at two other historically occupied sites. One additional site was located.

Peregrine Falcon

Peregrine falcon inventory efforts began in 1996. Potential peregrine falcon habitat on the district was mapped and habitats evaluated for their potential to support nest sites. Intensive field surveys were conducted in high potential habitat in an attempt to document nesting activity. By the end of the 1998 field season, three confirmed nest sites and one probable site had been located. One site is on public land. The others are on private land adjacent to public land. In fiscal year 2001, three site fledged young. The peregrine falcon was delisted in 1999. However, the species will remain on the Bureau's sensitive species list and monitoring will be continued. During fiscal year 2001, there were no proposed projects within buffer zones around the sites.

Bald Eagle

Seven bald eagle nest sites have been located on public land in the district. Six of the sites have management plans. Seasonal restrictions and distance buffers are applied to proposed activities in the vicinity of bald eagle nest sites. No winter roosts or concentration sites have been located on public land in the district.

Other Species of Concern

This category includes other species which have received special tracking emphasis on the district.

Townsend's Big-eared Bat

The Pacific Townsend's big-eared bat is a former Federal Candidate species. It remains listed as a candidate species by the state of Oregon, is on list two of the Oregon Natural Heritage Program and is listed as a BLM sensitive species for Oregon. In the summer of 1999 a maternity colony of Townsend's big-eared bats was located on the Roseburg District. The district staff and ODFW are working together to monitor the site and develop plans for protection.

Northern Goshawk

The northern goshawk is a former candidate species. It is a Bureau sensitive species, as state of Oregon candidate species and an Oregon Natural Heritage Program List three species. There are six known goshawk sites on the District. Northern goshawk surveys are conducted as part of the timber sale planning process on a portion of the District. A total of 200 acres were surveyed for goshawks in fiscal year 2001. Juvenile goshawks were detected at two known sites. No new sites were located.

Special Status and SEIS Special Attention Species, Botany

Surveys, Monitoring, Consultation, and Restoration

Surveys for Special Status (SS) and Special Attention (SA) species are being conducted in compliance with RMP management direction prior to all ground disturbing activities. Roughly between 1500 and 2000 acres of pre-disturbance clearance surveys have been completed annually since publication of the RMP with approximately 1850 acres completed in 2001. Baseline fungi, lichen, and bryophyte inventories have been completed on approximately 2100 acres in District ACECs and ACEC/RNAs. Four SS plants have been monitored on an annual basis to determine population trends (*Aster vialis*, *Calochortus umpquaensis*, *Calochortus coxii*, and *Cimicifuga elata*). A population enhancement project was initiated for one SS species (*Arabis koehleri* var. *koehleri*). The number of SS plant sites known to occur on public lands within the District at the end of fiscal year 2001 are presented by status category in Table 1. The number of SA plant sites are presented by status category in Table 2. The total number of SS sites at the end of fiscal year 2001 was 355 and the total number of SA sites was 739.

Consultations were conducted on five separate projects that could affect listed plant species. Two of these were completed in Fiscal year 2001 with no jeopardy or no affect to listed plants.

Table 7. Number of Sites by Species Group for Special Status Plant Species.

Species Group	FE	FT	FP	FC	Status ¹		
					BS	AS	TR
Fungi	—	—	—	—	—	—	—
Lichens	—	—	—	—	—	—	1
Bryophytes	—	—	—	—	—	3	3
Vascular Plants	2	6	0	0	97	28	222

¹ Status: FE=Federal Endangered
 FT=Federal Threatened
 FP=Federal Proposed
 FC=Federal Candidate
 BS=Bureau Sensitive
 AS=Assessment Species
 TR=Tracking Species

Table 8. Number of Sites by Species Group for Special Attention Plant Species.

Species Group	Category					
	A	B	C	D	E	F
Fungi	—	197	—	88	—	140
Lichens	25	45	—	0	11	90
Bryophytes	—	—	—	129	—	—
Vascular Plants	10	—	4	—	—	—

Habitat restoration was attempted at two SS plant locations (for *Calochortus umpquaensis* and *Calochortus coxii*). Three Conservation Strategies have been completed since publication of the RMP (*Calochortus umpquaensis*, *Calochortus coxii*, and *Cimicifuga elata*). One Conservation Agreement with the U.S. Fish & Wildlife Service has been completed since publication of the RMP. Preparation of a second Conservation Agreement was initiated in Fiscal year 2001. Completion of this Conservation Agreement is expected in Fiscal year 2002. Endowments have been created for three SS plant species with the Berry Botanic Garden to support long term storage of seed. This seed will be used as an emergency safeguard against extinction and for future habitat restoration projects.

A land acquisition was initiated in Fiscal year 2001 for the Umpqua mariposa lily (*Calochortus umpquaensis*). Completion of the acquisition is expected in Fiscal year 2002.

Survey & Manage Process Overview

A Supplemental Environmental Impact Statement and Record of Decision with supplemental standard and guidelines for Survey & Manage species were completed in Fiscal year 2001. An annual species review is required at the regional level under the new standard and guidelines to assess species status. The first annual species review was initiated in Fiscal year 2001 on 347 species. The review is scheduled to be completed in Fiscal year 2002.

Fish Habitat

There was continued district effort during fiscal year 2001 to address fisheries issues related to planning, implementation, and monitoring efforts. Major duties are divided between district support, consultation, restoration, data collection, monitoring, and outreach activities.

District Support

ID Teams - NEPA Analysis - District fisheries personnel participated as an Interdisciplinary Team (IDT) member for several projects during fiscal year 2001 including two land exchanges, three Watershed Analysis, eight Environmental Assessments, and several Categorical Exclusions.

Consultation

District fisheries continued their involvement as an active member of two Level 1 teams. Both formal and informal consultation was completed for actions included in the Programmatic Biological Assessment for the Southwest Oregon Province. Fisheries personnel also completed informal consultation for the North Bank Habitat Management Area and formal consultation for the Upper and Middle Smith River II Restoration and Rehabilitation projects. Six individual timber sales were brought through Level 1 Team consultation but were halted through court orders.

Restoration

In-stream - Five projects were implemented during fiscal year 2001. Projects included culvert replacement, large wood recruitment (both felling and placing), and dam modification.

Riparian - Four projects were implemented during fiscal year 2001. Individual actions included in the projects were bank stabilization, road renovation, conifer re-establishment, water right diversion restoration, diversion dam modification, and cattle crossing construction. Road related activities to improve watershed health and fish habitat continued to receive focus on the district.

Fish Passage Restoration - District fisheries personnel continued to identify sites that have historically been barriers and/or impediments to Pacific salmonid migration. In fiscal year 2001, the district replaced 11 culverts and removed one dam to facilitate upstream fish migration. Overall, these projects resulted in restoring passage to approximately 20 miles of spawning and/or rearing habitat.

Data Collection

Physical Habitat Surveys - Approximately 74 miles of stream habitat was inventoried during fiscal year 2001 on the District. District fisheries personnel contracted with ODFW for 60% of these miles. Additionally, twelve miles of Properly Functioning Condition surveys were accomplished throughout the district. Data gathered was used to assess the affects of stream restoration projects on local habitat conditions and provide information necessary for Environmental Assessment and Watershed Analysis requirements.

Fish Distribution Surveys - Three streams were assessed using visual detection methods to determine the extent of fish presence. Snorkel surveys were also completed on five miles of district streams. These surveys assist biologists in determining fish distribution and relative abundance.

Fourteen streams were also surveyed for coho spawning presence by district fisheries personnel. This data assists biologists with determining effectiveness of specific projects. Information was coordinated with the ODFW to help estimate numbers of coho salmon returning to watersheds within the Umpqua River basin.

Fish Passage Assessments - District fisheries personnel conducted culvert inventories at approximately 25 locations to evaluate fish passage conditions at these sites. Information will be used to establish culvert replacement priorities that will provide maximum benefits for fish species while taking into account cost considerations.

Fish Trapping - District fisheries personnel participated in a multi-agency, Umpqua Basin-wide effort to assess the anadromous fish population in the basin. Tasks included operating rotary-screw fish traps in two sub-watersheds. The purpose of this work is to collect information on the movements of juvenile migratory salmonids out of their natal streams. This work helps support the Oregon Plan for Salmon and Watersheds (Oregon Plan), and will help fisheries and land managers compare smolt production between watersheds, as well as assess the affects of watershed management on fish survival and determine priorities for watershed restoration activities.

The Roseburg District hopes to learn more about the differences in life histories, population densities, and relative abundances of these fishes in different Umpqua sub-watersheds. Participating agencies include the Umpqua National Forest, Oregon Department of Fish and Wildlife (ODFW), Oregon State University, Umpqua Basin Watershed Council, USFWS, and NMFS.

Other - District fisheries personnel actively assessed salmonid fish habitat for three future improvement sites. Other on-going monitoring activities were implemented including thermograph installation and fish trapping.

Outreach Activities

District fisheries personnel continued their program to educate local school students on fisheries and watershed issues. Students from the Phoenix School participated in coho salmon spawning surveys. Several field trips were also conducted to show local students how smolt traps operate, why they are integral to district operations, and techniques for handling,

measuring, and marking captured Pacific salmonids. In addition, district fisheries personnel volunteered their time and presented information at the Free Fishing Day, Douglas County Fair, Melrose Elementary School field trip, and the Forestry Tour.

Special Areas

The Roseburg District has 12 special areas that total 11,323 acres. Defensibility monitoring has been conducted annually on all ACEC/RNAs since publication of the RMP. Unauthorized use by OHVs was detected at the North Myrtle Creek and Bushnell-Irwin ACEC/RNAs in fiscal year 2001. OHV barriers were constructed at three separate locations at the two ACEC/RNAs in an attempt to restrict unauthorized access. OHV trails in the Bushnell-Irwin ACEC/RNA were rehabilitated. Noxious weeds were controlled at the Myrtle Island and Bear Gulch ACEC/RNAs. Defensibility monitoring will continue in fiscal year 2002.

Baseline fungi, lichen, and bryophyte inventories have been completed at six ACEC/RNAs, one ACEC, and one candidate ACEC. A checklist for vascular plants was completed and published for the Myrtle Island ACEC/RNA in fiscal year 2001. Databases for vascular plant checklists were developed for all ACEC/RNAs. Draft management plans have been completed for four ACEC/RNAs. Three of these draft plans were finalized in fiscal year 2001. The EIS ROD was signed and a management plan was completed for the North Bank Area of Critical Environmental Concern in fiscal year 2001.

Seven ACECs were nominated by the public in the Final RMP. Five of these nominations were reviewed by the South River Field Office and decisions finalized in fiscal year 2001. All five areas were determined not to meet ACEC criteria. All remaining nominated areas are currently being managed to protect the proposed relevant and important values.

A land exchange to expand the Beatty Creek ACEC/RNA was initiated in fiscal year 2001 and an Environmental Assessment is currently being prepared on the proposal.

Port-Orford Cedar

Port-Orford cedar trees growing adjacent to roads and streams can become infected with a water mold *Phytophthora lateralis*. If the pathogen is present in mud on vehicles that are dispersed into ditches and water courses crossing roads, Port-Orford cedar trees growing in their vicinity can become exposed and eventually die.

The Roseburg District is working to prevent not introducing the disease into watersheds that presently contain healthy Port-Orford cedar. A series of efforts, such as washing vehicles and seasonal-use restrictions on certain roads, as well as prohibiting such activities as bough collecting at certain times of the year are on-going mitigative actions.

Other associated District programs include an active program of mapping new locations of the disease, removal of the hosts next to roads, identification of individual wild trees that are potentially resistant genetically to the disease, and pursuing a proposed land exchange that would protect its serpentine plant community that includes Port Orford cedar are also being undertaken.

In 1997, a 10-acre Port-Orford cedar experimental site was planted on the District to study its range-wide silvicultural and genetic characteristics. Originating from varying locales from Oregon and California, preliminary results indicate that low elevation, coastal Oregon sources have grown 30 percent taller, but also exhibit a 30 percent lower survival rate as compared to high-elevation, inland California sources.

Wild and Scenic Rivers

Objective: Manage designated components of the National Wild and Scenic Rivers System by protecting their outstandingly remarkable values (ORVs) and maintain and enhance the natural integrity of river-related values.

Recreation use on the North Umpqua Wild and Scenic River was documented in the 1996 through 2001 North Umpqua River Use Report. A summary follows with emphasis on measurable units of accomplishment.

Wild and Scenic Rivers Managed: North Umpqua Wild & Scenic River, designated through the Omnibus Oregon Wild & Scenic Rivers Act of 1988.

<u>River Segment</u>	<u>BLM Miles</u>	<u>Classification</u>	<u>Miles</u>
North Umpqua	8.4	Recreational	8.4

Outstandingly Remarkable Values (ORVs) monitored included Fish, Water, Recreation, Scenery, and Cultural Resources. Protection of the ORVs occurred between 1996 - 2001 through a coordinated monitoring plan with the Umpqua National Forest.

High-level monitoring of recreation use in the North Umpqua River was conducted daily between May 20 and Sept 20, 2001 through a Cooperative Management Agreement between the Roseburg District BLM and the Umpqua National Forest, North Umpqua Ranger District. BLM had the lead on monitoring in the entire river corridor; USFS had the lead on issuing Special Recreation Permits (13) to commercial river outfitters. Employees engaged in monitoring included one full time BLM River Manager and one temporary USFS person. BLM covered the salary of the USFS temp. Objectives of the river survey were to:

- Monitor the five outstanding remarkable values on the North Umpqua W&SR, as listed above.
- Provide a BLM/USFS presence on the river to contact, inform, and educate users.
- Document and monitor visitor use including commercial and public use.
- Coordinate management of the river between the BLM and Umpqua National Forest.
- Identify, minimize and manage safety hazards and user conflicts on the North Umpqua River.

- 2001 Use:
- Boating Use: 420 visits (BLM segment - down from 650 in 2000)
 - Fishing Use: 2,902 visits (BLM segment - up from 2,345 in 2000)
 - For entire W&S River: Commercial Adjusted Use - 1,704 visits;
Private adjusted use - 3,378 visits.
 - Conflict between users: No major incidents were reported on the BLM segment of the Wild & Scenic River in fiscal year 2001. Groups monitored included boaters, campers along the river, anglers, fly-fishermen.
 - Major issue in 2001: Campground host stress was higher than normal at all BLM campgrounds, particularly Susan Creek Recreation Site which had 4 different hosting couples during the use season. Two quit abruptly from the tension. Post evaluations indicated a need to move host site from "ground zero" to a site closer to the entrance of the campground, away from the busy hustle.

The five river segments found eligible for inclusion into the National Wild & Scenic Rivers System, three were not assessed for suitability because they did not meet minimum suitability requirements (Cow Creek, South Umpqua River, Umpqua River). The two which were

Table 9. Visitor Use for Boating on the North Umpqua River

	1996	1997	1998	1999	2000	2001
Private Boating Visits	3,605	4,405	4,343	4,313	4,311	3,378
Commercial Boating Visits	2,541	2,360	2,270	2,490	2,019	1,704
Boating Visits on BLM section	800	790	680	750	650	420

assessed for suitability (Canton Creek, Smith River) were determined to be unsuitable for designation in the National Wild & Scenic River system. The corridor width for rivers found eligible or studied for suitability is defined as 1/4-mile on either side of the river. Under interim protective management, all authorized actions on BLM administered land within a 2-mile wide corridor have had either a positive or neutral effect on identified ORVs that resulted in rivers being found eligible/suitable.

Interim management for Roseburg District Eligible Recreational Rivers has been to exclude timber harvest in the riparian reserves, moderately restrict development of leaseable and saleable minerals, and protect a segment's free flowing values and identified ORVs. In undesignated segments, BLM has provided interim protective management for ORVs identified on BLM-lands along river segments determined eligible but not studied for inclusion as components of the National Wild & Scenic Rivers System.

BLM actions and BLM authorized actions have been consistent during the monitoring period with protection of the ORVs of the designated North Umpqua Wild and Scenic River.

Annually, actions and research proposals within and adjacent to Wild & Scenic River corridors have been reviewed by Resource Area specialists to determine whether the possibility of impacts on the ORVs were considered, and whether any mitigation identified as important for maintenance of the values was required. If mitigation was required, the relevant actions were reviewed on the ground, after completion, to ascertain whether it was actually implemented.

Cultural Resources

In fiscal year 2001, the cultural resources program accomplished considerable work under the two major directives of the National Historic Preservation Act. Compliance inventory and evaluation work was accomplished in support of the timber, recreation, and watershed restoration programs under authority of Section 106. Cultural resource program initiatives, including evaluations and public projects, were undertaken under Section 110. Twelve archeological sites were evaluated and 1,447 acres were inventoried.

Public projects included an Oregon Archeology Week sessions (in conjunction with the Forest Service), and participation in the School Forestry Tour. Approximately 600 people, mostly elementary school students, attended the programs.

Visual Resources

Roseburg BLM lands were monitored to meet the following visual quality objectives:

<u>Class</u>	<u>Guidance</u>
VRM I:	Preserve the existing character of landscapes.
VRM II:	Retain the existing character of landscapes.
VRM III:	Partially retain the existing character of landscapes.
VRM IV:	Allow major modifications of existing character of landscapes.

In the Roseburg District, there is the following classification of lands:

<u>Class</u>	<u>Acres</u>
VRM I	28
VRM II	18,045
VRM III	4,385
VRM IV	396,546

District VRM specialists (outdoor recreation planners) analyzed all surface disturbing actions which contained any VRM II or III areas during the three year period. There were no actions in VRM I areas. There was one proposed action in VRM II or III areas. Twenty percent of timber sales and other substantial projects in VRM Class II or III areas were required to be reviewed to ascertain whether relevant design features or mitigating measures would be included. The actual number of environmental assessments reviewed in the Roseburg District was 100% of all actions (not only Timber) in VRM II and III areas. In the Roseburg District the total number of environmental assessments analyzed for VRM were eleven in 1996, twelve in 1997, nine in 1998, one in 1999, and one in 2000.

As needed, the visual resource contrast rating system has been used during project level planning to determine whether or not proposed activities will meet VRM objectives.

VRM Class II lands were managed for low levels of change to the characteristic landscape. Management activities may be seen but did not attract the attention of the casual observer. Changes repeated the basic elements of form, line, color, texture, and scale found in the predominant natural features of the characteristic landscape.

VRM Class III lands were managed for moderate levels of change to the characteristic landscape. Management activities could attract attention but did not dominate the view of the casual observer. Changes should repeated the basic elements of form, line, color, texture, and scale found in the predominant natural features of the characteristic landscape.

VRM Class IV lands were managed for moderate levels of change to the characteristic landscape. Management activities could dominate the view and be the major focus of viewer attention. However, every attempt was made to minimize the effect of the activities through careful location, minimal disturbance, and repeating the basic elements of form, line, color and texture.

Rural Interface Areas

There were no projects in the Rural Interface Areas during fiscal years 1996-2001.

Socioeconomic

Employment Trends

Douglas County has continued to be a slow growing economic region of the state during 2001.

Payments to Counties

Fiscal Year 2001 was the first year that payments were made to counties under the Secure Rural Schools and Community Self-determination Act of 2000 (P.L. 106-393). Counties made elections to receive the standard O&C and CBWR payment as calculated under the Act of August 28, 1937 or the Act of May 24, 1939, or the calculated full payment amount as determined under P.L. 106-393. Douglas County elected to receive payments under the new legislation. Beginning in Fiscal Year 2001 and continuing through 2006 payments are to be made based on historic O&C and CBWR payments to the counties. Actual payments for 2001 were made November 14, 2001.

Title I payments are made to the eligible counties based on the three highest payments to each county between the years 1986 and 1999. These payments may be used by the counties in the manner as previous 50-percent and "safety net" payments.

Title II payments are reserved by the counties in special account in the Treasury of the United States for funding projects providing protection, restoration and enhancement of fish and wildlife habitat, and other natural resource objectives as outlined in P.L. 106-393. BLM is directed to obligate these funds for projects selected by local Resource Advisory Committees and approved by the Secretary of Interior or her designee.

Title III payments are made to the counties for uses authorized in P.L. 106-393. These include: 1) search, rescue, and emergency services on Federal land, 2) community service work camps, 3) easement purchases, 4) forest-related educational opportunities, 5) fire prevention and county planning, and 6) community forestry.

Jobs-in-the-Woods

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. Budgets for Jobs-in-the-Woods on the Roseburg District have been: fiscal year 1996-\$1,075,000, 1997-\$1,000,000, 1998-\$1,200,000, 1999-\$768,000, and 2000-\$890,000. Forty-six projects were funded through contracts on the district under this program from 1996 to 2000. These projects include work such as road restoration, renovation and road decommissioning to lessen adverse impacts to water quality from our transportation system; culvert replacements to aid fish passage and to better accommodate water flows associated with large storms; and placement of trees in creeks to enhance spawning gravel and resting ponds for fish. The Roseburg District continues to work closely with private industry and watershed councils to accomplish this work and provide displaced workers with the opportunity to have jobs in the forest environment.

Environmental Justice

Executive Order 12898 of February 11, 1994, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" directs all federal agencies to "...make achieving environmental justice part of its mission by identifying and addressing . . . disproportionately high and adverse human health or environmental effects of its programs, policies and activities."

Table 10. Resident Labor Force, Employment by Industry, Oregon.

	1970	1980	Average 1984-88 Baseline	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Civilian Labor Force	864,500	1,295,000	1,362,400	1,491,000	1,508,000	154,200	1,596,000	1,640,000	1,656,200	1,719,700	1,727,700	1,763,700	1,760,500
Unemployment	61,700	107,000	104,800	82,000	90,000	116,000	116,000	89,000	80,100	101,600	100,700	98,600	100,400
Total Wage & Sal. Emp.	709,200	1,044,600	1,068,680	1,251,900	1,251,800	1,274,200	1,308,400	1,362,900	1,418,400	1,474,600	1,526,400	1,551,800	1,572,400
Total Manufacturing	172,300	215,100	203,240	220,300	211,700	209,000	211,700	221,300	229,300	235,800	243,600	246,100	240,800
>Lumber & Wood Prod. (& Paper)	76,200	79,900	75,060	73,200	65,800	63,800	62,700	63,300	61,300	59,800	60,200	59,000	57,300
>Other Manufacturing	96,100	135,200	128,180	147,100	145,900	145,200	149,000	158,000	168,000	176,000	183,400	187,100	183,500
Total Non-Manufacturing	536,900	829,500	865,440	1,031,600	1,039,000	1,065,200	1,096,700	1,141,600	1,189,100	1,238,900	1,282,800	1,305,700	1,331,600
>Const. & Mining	30,800	48,800	35,800	54,000	53,000	52,000	55,700	62,900	70,400	79,400	83,300	83,400	84,700
>Trans., Comm. & Utilities	48,700	60,500	58,040	64,500	65,200	65,700	66,800	68,900	71,300	73,500	74,900	76,200	77,700
>Trade	162,000	255,600	269,680	313,100	314,300	318,700	328,900	344,100	357,000	365,900	377,500	383,400	387,900
>Finance, Ins. & Real Estate	36,000	70,000	69,360	80,300	83,200	86,000	84,600	87,800	87,200	91,000	94,800	95,200	95,400
>Services & Misc.	112,700	191,400	231,180	296,200	296,900	311,800	328,300	343,200	362,900	382,600	402,800	412,100	425,400
>Government	146,700	203,200	201,360	223,500	226,400	231,000	232,600	234,700	240,200	246,600	249,500	255,300	260,500

Table II. Resident Labor Force, Employment by Industry, Douglas County.

	1970	1980	Average 1984-88 Baseline	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Civilian Labor Force	27,630	41,780	43,306	45,520	44,660	42,310	43,010	43,990	43,280	44,490	45,150	45,880	45,240
Unemployment	2,490	5,180	4,204	3,820	4,490	5,050	5,070	3,920	3,480	3,980	3,960	4,260	4,220
Total Wage & Sal. Emp.	21,980	30,850	30,868	33,580	32,130	31,580	31,900	32,850	34,170	35,140	36,550	36,940	37,230
Total Manufacturing	8,990	9,430	9,892	9,990	8,870	8,000	7,910	7,980	8,340	8,450	8,850	8,500	8,060
>Lumber & Wood Prod.	7,490	7,600	8,240	8,230	6,920	6,020	5,970	6,020	6,070	6,110	6,310	6,270	6,360
>Other Manufacturing	1,500	1,830	1,652	1,760	1,950	2,980	1,940	1,960	2,270	2,340	2,540	2,230	1,700
Total Non-Manufacturing	12,990	21,420	20,976	23,590	23,270	23,580	23,990	24,880	25,830	26,690	27,710	28,440	29,180
>Const. & Mining	710	1,490	774	1,000	990	990	1,080	1,170	1,260	1,360	1,380	1,440	1,590
>Trans., Comm. & Utilities	1,030	1,300	1,480	1,720	1,560	1,500	1,500	1,520	1,540	1,590	1,620	1,670	1,620
>Trade	3,440	5,730	6,110	6,870	6,740	6,850	7,040	7,390	7,820	7,930	8,230	8,320	8,440
>Finance, Ins. & Real Estate	770	1,240	982	960	980	940	1,100	1,130	1,140	1,160	1,290	1,280	1,310
>Services & Misc.	2,400	4,600	5,206	6,050	5,960	6,240	6,480	6,800	6,810	7,020	7,320	7,700	8,020
>Government	4,640	7,060	6,430	7,000	7,030	7,050	7,020	6,870	7,260	7,630	7,880	8,030	8,200

New projects with possible effects on minority populations and/or low-income populations will incorporate an analysis of Environmental Justice impacts to ensure any disproportionately high and adverse human health or environmental effects are identified, and reduced to acceptable levels if possible.

Recreation

Extensive and Special Recreation Management Areas

<u>Resource Area</u>	<u>ERMA Acres</u>	<u>SRMA Name</u>	<u>Acres</u>
Swiftwater	219,243 acres	North Umpqua River Umpqua River	1,722 acres 2,240 acres
South River	200,673 acres	Cow Creek	1,710 acres

Visitor Use

Recreation visitors to Roseburg District BLM lands in fiscal year 2001: 401,017. (5.7% increase from fiscal year 2000)

Table 12. Developed Recreation Area Use Sites.

	No. of Visits
Susan Cr. Campground	9,700
Susan Cr. Day-Use Area	11,500
Susan Cr. Falls Trail	6,500
Rock Cr. Recreation Site	4,200
Millpond Recreation Site	6,200
Cavitt Cr. Recreation Site	4,200
Tyee Recreation Site	6,800
Scaredman Recreation Site	2,200
Swiftwater Day-use Area	68,500
Wolf Cr. Trail	2,300
Swiftwater Trailhead (No. Umpqua Tr)	10,500
North Bank Ranch	1,602
Lone Rock Boat Launch	1,200
E-mile Recreation Site	700
Osprey Boat Ramp	3,400
Miner-Wolf WW Site	900
Cow Cr. Rec. Gold Panning Area	515
Cow Cr. Back Country Byway	20,700
Island Day-Use Area	2,600
North Kiosk, Cow Creek BCB	800

Table 13. Undeveloped Recreation Area Use Statistics.

No. of Visits	
<u>Undeveloped Areas:</u>	
Dispersed No. Umpqua SRMA	4,300
Dispersed Umpqua River SRMA	11,200
Dispersed Cow Cr. SRMA	1,100
Swiftwater ERMA	62,500
South River ERMA	48,500

Recreation Trails Managed

8 Trails - 14.4 miles.

Permits Issued / Fees Collected

Recreation Use Permits (Campground Permits): 3,485
 Fees Collected: \$56,338

Recreation Use Permits (Pavilion Rentals): 45
 Fees Collected: \$2,875

Special Recreation Permits managed - 14

Fees Collected \$1,506 (Thirteen commercial outfitter guide permits on North Umpqua River (through cooperative management agreement with the Umpqua National), and one permit for a Car Rally at Millpond Recreation Site.

Table 14. Roseburg District Recreation Trails.

	Miles	Hiking	Horse back Riding	Disabled Access	River Frontage	Mountain Biking	Interpretive
Wolf Creek	1.2	X			X	X	
Rock Creek	0.3	X			X		
Susan Creek Picnic Trail	0.5	X			X	X	
Susan Creek Watchable Wildlife Trail	0.2	X		X	X	X	X
North Umpqua	11.0	X	X		X	X	X
Deadline Falls	0.1	X		X	X	X	X
Susan Creek Falls	0.8	X		X	X		
Miner-Wolf Creek	0.3	X		X	X		X

Off-highway Vehicle Designations Managed

Limited: 422,464 acres
 Closed: 3,124 acres
 Open: 0 acres

Active management efforts were concentrated at the Hubbard Creek OHV area, Sugar Pine Ridge, and South Deer Creek area. A variety of management efforts were made to patrol, clean, sign, and inventory the use areas. No citations were issued in 2001 for OHV related violations. Patrols were made and users were talked to by BLM law enforcement officers and recreation planners.

Partnerships and Volunteer Work

Twenty-one volunteer groups worked for BLM at recreation sites in 2001, including: Eagle Scout Candidates, Boy Scout Troops, Church Group, Individuals, Douglas County Inmates, Job Corps, and Campground Hosts.

Volunteer Work Completed:

- Trail maintenance: rocking, brushing, mulching and limbing.
- Revegetating recreation sites.
- Installing fences, barriers and safety railing. Splitting cedar rails for fencing
- Cleaning recreation sites and the North Umpqua River.
- Building and installing benches, picnic tables and horseshoe pits.
- Cutting and stacking firewood.
- Improving access to recreation sites.
- Repairing bridges and puncheons.
- Placing crushed rock in rec. pads and along campground roads.
- Performing duties assigned to campground hosts.
- Roadside cleanup.

Back Country Byways Managed

North Umpqua Scenic Byway - 8.4 (of 80 miles - Umpqua Natl. Forest)
 Cow Creek Back Country Byway - 20 (of 45 miles - Medford BLM)

Table 15. Fiscal year 2001 Volunteer Statistics.

Group	Hours volunteered	Value of work
All groups (excluding hosts)	3,527	\$ 30,764
Campground hosts	16,840	\$170,600
All groups total:	20,367	\$201,364

Table 16. Recreation Use Statistics, Permits and Fees Collected.

	1996	1997	1998	1999	2000	2001	Total
Number of Recreation Visits	321,345	347,580	360,100	370,900	378,318	401,017	1,778,243
Campground Permits Issued	3,528	3,363	3,597	3,204	3,294	3,485	17,257
Campground Fees Collected	\$46,649	\$57,015	\$51,050	\$50,400	\$50,400	\$56,338	\$256,278
Pavilion Use Permits Issued	30	26	34	34	26	45	150
Pavilion Use Fees Collected	\$1,665	\$520	\$1,810	\$1,900	\$2,200	\$2,875	\$8,095

Table 17. Partnership and Volunteers, Hours and Value.

Year	Partnerships	Hours volunteered	Value of work
1996	13	5,415	\$50,900
1997	16	12,924	\$121,500
1998	18	18,961	\$178,300
1999	21	18,670	\$182,217
2000	20	19,390	\$205,029
2001	21	21,367	\$201,364
Total	88	75,360	\$737,946

Recreation Projects Completed

Umpqua River Bank stabilization project at Tyee Campground.
 Wells drilled at Millpond Campground (2)
 Final projects for Reconstruction of Cavitt Cr. Falls Recreation Site (Sewer and Host Shelter)
 Slurry seal parking areas at Swiftwater Trailhead
 Hubbard Cr. OHV area patrols and sign installation
 Group BBQ grill constructed for Millpond pavilion
 Trail improvements completed on North Umpqua Trail
 Revegetation projects at Rock Creek, Tyee, and Cavitt Creek Falls
 Trail projects at Susan Creek complex (National Public Lands Day)
 Fence Repair and new sign placed at Susan Creek Indian Mounds

Hazard Tree Assessments Completed

Inventory and management (treatment) of hazard trees was conducted at Susan Creek Campground, Susan Creek Day-Use Area/ Falls Trail, Rock Creek Recreation Site, Millpond Recreation Site, Cavitt Creek Recreation Site, Scaredman Recreation Site, Tyee Recreation Site, and North Umpqua Trail at Swiftwater. Treatment consisted of limbing trees, removing tree tops, or felling trees.

Public Fatalities or Serious Injuries at BLM Recreation Sites.

None. (Minor injury: a 12 year-old girl cut her hand while climbing on a wire gabion basket along the Rock Creek river bank. She was transported by her parents to a local ER for five stitches.)

Status of Recreation Plans

North Umpqua Wild and Scenic River Management Plan - Completed June 1992.
 North Umpqua SRMA Recreation Area Management Plan - Completed 1988.
 Roseburg District Off-Highway Vehicle Implementation Plan - Completed 1997
 Cow Creek SRMA Recreation Area Management Plan - Completed 2001
 Umpqua River SRMA Recreation Area Management Plan - Not started.

Recreation Fee Demonstration Project

In March 1998, the Roseburg District received approval for its Recreation Pilot Fee Demonstration Project under the authority of Public Law 104-134, Section 315. This authority allows the retention and expenditure of recreation fees for operations and maintenance of recreation sites where the fees were collected. The pilot program has been extended through fiscal year 2004 with expenditure of funds required by end of fiscal year 2007. An account was established for deposit of fees for camping fees and pavilion rentals at

Susan Creek, Millpond, Rock Creek, Cavitt Creek, and Tyee Recreation Sites. The program also includes fees generated from special recreation permits.

In fiscal year 2001, \$61,068 was collected and deposits from fees, rentals and permits. \$18,322 was reinvested in the following:

Tyee Riverbank Stabilization, Construction of host shelter at Cavitt Cr. Falls, Well drilling at Millpond Recreation Site, Fence replacement at Susan Cr. Indian Mounds, Site renovations at Cavitt Cr. Falls Recreation Site, Septic work at Millpond and Eagleview Campgrounds.

Timber Sale Pipeline Restoration Funds

Twenty-five percent of these funds are dedicated to recreation backlog projects on O&C Districts of Western Oregon. The funds are intended to reduce infrastructure replacement or facility maintenance needs and resolve critical visitor safety or recreation management needs or issues identified in land use plans. Recreation site resource protection needs can also be met.

The recreation portion of these funds are directed toward backlog recreation projects. Total expenditure of recreation pipeline dollars in 2001 was \$11,000 for Engineering work on Eagleview Recreation Site.

Forest Management and 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 scheduled timber harvest. The Northwest Forest Plan and the Roseburg District Resource Management Plan (RMP) provide for a sustainable timber harvest, known as the Allowable Sale Quantity (ASQ), from Roseburg District administered public lands of 45 MMBF (million board feet) annually.

To meet the ASQ 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 activities.

Several factors have continued to cause the Roseburg District to fall short of producing the ASQ set forth in the Roseburg District RMP. The 9th Circuit Court of Appeals upheld Judge Rothstein's ruling in Pacific Coast Federation v. National Marine Fisheries Service (NMFS). This lawsuit invalidated numerous biological opinions written by NMFS for timber sales throughout the range of the Northwest Forest Plan. The Roseburg District was heavily impacted by this ruling and has been unable to proceed with regeneration harvest timber sales.

The survey and manage requirements of the Northwest Forest Plan and the Roseburg District RMP have also proven difficult to implement. Species that were thought to be rare and primarily present in late successional forest habitat have been found in many of the managed commercial thinning age stands that the district has been focusing on in response to Pacific Coast Federation v. National Marine Fisheries Service. It is expected that as more is learned about some of these S&M species, they will be determined to no longer need protection. Currently their presence has caused many of the planned thinning sales on the Roseburg District to be reduced in acreage, delayed or canceled.

As a result of these factors, the Roseburg District only auctioned two commercial thinning timber sales in fiscal 2001, for a total of 1.6 MMBF. An additional 1.1 MMBF was sold in small negotiated timber sales and modifications to active timber sales. The value of all timber

sold in fiscal 2001 was \$815,387.46. The monies associated with these timber sales is paid as timber is harvested over the life of the contract, which is three years or less. Timber sale collections for fiscal year 2001 from active harvesting was \$1,469,262.18 for Oregon and California Railroad and Public Domain (PD) Lands.

A separate lawsuit, The Oregon Natural Resources Council Action, et al. v. Forest Service and BLM was filed in the U.S. District Court of Western Washington. A settlement agreement was reached in this case. The impact of these lawsuits has caused an approximate two-thirds reduction region-wide in BLM timber sales offered in fiscal year 1999 and fiscal year 2001.

In the Roseburg District, pending resolution of the appeal to the Ninth Circuit, the impacts have been much larger. The District offered 1.4 MMBF in fiscal year 2000. No timber sale auctions were held in fiscal year 2001. Seven negotiated sales of minor volume were sold. The value of these negotiated sales was \$220,994. The monies associated with these timber sales is paid as the timber is harvested over the life of the contract, which is generally three years. Timber sale collection for fiscal year 2000 from active harvesting was \$8,829,758 for Oregon and California Railroad Lands (O&C) and for Public Domain Lands (PD).

Below is a summary by land use allocation of timber sale volumes 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 fiscal year 1996-2000 received a regeneration harvest that were less than the culmination of mean annual increment age of 80-110 years.

Silviculture Activities

Data is for contracts awarded after October 1, 1995. Data is displayed by fiscal year of contract award and does not necessarily correspond with the year the project was actually accomplished.

Brush field Conversion - To date no acres have undergone conversion. It is not expected that any attempt would be made unless herbicides were available as a conversion tool.

Table 18. Summary of Volume Sold

Sold ASQ/Non ASQ Volume	FY95-98 ¹	FY99-01	FY95-01 Total	FY95-01 ² Declared ASQ
ASQ Volume - Harvest Land Base	144.9	12.7	157.7	317.7
Non ASQ Volume - Reserves	15.2	1.6	16.8	n/a
Total	160.1	14.3	174.5	n/a
Sold Unawarded (as of 09/30/01) ³ ASQ/Non ASQ Volume	FY95-98 ¹	FY99-01	FY95-01 Total	
ASQ Volume - Harvest Land Base	54.4	4.9	59.4	
Non ASQ Volume - Reserves	8.0	0.4	8.4	
Total	62.4	5.3	67.7	

¹ Third Year Evaluation - Figure V12-1 plus volume sold in FY95 prior to signing of the RMP

² Declared annual ASQ times 7. Coos Bay & Eugene FY95-98 ASQ times 4 + FY99-01 ASQ times 3

³ Sold Unawarded sales which have been resold but are still Unawarded tallied for original FY sold

Table 19. Volume and Acres Sold by Allocations

ASQ Volume (Harvest Land Base)	FY95-98 ³	FY99-01	FY95-01 Total	Decadal Projection
Matrix	138.6	12.7	151.3	424.0
AMA	6.3	0.1	6.4	29.9
ASQ Acres (Harvest Land Base)	FY95-98 ³	FY99-01	FY95-01 Total	Decadal Projection
Matrix	5,541	620	6,160	13,588
AMA	358	2	360	903
Key Watershed ASQ Volume (Harvest Land Base)	FY95-98 ⁴	FY99-01	FY95-01 Total	Decadal Projection
Key Watersheds	39.6	3.8	43.4	87.7

³ Third Year Evaluation - Figure 12-7 plus volume sold in FY95 prior to signing of the RMP

⁴ Third Year Evaluation - Figure 12-8 plus volume sold in FY95 prior to signing of the RMP

Table 20. Sales Sold by Harvest Types

ASQ Volume (Harvest Land Base)	FY95-98 ⁵	FY99-01	FY95-01 Total	Decadal Projection
Regeneration Harvest	115.1	2.4	117.5	435.3
Commercial Thinning & Density Management	17.1	6.3	23.4	18.6
Other	10.0	1.7	11.7	0.0
Total	142.3	10.4	152.6	453.9
ASQ Volume (Harvest Land Base)	FY95-98 ⁵	FY99-01	FY95-01 Total	Decadal Projection
Regeneration Harvest	3,127	53	3,179	11,991
Commercial Thinning & Density Management	1,613	380	1,993	32,499
Other	780	171	950	
Total	5,520	603	6,123	14,490
Reserve Acres	FY95-98 ⁶	FY99-01	FY95-01 Total	
Late-Successional Reserves	659	29	688	
Riparian Reserves	533	49	582	
Total	1,192	77	1,270	

⁵ Third Year Evaluation Figure 12-4 plus volume sold in FY95 prior to signing of the RMP

⁶ Third Year Evaluation Section 12-F - Harvest from Reserves plus acres sold in FY95 prior to signing of the RMP

Table 21. Sale Acres Sold by Age Class

Regeneration Harvest (Harvest Land Base)	FY95-98 ⁵	FY99-01	FY95-01 Total	Decadal Projection
0-70	101	6	107	0
80-140	1,173	17	1,190	4,660
150-190	318	0	318	3,141
200+	1,534	30	1,564	4,190
Total	3,127	53	3,179	11,991

Density Management, Commercial Thinning and Other (Harvest Land Base)	FY95-98 ⁵	FY99-01	FY95-01 Total	Decadal Projection
0-70	1,632	322	1,954	2,059
80-140	399	84	483	440
150-190	113	7	120	0
200+	249	138	386	0
Total	2,393	551	2,944	2,499

⁵ Third Year Evaluation Figure 12-4 plus volume sold in FY95 prior to signing of the RMP

Table 22. Roseburg District Timber Sale Volume and Acres.

	1995	1996	1997	1998	Fiscal Year 1999	2000	2001	1995-2001 Total	RMP/EIS 1995-2001 Annual Average	Assumed Annual Average	Percent of Assumed Average
MBE											
Total Timber Sale Volume	17,624	45,993	51,783	44,726	10,135	1,473	2,723	174,455	24,922	49,500	50%
Matrix Timber Sales	17,004	41,055	42,692	37,887	9,416	1,190	2,071	151,315	21,616	45,000	48%
GFMA Regeneration Harvest	13,285	32,172	27,575	24,786	1,055	-39	0	98,835	14,119		
GFMA Commercial Thinning	1,657	3,016	2,907	3,451	4,022	166	1,794	17,013	2,430		
GFMA Salvage & ROW	323	1,817	3,516	1,446	438	477	277	8,295	1,185		
C/D Block Regeneration Harvest	1,130	629	5,123	5,869	1,353	0	0	14,104	2,015		
C/D Block Commercial Thinning	457	2,978	3,455	1,739	2,059	166	0	10,854	1,551		
C/D Block Salvage	153	442	117	597	488	586	0	2,381	340		
RR Density Management	24	2,424	2,175	811	395	55	2	5,886	841		
RR Salvage	245	55	3	236	140	18	1	698	100		
LSR Density Management	63	102	1,728	5,559	151	0	0	7,603	1,086		
LSR Salvage	204	1,162	266	123	33	210	595	2,593	370		
Total All Reserves	536	3,743	4,172	6,728	719	282	598	16,779	2,397	4,500	53%
Key Watersheds Matrix Timber Sales	25	8,439	18,392	12,767	2,351	681	791	43,445	6,206	8,700	71%
Little River AMA All Harvest Types	0	1,033	4,682	30	0	0	0	5,745	821	4,600	18%
Little River AMA Salvage	83	162	236	81	0	0	54	616	88		
Total AMA Timber Sales	83	1,195	4,918	111	0	0	54	6,361	909		
Acres											
Total Regeneration Harvest	386	906	836	800	56	0	0	2,984	426	1,190	36%
Total Commercial Thinning	113	426	568	536	411	2	87	2,143	306	250	122%
Total Density Management	2	216	301	483	38	0	0	1,040	149		
GFMA Regeneration Harvest	354	866	713	649	20	0	0	2,602	372		
GFMA Commercial Thinning	69	197	267	361	209	2	87	1,191	170		
GFMA Salvage & ROW	30	47	289	125	16	16	13	535	76		
C/D Block Regeneration Harvest	32	40	123	151	36	0	0	382	55		
C/D Block Commercial Thinning	44	229	301	175	203	0	0	952	136		
C/D Block Salvage	20	35	25	52	16	4	0	151	22		
RR Density Management	0	216	188	97	38	0	0	539	77		
RR Salvage	8	4	0	20	9	1	1	43	6		
LSR Density Management	2	0	113	386	0	0	0	501	72		
LSR Salvage	21	96	33	8	2	9	18	187	27		
Total All Reserves	31	316	334	511	49	10	19	1,270	181		
Little River AMA Regeneration Harvest	0	0	68	0	0	0	0	68	10		
Little River AMA Commercial Thinning	0	94	134	0	0	0	0	228	33		
Little River AMA Salvage	10	9	36	7	0	0	2	64	9		

GFMA, C/D Block & AMA Commercial Thinning totals include all intermediate harvest types
 LSR & RR Density Management totals include all intermediate harvest types
 Salvage totals also include timber sales designated as Right of Way (ROW) harvests

Figure 1. Annual Timber Sale Volumes Compared to RMP Projected Harvest Level

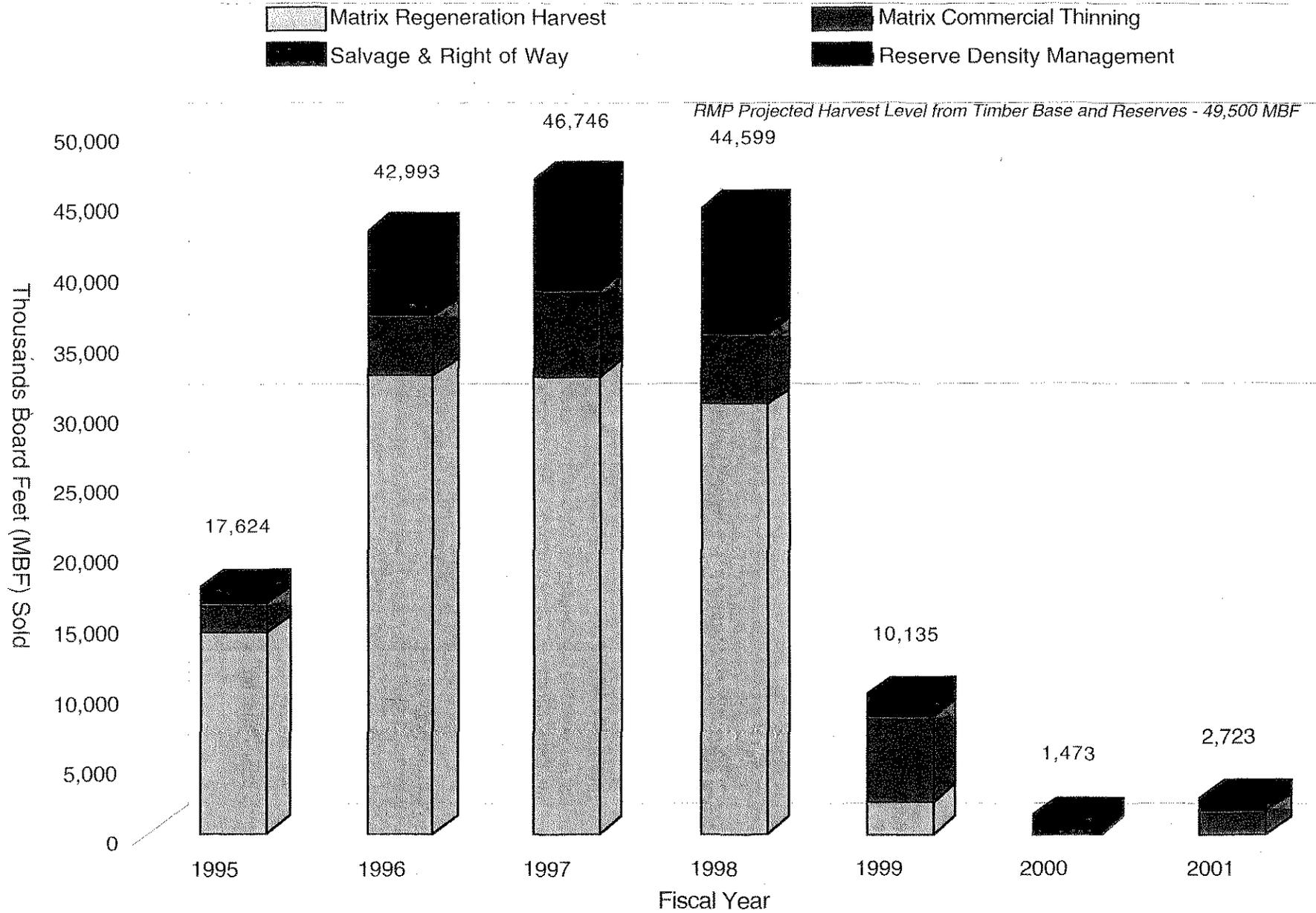
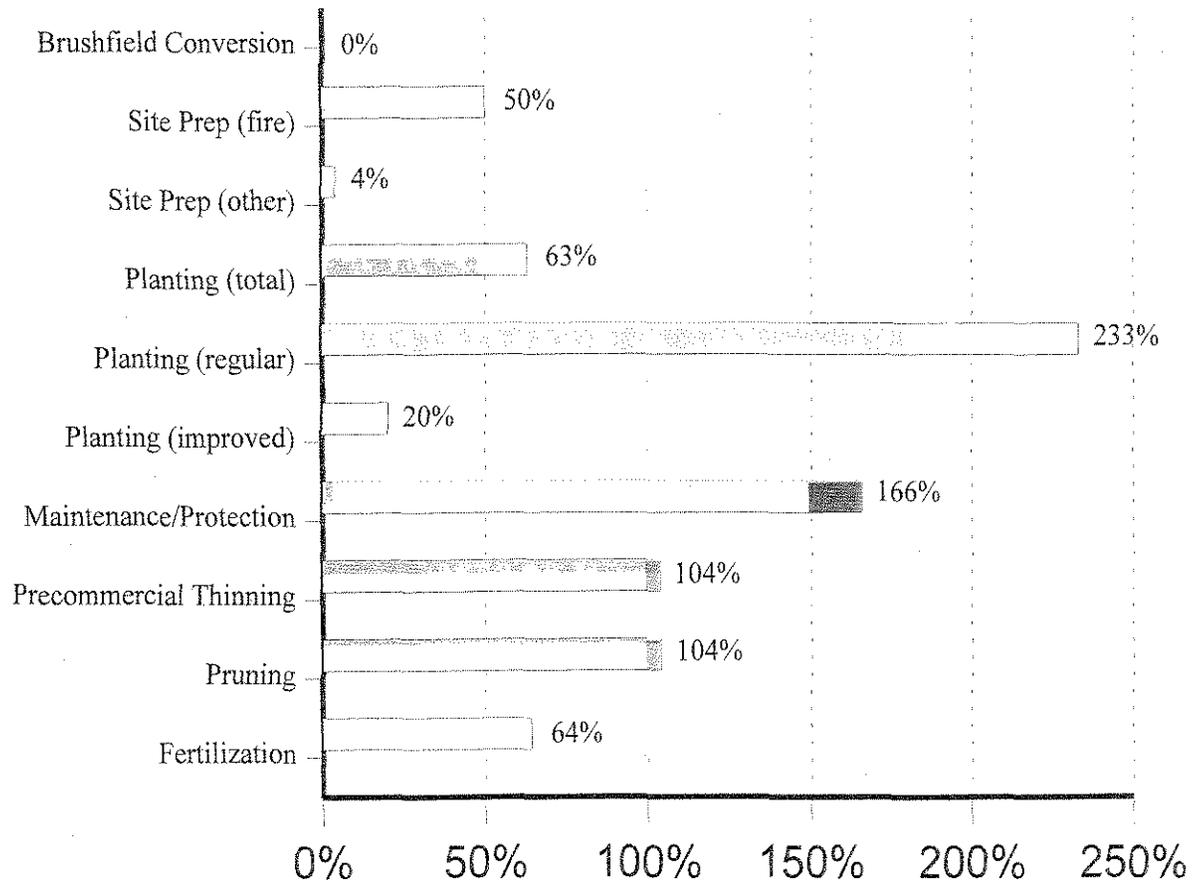


Table 23. Roseburg District Forest Development Activities.

	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01	Totals	Average Annual	Planned Annual	Differences Actual-Planned
Brushfield Conversion	0	0	0	0	0	0	0	0	15	(90)
Site Preparation (fire)	304	841	151	420	489	323	2,528	421	840	(2,512)
Site Preparation (other)	0	0	0	0	0	13	13	2	50	(287)
Planting (total)	1,006	845	1,229	628	1,060	647	5,415	903	1,430	(3,165)
Planting (regular)	819	665	1,072	196	788	509	4,049	675	290	2,309
Planting (improved stock)	187	180	157	432	272	138	1,366	228	1,140	(5,474)
Maintenance/Protection	2,224	1,525	1,350	1,082	1,441	663	8,285	1,381	830	3,305
PCT	3,633	3,813	4,363	2,315	4,840	5,423	24,387	4,065	3,900	987
Pruning	363	856	959	146	169	364	2,857	476	460	97
Fertilization	0	4,411	1,093	0	0	0	5,504	917	1,440	(3,136)
Reforestation Surveys	14,563	10,736	10,830	18,472	10,048	11,487	76,136	12,689	11,750	5,636

Data is for forest development contracts awarded after October 1, 1995. Data is displayed by fiscal year of contract award and does not necessarily correspond with the year the project was actually accomplished.

Figure 2. Forest Development Accomplishments as a Percent of RMP Assumption



Site Preparation (FIRE) - The number of acres prepared with prescribed fire, both broadcast treatment and pile treatment is about 50% of planned. A continued decline in trend is likely to continue due to less than expected levels of regeneration harvest and other resource concerns.

Site Preparation (OTHER) - The number of acres prepared with alternative site preparation techniques is about 4% of planned. Factors affecting this activity are the same as for prescribed fire.

Planting (regular stock) - Total planted acres without regard to genetic quality is at 63% of RMP assumed levels due to lack of planned RMP levels of timber harvest. Reforestation with genetically unimproved planting stock is 233% of planned.

Planting (improved stock) - In fiscal year 2001, 26% of the acres reforested were planted with genetically improved stock. 21% of the acres planted were in the GFMA land use allocation. Only GFMA acres count towards RMP monitoring goals since genetic improvement is assumed to contribute to ASQ only when done on GFMA acres. A phase in period for use of genetically improved Douglas fir of 3 to 4 years was assumed to allow for older sales outside the GFMA land use allocation to be reforested and for seed orchards to reach production.

Planning for production of genetically improved stock has proved difficult due to the uncertainty of timber harvest timing. Seed must be sown one to three years prior to actual need. Due to decline in timber harvest overall and uncertainty in harvest timing, it is likely that this target will be approximately 20-40% of RMP levels by the end of the decade.

Maintenance/Protection - Acres of maintenance/protection treatments is currently double of that assumed for the first three years. The ratio of maintenance/protection to reforested acres was highest in fiscal year 1996 and has declined dramatically each year since. In fiscal year 1996 the ratio was 2.2 to 1. In fiscal year 2001 the ratio was at 1.0 to 1. The average ratio for the RMP period is 1.5 to 1 and is expected to decline further. It is anticipated that at this rate, assumed RMP levels would be exceeded by 40-50%.

Precommercial Thinning (PCT) - Currently PCT is at assumed RMP levels. It is expected that at a minimum this level will be maintained over the decade. There is a potential to exceed this level if funding levels were to increase but the magnitude is unknown at this time. This practice is highly dependent on increasing budget levels.

Pruning - Currently pruning accomplishments are at assumed RMP levels. Depending on funding this trend could continue. At a minimum it is expected that RMP levels will be met. This practice is also highly dependent on increasing budget levels.

Fertilization - Currently fertilization accomplishments are about 64% of assumed RMP levels. There is the potential to exceed planned RMP levels by about 20% if funding is available. However, implementation of fertilization is currently delayed by an appeal of the proposed action.

Forest development, reforestation, silvicultural and timber stand improvement practices were accomplished in fiscal year 2001 through contracts valued at approximately \$1,018,000.

Special Forest Products

In addition to the advertised timber sales described above, the district sold a variety of special forest products as shown in Table 14. The sale of special forest products follow the guidelines contained in the Oregon/Washington Special Forest Products Procedure Handbook. There are no estimates or projections in the RMP ROD or FEIS that need to be compared to the sold quantities shown.

In general, the Roseburg District has been able to meet public demand for special forest products, with the exception of firewood for home heating. Firewood has been generated almost exclusively from logging residues in recent years. With the reduction in regeneration harvest the district has experienced, there has been very little opportunity to provide firewood.

Noxious Weeds

The Roseburg District continues to survey BLM administered land for noxious weeds by conducting noxious weed inventories and pre-project surveys. 6,510 acres were inventoried in 2001. Priority infestations are reported to the Oregon Department of Agriculture (ODA) and the District cooperates with ODA to control those infestations.

One objective of the noxious weed program is to contain or reduce noxious weed infestations using an integrated pest management approach. Integrated pest management includes manual, mechanical, biological and chemical methods which are used in accordance with BLM's Records of Decision for the 1986 Northwest Area Noxious Weed Control Program Environmental Impact Statement, the 1987 Northwest Area Noxious Weed Control Program Environmental Impact Statement Supplement and the 1995 District Integrated Weed Control Plan Environmental Assessment. All noxious weed control methods are compatible with the Aquatic Conservation Strategy objectives. 520 acres of treatments were monitored. See Table 22 for noxious weed control summary.

Although no new biological control agent releases were made in 2001, biological control agents are established on 14 noxious weed species throughout the Roseburg District. Biological controls are present on: Bull Thistle, Canada thistle, Gorse, Italian thistle, Meadow knapweed, Milk thistle, Poison hemlock, Purple loosestrife, Rush skeletonweed, Scotch broom, Slender-flowered thistle, St. Johnswort, Tansy ragwort and Yellow starthistle. No efforts have been made to quantify the extent or level of control achieved by these agents.

Another objective of the program is to avoid introducing or spreading noxious weeds. To achieve this, pre-project weed treatments are being conducted, contractors are required to clean their off-road equipment prior to moving those onto BLM lands and fire and road maintenance equipment are pressure washed.

In addition to noxious weeds, there are some non-native plants that have become invasive. To prevent their spread and minimize damage to native plant communities, manual control of five invasive species was conducted. The species controlled were: Malta starthistle (*Centaurea melitensis*), four acres; Spurge laurel (*Daphne laureola*), two acres; Parrot's feather (*Myriophyllum aquaticum*), Periwinkle (*Vinca major*) and Black locust (*Robinia pseudoacacia*), all less than one acre each.

Table 24. Special Forest Products

Product	No. of Contracts						Quantity Sold						Value \$					
	FY96	FY97	FY98	FY99	FY00	FY01	FY96	FY97	FY98	FY99	FY00	FY01	FY96	FY97	FY98	FY99	FY00	FY01
Boughs-Coniferous (lbs)	183	104	96	80	47	50	164,850	96,700	76,600	67,500	38,002	47,100	3,297	1,948	1,572	1,350	\$780	\$993
Burls & misc. (lbs.)	9	10	15	1	15	14	12,900	20,200	35,275	300	24,550	29,300	505	816	1,411	12	\$994	\$1,014
Christmas Trees (ea.)	266	245	217	159	231	283	266	245	217	159	231	283	1,375	1,225	1,085	795	\$1,155	\$1,415
Edibles & Medicinals (lbs.)	3	3	0	1	0	4	1,578	1,800	0	200	0	2,000	70	72	0	10	\$0	\$100
Floral & Greenery (lbs.)	120	128	89	161	57	65	69,120	83,100	48,525	96,136	32,300	31,450	3,458	4,019	3,305	4,745	\$1,383	\$2,015
Mosses - Bryophytes (lbs.)	3	4	4	0	0	11	6,333	1,998	0	1,833	0	30,500	150	60	05	5	\$0	\$1,220
Mushrooms - Fungi (lbs.)	56	50	25	20	2	55	1,572	2,524	1,048	875	1,200	1,676	393	631	262	218	\$300	\$438.75
Transplants	7	2	1	1	28	1	560	450	20	140	50	10	480	350	5	14	\$20	\$10
Wood Products/Firewood (bf)	210	460	197	219	281	250	267,960	600,574	352,729	63,944*	214,496*	59,636	49,111	74,436	73,901	53,230	\$36,151.19	\$19,366.51
Totals	857	1,006	640	722	661	733					58,839		83,557	87,541	60,379	\$40,783.19		\$26,608.26

* cu. ft.

Table 25. Noxious Weed Control Summary.

Treatment	Species	Fiscal Year						
		95	96	97	98	99	00	01
Manual/ Mechanical	English ivy	-	-	-	-	-	-	2
	Gorse	1	1	1	1	1	1	0
	Himalayan blackberry	-	-	-	-	-	0	37
	Meadow knapweed	0	0	0	0	0	7	1
	Portuguese broom	-	-	-	-	4	(5)	2
	Purple loosestrife	0	0	0	0	0	1	2
	Rush skeletonweed	1	1	0	1	1	85	66
	Scotch broom*	180	90	8	453	400	296	146
	Sulfur cinquefoil	-	-	-	-	1	1	1
	Tansy ragwort	0	0	0	6	1	0	0
	Thistles	0	0	0	152	50	2	6
	Yellow starthistle	1	21	20	1	1	12	25
	Woolly distaff thistle	0	0	0	1	1	1	1
Chemical	Diffuse knapweed	3	3	3	1	1	3	3
	Field bindweed	0	0	0	0	0	0	3
	Gorse	0	0	0	0	0	0	1
	Himalayan blackberry	-	-	-	-	-	2	1
	Portuguese broom	0	0	0	0	(35)	(35)	1
	Scotch broom*	0	0	0	38	66	199	559
	Thistles	0	0	0	5	5	0	0
	Yellow starthistle	0	1	1	1	1	1	3
Biological	Scotch broom	0	0	0	0	1	2	0
	Yellow starthistle	0	5	0	1	0	0	0
Total		185	122	31	670	534	615	860

*Scotch Broom includes one acre or less of French and Spanish broom.
The acres in parentheses were overlapping with and counted as Scotch broom treatment.

Fire and Fuels Management

Under the RMP a greater amount of prescribed fire has been done through piling. Prescribed burning prescription target spring-like conditions when log fuel, duff and litter consumption and smoldering is reduced by wetter conditions and rapid mop up. Prescribed burning is implemented to improve seedling plantability and survival, reduce brush competition and reduce fuels. Prescribed fire is also used for habitat restoration or improvement. Under the RMP to date, prescribed fire for habitat purposes has been planned but not yet implemented.

During fiscal year 2001 there were 42 red carded personnel on the Roseburg District.

Fire/Fuels Management

June to September 1995

Prescribed Fire: 332 acres
 On district wildfires: 9 fires for a total of 1.95 acres - all lightning caused
 Off district wildfires: 13 district personnel accepted assignments to 12 fires.

Fiscal Year 1996

Prescribed Fire: 304 acres
 On district wildfires: 21 fires for a total of 15.17 acres - 17 were caused by lightning, 4 were human caused
 Off district wildfires: 57 district personnel accepted assignments to 35 fires.

Fiscal Year 1997

Prescribed Fire: 872 acres
 On district wildfires: 4 fires for a total of 1.61 acres; all were human caused.
 Off district wildfires: No district personnel were assigned to any off district fires in 1997. One employee was detailed to the Redmond Hot Shots during 1997.

Fiscal Year 1998

Prescribed Fire: 161 acres
 On district wildfires: 21 fires for a total of 13.27 acres - 19 were lightning caused and 2 were human caused
 Off district wildfires: 28 district personnel accepted assignments to 27 wildfires

Fiscal Year 1999

Prescribed Fire: 198 acres
 On district wildfires: 3 fires for a total of 3.57 acres - 2 were lightning caused and 1 was human caused
 Off district wildfires: 66 district personnel accepted assignments to 29 wildfires

Fiscal Year 2000

Prescribed Fire: 530 acres (also assisted Umpqua NF, Diamond Lake RD prescribed fire program with 3 people, 1 engine and 1 palm Ir)
 On district wildfires: 4 fires for a total of 2.37 acres - 2 were lightning caused and 2 were human caused
 Off district wildfires: 73 district personnel accepted assignments to 43 wildfires, including 11 engines and 5 Probeye/Palm Ir's. Personnel served in Washington, Montana, Colorado, Wyoming, Utah and New Mexico.

Fiscal Year 2001

Prescribed Fire: 371.5 acres (assisted the Umpqua National Forest / Tiller Ranger District with the loan of 1 probeye and Coos Bay BLM with 1 Type 3 engine)

On district wildfires: 11 fires for a total of 2.76 acres - 9 were lightning caused and 2 were human caused (Lightning - 2.65 acres, Human - .11 acres)

Off district wildfires: 143 people, 25 engines, 12 Probeye/Palm Ir's, and 3 pumps; 10 cubies and 4 pickups were assigned to 43 wildfires.

Oregon - 105 people, 25 engines, 10 probeyes/Palm Ir's
 Washington - 19 people, 2 probeyes/Palm Ir's
 Montana - 6 people
 Nevada - 5 people
 Idaho - 4 people
 Wyoming - 2 people
 California - 1 person
 New York - 1 person

Total, June 1995-September 2001

Prescribed Fire: 2,769 acres
 On district wildfires: 72 fires for a total of 43 acres - 48 were lightning caused and 15 were human caused
 Off district wildfires: 380 district personnel accepted assignments to 189 wildfires across the United States.

Access and Rights-of-Way

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. Additional rights-of-way have been granted or renewed for the construction of driveways, utility lines for servicing residences, domestic and irrigation water pipelines, legal ingress and egress, and communication sites.

A Transportation Management Plan has been developed to provide goals, objectives and guidelines for the district. The district is currently developing Transportation Management Objectives. The Transportation Management Plan will become final when the objectives are completed. The road system is being managed in accordance with both the Transportation Management Plan objectives and the Aquatic Conservation Strategy Objectives which are delineated in the Roseburg District Resource Management Plan.

Table 26. Access and R/W Five Year Summary.

	R/W Permit	R/W Reciprocal Agreement Assignment
Fiscal Year 1996	9	5
Fiscal Year 1997	14	3
Fiscal Year 1998	10	8
Fiscal Year 1999	15	4
Fiscal Year 2000	16	7
Fiscal Year 2001	3	5
Total	67	32

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 700 miles of road in fiscal year 2001 and ten bridges. In addition, the road maintenance crew completed over 70 special requests from the resource areas, four storm damage projects, subsoiling and extensive roadside brushing.

Energy and Minerals

The Formosa Abandoned Mine Land (AML) site is an abandoned copper and zinc mine located at Silver Butte and encompasses approximately 76 acres of steep mountainous terrain. The mine operated in the early 1900's, with the majority of production occurring between 1927 and 1933. Formosa mine was reopened by Formosa Explorations, Inc. in 1990. Formosa operated the mine from 1990 to 1993 and produced copper and zinc ore at a rate of 350-400 tons per day. The Oregon Department of Geology and Minerals Industries (DOGAMI) issued a permit for the mining activities and required Formosa to establish a reclamation bond prior to beginning operations.

Upon closure of the mine in 1994, DOGAMI required Formosa to conduct mine reclamation activities using the \$1 million bond. After Formosa spent most of the bond money and satisfied most of DOGAMI's reclamation requirements, the company declared bankruptcy. In the winter of 1995-1996, the drainfield from the adits failed and began releasing acid mine drainage (AMD) to Middle Creek and South Fork Middle Creek, habitat for threatened Oregon coast salmon and Oregon coast steelhead. In addition, these streams are tributaries of Cow Creek from which the city of Riddle obtains its primary source of water.

Post reclamation monitoring of South Fork Middle Creek and Middle Creek indicates that 18 stream miles have been impacted from metals contamination associated with AMD (primarily cadmium, copper, lead and zinc) from the Formosa mine site. The majority of mine workings are located on private land owned by Formosa. The second adit discharges on land managed by the Roseburg District. Based on this situation, the DEQ and BLM have determined that this project is a high priority for further action.

In fiscal year 2000, the Roseburg District issued an action memorandum to approve time-critical Removal Actions at the Formosa Abandoned Mine Land site by the Department of Environmental Quality. The Roseburg District has the authority for this action under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

The proposed interim Removal Actions include capping and encapsulating to prevent infiltration of rain water into tailings which may contribute to Acid Mine Drainage (AMD) discharge into South Fork Middle Creek, and treating AMD from the Formosa and Silver Butte adits by routing the drainage through a pipeline into a limestone channel and then into an anaerobic treatment cell. The objective of these actions is to reduce metals loadings to approximately 18 miles of stream to below toxic thresholds for aquatic organisms.

The action memorandum is consistent with the standard format used by the U.S. Environmental Protection Agency (EPA) for time-critical removal actions under the National Contingency Plan (NCP). The removal actions are being coordinated by the Oregon Department of Environmental Quality in cooperation with the BLM.

Table 27. Roseburg District Mining Related Activities.

	1996	1997	1998	1999	Fiscal Year 2000	2001
Plan of Operation	1	0	0	0	0	0
Mining notices received & Reviewed	11	1	2	5	5	0
Mining claim compliance inspections	106	116	48	36	22	22
Notices of non-compliance issued	8	0	0	0	0	0
Community pit inspections	54	47	35	22	39	95

During fiscal year 1996-1998 work was performed in rehabilitation of Middle Creek and the Mighty Fine Mine.

Land Tenure Adjustments

No land exchanges occurred during fiscal year 2001. One real property acquisition totaling one acre was consummated to locate a kiosk information site for the Cow Creek Back County Byway. The district resolved eight unauthorized uses including occupancy and dumping trespasses. The application the district submitted in 1999 to withdraw four recreation sites was formally approved during fiscal year 2000. Five leases/permits were issued.

Hazardous Materials

The BLM approach to hazardous materials management on public lands (1) seeks to prevent the generation and acquisition of hazardous materials; (2) is intended to reduce the amounts and toxicity of wastes generated; (3) provides for the responsible management of waste materials in order to protect the natural resources, as well as the people who live, work on and use BLM administered lands; and (4) provides for aggressive cleanup and restoration of BLM lands that are contaminated by hazardous waste materials.

In 2001 a Compliance Assessment for Safety, Health and the Environment (CASHE) was conducted on all district facilities. This assessment provided the district with a list of findings and recommendations to bring the district into compliance with Federal, State, and local environmental and hazardous materials regulations. This is the second CASHE audit in 4 years and most of the findings and recommendations were minor and were corrected in 2001.

All hazardous materials incidents on public lands are handled in accordance with the Roseburg District Contingency Plan for Hazardous Materials Incidents, which is consistent with Federal and State regulations. The following table shows the number of incidents requiring response for fiscal year 1999, fiscal year 2000, and fiscal year 2001.

Table 28 Hazardous Material Incidents Requiring Response

Fiscal Year	Incidents Requiring Response
1997	2
1998	3
1999	3
2000	2
2001	1

Coordination and Consultation

Federal Agencies

During the period of June 1995 through September 2001, significant cooperation and coordination between federal agencies has taken place. There is ongoing participation in the Southwest Oregon Provincial Executive Committee and Southwest Oregon Provincial Advisory Committee. There have been many very significant and involved interagency efforts that have included the Roseburg District BLM, US Fish and Wildlife Service, US Forest Service, National Marine Fisheries Service, Environmental Protection Agency, US Geological Survey, National Resource Conservation Service, and Bonneville Power Administration on projects such as watershed analysis, late-successional reserve assessments, the Little River Adaptive Management Area, water quality projects, transmission lines, etc. In addition, personnel from several of these agencies have been involved in project level planning, conflict resolution and Section 7 consultation under the Endangered Species Act. Significant federal agency coordination and cooperation has occurred through the Regional Interagency Executive Committee and the Regional Ecosystem Office established under the Northwest Forest Plan. Under the Northwest Forest Plan, interagency cooperation and coordination has proceeded at an unprecedented level.

State of Oregon

The Roseburg District has continued its long term working relationship with Oregon Department of Forestry, Oregon Department of Fish and Wildlife, State Historic Preservation Office, and the Oregon Department of Environmental Quality. These relationships cover diverse activities from timber sale planning to fish habitat inventory, from water quality monitoring to hazardous material cleanup and air quality maintenance to wildfire suppression. The development of the North Bank Habitat Management Area environmental impact statement was accomplished in cooperation with Oregon Department of Fish and Wildlife.

Counties

The Roseburg District is located primarily within Douglas County, with a small amount of acres of Roseburg District BLM-administered lands in Lane County and Jackson County. There is frequent communication between the Roseburg District and county commissioners and other county staff. This communication involves BLM proposed projects, county projects, which may effect county lands, water quality issues and other issues. County commissioners receive copies of all major publications, project updates, and project proposals.

Cities

The Roseburg District has memorandums of understanding with the cities of Drain, Riddle, and Canyonville. The objective of these agreement is to maintain the best water quality through Best Management Practices. A Special Land Use Permit has been issued to the City of Myrtle Creek for watershed protection which includes the city intake and the adjoining 190 acres.

Tribes

Tribes are represented on the Southwest Oregon Provincial Interagency Executive Committee which coordinates activities within the province. The district contacts tribes directly for the coordination of many projects.

Watershed Councils

The Roseburg District is involved and supports the Umpqua Watershed Council and is represented on the Council's Technical Advisory Committee. The Council is involved in projects such as the Umpqua Basin Assessment, and fisheries and water quality issues.

Other Local Coordination and Cooperation

The Roseburg District has a partnership with Umpqua Training and Employment to sponsor students from Wolf Creek Job Corps in their "Mentor" program. The district has hosted Resource Apprentices funded by Umpqua Training and Employment. The district has participated as one of six partners with the Oregon Youth Conservation Corps project. The district has coordinated and contracted for work provided by the Northwest Youth Corps. Other partnerships include a Girl Scouts day camp at Millpond Recreation Site, hosts to members of Experience International and Apprentice in Science and Engineering.

The district developed and activated a significant telephone dial-up information line offering information to the public regarding fire levels and closures, road closures, recreation, campgrounds, pavilions, the Little River Adaptive Management Area, fire wood lots, timber sales, the Annual Program Summary and Monitoring Report, and seasonal programs such as Earth Day activities and Christmas tree cutting. The Roseburg District has sponsored Public Lands Day in which 26 partners and 360 volunteers participated.

Third Year Plan Evaluation

On July 31, 2001, the Oregon/Washington State Director, Bureau of Land Management (BLM), released the following findings based on the Third Year Evaluation of the Resource Management Plan for the Roseburg District. The period evaluated was 1995-1998.

Based on this plan evaluation which included information through fiscal year 1998, I find that the Roseburg District Resource Management Plan goals and objectives are being met or are likely to be met, and that the environmental consequences of the plan are similar to those anticipated in the Resource Management Plan Final Environmental Impact Statement and that there is no new information, as of September 30, 1998, that would substantively alter the Resource Management Plan conclusions. Therefore, a plan amendment or plan revision of the Roseburg District is not warranted. This document meets the requirements for a plan evaluation as provided in 43 CFR 1610.4-9.

A Plan Evaluation Findings Document and the Supporting Document are available, free of charge, upon request.

Research and Education

In October 1995, BLM management identified Northwest Forest Plan implementation as the agency's top national priority. Over the next decade, the BLM will be focusing Northwest Forest Plan research in three primary areas: 1) additional dimensions of young forest stand biodiversity; 2) work on determining appropriate riparian buffer widths; whether management actions in riparian reserves can be conducted without compromising Northwest Forest Plan Aquatic Conservation Strategy Objectives including protection of Pacific salmon; and 3) work on Survey and Manage species.

A long term (15 years plus) western Oregon wide density management study was initiated in 1997 by the Roseburg District in cooperation with the United States Geological Service (USGS) Forest and Rangeland Ecosystem Science Center (FRESC). Three study sites are located on the Roseburg District. The study was established to explore techniques to accelerate development of young stands into late-successional forest structures through active management. The first post treatment data collection effort was completed in fiscal year 2000 for the two sites which have been harvested to date. The study contains components examining vegetation response, effects of treatments on micro-climate and micro-habitat, aquatic vertebrates, lichens and bryophytes. These sites also serve as demonstration areas for educational purposes.

The Roseburg District participated with USGS FRESC in a review of past precommercially thinned stands to evaluate whether thinning treatments at younger ages (less than 20 years old) are adequate to encourage the development of more diverse forest, or if adjustments to

current practices are warranted. The results of this review were described in an unpublished paper titled, "Young Stand Study Report".

In fiscal year 1998, the Roseburg District contracted with the USGS, Water Resources Division to conduct a literature review and field study of fertilization effects on the aquatic ecosystem in the Little River Adaptive Management Area. The draft literature review was n the review process at the end of fiscal year 2000.

This research is compliments the work being undertaken to implement the Cooperative Forest Ecosystem Research (CFER) program the BLM has developed with Biological Resources Division, US Geologic Survey, Oregon State University, and Forest and Rangeland Ecosystem Science Center (FRESC), US Geologic Survey. The CFER program was initiated in June 1995. The intent of the program is to develop and convey reliable scientific information needed to successfully implement ecosystem-based management in the Pacific Northwest, especially on lands dominated by young forests and fragmented by multiple ownership. There are currently 22 research projects currently being undertaken by FRESC that have as the core area forest ecosystems. Other FRESC research includes such core areas as aquatic and wetland ecosystems, and wildlife ecology.

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.

There has been a significant continuing effort to upgrade software and hardware with the goal of simplifying work and increasing capability to accomplish complex analysis of large amounts of data. 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 and decision makers to increase efficiency and effectiveness.

Geographic Information System - The BLM in western Oregon made a substantial investment in building a geographic information system (GIS) as it developed the resource management plans (RMPs). This information system has allowed the BLM to organize and standardize basic resource data across the western Oregon districts.. The GIS has now become a day to day tool in resource management that allows us to display and analyze complex resource issues in a fast and efficient manner. BLM is now actively updating and enhancing the resource data as conditions change and further field information is gathered. The GIS plays a fundamental role in ecosystem management which allows the BLM to track constantly changing conditions, analyze complex resource relationships, and take an organized approach for managing resource data.

Table 29. Roseburg District Cadastral Survey Activity

	<i>Fiscal Year</i>					
	1996	1997	1998	1999	2000	2001
<i>Projects Completed</i>	7	10	13	10	10	12
<i>Cadastral Projects</i>	7	7	7	7	9	14
<i>Miles of Survey Line Run</i>	35.7	58	78	41	41	57

Cadastral Survey

Cadastral Survey crews perform an essential function in the accomplishment of resource management objectives. Cadastrals traditional work has been performing legal boundary surveys; establishing, or reestablishing, marking and maintaining federal boundaries. In addition to the normal work, the Cadastral provided technical assistance for legal and spatial land information products and other related services that enhance the management of the natural and cultural resources.

Project Completed	12
Cadastral Projects	14
Miles of Survey Line Run	57
Monuments Set	41
Boundary marked & posted	35
Contacts*	155

* generally documented responses to phone calls, correspondence, E-mail and office visits.

Law Enforcement

Roseburg District have two full time BLM Rangers 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 through 2001 included participating in operations 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, 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 Rangers 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.

National Environmental Policy Act Analysis and Documentation

NEPA documentation

The review of the environmental effects of a proposed management action can occur in any of four ways: categorical exclusions, administrative determinations, environmental assessments, or environmental impact statements.

A categorical exclusion is used when it has been determined that some types of proposed activities do not individually or cumulatively have significant environmental effects and may be exempt from requirements to prepare an environmental analysis. Categorical exclusions (CX) are covered specifically by Department of Interior and BLM guidelines.

An administrative determination is a determination by BLM that NEPA documentation previously prepared by the BLM fully covers a proposed action and no additional analysis is needed. This procedure is often used in conjunction with a plan conformance determination. If an action is fully in conformance with actions specifically described in the RMP and analyzed in the RMP/FEIS, a plan conformance determination may be made and no additional analysis would be needed. A recent procedure now being implemented by the BLM is called a determination of NEPA adequacy (DNA) in which an action is examined in the light of existing NEPA documents to determine if NEPA requirements have been met.

An environmental assessment (EA) is prepared to assess the effects of actions that are not exempt from NEPA, are not categorically excluded, and are not covered by an existing environmental document. An EA is prepared to determine if a proposed action or alternative will significantly affect the quality of the human environment.

Major proposals that will significantly affect the environment, and that have not been previously analyzed through an environmental impact statement (EIS) require that an EIS be prepared.

Roseburg District Environmental Documentation, Fiscal Years 1996-2001

During fiscal years 1996-2001, the Roseburg District completed approximately 84 environmental assessments, 427 categorical exclusions, 50 NEPA or Plan conformance determinations and one environmental impact statement. The environmental assessments vary in complexity, detail and length depending on the project involved.

Protest and Appeals

Almost all Roseburg District timber sale environmental assessment decision records have been protested and appealed since the expiration of the Recission Act at the end of December 1996. Protest and appeal issues have challenged compliance with the RMP ROD, compliance with NEPA, analyses, assumptions and conclusions. With two exceptions, protests and appeals have been received by a single local environmental organization.

Recurring issues raised in the protests and appeals include: EA is insufficient, an EIS is needed, fail to follow recommendations of watershed analysis, improperly determine riparian reserve widths, not maintaining or restoring degraded watersheds, snags and coarse woody debris, failure to implement Survey and Manage protocol, unstable soils (clumping of retention trees illegal, should give riparian reserve status), road building.

The staff work involved in responding to protest and appeals on the Roseburg District represent a significant workload.

Plan Maintenance

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 and Roseburg District Annual Program Summary.

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 or refinement involves issues that have been examined by the Regional Ecosystem Office and contained in subsequent instruction memos from the BLM Oregon State Office. Depending on the issue, not all plan maintenance issues will necessarily be reviewed and coordinated with the Regional Ecosystem Office or Provincial Advisory Committee. Plan maintenance is also described in the Roseburg District Resource Management Plan Record of Decision, page 79.

The following items have been implemented on the Roseburg District as part of plan maintenance. Some are condensed descriptions of the plan maintenance items and do not include all of the detailed information contained in the referenced instruction or information memos. 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 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.

(Note: This plan maintenance refinement was in effect for one year and was not renewed.)

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.

Plan Maintenance for fiscal year 1997

1. Correction of typographical errors concerning understory and forest gap herbivore arthropods.

Appendix H, Table H-1, page 186 of the Roseburg RMP Record of Decision: "Arthropods" is changed to "Arthropods". "Understory and forest gap herbivores" is changed to "Understory and forest gap herbivores (south range)". Information from Oregon State Office Information Bulletin OR-97-045.

2. Clarification of implementation date requirement for Survey and Manage component 2 surveys.

The S&G on page C-5 of the NFP ROD states "implemented in 1997 or later", the NFP ROD, page 36 states "implemented in fiscal year 1997 or later". In this case where there is a

conflict between specified fiscal year (ROD-36) and calendar year (S&G C-5) the more specific fiscal year date will be used over the non-specific S&G language. Using fiscal year is the more conservative approach and corresponds to the fiscal year cycle used in project planning and, also, to the subsequent reference to surveys to be implemented prior to fiscal year 1999. Information from Oregon State Office Instruction Memorandum OR-97-007.

3. Clarification of what constitutes ground disturbing activities for Survey and Manage component 2.

Activities with disturbances having a likely "significant" negative impact on the species habitat, its life cycle, microclimate, or life support requirements should be surveyed and assessed per protocol and are included within the definition of "ground disturbing activity".

The responsible official should seek the recommendation of specialists to help judge the need for a survey based on site-by-site information. The need for a survey should be determined by the line officer's consideration of both the probability of the species being present on the project site and the probability that the project would cause a significant negative affect on its habitat. Information from Oregon State Office Instruction Memo OR-97-007.

4. Clarification when a project is implemented in context of component 2 Survey and Manage.

S&G C-5 of NFP ROD and Management Action/Direction 2.c., page 22 of the RMP ROD states that "surveys must precede the design of activities that will be implemented in [fiscal year] 1997 or later." The interagency interpretation is that the "NEPA decision equals implemented" in context of component 2 species survey requirements. Projects with NEPA decisions to be signed before June 1, 1997 have transition rules that are described in IM OR-97-007. Information from Oregon State Office Instruction Memorandum OR-97-007.

5. Conversion to Cubic Measurement System.

Beginning in fiscal year 1998 (October 1997 sales), all timber sales (negotiated and advertised) will be measured and sold based upon cubic measurement rules. All timber sales will be sold based upon volume of hundred cubic feet (CCF). The Roseburg District RMP ROD declared an allowable harvest level of 7.0 million cubic feet. Information from Oregon State Office Instruction Memorandum OR-97-045.

6. Clarification of retention of coarse woody debris.

The NFP ROD S&G, pg C-40 concerning retention of existing coarse woody debris states: "Coarse Woody Debris already on the ground should be retained and protected to the greatest extent possible. . .". The phrase "to the greatest extent possible" recognizes felling, yarding, slash treatments, and forest canopy openings will disturb coarse woody debris substrate and their dependant organisms. These disturbances should not cause substrates to be removed from the logging area nor should they curtail treatments. Reservation of existing decay class 1 and 2 logs, in these instances, is at the discretion of the district. Removal of excess decay class 1 and 2 logs is contingent upon evidence of appropriately retained or provided amounts of decay class 1 and 2 logs.

Four scenarios are recommended to provide the decay class 1 and 2 material by using standing trees for coarse woody debris:

Scenario 1. Blowdown commonly occurs and wind normally fells retention trees, providing both snags and coarse woody debris immediately following regeneration harvest. After two winter seasons, wind firm trees may still be standing; top snap occurs providing both snags

and coarse woody debris; and blowdowns include total tree length, often with the root wad attached. A third year assessment would monitor for coarse woody debris and determine if the need exists to fell trees to meet the required linear feet.

Scenario 2. In small diameter regeneration harvest stands, the largest sized green trees are selected as coarse woody debris and felled following harvest. The alternative is to allow these trees to remain standing and potentially to grow into larger sized diameter coarse woody debris substrate after a reasonable period of time.

Scenario 3. The strategy is to meet the decay class 1 and 2 log level required post-harvest immediately following logging or the site preparation treatment period. This strategy assumes that an adequate number of reserve trees are retained to meet the requirement. Upon completion of harvest, the existing linear feet of decay class 1 and 2 logs for each sale unit are tallied; and then the reserve trees are felled to meet the 120 feet linear foot requirement. Knockdowns, trees felled to alleviate a logging concern, and blowdowns are counted toward the total linear feet so long as they meet the decay class, diameter, and length requirements. The minimum amount of coarse woody debris linear feet are ensured, and excess trees continue to grow.

Scenario 4. Provide the full requirement of coarse woody debris in reserve trees. There is no need to measure linear feet since the decay class 1 and 2 requirements will be met from the standing, reserved trees. Accept whatever linear feet of decay class 1 and 2 logs is present on the unit post-harvest. The management action will be to allow natural forces (primarily windthrow) to provide infusions of trees into coarse woody debris decay classes 1 and 2 over time from the population of marked retention trees and snag replacement trees.

Large diameter logs which are a result of felling breakage during logging but are less than 16 feet long may be counted towards the linear requirement when:

- the large end diameters are greater than 30 inches and log length is greater than 10 feet
- log diameters are in excess of 16 inches and volume is in excess of 25 cubic
- feet. they are the largest material available for that site.

The above information for clarification of coarse woody debris requirements is from Oregon State Office Instruction Memo OR-95-28, Change 1, and Information Bulletin OR-97-064.

7. Clarification of insignificant growth loss effect on soils.

Management action/direction contained in the RMP ROD pp 37 and 62 states that "In forest management activities involving ground based systems, tractor skid trails including existing skid trails, will be planned to have insignificant growth loss effect. This management action/direction was not intended to preclude operations in areas where previous management impacts are of such an extent that impacts are unable to be mitigated to the insignificant (less than 1%) level. In these cases, restoration and mitigation will be implemented as described in the RMP ROD management action/direction and best management practices such that growth loss effect is reduced to the extent practicable.

Plan maintenance for fiscal year 1998

1. Refinement of 15% Retention Management Action/Direction.

Guidance on implementation of the 15% retention management action/direction which provides for retention of late-successional forests in watersheds where little remains. A joint BLM-FS guidance which incorporated the federal executives' agreement was issued on September 14, 1998, as BLM Instruction Memorandum No. OR-98-100. This memo clarifies

and refines the standard and guideline contained in the Northwest Forest Plan and RMP that directs that in fifth field watersheds in which federal forest lands are currently comprised of 15% or less late-successional forest should be managed to retain late-successional patches. The memo emphasizes terminology and intent related to the standard and guideline, provides methods for completing the assessment for each fifth field watershed, dictates certain minimum documentation requirements and establishes effective dates for implementation. Instruction Memo OR-98-100 is adopted in its entirety as RMP clarification and refinement.

2. Clarification of Visual Resource Management Action/Direction.

Management Action/Direction for Visual Resources has been found to be unclear due to internal inconsistency. The Roseburg RMP includes management action/direction in addition to that which is common to all other western Oregon BLM districts. The prescriptive management action/direction unique to the Roseburg District RMP has been found too difficult to implement in a logical and consistent manner. The management action/direction for visual resources is refined by the deletion of five paragraphs that discuss harvest scenarios on page 53 of the RMP/ROD. This refinement does not result in the expansion of the scope of resource uses and allows the Roseburg District RMP/ROD to be consistent with other western Oregon BLM RMP/RODs.

Plan maintenance for fiscal year 1999

1. Refinement of Survey and Manage Management Action/Direction.

Ongoing plan maintenance has resulted from the refinement and clarification related to the survey and manage management action/direction (Roseburg RMP ROD pg. 22). Survey and manage gives direction for hundreds of species and taxa. The management recommendations and survey protocols for these species is received through Instruction Memoranda which are jointly issued by the BLM and Forest Service through coordination with the Regional Ecosystem Office. In fiscal year 1999, survey protocols were established for lynx (IM No. OR-99-25) and fifteen vascular plants (IM No. OR-99-26); management recommendations were received for fifteen vascular plants (IM No. OR-99-27), nineteen aquatic mollusk species (IM No. OR-99-38), and five bryophyte species (IM No. OR-99-39). In addition, a change in the implementation schedule for certain survey and manage and protection buffer species was issued (IM No. OR 99-47). This schedule change was analyzed through an environmental assessment.

Plan maintenance for fiscal year 2000

1. Refinement of Survey and Manage Management Action/Direction.

Ongoing plan maintenance has continued as in fiscal year 2000 regarding survey and manage management action/direction with the establishment of management recommendations and survey protocols through jointly issued Instruction Memoranda by the BLM and Forest Service in coordination with the Regional Ecosystem Office. In fiscal year 2000, survey protocols were established for amphibians (IM No. OR-200-04), bryophytes (IM No. OR-2000-17, IM No. OR-2000-17 change 1), fungi (IM No. OR-2000-18), and red tree vole (IM No. OR-2000-37). Management recommendations were received for mollusks (IM No. OR-2000-03, IM No. OR-2000-15), and lichens (IM No. OR-2000-42). These instruction memorandums may be found at the Oregon State Office web site under "Northwest Forest Plan" (<http://web.or.blm.gov/>)

2. Clarification of ACEC/RNAs closed to motorized use.

Bushnell-Irwin Rocks ACEC/RNA was inadvertently not included on the list of ACEC/RNAs that are closed to motorized use on page 59 of the RMP ROD. ACEC/RNA's are closed to

motorized use on page 51 of the RMP ROD and Bushnell-Irwin Rocks ACEC/RNA is listed as closed to motorized use in the Roseburg District Off-Highway Vehicle Implementation Plan. This plan maintenance eliminates this inconsistency and clarifies that Bushnell-Irwin Rocks ACEC/RNA is closed to motorized use.

3. Refinement and clarification of Best Management Practices (RMP ROD Appendix D.) related to site preparation using prescribed burning.

Through an interdisciplinary process, the Roseburg District has determined that the objective of maintaining soil productivity could be better accomplished through refinement and clarification of Best Management Practices related to site preparation using prescribed burning.

For the purposes of this plan maintenance, the Best Management Practices language found on pages 139-140 of the RMP ROD, III.B.1 through 9 and III. D.1. is replaced by the following:

(III.C. and D.2 to end remain unchanged):

B. Site Preparation Using Prescribed Burning

Objectives: To maintain soil productivity and water quality while meeting resource management objectives.

a.. Machine pile and burn:

1. Limit the use of mechanized equipment to slopes less than 35%.
2. Do not compact skeletal or shallow soils.
3. Keep total surface area of soil compaction (greater than 15% bulk density increase in a greater than 4 inch thick layer) to a maximum of 10% of machine piled area (prior to tillage).
4. Till all compacted areas with a properly designed winged subsoiler. This could be waived if less than 2% of the machine piled area is compacted.
5. Materials to be piled will be 16 inches in diameter or less.
6. Burn when soil and duff moisture between piles is high.
7. Avoid displacement of duff and topsoil into piles.
8. Highly sensitive soils are all soils less than 20 inches deep, soils with less than 4 inches of "A" horizon, granite and schist soils on slopes greater than 35% and other soils on slopes greater than 70%. These soils are referred to as category 1 soils. On highly sensitive (category 1) soils, machine pile and burn treatments considered to be essential to meet resource management objectives will be designed to minimize consumption of litter, duff, and large woody debris. Mineral soil exposed by the burn will be less than 15% of the unit surface area.

b. Hand pile and burn, swamper burning:

1. Pile small materials (predominately 1 - 6 inches in diameter).
2. Burn when soil and duff moisture between piles is high.

3. Only pile areas where loading (depth and continuity) require treatment to meet management objectives.
4. On highly sensitive (category 1) soils, hand pile and burn (and swamper burn) treatments considered to be essential to meet resource management objectives will be designed to minimize consumption of litter, duff, and large woody debris. Mineral soil exposed by the burn will be less than 15% of unit surface area.

c. Broadcast burning:

1. Burn under conditions that result in lightly to moderately burned area, minimizing consumption of duff and large woody debris. This typically occurs when soil and duff moisture is high.

Lightly burned: The surface duff layer is often charred by fire but not removed. Duff, crumbled wood or other woody debris partly burned, logs not deeply charred.

Moderately burned: Duff, rotten wood or other woody debris partially consumed or logs may be deeply charred by mineral soil under the ash not appreciably changed in color.

Severely burned: Top layer of mineral soil significantly changed in color, usually to reddish color, next one-half inch blackened from organic matter charring by heat conducted through top layer.

2. When feasible, pull slash and woody debris adjacent to landing onto landing before burning.
3. On highly sensitive (category 1) soils, broadcast burning treatments considered essential to meet resource management objectives will be designed to minimize consumption of litter, duff, and large woody debris. Mineral soil exposed by the burn will be less than 15% of the unit surface area.
4. Clarification of what roads shall be included as a starting point to monitor the reduction of road mileage within key watersheds.

Guidance on how to define the baseline roads or the discretionary ability to close roads was not included in the RMP Management Action/Direction for Key Watersheds. Information Bulletin OR-2000-134 issued on March 13, 2000, clarified what roads shall be included in the 1994 BLM road inventory base used as a starting point to monitor the "reduction of road mileage within Key Watersheds" as follows:

Any road in existence on BLM administered land as of April 1994, regardless of ownership or whether it was in the road records, shall be included in the 1994 base road inventory. Also, include BLM-controlled roads on non-BLM administered lands. A BLM controlled road is one where the BLM has the authority to modify or close the road. Do not include skid roads/trails, as technically they are not roads.

Plan Maintenance for fiscal year 2001

1. Refinement of implementation monitoring question regarding Survey and Manage management action/direction.

As a result of the modifications to the Survey and Manage management action/direction (standards and guidelines) through the Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures

Standards and Guidelines in January 2001, it is necessary to refine the implementation monitoring questions associated with this standard and guideline. Implementation monitoring question number one for All Land Use Allocations has been modified to read: "Is the management action for the Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines being implemented as required?".

2. Refinement of implementation monitoring questions regarding Special Status Species.

The implementation monitoring question regarding special status species were found to contain redundancies with the Survey and Manage monitoring questions. The redundancies have been eliminated by removing Survey and Manage questions from special status species. Survey and Manage monitoring is fully accomplished through the implementation question under All Land Use Allocations. In addition, implementation monitoring question number one for special status species was basically redundant with question number two and therefore question number one was eliminated. The title for this monitoring section has been modified to delete reference to SEIS Special Attention Species (Survey and Manage).

3. Refinement and clarification of objectives, management action/direction and implementation monitoring question regarding soils resource.

The management action/direction for the Soils Resource is different than that for any other resource in that it combines RMP objectives with management action/direction. Experience in RMP monitoring has disclosed difficulty in effectively measuring the accomplishment of Soils Resource management action/direction. The District Soil Scientist and Geotechnical Engineer have examined this issue from a technical perspective in the field and recently published literature has been reviewed. The technical review and recent literature indicates that operational monitoring which would produce meaningful and reliable results of the current soils management action/direction as currently written is not practical.

The RMP is clarified and refined in the following manner:

The RMP objective to "improve and/or maintain soil productivity" (RMP pg. 35) is retained.

The *objective* of "insignificant growth loss effect" (RMP pg. 37) and "insignificant (less than one percent) growth loss effect" (RMP pg 62) is removed from management action/direction. The intention and purpose of this *objective* which was combined with management action/direction is preserved in the existing language of the RMP objectives for the soil resource.

The entire management action/direction contained in the fourth paragraph page 37 (beginning "In forest management activities. . .") and the second paragraph page 62 (beginning "Plan timber sales. . .") is replaced by:

"For forest management activities involving ground based systems, improve or maintain soil productivity by:

- a.) the cumulative (created or used since the adoption of the RMP) main skid trails, landings and large pile areas will affect less than approximately 10%, of the ground based harvest unit
- b.) a main skid trail is defined as a trail in which the duff is displaced such that approximately 50% or more of the surface area of the trail is exposed to mineral soil
- c.) skid trails which were created prior to the adoption of the RMP should be re-used to the extent practical, such skid trails that are re-used will be included in the 10% limit of affected area within the ground based harvest unit
- d.) limit skid trails to slopes generally less than approximately 35%. Examples of exceptions to the 35% slope limit would include situations such as small inclusions of steeper slopes, connecting trails to isolated ground based harvest areas, or the use of existing trails that can be used without causing undue effects to soils

- e.) in partial cut areas, locate main skid trails so that they may be used for final harvest
- f.) conduct ground based operations only when soil moisture conditions limit effects to soil productivity (these conditions generally can be expected to be found between May 15 and the onset of regular fall rains or may be determined by on-site examination)
- g.) on intermediate harvest entries, ameliorate main skid trails and areas of non-main skid trails warranting amelioration, or document a plan (e.g. such as adding a map to watershed analysis) so that amelioration may be accomplished at the time of final harvest
- h.) potential harvest units will be examined during the project planning process to determine if skid trails created prior to the adoption of the RMP have resulted in extensive enough compaction to warrant amelioration
- i.) upon final harvest ameliorate all main skid trails, those portions of non-main skid trails warranting amelioration, skid trails documented and carried over from intermediate harvests, and skid trails created prior to the adoption of the RMP which were identified in the planning process as warranting amelioration
- j.) amelioration of skid trails will generally consist of tilling with equipment designed to reduce the effects to soil productivity from compaction and changes in soil structure.

For mechanical site preparation, management action/direction is refined as follows:

The fourth condition under which track-type equipment must operate (RMP pg 63, beginning: "4. Operate at soil moistures that. . .") is replaced with:

"4. Conduct mechanical site preparation when soil moisture conditions limit effects to soil productivity (these conditions generally can be expected to be found between May 15 and the onset of regular fall rains or may be determined by on-site examination). Total exposed mineral soil resulting from main skid trails and mechanical site preparation activities will be less than 10% of the ground based harvest unit area. Total exposed mineral soil as a result of mechanical site preparation in cable or helicopter harvest units will be less than approximately 5% of harvest unit area. Units will be examined after site preparation has been completed to determine if amelioration (generally tilling) is warranted to reduce the effects to soil productivity from compaction and changes in soil structure."

Implementation monitoring question number six for Water and Soils is changed to: "Have forest management activities implemented the management direction for ground based systems and mechanical site preparation as listed in the fiscal year 2001 plan maintenance?"

4. Refinement of Resource Management Plan evaluation interval.

The RMP, in the Use of the Completed Plan section (Roseburg District Record of Decision and Resource Management Plan, pp. 78-79), established a three year interval for conducting plan evaluations. The purpose of a plan evaluation is to determine if there is significant new information and or changed circumstance to warrant amendment or revision of the plan. The ecosystem approach of the RMP is based on long term management actions to achieve multiple resource objectives including; habitat development, species protection, and commodity outputs. The relatively short three year cycle has been found to be inappropriate for determining if long term goals and objectives will be met. A five year interval is more appropriate given the resource management actions and decisions identified in the RMP. The Annual Program Summaries and Monitoring Reports continue to provide the cumulative RMP accomplishments. Changes to the RMP continue through appropriate amendments and plan maintenance actions. A five year interval for conducting evaluations is consistent with the BLM planning guidance as revised in November 2000.

The State Director decision to change the evaluation interval from three years to five years was made on March 8, 2002. It was directed that this plan maintenance be published in the 2001 Annual Program Summary. The next evaluation of the Roseburg District Resource Management Plan will address implementation through September 2003.

Survey and Manage

2001 Amendment to the Northwest Forest Plan

The Survey and Manage mitigation in the Northwest Forest Plan was amended in January 2001 through the signing of the Record of Decision (ROD) for the "Final Supplemental Environmental Impact Statement for Amendment to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines." The intent of the amendment was to incorporate up-to-date science into management of Survey and Manage species and to utilize the agencies' limited resources more efficiently. The ROD provides approximately the same level of protection intended in the Northwest Forest Plan but eliminates inconsistent and redundant direction and establishes a process for adding or removing species when new information becomes available.

The ROD reduced the number of species requiring the Survey and Manage mitigation, dropping 72 species in all or part of their range. The remaining species were then placed into 6 different management categories, based on their relative rarity, whether surveys can be easily conducted, and whether there is uncertainty as to their need to be included in this mitigation. The following table shows a break down of the placement of these 346 species, and a brief description of management actions required for each.

The ROD identifies species management direction for each of the above categories. Uncommon species categories C and D require the management of "high priority" sites only, while category F requires no known site management. The new Standards and Guidelines also establish an in-depth process for reviewing and evaluating the placement of species into the different management categories. This process allows for adding, removing, or moving species around into various categories, based on the new information acquired through our surveys.

Approval of the *Record of Decision and Standards and Guidelines for Amendment to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standard and Guidelines* amended the Standards and Guidelines contained in the Northwest Forest Plan Record of Decision related to Survey and Manage, Protection Buffers, Protect Sites from Grazing, Manage Recreation Areas to Minimize Disturbance to Species, and Provide Additional Protection for Caves, Mines, and Abandoned Wooden Bridges and Building That are Used as Roost Sites for Bats. These standards and guidelines were removed and replaced by the contents of the *Record of Decision and Standards and Guidelines for Amendment to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standard and Guidelines*.

Plan Maintenance actions to delete all references to Management Action/Direction for Survey and Manage and Protection Buffer species in the Roseburg District Resource Management Plan and Appendices and adopt the Standards and Guidelines contained in the *Record of Decision and Standards and Guidelines for Amendment to the Survey and Manage, Protection Buffer, and other Mitigation Measures* are required in response to the Record of Decision.

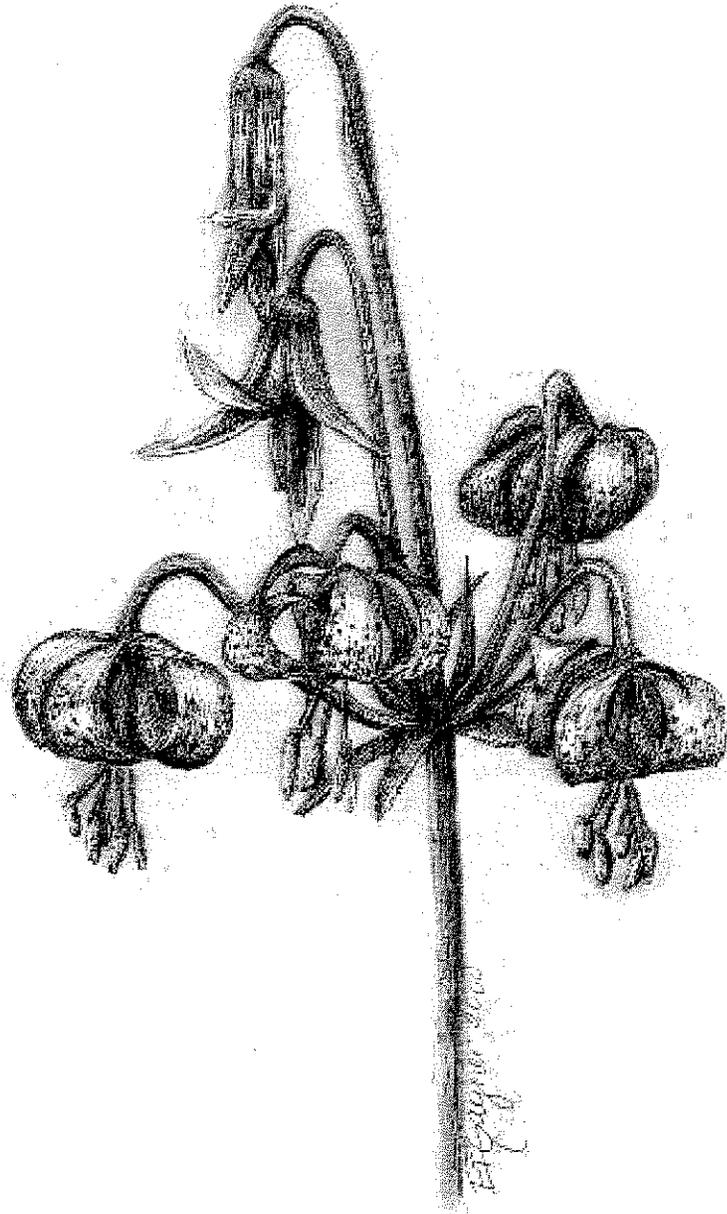
Copies of the ROD and Final SEIS may be obtained by writing the Regional Ecosystem Office at PO Box 3623, Portland, Oregon 97208, or they can be accessed at <http://www.or.blm.gov/nwfpnepa>.

Table . Redefine Categories Based on Species Characteristics

Relative Ratiry Rarity	Pre-Disturbance Surveys Practical	Pre-Disturbance Surveys Not Practical	Status Undetermined Pre-Disturbance Surveys Not Practical
Rare	Category A - 57 species • Manage All Known Sites • Pre-Disturbance Surveys • Strategic Surveys	Category B - 222 species • Manage All Known Sites • N/A • Strategic Surveys	Category E - 22 species • Manage All Known Sites • N/A • Strategic Surveys
Uncommon	Category C - 10 species • Manage High-Priority Sites • Pre-Disturbance Surveys • Strategic Surveys	Category D - 14 species • Manage High-Priority Sites • N/A • Strategic Surveys	Category F - 21 species • N/A • N/A • Strategic Surveys

¹ Includes three species for which pre-disturbance surveys are not necessary.

ROSEBURG DISTRICT RESOURCE MANAGEMENT PLAN MONITORING FISCAL YEAR 2001



Monitoring Report

Fiscal Year 2001

Executive Summary

Introduction

This document represents the fifth 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 Resource Management Plan for fiscal year 2000. 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 2001 addressed the implementation questions relating to the 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 the twenty land use allocations and resource programs identified for monitoring in the plan. Monitoring results of two of the fifty implementation monitoring questions showed variation in the level of activities compared to the assumed levels in the Resource Management Plan.

One question pertained to timber resources: "By land use allocation, how do timber sale volumes, harvested acres, and the age and type of harvest compare to the projections in the Resource Management Plan?" Short term legal, administrative, and Northwest Forest Plan implementation challenges have limited the ability to offer timber sales at the levels anticipated in the Resource Management Plan.

Another question pertained to silvicultural activities: "Were the silvicultural (e.g. planting with genetically selected stock, fertilization, release, and thinning) and forest health practices anticipated in the calculation of the allowable sale quantity implemented?" These activities have varied from the assumed levels in the Resource Management Plan because of a variety of circumstances including the limited ability to offer timber sales at the level anticipated.

Recommendations

It is not possible at this time to accurately predict the effect of certain short term uncertainties on the long term ability to implement the underlying assumptions that form the basis of the Allowable Sale Quantity. The circumstances are not yet ripe to make reasonably accurate predictions regarding the ability to implement the Allowable Sale Quantity as assumed in the Resource Management Plan because unresolved litigation and incomplete strategic surveys make reasonable estimates of any long term changes in acres available for harvest or harvest prescriptions speculative at this time. When reasonable estimates of long term changes become possible, these circumstances will be evaluated at a future time to determine whether an amendment of the Resource Management Plan is warranted.

Conclusions

Analysis of the fiscal year 2001 monitoring results concludes that the Roseburg District has complied with all Resource Management Plan management action/direction. The level of activities will continue to be monitored and will be evaluated as the uncertainty of current litigation and other uncertainties are resolved. No major change in management direction or Resource Management Plan implementation is warranted at this time.

Monitoring Fiscal Year 2001

Introduction

This document represents the fifth 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 Resource Management Plan. Included in this report are the projects that took place from October 1999 through September 2001. 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 50 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) has implemented a regional-scale Implementation Monitoring Program.

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

The Resource Areas are 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.

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 is 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 2001 addressed the 50 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?"

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

There are fifty implementation monitoring questions. Monitoring results found full compliance with management action/direction in the twenty land use allocations and resource programs identified for monitoring in the plan. Monitoring results of two of the fifty implementation monitoring questions showed variation in the level of activities compared to the assumed levels in the Resource Management Plan.

One question pertained to timber resources: "By land use allocation, how do timber sale volumes, harvested acres, and the age and type of harvest compare to the projections in the Resource Management Plan?"

Another question pertained to silvicultural activities: "Were the silvicultural (e.g. planting with genetically selected stock, fertilization, release, and thinning) and forest health practices anticipated in the calculation of the allowable sale quantity implemented?"

Discussion of Discrepancies

Timber Resources

The RMP Management Action/Direction for Timber Harvest states:

"The allowable sale quantity for the resource management plan is an estimate of annual average timber sale volume likely to be achieved from lands allocated to planned, sustainable harvest. This estimate, however, is surrounded by uncertainties."

"The allowable sale quantity represents neither a minimum level that must be met nor a maximum level that cannot be exceeded. It is an approximation because of the difficulty associated with predicting actual timber sale levels over the next decade, given the complex nature of many of the management actions/direction. It represents BLM's best assessment of the average amount of timber likely to be awarded annually in the planning are over the life of the plan, following a start-up period."

Except for the District declared Allowable Sale Quantity, projections are not intended as management action/direction, but rather are underlying RMP assumptions. Projected levels of activities are the approximate level expected to support the Allowable Sale Quantity.

In FY2001 2.7 million board feet (MMBF) was sold. This represents 6% of the 45 MMBF allowable sale quantity. Cumulative information on timber harvest acres, volumes, and harvest types since the adoption of the RMP are provided in the Timber Resources section of the Annual Program Summary.

Short term legal, administrative, and Northwest Forest Plan implementation challenges have limited the ability to offer timber sales at the levels anticipated by the RMPs. These include:

Survey and Manage standard and guideline: The current constraints on the lands available for harvest with the current list of species and management recommendations covered by the Survey and Manage has been greater than anticipated by the RMP. Strategic surveys conducted over the next several years will help address fundamental questions of Survey and Manage (S&M) species, including: is there a concern for persistence; is the species rare or uncommon; what is the appropriate management for the species; and do the reserve land allocations and Standard & Guidelines (S&Gs) of the NFP provide a reasonable assurance of species persistence? Criteria for management of high priority sites have yet to be developed for some of the uncommon species. Two lawsuits are currently underway regarding the Survey and Manage S&G.

Resolution of Endangered Species Act Consultation Issues Associated with Anadromous Fish. National Marine Fisheries Service is currently re-evaluating salmon and steelhead listings for the West Coast in order to address circumstances where both hatchery and wild fish are present in an Evolutionarily Significant Unit. There is also a current appeal before the Ninth Circuit Court of Appeals regarding the U.S. District Court, District of Oregon decision which had the effect of de-listing the Oregon coast coho. In the interim timber sales have placed emphasis on partial cuts, i.e., sales for which either a "No Effect" (NE) or "Not Likely to Adversely Affect" (NLAA) biological determination can be made for listed anadromous fish. This emphasis is driven by circumstances in an attempt to effectively utilize appropriated funds and implement the Allowable Sale Quantity and socio-economic objectives of the RMP and NFP to the maximum extent possible.

It is not possible at this time to accurately predict the effect of certain short term uncertainties on the long term ability to implement the underlying assumptions that form the basis of the Allowable Sale Quantity. The circumstances are not yet ripe to make reasonably accurate predictions regarding the ability to implement the Allowable Sale Quantity as assumed in the Resource Management Plan because unresolved litigation and incomplete strategic surveys make reasonable estimates of any long term changes in acres available for harvest or harvest prescriptions speculative at this time. When reasonable estimates of long term changes become possible, these circumstances will be evaluated at a future time to determine whether an amendment of the Resource Management Plan is warranted.

Silvicultural Activities

Variation in silvicultural activities from assumed levels in the RMP include the following:

Brush field Conversion - To date no acres have undergone conversion. It is not expected that any attempt would be made unless herbicides were available as a conversion tool.

Site Preparation (FIRE) - The number of acres prepared with prescribed fire, both broadcast treatment and pile treatment is about 50% of planned. A continued decline in trend is likely to continue due to less than expected levels of regeneration harvest and other resource concerns.

Site Preparation (OTHER) - The number of acres prepared with alternative site preparation techniques is about 4% of planned. Factors affecting this activity are the same as for prescribed fire.

Planting (regular stock) - Total planted acres without regard to genetic quality is at 63% of RMP assumed levels due to lack of planned RMP levels of timber harvest. Reforestation with genetically unimproved planting stock is 233% of planned.

Planting (improved stock) - In fiscal year 2001, 26% of the acres reforested were planted with genetically improved stock. 21% of the acres planted were in the GFMA land use allocation. Only GFMA acres count towards RMP monitoring goals since genetic improvement is assumed to contribute to ASQ only when done on GFMA acres. A phase in period for use of

genetically improved Douglas fir of 3 to 4 years was assumed to allow for older sales outside the GFMA land use allocation to be reforested and for seed orchards to reach production.

Planning for production of genetically improved stock has proved difficult due to the uncertainty of timber harvest timing. Seed must be sown one to three years prior to actual need. Due to decline in timber harvest overall and uncertainty in harvest timing, it is likely that this target will be approximately 20-40% of RMP levels by the end of the decade.

Maintenance/Protection - Acres of maintenance/protection treatments is currently double of that assumed for the first three years. The ratio of maintenance/protection to reforested acres was highest in fiscal year 1996 and has declined dramatically each year since. In fiscal year 1996 the ratio was 2.2 to 1. In fiscal year 2001 the ratio was at 1.0 to 1. The average ratio for the RMP period is 1.5 to 1 and is expected to decline further. It is anticipated that at this rate, assumed RMP levels would be exceeded by 40-50%.

Precommercial Thinning (PCT) - Currently PCT is at assumed RMP levels. It is expected that at a minimum this level will be maintained over the decade. There is a potential to exceed this level if funding levels were to increase but the magnitude is unknown at this time. This practice is highly dependent on increasing budget levels.

Pruning - Currently pruning accomplishments are at assumed RMP levels. Depending on funding this trend could continue. At a minimum it is expected that RMP levels will be met. This practice is also highly dependent on increasing budget levels.

Fertilization - Currently fertilization accomplishments are about 64% of assumed RMP levels. There is the potential to exceed planned RMP levels by about 20% if funding is available. However, implementation of fertilization is currently delayed by an appeal of the proposed action.

Although silvicultural practices have varied from the assumed levels in the Resource Management Plan, they are reasonably consistent with and support the current level and types of timber harvest.

Recommendations and Conclusions

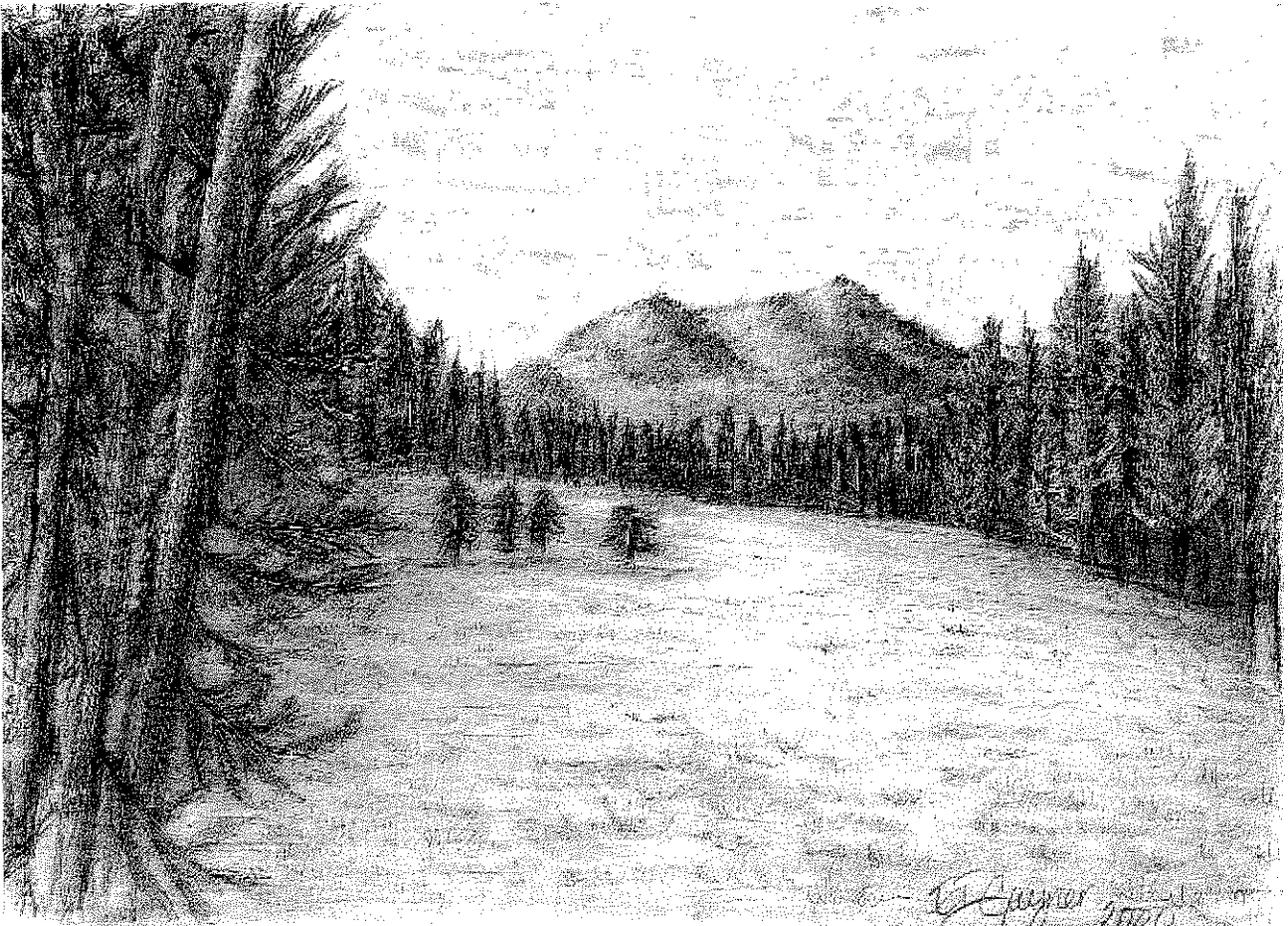
The Roseburg District has complied with all Resource Management Plan management action/direction in fiscal year 2001 activities. Implementation monitoring since the adoption of the Resource Management Plan in 1995 has indicated that the Roseburg District has consistently implemented the Resource Management Plan with a high degree of success. The few discrepancies that have been discovered by monitoring during the past six years have been examined closely and corrective action has been taken. However, the departure of timber sales and silvicultural activities from the level of actions assumed in the Resource Management Plan are a concern to the management of the Roseburg District.

These departures from assumed level of activities in the Resource Management Plan are largely a result of conditions and uncertainties that the Roseburg District does not directly control. It is not possible at this time to accurately predict the effect of certain short term uncertainties on the long term ability to implement the underlying assumptions that form the basis of the Allowable Sale Quantity. The circumstances are not yet ripe to make reasonably accurate predictions regarding the ability to implement the Allowable Sale Quantity as assumed in the Resource Management Plan because unresolved litigation and incomplete strategic surveys make reasonable estimates of any long term changes in the acres available for harvest or the type of harvest prescriptions speculative at this time. When reasonable estimates of long term changes become possible, these circumstances will be evaluated at a future time to determine whether an amendment of the Resource Management Plan is warranted. No major change in management direction or Resource Management Plan implementation is warranted at this time.

Annual Program Summary and Monitoring Report - FY2001

Hundreds of discrete actions are reviewed through the fifty implementation monitoring questions. The Roseburg District has achieved a remarkable record in implementing the Resource Management Plan. Analysis of the fiscal year 2001 monitoring results concludes that the Roseburg District has complied with all Resource Management Plan management action/direction. Implementation of the Roseburg District Resource Management Plan involves the management of diverse natural resources through a complex mix of planning, budgeting, environmental analysis, compliance with many laws and regulations, on-the-ground actions, contracting, follow-up actions, monitoring and adaptive management that take place year after year and involves many BLM resource professionals and managers. The managers and employees of the Roseburg District take pride in the monitoring results of fiscal year 2001.

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

Monitoring Question 1:

Is the management action for the Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines being implemented as required?

Monitoring Requirement:

At least 20 percent of all management actions will be examined following the decision to implement the project.

Monitoring Performed:

Days Creek Bank Stabilization Project.

Findings:

Days Creek Bank Stabilization Project.

Animals:

Pre-disturbance surveys for special status mollusk species were completed at the Days Creek Bank Stabilization project area on November 16, 2000. A blue-gray taildropper (*Prophysaon coeruleum*) site was discovered within the project area. A habitat area was recommended to reduce potential disturbance of the vegetation and micro-site conditions (e.g. soil temperature and relative humidity) from construction activities. However, before this project was implemented the blue-gray taildropper was removed from the Survey & Manage list and protection of this site was no longer required. As the Days Creek Bank Stabilization was implemented it was not operationally necessary to make use of the vicinity around the blue-gray site. The blue-gray site was not impacted even though no protection was required.

Pre-disturbance surveys for the Oregon red tree vole (RTV) were completed on October 3, 2000 on that portion of the Days Creek Bank Stabilization that were considered habitat disturbing based on the project's design. No evidence of RTV use or occupation was detected during the survey therefore no habitat area was required. For both Survey & Manage mollusks and RTVs, the Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines was implemented.

Plants:

The Days Creek Bank Stabilization Project was surveyed May 2000. The site was determined non-habitat for special status plants and SEIS Special Attention Species. The management action for the Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines is being implemented.

Follow-up Monitoring

None.

Conclusions:

Required management action for the Record of Decision and Standard and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures

Standards and Guidelines is being implemented.

Comment/Discussion:

None.

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

Monitoring Question 1:

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

Monitoring Requirement:

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.

Monitoring Performed:

No projects were initiated in fiscal year 2001 requiring pre-activity monitoring. Follow-up monitoring is pending on Final Curtin timber sale (sold-unawarded), Class of 98 timber sale (sold-unawarded), and Dream Weaver timber sale (sold-unawarded).

Findings:

No new projects were available for monitoring in fiscal year 2001.

Monitoring Performed:

Program review.

Findings:

Projects Having Activity Within Riparian Reserves	Watershed Analysis	Status of W.A.
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Days Creek Bank Stabilization and Culvert Replacement	John/Days/Coffee (Updated with South Umpqua Second Iteration)	Completed
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Watershed analysis has been completed on all of the watersheds in the South River Resource Area.

Conclusion:

RMP requirements were fully met.

Comment/Discussion:

None

Monitoring Question 2:

Is the width of the Riparian Reserves established according to RMP management direction?

Monitoring Requirement:

At least 20 percent of management activities within each resource area will be examined prior to project initiation and reexamined following project completion, to determine whether the width of the riparian reserves were maintained.

Monitoring Performed:

Kola's Ridge Commercial Thinning. Follow-up monitoring is pending on Final Curtain timber sale (sold-unawarded), Class of 98 timber sale (sold-unawarded), and Dream Weaver timber sale (sold-unawarded).

Findings:

Kola's Ridge Commercial Thinning

An accuracy of 10% is expected during layout of the sale. All measurements are reported in feet in the tables below. Transects were laid out every 300 feet and the width of the riparian reserve was measured using a string machine or tape measure.

Unit #1 of the Kola's Ridge Commercial Thinning is the only unit adjacent to or containing a riparian reserve. The site potential tree height for this watershed has been determined to be 180 feet. Therefore, the required riparian reserve width on non-fish bearing streams is 180 feet.

Unit # 1	Measurement	
	Pre-activity	Follow-up
	190	Pending Completion of Project
	165	
	274	
	210	
	198	
	228	
	204	
	170	
	170	
	247	
Average	205	

Follow-up Monitoring:

Follow-up monitoring is pending on Kola's Ridge Commercial Thinning (awarded-inactive), Final Curtain timber sale (sold-unawarded), Class of 98 timber sale (sold-unawarded), and Dream Weaver timber sale (sold-unawarded).

Conclusion:

Riparian reserve widths have been established according to RMP management direction.

Monitoring Question 3:

Are management activities in Riparian Reserves consistent with SEIS Record of Decision Standards and Guidelines, and RMP management direction?

Monitoring Requirement:

At least 20 percent of management activities within Riparian Reserves will be examined prior to project initiation and reexamined following project completion, to determine whether the actions were consistent with the SEIS Record of Decision Standards and Guidelines and ROD/RMP management direction. 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.

Monitoring Performed:

Days Creek Bank Stabilization Project, replacement of a stream-crossing culvert blocking fish passage, and renovation of BLM Road No. 29-3-33.0.

Follow-up monitoring is pending on the Class of 98 timber sale (sold-unawarded).

Findings:

Days Creek Bank Stabilization, Culvert Replacement and Road Renovation Project

The ROD/RMP (p. 28) contains management direction to "Design and implement watershed restoration projects in a manner that promotes long-term ecological integrity of ecosystems, conserves the genetic integrity on native species, and attains Aquatic Conservation Strategy objectives." Additional direction is given to "Design and implement fish and wildlife habitat restoration and enhancement activities in a manner that contributes to attainment of Aquatic Conservation Strategy objectives."

From a water quality and hydrology perspective, the ". . . Days Creek watershed [sic] should receive the highest priority for restoration activities." It was recommended that "Road treatments to reduce sedimentation should be first considered." (John Days Coffee Watershed Analysis (WA), p. 36)) From a fisheries perspective, Days Creek should receive the highest priority because of its gentle gradient, lack of in-stream barriers, 15 miles of available anadromous habitat, and ease of accessibility for in-stream rehabilitation. (WA, pp. 37-38)

These projects were described and analyzed in the South River Watershed Restoration Environmental Assessment (EA #OR105-00-05).

The bank stabilization project is directed at restoring stream meander, reducing stream velocity, and diverting stream flow away from a high bank that is being undercut and eroded. Erosion of the bank is depositing high levels of sediment into Days Creek, affecting both water quality and essential fish habitat. Correction of this problem would be consistent with objectives 3, 4, 5, 8 and 9 of the Aquatic Conservation Strategy (ACS) described in the ROD/RMP (pp. 19-20). To this end, logs were placed in the stream channel to promote meander and reduce flow velocities upstream of the eroding bank. The bank was excavated back to a stable angle of repose, the toe of the slope armored with rip-rap to prevent further undercutting, and the slope mulched and planted with trees to prevent surface erosion and provide further stabilization of the slope. These actions should protect stream bank integrity, reduce sediment caused by the previous erosion, improve aquatic habitat conditions by protecting substrates and improving water quality, and reestablish vegetation and habitat in the riparian area adjacent to the creek.

The replacement of the stream crossing culvert was designed to reestablish passage for fish to habitat upstream of the crossing, and to reduce potential sediment associated with an improperly installed and failing culvert. This is consistent with ACS objectives 2, 3, 4 and 5, and the ROD/RMP objective (p. 134) "To preclude stream crossings from being a direct source of sediment to streams thus minimizing water quality degradation and provide [sic] unobstructed movement for aquatic fauna." The replacement culvert is an arch-pipe designed to accommodate a theoretical 100-year flood event. It was sized to accommodate full bank-width flow and was buried in the stream bed to prevent channel downcutting. These features will protect stream bank and channel integrity and reduce sediment potential. This will protect stream substrates, lead to improved water quality, and maintain the quality of aquatic habitat for fish. The pipe was filled with 3 feet of substrate to mimic streambed conditions, thus reducing flow velocities in the pipe and reducing the potential for channel downcutting upstream of the pipe. This will also reduce the potential for sediment, and will allow upstream and downstream passage by aquatic fauna.

The renovation and improvement of BLM Road No. 29-3-33.0 was designed to alleviate water quality problems. This road is primarily located within the Riparian Reserve for Days Creek, along approximately the first 5 miles of its route. This project is consistent with ACS objectives 2, 3, 4, 5 and 6. The project is also consistent with ROD/RMP objectives:

- To minimize concentrated water volume and velocity on the road prism, thus to reduce movement and sedimentation. (p. 133)
- To preclude stream crossings from being a direct source of sediment to streams thus minimizing water quality degradation and provide [sic] unobstructed movement for aquatic fauna. (p. 134)
- To restore or improve a road to a desired standard in a manner that minimizes sediment production and water quality degradation. (p. 136)

Two large stream crossing culverts were armored so that the structures will withstand a theoretical 100-year flood event, and so that the stream banks at the in-flow and discharge ends of the pipes are protected from erosion. Additional cross-drain culverts were installed, and splash pads installed below all cross-drain culverts. This will serve to disperse run-off from road surfaces and ditchlines across the landscape, instead of concentrating it in a few areas. It will also prevent surface erosion and potential sedimentation from culvert out-flow. Culverts on intermittent streams were replaced with larger culverts to allow unobstructed flow, reducing the potential for downcutting of the stream channels and erosion of stream banks. The first 4 miles of the road were surfaced with a lift of 4 inches of crushed aggregate to reduce the potential for erosion of the road surface, and mobilization of sediments. Unstable road fills and exposed road cuts were stabilized and revegetated to reduce the risk of future failure and potential sedimentation.

Follow-up Monitoring:

Follow-up monitoring is pending on Class of 98 timber sale (sold-unawarded).

Conclusion:

Management activities in Riparian Reserves were consistent with SEIS Record of Decision Standards and Guidelines, and RMP management direction.

Comment/Discussion:

None.

Monitoring Question 4:

A) Do all mining operations have a plan of operations that address the required issues identified in the RMP? B) Where alternatives exist, are structures, support facilities, and roads located outside the Riparian Reserves? C) Are all solid and sanitary waste facilities handled as outlined in management direction in the minerals management portion of the RMP?

Monitoring Requirement:

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 management action/direction for Riparian Reserves 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.

Monitoring Performed:

Program review.

Findings:

No plans of operations were filed during fiscal year 2001.

Conclusion:

RMP objectives were met.

Comment/Discussion:

None.

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

Monitoring Question 1:

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

Monitoring Requirements

Status of all Late-Successional Reserve Assessments will be reported.

Monitoring Performed:

LSR Assessments and district Fire Management Plan were reviewed.

Findings:

All large LSRs on the Roseburg District are covered by completed LSR assessments which have been reviewed by the Regional Ecosystem Office. Many of the LSR assessments were joint efforts involving the US Forest Service and other BLM districts. Each LSR assessment includes a Fire Management Plan which guides fire management applications within each specific LSR. The District Fire Management Plan (FMP) defines the districts use of fire management activities including wildfire suppression, fuel hazard reduction, and prescribed fire application, and identifies appropriate fire management activities for Matrix, Riparian Reserves, and Late-Successional Reserves. The FMP guidance is to follow the LSR Fire Plans which are more site specific. Generally the plan is designed to protect LSR habitat through suppression of all wildland fires and the use of fuel treatments within Late-Successional Reserves as needed to reduce fire hazard.

Because of the recent emphasis on reducing risks of catastrophic fires, especially where communities are at risk, updates to the LSR fire management plans and the District FMP will likely occur. Efforts are underway to identify and map fire regimes based on plant associations, and to classify fuel condition using remote imagery. As such information becomes available, high risk areas may be identified and targeted for fuels reduction treatments. The LSR fire management plans and district FMP may be updated when new information warrants changes.

Conclusion:

RMP requirements were met.

Comment/Discussion:

None.

Monitoring Question 2:

Were activities conducted or authorized within Late-Successional Reserves consistent with SEIS Record of Decision Standards and Guidelines, RMP management direction and Regional Ecosystem Office review requirements?

Monitoring Requirements:

At least 20 percent of the activities that are authorized or conducted within Late-Successional Reserves will be reviewed in order to determine whether the actions were consistent with SEIS Record of Decision Standards and Guidelines, RMP management direction and Regional Ecosystem Office review requirements.

Monitoring Performed:

Tree planting, manual maintenance, precommercial thinning, and reforestation surveys.

Findings:

Three acres were planted within Late-Successional Reserve #223 because of a negotiated right-of-way. Four acres were replanted within the LSR#261 due to inadequate stocking from previous plantings. All units were monitored during planting. Douglas-fir, incense cedar, or ponderosa pine appropriate to the site were planted on these units to meet LSR objectives.

A manual maintenance project of 102 acres was done within LSR#223. These units were consistent with the criteria of undesirable vegetation (competition) delaying attainment of late-successional conditions. All the manual maintenance units were reviewed so that they met the treatment specifications required to meet LSR objectives. Certain species were reserved from cutting. Sprouting hardwood clumps were cut to one main sprout to maintain the hardwood component.

Precommercial thinning was done on 1,499 acres within LSRs; 868 acres in LSR#223, 548 acres in LSR#259, and 83 acres in LSR#261. Certain species were reserved from cutting. Sprouting hardwood clumps were cut to one main sprout to maintain the hardwood component. All the thinning units were reviewed so that they met the treatment specifications and LSR objectives from LSR Assessments and REO exemption criteria.

Reforestation surveys were conducted on 2,084 acres within the LSRs to evaluate previous treatments.

Conclusion:

These reforestation, maintenance, and precommercial thinning activities meet the criteria for exemption from REO review or are consistent with the LSR Assessment and are also consistent with the SEIS ROD and RMP.

Comment/Discussion:

None.

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

Monitoring Question 1

What is the status of the development of the Little River Adaptive Management Area plan, and does it follow management action/direction in the RMP ROD (pg 83-83)?

Monitoring Requirements

Report the status of AMA plan in Annual Program Summary as described in Question 1.

Monitoring Performed:

Little River AMA plan reviewed.

Findings:

In October, 1997 REO reviewed a draft of the Little River AMA plan. Both Roseburg BLM and Umpqua National Forest are currently operating under the draft plan. No strategy has been developed yet to finalize the draft plan.

Conclusion:

RMP requirements were met.

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

Monitoring Question 1:

Is 25-30 percent of each Connectivity/Diversity Block maintained in late-successional forest condition as directed by RMP management action/direction?

Monitoring Requirements.

At least 20 percent of the files on each year's timber sales involving Connectivity/Diversity Blocks will be reviewed annually to determine if they meet this requirement.

Monitoring Performed:

None

Findings:

No timber sales involving regeneration harvest were sold in fiscal year 2001.

Conclusion:

Guidelines established by the RMP have been met.

Comment/Discussion:

None.

Monitoring Question 2

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

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.

Monitoring Performed:

None

Findings:

No timber sales involving regeneration harvest were sold in fiscal year 2001.

Conclusion:

No regeneration harvest timber sales have been planned in watersheds with less than 15 percent late-successional forest. RMP objectives have been met.

Comment/Discussion:

None.

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

Monitoring Question 1:

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

Monitoring Requirements

At least twenty percent of prescribed burn projects carried out in fiscal year 2001 and subject to the current RMP will be randomly selected for monitoring to assess what efforts were made to minimize particulate emissions.

Monitoring Performed:

Program review.

Project Monitored, Specific Information:

Approximately 154 acres of piled slash were burned from November 3 to 8 in FY 2001 in Right View unit #1 and 5, Four Gates units #1-3, Bit of Honey unit #2, Coon Creen unit #1, Devour Right of Way #1, and Wolf Pine unit #10.

Findings:

South River Resource Area - The South River Resource Area accomplished 111 acres of prescribed broadcast burning in the spring of fiscal year 2000. All burning was done under approved Smoke Management clearance from the Oregon Department of Forestry. Four timber sale units were burned between April 27th and May 9. Landing on all units had been burned during the prior fall and winter. Short duration burns were achieved on all units. Significant rains occurred during the days following the ignitions which minimized residual smoke and facilitated rapid mopup. All units were free of visual smokes within 1 week of being burned. Patrols utilizing infrared equipment located a few residual hot spots approximately 1 month later. All units were 100% moped up prior to start of fire season. No smoke intrusions were reported from any of these prescribed burns.

Swiftwater Resource Area - Successful efforts were made to minimize particulate emissions from prescribed burning. Smoke management approval for burning the three units was secured. Weather conditions featuring unstable air masses were present the days of ignition. This provided good vertical lifting and mixing, aiding in rapid dispersion of the smoke (particulate emissions). These units were burned in the fall of 2000 after some rain had soaked the ground and duff layers. No smoke intrusions occurred for the local Designated Areas monitored by the Douglas Forest Protection Agency.

Conclusion:

South River Resource Area - Efforts were made to reduce particulate emissions from prescribed burns.

Swiftwater Resource Area - RMP requirements were met.

Comment/Discussion:

None.

Monitoring Question 2:

Are dust abatement measures used during construction activities and on roads during BLM timber harvest operations and other BLM commodity hauling activities where needed?

Monitoring Requirements:

At least 20 percent of the construction activities and commodity hauling activities carried out in fiscal year 2001 and subject to the current RMP will be monitored to determine if dust abatement measures were implemented where needed.

Monitoring Performed:

Program review.

Findings:

No road construction activities or timber harvest operations occurred during fiscal year 2001 that required dust abatement measures.

Conclusion:

RMP requirements were met.

Comment/Discussion:

None.

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

Monitoring Question 1:

Are site specific Best Management Practices(BMP), identified as applicable during interdisciplinary review, carried forward into project design and execution?

Monitoring Requirement:

At least 20 percent of the timber sales and silviculture projects will be selected for monitoring to determine whether or not Best Management Practices were planned and implemented as prescribed in the E.A.. The selection of management actions to be monitored should include a variety of silvicultural practices, Best Management Practices, and beneficial uses likely to be impacted where possible given the monitoring sample size.

Monitoring Performed:

Kola's Ridge Commercial Thinning. Follow-up monitoring is pending on Dream Weaver

timber sale(sold-unawarded) -97, Buck Fever timber sale(sold-unawarded)-97, and Class of 98 timber sale (sold-unawarded)-98.

Findings:

Kola's Ridge Commercial Thinning: Soils related BMP identified as applicable during the interdisciplinary review and EA process were carried forward into on the ground project design.

Follow-up Monitoring:

Follow-up monitoring is pending on Dream Weaver timber sale (sold-unawarded) -97, Buck Fever timber sale (sold-unawarded)-97, and Class of 98 timber sale.

Conclusion: Requirements were met.

Comment/Discussion:

None.

Monitoring Question 2:

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

Monitoring Requirement:

South River Resource Area - Watershed analysis will be reviewed for status.

Swiftwater Resource Area - The Annual Program Summary

Monitoring Performed:

Program review.

Findings:

South River Resource Area

Watershed Analysis	Date Completed
John/Days/Coffee	September 1995
Stouts/Poole/Shively-O'Shea	January 1996
Myrtle Creek	January 1997 (Supplement added July 1998)
Deadman/Dompier	April 1997
Cow Creek	September 1997
Oialla-Lookingglass	April 1998
Canyonville/Canyon Creek	December 1998
Upper Middle Fork Coquille	May 1999
Middle South Umpqua	November 1999
Lower South Umpqua	May 2000
South Umpqua (Second Iteration)	March 2001

Watershed analysis has been completed for the South Umpqua and Middle Creek Key Watersheds within the South River Resource Area, as of September 1997. The first iteration of watershed analysis has been completed for all of the watersheds in the South River Resource Area.

Swiftwater Resource Area - The Middle North Umpqua watershed analysis was completed in July, 2001. This analysis covered both Forest Service lands and some small slivers of BLM lands in the Williams Creek key watershed. Watershed Analyses have been completed for key watersheds, Smith River, Canton Creek, and Williams Creek.

Conclusions:

RMP requirements were met.

Comment/Discussion:

None.

Monitoring Question 3:

What watershed restoration / rehabilitation projects are being developed and implemented?

Monitoring Requirement:

Watershed restoration / rehabilitation projects will be reviewed for status.

Monitoring Performed:

Program review.

Findings:

South River Resource Area - The district's rehabilitation work was accomplished jointly through the BLM's maintenance program, Job-in-the-Woods funding, the district's timber sale program, and various other sources of funding. Projects that were developed and /or implemented in fiscal year 2001 include those identified as road improvements and full decommissioning, and replacement/upgrading of major culverts to pass the 100-year flood, as well as to provide fish passage, and stream channel restoration.

Following are specific watershed restoration/rehabilitation projects developed and/or implemented in fiscal year 2000 that were funded independently of timber sales:

Road Decommissioning to decrease sedimentation

- 4.8 miles of decommissioning in Upper Smith River.

Road Improvements

- Improvement of 9.5 miles of road along Days Creek.
- Improvement of 3.5 miles of road in Upper Smith River.

Barriers to Fish Passage Removed

- Six culverts in Upper Smith River were either removed or replaced in order to restore fish passage at each location.
- One culvert in Days Creek was replaced in order to restore fish passage.
- BLM provided funding and technical support to the Watershed Council for a project on Fate Creek, a tributary of Days Creek. The project, which occurred on private land, included modification of a dam to restore fish passage and creation of an off-stream watering source to keep livestock out of the stream.

In-stream Placement of Large Wood and stream bank stabilization:

- Large wood was placed in approximately one mile of streams in the Upper Smith River watershed to improve fish habitat.
- Large wood was placed in approximately one quarter of a mile of Days Creek in order to improve fish habitat.
- Approximately 100 yards of stream bank along Days Creek was stabilized.

Swiftwater Resource Area - The Swiftwater Resource Area had a higher level of implementing watershed restoration and rehabilitation projects in FY 2001 through Job-in-the-Woods and the Oregon Watershed Enhancement Board funding. Within the Upper Smith watershed, projects were targeted to increase benefits to water quality, fish, and wildlife habitat and focused on opening up fish habitat with culvert replacements or removals, reducing risks from roads, and enhancing stream and riparian habitat. BLM also partnered with other key landowners in the watershed to accomplish a greater amount of rehabilitation work. The following summarizes the restoration/rehabilitation work accomplished that includes work with partners.

Conclusions:

RMP objectives were met.

Upper Smith Salmon Restoration FY 2001

Fish Barrier or High Risk Culvert Replacements or Removals

BLM 8 large culverts were either replaced or removed to provide fish passage or reduce risk of failure. Access to approximately 7.4 miles of stream/fish habitat were improved.

Seneca 2 large culverts were removed to provide fish passage or reduce the risk of failure. Access to approximately 1 mile of stream/fish habitat were improved.

Road Decommission and Risk Reduction

BLM 4.8 miles of road decommissioned Decreased sedimentation, improved riparian habitat and hydrology.

BLM 3.5 miles of roads treated to reduce risks. Decreased sedimentation, improved hydrology.

In-stream Large Wood and Boulder Placement, Tree Felling, Riparian Conversion

BLM, Seneca, 7 miles of stream Increased stream/fish habitat
WEYCO

Seneca 30 acres riparian treated/plant to conifer Improved riparian habitat

Comment/Discussion:

None.

Monitoring Question 4:

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

Monitoring Requirement:

The Annual Program Summary will address Implementation of Question 4.

Monitoring Performed:

Program review.

Findings:

South River Resource Area - The Western Oregon Transportation Management Plan was implemented in 1996. An update revision began in 2001 and is currently in the review phase. Transportation Management Objectives (TMOs) have been written for most of the BLMs road system, although approximately 5% are unfinished. The written TMOs have been incorporated into the Ground Transportation Network. An up-to-date and functioning storm patrol plan is in place for the resource area.

Swiftwater Resource Area - Specific Road Management Objectives are being developed through watershed analysis.

Conclusions:

RMP objectives were met.

Comment/Discussion:

None.

Monitoring Question 5:

What is the status of closure, elimination or improvement 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?

Monitoring Requirement:

The Annual Program Summary will address Implementation Question 5.

Monitoring Performed:

Program review.

Findings:

South River Resource Area - Since the RMP was implemented, 13.60 miles of permanent road have been built throughout the South River Resource Area (3.17 miles under RMP sales, and 10.43 miles under right-of-way agreements). Of these roads, 1.87 miles have been built in a Tier I Key Watershed (there are no Tier II Key Watersheds on the Roseburg District BLM). An additional 0.03 miles of permanent road is proposed to be built, but not within a Tier I Key Watershed.

Since the RMP was implemented, 17.16 miles of road have been fully decommissioned (6.69 miles within Tier I Key Watersheds and 10.30 miles outside of Key Watersheds). An additional 2.97 miles of road are proposed to be fully decommissioned outside of Tier I Key Watersheds.

Through fiscal year 2001, there has been a net decrease of 4.82 miles of road within Tier I Key Watersheds in the South River Resource Area. There has also been a slight increase of 1.43 miles of road outside of Tier I Key Watersheds for the Resource Area.

Swiftwater Resource Area - The following definitions were used for categorizing the road status in the tables below.

Status

Completed - All road construction and/or decommissioning within a contract has been completed and approved.

Active - Contract has been awarded but road construction and/or decommissioning within a contract has NOT been completed and approved.

Proposed - Road construction and/or decommissioning projects where the contracts have not yet been awarded for FY 98.

Road Activities

Improve Drainage &/or Road Surfacing - Road improvements in which extra drainage structures are added and/or rock is added using BMPs in order to raise the road level to current RMP standards, effectively reduce sedimentation, and increase infiltration of intercepted flows.

Temporary Road Construction - Roads that are constructed and then fully decommissioned in the same season.

Semi-Permanent Road Construction - Roads that are constructed and then fully decommissioned within the life of the contract.

Decommission - Existing road segment will be closed to vehicles on a long-term basis, but may be used again in the future. Prior to closure, the road will be prepared to avoid future maintenance needs; the road will be left in an "erosion-resistant" condition which may include establishing cross drains, and removing fills in stream channels and potentially unstable fill

areas. Exposed soils will be treated to reduce sedimentation. The road will be closed with a device similar to an earthen barrier (tank trap) or equivalent.

Full Decommission - Existing road segments determined to have no future need may be subsoiled (or tilled), seeded, mulched, and planted to reestablish vegetation. Cross drains, fills in stream channels and potentially unstable fill areas may be removed to restore natural hydrologic flow. The road will be closed with a device similar to an earthen barrier (tank trap) or equivalent.

Conclusion:

RMP requirements to reduce overall road mileage within Key Watersheds were met.

Comment/Discussion:

There were 0.06 miles of new road constructed by private right-of-way holders in Key Watersheds in fiscal year 2001.

Monitoring Question 6:

Have forest management activities implemented the management direction for ground based systems and mechanical site preparation as listed in the fiscal year 2001 Plan Maintenance?

Monitoring Requirement:

All ground based activities, including mechanical site preparation, will be assessed after completion to determine if management direction has been implemented.

Monitoring Performed:

South River Resource Area - Burma Shave Commercial Thinning (units 1 and 2) were inspected to determine if forest management activities involving ground based systems, improved or maintained soil productivity.

Swiftwater Resource Area - Program review showed that there were no timber sales in Swiftwater R.A where ground based activities took place.

Findings:

South River Resource Area - Amelioration of skid trails consisted of tilling compacted soil and covering the tilled areas with logging slash. A natural surface haul road was also tilled and covered with logging slash. Forest management activities have implemented the management direction for ground based systems as listed in the Fiscal Year 2001 Plan Maintenance.

Conclusion:

RMP requirements have been met.

Comment/Discussion:

An excavator with an attached tillage implement was field tested on these units to determine effectiveness for future use in ameliorating compacted soil areas. This equipment proved to be effective but was too large to operate on all the compacted areas. A smaller version is being built by the maintenance crew and will be ready for use by the spring of 2002. The excavator bucket has two ripper shanks with a winged tooth on each shank. There is also a mechanical thumb on the bucket for grabbing and holding material such as logging slash and brush. Soil resource damage caused by ground based activities may be ameliorated at initial entry or at final harvest as determined by management decision.

Monitoring Question 7:

Was prescribed burning on highly sensitive soils (Category I) avoided? If prescribed burning took place on highly sensitive soils was a rationale and analysis provided in the environmental assessment or other documents of why the burning was essential for resource management and was there a site specific prescription provided to minimize adverse impacts on soil properties? Was the prescription to minimize impacts on soil properties implemented successfully?

Monitoring Requirement:

All prescribed burning on highly sensitive soils carried out in the last fiscal year will be assessed to answer question 7.

Monitoring Performed:

South River Resource Area - Program Review.

Swiftwater Resource Area - Program review showed that there were no timber sales in Swiftwater R.A containing "category 1" soil units.

Findings:

South River Resource Area - No prescribed burning occurred on highly sensitive soils in fiscal year 2001.

Swiftwater Resource Area - N/A

Conclusion:

RMP requirements were met.

Comment/Discussion:

None.

Table 30. Roseburg District Key Watershed Road Projects through Fiscal Year 2001.

5 th Field Watershed	Status	Permanent New Road Construction (miles)	Temporary Road Construction (miles)	Semi-Permanent Road Construction (miles)	Decommission Existing Roads (miles)	Full Decommission Existing Roads (miles)	Improve Drainage &/or Rock Existing Natural Surface Road (miles)
South Umpqua	Completed Active Proposed						
Cow Creek	Completed Active Proposed						
Canton Creek	Completed ¹ Active Proposed ²		0.1		2.0	27.6	22.0
Upper & Middle Smith River	Completed Active Proposed	1.4 0.3	2.0		6.3 6.1	1.9 1.6	3.7 30.0 39.4
Total		1.7	2.1	0	14.4	39.4	114.5

¹ These figures include USFS completed activities which are part of the federal land base in this 5th field watershed.

² These figures include USFS planned activities which are part of the federal land base in this 5th field watershed.

Table 31. Swiftwater Non-Key Watershed Road Projects through Fiscal Year 2001.

5 th Field Watershed	Status	Permanent New Road Construction (miles)	Temporary Road Construction (miles)	Semi-Permanent Road Construction (miles)	Decommission Existing Roads (miles)	Full Decommission Existing Roads (miles)	Improve Drainage &/or Rock Existing Natural Surface Road (miles)
Elk Creek	Completed	0.1	0.9		2.8	1.4	14.8
	Active	1.1	2.8			1.3	20.3
	Proposed	0.6	1.2		0.9	0.5	7.0
Upper Umpqua	Completed	0.2	1.8		1.4	3.9	18.7
	Active		0.1				8.0
	Proposed		0.2				0.5
Calapooya	Completed	0.1		1.1		0.2	2.2
	Active		0.5			0.5	2.4
	Proposed		0.3		2.3	0.8	8.7
Little River ¹	Completed		2.0	1.2		2.9	49.3
	Active	0.5	1.3		0.5	13.4	23.0
	Proposed				1.2		6.4
Rock Creek	Completed		0.6		0.9	0.9	5.0
	Active						
	Proposed		0.8			0.3	1.7
Lower N. Umpqua	Completed		0.2		12.3	0.6	
	Active						
	Proposed						
Middle N. Umpqua	Completed	0.2	0.7		0.4	2.4	5.7
	Active						
	Proposed						
R/W Plats 95-97		5.3					
Total		8.1	13.4	2.3	22.7	29.1	173.7

¹ Figures include USFS activities in this 5th field watershed which are part of the federal land base.

Table 32. South River Key Watershed Road Projects through Fiscal Year 2001.

5 th Field Watershed	Status	Permanent New Road Construction (miles)	Temporary Road Construction (miles)	Semi-Permanent Road Construction (miles)	Decommission Existing Roads (miles)	Full Decommission Existing Roads (miles)	Improve Drainage &/or Rock Existing Natural Surface Road (miles)
Lower Cow Creek	Completed	0.30					0.22
South Umpqua River	Completed	1.57	2.36	0.86	1.20	5.98	37.55
	Proposed		0.27				0.21
Middle South Umpqua River/ Dumont Creek	Completed		0.06			0.71	
Total	Proposed	0	0.27	0	0	0	0.21
Total	Active	0	0	0	0	0	0
Total	Completed	1.87 ¹	2.42 ²	0.86	1.20	6.69	37.77

¹ 0.98 miles of the total 1.81 miles of permanent road were built by private Right-of-way holders.

² 0.05 miles of the total 2.42 miles of temporary road were built by private Right-of-way holders.

Table 33. South River Non-Key Watershed Road Projects through Fiscal Year 2001.

5 th Field Watershed	Status	Permanent New Road Construction (miles)	Temporary Road Construction (miles)	Semi-Permanent Road Construction (miles)	Decommission Existing Roads (miles)	Full Decommission Existing Roads (miles)	Improve Drainage &/or Rock Existing Natural Surface Road (miles)
Lower Cow Creek	Completed	5.37					
Middle Fork Coquille River	Completed	0.40	1.87				6.83
	Proposed		0.11				0.80
Myrtle Creek	Completed	1.72	2.80			4.86	30.81
	Proposed ²	0.03	1.88	0.37		2.97	25.37
Middle South Umpqua River/Rice Creek	Completed	2.20		0.13		0.11	
Olalla Creek/ Lookingglass Creek	Completed	0.80				3.00	11.22
South Umpqua River	Completed	1.24				2.33	2.78
Total	Proposed	0.03	1.99	0.37	0	2.97	26.17
Total	Active	0	0	0	0	0	0
Total	Completed	11.73 ¹	4.67	0.13	0	10.30	51.64

¹ 9.45 miles of the total 11.73 miles of permanent road were built by private Right-of-way holders.² Associated with sales for which the decisions were set aside by IBLA and remanded to the District.

Wildlife Habitat

Expected Future Conditions and Outputs

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

Implementation Monitoring

Monitoring Question 1:

Are suitable (diameter and length) numbers of snags, coarse woody debris, and green trees being left, in a manner as called for in the SEIS Record of Decision Standards and Guidelines and RMP management direction?

Monitoring Requirement:

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. 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.

Monitoring Performed:

Program review.

Findings:

No Regeneration harvest timber sales occurred during fiscal year 2001.

Follow-up Monitoring

Followup monitoring is pending on Class of 98 timber sale (sold-unawarded), Dream Weaver timber sale (sold-unawarded), and Sweet Pea timber sale (sold-unawarded).

Conclusion:

RMP objectives are being met.

Comment/Discussion:

None.

Monitoring Question 2:

Are special habitats being identified and protected?

Monitoring Requirement:

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.

Monitoring Performed:

South River Resource Area - Kola's Ridge Commercial Thinning.

Swiftwater Resource Area - Program was reviewed for status of restoration projects.

Findings:

South River Resource Area - Line transect surveys were conducted throughout the project area for several Survey and Manage species according to protocol. Although protection buffers were required for Survey and Manage species within the project area, no special habitats were found to occur.

Swiftwater Resource Area - No wildlife restoration projects were planned or developed in fiscal year 2001.

Conclusions:

RMP requirements were met.

Comment/Discussion:

None.

Monitoring Question 3:

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

Monitoring Requirement:

South River Resource Area - The Annual Program Summary will address Question 3.

Swiftwater Resource Area - Review program for status of restoration projects.

Monitoring Performed:

Review AWP accomplishments.

Findings:

The Area Lead Wildlife Biologist and Silviculturist began scoping for the Slimewater Creek Density Management Project in fiscal year 1998. The Environmental Analysis and the silvicultural prescription was completed the second quarter of fiscal year 2001. This project is in the South Umpqua River/Galesville LSR and is designed to meet the objectives of LSR management by implementing a treatment that would lead to a multilayered forest canopy, large trees, canopy gaps for spatial diversity, understory development, snags, and down wood. The interdisciplinary team concentrated on the specifics of how to accelerate the development of late-successional forest and address prevention of large scale disturbance by fire, wind, insects or disease, that would destroy or limit the ability of the LSR to sustain viable late-successional forest conditions and their associated species populations.

Conclusions:

RMP requirements were met.

Comment/Discussion:

A Decision Record was signed and the project was offered for bid in November, 2001, but was not sold.

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

Monitoring Question 1:

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

Monitoring Requirements

The Annual Program Summary will report on the status of the design and implementation of fish habitat restoration and habitat activities.

Monitoring Performed:

Program review.

Findings:

South River Resource Area - One complex restoration project was designed and implemented during fiscal year 2001 - Days Creek Road Renovation, Stream Bank Stabilization and Stream Crossing Culvert Replacement. The Bingham Creek Culvert Replacement, designed in fiscal year 2000 and scheduled for completion in fiscal year 2001, is rescheduled for implementation in fiscal year 2002. ACS Objectives were considered in both project designs.

Days Creek Road Renovation, Stream Bank Stabilization and Stream Crossing Culvert Replacement

An environmental assessment was completed during fiscal year 2001 and the project was implemented and completed during the summer of 2001. The purpose of the project was to renovate 9.34 miles of Days Creek Road including the armoring of two stream crossings, stabilize approximately 200 feet of an undercut and eroding bank along Days Creek including the placement of 13 log structures in Days Creek, and replace a large stream crossing culvert on a tributary to Days Creek which was precluding fish passage.

Days Creek is located within a Tier 1 Key Watershed and is an important rearing and spawning watershed for salmonids. The road renovation part of this project was identified to reduce sediment input from Day's Creek Road into Days Creek and prevent future road and culvert failure which could impact important fish habitat. Approximately 200 feet of a streambank along Days Creek was failing, contributing sediment to the stream, and adversely impacting fish habitat. Stabilization of this bank along with the placement of 13 instream log structures will improve fish habitat along this section of Days Creek. The replacement of a large culvert on a Days Creek tributary was identified to allow anadromous fish passage to suitable spawning and rearing habitat.

This project provides for the restoration of the physical integrity of the aquatic system, maintenance and restoration of the sediment regime, maintenance and restoration of spatial and temporal connectivity in the watershed, maintenance and restoration of in-stream flows, and maintenance and restoration of habitat, which is consistent with the Aquatic Conservation Strategy (ROD/RMP, pp.20-21). The action also meets objectives outlined in the Best

Management Practices (Appendix D, ROD/RMP p.130 and 141) such as: "To preclude stream crossings from being a direct source of sediment to streams thus minimizing water quality degradation and provide unobstructed movement for aquatic fauna", "To prevent damage to riparian ecosystems and disturbance to streambanks, protect the natural flow of streams and preserve nutrient cycling from woody debris consistent with the Aquatic Conservation Strategy", "To restore or improve a road to a desired standard in manner that minimizes sediment production and water quality degradation", and "To mitigate and minimize damage to riparian vegetation, streambanks, and stream channels". Consultation with National Marine Fisheries Service concluded that the effects of the road decommissioning and in-stream work would be short-term and localized in nature, and that long term impacts from this project are considered to be beneficial to the fisheries/aquatic resources. RMP requirements have been met and no follow-up monitoring is required.

Bingham Creek Culvert Replacement

An environmental assessment was completed during fiscal year 2000 and the project was scheduled for summer 2001. This project was not completed in 2001 due to contracting difficulties but is planned for 2002, after which time follow up monitoring will occur. The purpose of this project is to replace two large culverts because of the risk of near term failure. These replacements will also provide for fish passage through the new culverts.

Swiftwater Resource Area - Culvert replacements for fish passage, see projects listed above under Watershed Restoration.

Conclusions:

RMP objectives have been met. Aquatic Conservation Strategy Objectives were met.

Comment/Discussion:

None.

Monitoring Question 2:

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

Monitoring Requirements:

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.

Monitoring Performed:

Days Creek Road Renovation, Stream Bank Stabilization and Stream Crossing Culvert Replacement. Followup monitoring is pending on Class of 98 timber sale(sold-unawarded), Dream Weaver timber sale(sold-unawarded) and Kola's Ridge timber sale (sold-unawarded). Followup monitoring is pending on Bingham Creek Culvert Replacement upon project completion.

Findings:

Days Creek Road Renovation, Stream Bank Stabilization, and Stream Crossing Culvert Replacement

An environmental assessment was completed during fiscal year 2001 and the project was implemented and completed during the summer of 2001. The purpose of the project was to renovate 9.34 miles of Days Creek Road including the armoring of two stream crossings, stabilize approximately 200 feet of an undercut and eroding bank along Days Creek including the placement of 13 log structures in Days Creek, and replace a large stream crossing culvert on a tributary to Days Creek which was precluding fish passage.

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RMP requirements have been met and no follow-up monitoring is required.

Bingham Creek Culvert Replacement

An environmental assessment was completed during fiscal year 2000 and the project was scheduled for summer 2001. This project was not completed in 2001 due to contracting difficulties but is planned for 2002, after which time follow up monitoring will occur. The purpose of this project is to replace two large culverts because of the risk of near term failure. These replacements will also provide for fish passage through the new culverts.

Kola's Ridge Timber Sale

An environmental assessment (EA) was completed during fiscal year 1998 and the project was sold - unawarded in fiscal year 2001. All harvest units are located seven or more miles above a natural fish barrier which precludes resident and anadromous fish. Fish were not detected utilizing stream habitat within the project area. The proposed quarry site is about 700 feet above a natural fish barrier which precludes resident and anadromous fish. The fisheries analysis for the EA indicates that there are no discernable means by which sediment could be transported to the stream, which could potentially effect fish habitat down-stream. Because no effects to fish or fish habitat are expected from this project, no follow-up monitoring is necessary.

Followup Monitoring:

None completed.

Conclusions:

RMP objectives have been met.

Comment/Discussion:

None.

Special Status 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

Monitoring Question 1:

Do management actions comply with plans to recover threatened and endangered species?

Monitoring Requirement:

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 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.

Monitoring Performed:

Programs were assessed for compliance with recovery plans.

Findings:

Proposed actions that have the potential to affect the species listed above were assessed through an interdisciplinary or multi disciplinary process (depending on type, scope and sensitivity of the project) which considered consistency and compliance with recovery plans.

Conclusions:

RMP requirements were met.

Comment/Discussion:

None

Monitoring Question 2:

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

Monitoring Requirement:

The Annual Program Summary will address Implementation Question 2.

Monitoring Performed:

Program Review.

Findings:

South River Resource Area - Coordination with other agencies like the USFWS and NMFS was done to meet the consultation needs under the Endangered Species Act (1973) as amended. Consultation was done for a variety of projects that included 505 acres of commercial thinning, 200 hazard trees, plus tree clearing, 1,250-2,000 acres of pre-commercial thinning, roadside salvage, culvert replacement, rock quarry operation, tree lining, and other miscellaneous actions. Other coordination with ODF&W, Oregon State University, ONHP, etc. occurred while updating information about purple martin populations, western pond turtle populations, bald eagle, and bat populations in Douglas Co.

Swiftwater Resource Area - BLM, ODFW, USFWS, USFS, and NMFS coordinate efforts in research and public education on many special status species.

Conclusions:

RMP requirements were met.

Comment/Discussion:

Update of information refers to the contacting other agencies to gather the latest information about a particular species.

Cultural Resources

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

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?

Monitoring Requirements

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.

Monitoring Performed

Days Creek Bank Stabilization Project

Findings:

Days Creek Bank Stabilization Project.

A cultural project tracking form under the Oregon BLM/SHPO cultural resource protocol was completed. It documents that field exams, site file reviews and inventory record reviews were conducted by the area Cultural Resource Specialist who concluded that site 35DO679 may be impacted by this action. A formal evaluation was conducted by Cascade Research. In consultation with the State Historic Preservation Office the site was determined to be "not significant". The project could proceed with no follow-up monitoring required.

Conclusion:

Cultural resources have been addressed in deciding whether or not to go forward with fiscal year 2001 actions. RMP requirements were met.

Comment/Discussion:

None.

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

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?

Monitoring Requirements

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.

Monitoring Performed

Program review of all Fiscal Year 2001 actions.

Findings:

There were no major actions or timber sales in 2001 that impacted VRM Class II or III lands. No followup was required from the previous years monitoring as no actions occurred in VRM class II or III lands.

Conclusion:

RMP requirements were met.

Comment/Discussion:

None.

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

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?

Monitoring Requirements

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.

Monitoring Performed:

All Fiscal Year 2001 projects.

Findings:

No actions occurred within rural interface areas in the South River Resource Area, as identified in the PRMP/EIS (Map 6) as lands zoned R-5. There is no pending followup monitoring.

Conclusions:

RMP objectives were met.

Comment/Discussion:

None.

Recreation

Expected Future Conditions and Outputs

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

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

Implementation Monitoring

Monitoring Question 1:

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

Monitoring Requirements

The Annual Program Summary will address implementation question 1.

Monitoring Performed:

Program review of all established recreation sites.

Findings:

The Cow Creek Recreation Management Plan is complete and was approved by the Field Manager in April of 2001.

Conclusion:

RMP requirements were met.

Comment/Discussion:

Recreation statistics are documented in the 2001 Recreation Management Information System (RMIS).

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 to 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

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?

Monitoring Requirements

Review program and actions for consistency with RMP objectives and direction.

Findings:

The Roseburg District has 12 special areas that total 11,323 acres. Defensibility monitoring has been conducted annually on all ACEC/RNAs since publication of the RMP. Unauthorized use by OHVs was detected at the North Myrtle Creek and Bushnell-Irwin ACEC/RNAs in fiscal year 2001. OHV barriers were constructed at three separate locations at the two ACEC/RNAs in an attempt to restrict unauthorized access. OHV trails in the Bushnell-Irwin ACEC/RNA were rehabilitated. Noxious weeds were controlled at the Myrtle Island and Bear Gulch ACEC/RNAs. Defensibility monitoring will continue in fiscal year 2002.

Baseline fungi, lichen, and bryophyte inventories have been completed at six ACEC/RNAs, one ACEC, and one candidate ACEC. A checklist for vascular plants was completed and published for the Myrtle Island ACEC/RNA in fiscal year 2001.

A land exchange to expand the Beatty Creek ACEC/RNA was initiated in fiscal year 2001 and an Environmental Assessment is currently being prepared on the proposal.

Conclusion:

RMP requirements were met.

Monitoring Question 2:

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

Findings:

Databases for vascular plant checklists were developed for all ACEC/RNAs. Draft

management plans have been completed for four ACEC/RNAs. Three of these draft plans were finalized in fiscal year 2001. The EIS ROD was signed and a management plan was completed for the North Bank Area of Critical Environmental Concern in fiscal year 2001. Seven ACECs were nominated by the public in the Final RMP. Five of these nominations were reviewed by the South River Field Office and decisions finalized in fiscal year 2001. All five areas were determined not to meet ACEC criteria. All remaining nominated areas are currently being managed to protect the proposed relevant and important values.

Conclusion:

RMP requirements were met.

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

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?

Monitoring Requirements

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.

Monitoring Performed:

High-level monitoring of recreation use in the North Umpqua River was conducted daily between May 20 and Sept 20, 2001 through a Cooperative Management Agreement between the Roseburg District BLM and the Umpqua National Forest, North Umpqua Ranger District. BLM had the lead on monitoring in the entire river corridor; USFS had the lead on issuing Special Recreation Permits (13) to commercial river outfitters. Employees engaged in monitoring included one full time BLM River Manager and one temporary USFS person. BLM covered the salary of the USFS temp. Objectives of the river survey were to:

- Monitor the five outstanding remarkable values on the North Umpqua W&SR, as listed above.
- Provide a BLM/USFS presence on the river to contact, inform, and educate users.
- Document and monitor visitor use including commercial and public use.
- Coordinate management of the river between the BLM and Umpqua National Forest.
- Identify, minimize and manage safety hazards and user conflicts on the North Umpqua River.

Findings:

- 2001 Use:
- Boating Use: 420 visits (BLM segment - down from 650 in 2000)
 - Fishing Use: 2,902 visits (BLM segment - up from 2,345 in 2000)
 - For entire W&S River: Commercial Adjusted Use - 1,704 visits;
Private adjusted use - 3,378 visits.
 - Conflict between users: No major incidents were reported on the BLM segment of the Wild & Scenic River in fiscal year 2001. Groups monitored included boaters, campers along the river, anglers, fly-fishermen.
 - Major issue in 2001: Campground host stress was higher than normal at all BLM campgrounds, particularly Susan Creek Recreation Site which had 4 different hosting couples during the use season. Two quit abruptly from the tension. Post evaluations indicated a need to move host site from "ground zero" to a site closer to the entrance of the campground, away from the busy hustle.

Interim management for Roseburg District Eligible Recreational Rivers is to exclude timber harvest in the riparian reserves, moderately restrict development of leasable and salable minerals, and protect a segment's free flowing values and identified ORVs. In undesignated segments, BLM has provided interim protective management for ORVs identified on BLM-lands along river segments determined eligible but not studied for inclusion as components of the National Wild & Scenic Rivers System.

Conclusion:

RMP requirements were met.

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

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?

Monitoring Requirements

Program Review

Findings:

The Jobs-in-the-Woods program is a principle strategy along with forest development and other contracting.

Conclusion:

RMP requirements were met.

Monitoring Question 2:

Are RMP implementation strategies being identified that support local economies?

Monitoring Requirements

Program Review

Findings:

Contracting of implementation projects related to RMP programs, and facilities have supported local economies.

Conclusion:

RMP requirements were met.

Monitoring Question 3:

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

Monitoring Requirements

Program Review

Findings:

North Bank Habitat Management Area ACEC is currently undergoing planning for local recreational and wildlife viewing opportunities consistent with other ACEC objectives. Further detail of recreational or other amenities that would enhance local communities are described in the Annual Program Summary.

Conclusion:

RMP requirements were met.

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

Monitoring Question 1:

By land-use allocation, how do timber sale volumes, harvested acres, and the age and type of harvest compare to the projections in the RMP?

Monitoring Requirements:

Program and data base review. The Annual Program Summary will report volumes sold. The report will also summarize annual and cumulative timber sale volumes, acres to be harvested, and stand ages and types of harvest for General Forest Management Areas, Connectivity/Diversity Blocks and Adaptive Management Areas, stratified to identify them individually.

Monitoring Performed:

Program and data base were reviewed and summary prepared.

Findings:

see table 22.

Finding:

The comparison of timber sale volumes and harvested acres reveal substantive differences compared to the RMP management action/direction ASQ of 7.0 million cubic feet (45 million board feet) and RMP assumptions regarding mix of harvest types and number of regeneration and thinning acres.

Discrepancies in this question involved the following:

	Fiscal Year 2001	Projected	% of Projected
Total Timber Sale Vol:	2.7 MMBF	49.5 MMBF	3%
Matrix Timber Sale Vol:	2.1 MMBF	45.0 MMBF	2%
Other wood	0.2 MMBF	4.5 MMBF	4%
Key Watershed TS Vol:	0.8 MMBF	8.3 MMBF	8%
Total Regen Harvest	0 acres	1190 acres	0%
Total Comm Thinning	87 acres	84 acres	100%
Total Density Mgt	0 acres	66 acres	0%

Comment/Discussions:

Several factors have created a situation whereby the Roseburg District is falling short of producing the ASQ set forth in the Roseburg District RMP, as well as falling short of the anticipated mix of harvest types and harvest acres. By fiscal year 2001, over the six year life of the RMP to date, the Roseburg District is at 50% of the RMP anticipated total timber sale volume, 48% of matrix harvest, 53% of RMP anticipated density management harvest in

reserves, and 23% of RMP anticipated harvest in the Little River Adaptive Management Area. Because the interdisciplinary teams and management has found that thinning is easier to implement than regeneration harvests, the acreage of commercial thinning is at 122% of that anticipated in the RMP.

The RMP Management Action/Direction for Timber Harvest states:

“The allowable sale quantity for the resource management plan is an estimate of annual average timber sale volume likely to be achieved from lands allocated to planned, sustainable harvest. This estimate, however, is surrounded by uncertainties.”

“The allowable sale quantity represents neither a minimum level that must be met nor a maximum level that cannot be exceeded. It is an approximation because of the difficulty associated with predicting actual timber sale levels over the next decade, given the complex nature of many of the management actions/direction. It represents BLM’s best assessment of the average amount of timber likely to be awarded annually in the planning are over the life of the plan, following a start-up period.”

Except for the District declared Allowable Sale Quantity, projections are not intended as management action/direction, but rather are underlying RMP assumptions. Projected levels of activities are the approximate level expected to support the Allowable Sale Quantity.

In FY2001 2.7 million board feet (MMBF) was sold. This represents 6% of the 45 MMBF allowable sale quantity. Cumulative information on timber harvest acres, volumes, and harvest types since the adoption of the RMP are provided in the Timber Resources section of the Annual Program Summary.

Short term legal, administrative, and Northwest Forest Plan implementation challenges have limited the ability to offer timber sales at the levels anticipated by the RMPs. These include:

Survey and Manage standard and guideline: The current constraints on the lands available for harvest with the current list of species and management recommendations covered by the Survey and Manage has been greater than anticipated by the RMP. Strategic surveys conducted over the next several years will help address fundamental questions of Survey and Manage (S&M) species, including: is there a concern for persistence; is the species rare or uncommon; what is the appropriate management for the species; and do the reserve land allocations and Standard & Guidelines (S&Gs) of the NFP provide a reasonable assurance of species persistence? Criteria for management of high priority sites have yet to be developed for some of the uncommon species. Two lawsuits are currently underway regarding the Survey and Manage S&G.

Resolution of Endangered Species Act Consultation Issues Associated with Anadromous Fish. National Marine Fisheries Service is currently re-evaluating salmon and steelhead listings for the West Coast in order to address circumstances where both hatchery and wild fish are present in an Evolutionarily Significant Unit. There is also a current appeal before the Ninth Circuit Court of Appeals regarding the U.S. District Court, District of Oregon decision which had the effect of de-listing the Oregon coast coho. In the interim timber sales have placed emphasis on partial cuts, i.e., sales for which either a “No Effect” (NE) or “Not Likely to Adversely Affect” (NLAA) biological determination can be made for listed anadromous fish. This emphasis is driven by circumstances in an attempt to effectively utilize appropriated funds and implement the Allowable Sale Quantity and socio-economic objectives of the RMP and NFP to the maximum extent possible.

It is not possible at this time to accurately predict the effect of certain short term uncertainties on the long term ability to implement the underlying assumptions that form the basis of the Allowable Sale Quantity. The circumstances are not yet ripe to make reasonably accurate predictions regarding the ability to implement the Allowable Sale Quantity as assumed in the

Resource Management Plan because unresolved litigation and incomplete strategic surveys make reasonable estimates of any long term changes in acres available for harvest or harvest prescriptions speculative at this time. When reasonable estimates of long term changes become possible, these circumstances will be evaluated at a future time to determine whether an amendment of the Resource Management Plan is warranted.

Conclusion:

The RMP acknowledged uncertainty associated with the ASQ. Compliance with RMP direction for timber resources may be better determined as uncertainties are resolved and actual long-term trends are confirmed.

Monitoring 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?

Monitoring Requirement:

Program and data base review. An annual district wide report will be prepared to determining 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.

Monitoring Performed:

Program and data base were reviewed and summary prepared.

Comment/Discussion:

Examination of fiscal year 2001 data indicate differences between implementation and RMP assumed levels of activity.

Differences in this question involved the following:

	Fiscal <u>Year 2001</u>	<u>Projected</u>
Brushfield/hardwood conversion	0 acres	15 acres
Site Preparation, prescribed fire	323 acres	840 acres
Site Preparation, other	13 acres	50 acres
Planting, regular stock	509 acres	290 acres
Planting, genetic stock	138 acres	1140 acres
Stand maintenance/protection	663 acres	830 acres
Stand release/precommercial thin	5243 acres	3900 acres
Pruning	364 acres	460 acres
Fertilization	0 acres	1140 acres

Data is for contracts awarded after October 1, 1995. Data is displayed by fiscal year of contract award and does not necessarily correspond with the year the project was actually accomplished.

Brush field Conversion - To date no acres have undergone conversion. It is not expected that any attempt would be made unless herbicides were available as a conversion tool.

Site Preparation (FIRE) - The number of acres prepared with prescribed fire, both broadcast treatment and pile treatment is about 50% of planned. A continued decline in trend is likely to continue due to less than expected levels of regeneration harvest and other resource concerns.

Site Preparation (OTHER) - The number of acres prepared with alternative site preparation techniques is about 4% of planned. Factors affecting this activity are the same as for prescribed fire.

Planting (regular stock) - Total planted acres without regard to genetic quality is at 63% of RMP assumed levels due to lack of planned RMP levels of timber harvest. Reforestation with genetically unimproved planting stock is 233% of planned.

Planting (improved stock) - In fiscal year 2001, 26% of the acres reforested were planted with genetically improved stock. 21% of the acres planted were in the GFMA land use allocation. Only GFMA acres count towards RMP monitoring goals since genetic improvement is assumed to contribute to ASQ only when done on GFMA acres. A phase in period for use of genetically improved Douglas fir of 3 to 4 years was assumed to allow for older sales outside the GFMA land use allocation to be reforested and for seed orchards to reach production.

Planning for production of genetically improved stock has proved difficult due to the uncertainty of timber harvest timing. Seed must be sown one to three years prior to actual need. Due to decline in timber harvest overall and uncertainty in harvest timing, it is likely that this target will be approximately 20-40% of RMP levels by the end of the decade.

Maintenance/Protection - Acres of maintenance/protection treatments is currently double of that assumed for the first three years. The ratio of maintenance/protection to reforested acres was highest in fiscal year 1996 and has declined dramatically each year since. In fiscal year 1996 the ratio was 2.2 to 1. In fiscal year 2001 the ratio was at 1.0 to 1. The average ratio for the RMP period is 1.5 to 1 and is expected to decline further. It is anticipated that at this rate, assumed RMP levels would be exceeded by 40-50%.

Precommercial Thinning (PCT) - Currently PCT is at assumed RMP levels. It is expected that at a minimum this level will be maintained over the decade. There is a potential to exceed this level if funding levels were to increase but the magnitude is unknown at this time. This practice is highly dependent on increasing budget levels.

Pruning - Currently pruning accomplishments are at assumed RMP levels. Depending on funding this trend could continue. At a minimum it is expected that RMP levels will be met. This practice is also highly dependent on increasing budget levels.

Fertilization - Currently fertilization accomplishments are about 64% of assumed RMP levels. There is the potential to exceed planned RMP levels by about 20% if funding is available. However, implementation of fertilization is currently delayed by an appeal of the proposed action.

Forest development, reforestation, silvicultural and timber stand improvement practices were accomplished in fiscal year 2001 through contracts valued at approximately \$1,018,000.

Conclusion:

Differences in silvicultural practices anticipated in the calculation of the allowable sale quantity compared to actual implementation do not constitute RMP non-compliance because they are not substantive enough to result in a change in the calculation of the allowable sale quantity.

Table 22. Roseburg District Timber Sale Volume and Acres.

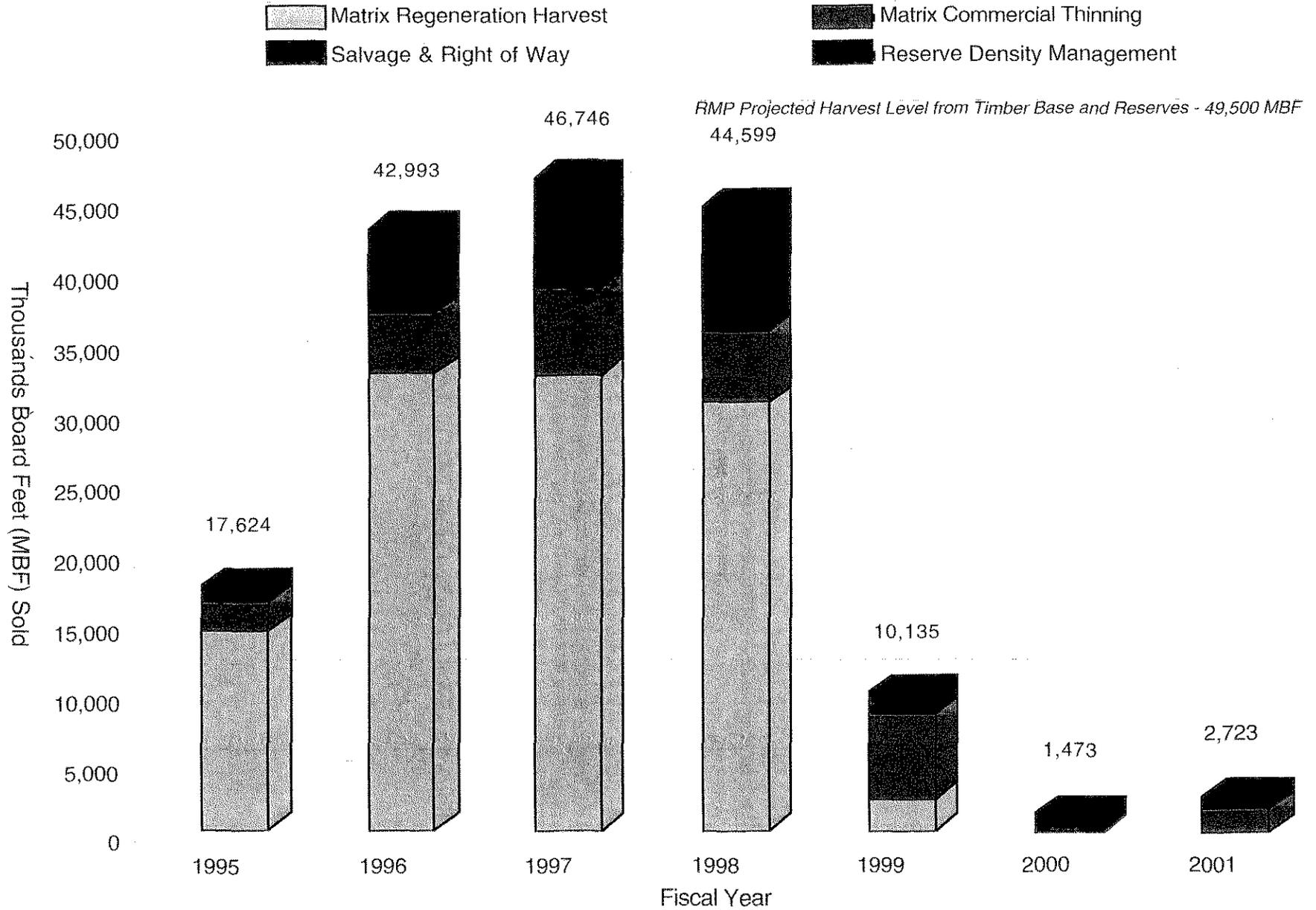
	1995	1996	1997	Fiscal Year 1998	1999	2000	2001	1995-2001 Total	RMP/EIS 1995-2001 Annual Average	Assumed Annual Average	Percent of Assumed Average
MBE											
Total Timber Sale Volume	17,624	45,993	51,783	44,726	10,135	1,473	2,723	174,455	24,922	49,500	50%
Matrix Timber Sales	17,004	41,055	42,692	37,887	9,416	1,190	2,071	151,315	21,616	45,000	48%
GFMA Regeneration Harvest	13,285	32,172	27,575	24,786	1,055	-39	0	98,835	14,119		
GFMA Commercial Thinning	1,657	3,016	2,907	3,451	4,022	166	1,794	17,013	2,430		
GFMA Salvage & ROW	323	1,817	3,516	1,446	438	477	277	8,295	1,185		
C/D Block Regeneration Harvest	1,130	629	5,123	5,869	1,353	0	0	14,104	2,015		
C/D Block Commercial Thinning	457	2,978	3,455	1,739	2,059	166	0	10,854	1,551		
C/D Block Salvage	153	442	117	597	488	586	0	2,381	340		
RR Density Management	24	2,424	2,175	811	395	55	2	5,886	841		
RR Salvage	245	55	3	236	140	18	1	698	100		
LSR Density Management	63	102	1,728	5,559	151	0	0	7,603	1,086		
LSR Salvage	204	1,162	266	123	33	210	595	2,593	370		
Total All Reserves	536	3,743	4,172	6,728	719	282	598	16,779	2,397	4,500	53%
Key Watersheds Matrix Timber Sales	25	8,439	18,392	12,767	2,351	681	791	43,445	6,206	8,700	71%
Little River AMA All Harvest Types	0	1,033	4,682	30	0	0	0	5,745	821	4,600	18%
Little River AMA Salvage	83	162	236	81	0	0	54	616	88		
Total AMA Timber Sales	83	1,195	4,918	111	0	0	54	6,361	909		
Acres											
Total Regeneration Harvest	386	906	836	800	56	0	0	2,984	426	1,190	36%
Total Commercial Thinning	113	426	568	536	411	2	87	2,143	306	250	122%
Total Density Management	2	216	301	483	38	0	0	1,040	149		
GFMA Regeneration Harvest	354	866	713	649	20	0	0	2,602	372		
GFMA Commercial Thinning	69	197	267	361	209	2	87	1,191	170		
GFMA Salvage & ROW	30	47	289	125	16	16	13	535	76		
C/D Block Regeneration Harvest	32	40	123	151	36	0	0	382	55		
C/D Block Commercial Thinning	44	229	301	175	203	0	0	952	136		
C/D Block Salvage	20	35	25	52	16	4	0	151	22		
RR Density Management	0	216	188	97	38	0	0	539	77		
RR Salvage	8	4	0	20	9	1	1	43	6		
LSR Density Management	2	0	113	386	0	0	0	501	72		
LSR Salvage	21	96	33	8	2	9	18	187	27		
Total All Reserves	31	316	334	511	49	10	19	1,270	181		
Little River AMA Regeneration Harvest	0	0	68	0	0	0	0	68	10		
Little River AMA Commercial Thinning	0	94	134	0	0	0	0	228	33		
Little River AMA Salvage	10	9	36	7	0	0	2	64	9		

GFMA, C/D Block & AMA Commercial Thinning totals include all intermediate harvest types

LSR & RR Density Management totals include all intermediate harvest types

Salvage totals also include timber sales designated as Right of Way (ROW) harvests

Figure 1. Annual Timber Sale Volumes Compared to RMP Projected Harvest Level



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

Monitoring Question:

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

Monitoring Requirements:

Program review.

Monitoring Performed:

Program was reviewed.

Findings:

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.

Conclusion:

RMP requirements were met.

Monitoring Question:

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

Monitoring Requirements:

Program review.

Monitoring Performed:

Program was reviewed.

Findings:

Final Handbook on Guidance for Special Forest Products was published at the end of fiscal year 1996.

Conclusion:

RMP requirements were met.

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

Monitoring Question 1.

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

Monitoring Requirements:

Program review.

Monitoring Performed:

Program was reviewed.

Findings:

The noxious weed program for the district that is compatible with Aquatic Conservation Strategy Objectives and Integrated Pest Management, Northwest Noxious Weed EIS.

Conclusions:

RMP requirements were met.

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 or 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

Monitoring Question 1:

What is the status of the preparation and implementation of fire management plans?

Monitoring Requirement:

Program review.

Monitoring Performed:

Program was reviewed.

Findings:

Late-successional reserve assessments are completed and Little River Adaptive Management Area Plan is in draft. These assessments and plan address fire and fuels.

Conclusions:

RMP requirements were met.

Monitoring Question 2:

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

Monitoring Requirement:

Program review.

Monitoring Performed:

Program was reviewed.

Findings:

Wildfire Situation Analyses are prepared for escaped fire situations from slash burns. Douglas Forest Protection Agency (DFPA) is contracted for wildfire suppression and prepares similar analyses.

Conclusions:

RMP requirements were met.

Monitoring Question 3:

Do wildfire suppression plans emphasize maintaining late-successional forest habitat?

Monitoring Requirement:

Program review.

Monitoring Performed:

Program was reviewed.

Findings:

Wildfire suppression plans include protecting multiple resources including late-successional habitat. The plans and assessments for Late-Successional Reserves and the Little River Adaptive Management Area address this issue.

Conclusions:

RMP requirements were met.

Monitoring Question 4:

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

Monitoring Requirement:

Program review.

Monitoring Performed:

Program was reviewed.

Findings:

Fuels and Fire Management Plans are being implemented. Analyses has been done in conjunction with Late-Successional Reserve Assessments.

Conclusions:

RMP requirements were met.

GLOSSARY

AMA - Adaptive Management Area - The Roseburg District Little River AMA is managed to develop and test approaches to integrate intensive timber production with restoration and maintenance of high quality riparian habitat.

Allowable Sale Quantity (ASQ) - an estimate of annual average timber sale volume likely to be achieved from lands allocated to planned, sustainable harvest.

Anadromous Fish - Fish that are hatched and reared in freshwater, move to the ocean to grow and mature, and return to freshwater to reproduce. Salmon, steelhead, and shad are examples.

Archaeological Site - A geographic locale that contains the material remains of prehistoric and/or historic human activity.

Area of Critical Environmental Concern (ACEC) - An area of BLM administered lands where special management attention is needed to protect and prevent irreparable damage to important historic, cultural or scenic values, fish and wildlife resources, or other natural systems or processes; or to protect life and provide safety from natural hazards.

Best Management Practices (BMP) - Methods, measures, or practices designed to prevent or reduce water pollution. Not limited to structural and nonstructural controls and procedures for operations and maintenance. Usually, BMPs are applied as a system of practices rather than a single practice.

Biological Diversity - The variety of life and its processes, including a complexity of species, communities, gene pools, and ecological function.

Candidate Species - Plant and animal taxa considered for possible addition to the List of Endangered and Threatened Species. These are taxa for which the Fish and Wildlife Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions.

Cavity Nesters - Wildlife species, most frequently birds, that require cavities (holes) in trees for nesting and reproduction.

Commercial Thinning - The removal of merchantable trees from a stand to encourage growth of the remaining trees.

Connectivity/Diversity Blocks - Lands spaced throughout the matrix lands, which have similar goals as matrix but have management action/direction which affect their timber production. They are managed on longer rotations (150 years), retain more green trees following regeneration harvest (12-18) and must maintain 25-30 percent of the block in late successional forest.

Cubic Foot - A unit of solid wood, one foot square and one foot thick.

Cumulative Effect - The impact that results from identified actions when they are added to other past, present, and reasonably foreseeable future actions regardless of who undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

Density Management - Cutting of trees for the primary purpose of widening their spacing so that growth of remaining trees can be accelerated. Density management harvest can also be used to improve forest health, to open the forest canopy, or to accelerate the attainment of old growth characteristics, if maintenance or restoration of biological diversity is the objective.

District Designated Reserves (DDR) - Areas designated for the protection of specific resources, flora and fauna, and other values. These areas are not included in other land use allocations nor in the calculation of the ASQ.

Eligible River - A river or river segment found, through interdisciplinary team and, in some cases interagency review, to meet Wild and Scenic River Act criteria of being free flowing and possessing one or more Outstandingly Remarkable Values.

Endangered Species - Any species defined through the Endangered Species Act as being in danger of extinction throughout all or a significant portion of its range and published in the Federal Register.

Environmental Assessment (EA) - A systematic analysis of site-specific BLM activities used to determine whether such activities have a significant effect on the quality of the human environment; and whether a formal Environmental Impact Statement is required; and to aid an agency's compliance with NEPA when no EIS is necessary.

General Forest Management Area (GFMA) (See Matrix) - This is the land use designation, on which scheduled harvest and silvicultural activities will be conducted that contribute to the ASQ.

Harvested Volume or Harvested Acres - Refers to timber sales where trees are cut and taken to a mill during the fiscal year. Typically, this volume was sold over several years. This is more indicative of actual support of local economies during a given year.

Hazardous Materials - Anything that poses a substantive present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

Land Use Allocation (LUA) - Allocations which define allowable uses / activities, restricted uses / activities and prohibited uses / activities. Each allocation is associated with a specific management objective.

Late-Successional Forests - Forest seral stages that include mature and old growth age classes.

LSR - Late Successional Reserve - lands which are managed to protect and enhance old-growth forest conditions.

Matrix Lands - Land outside of reserves and special management areas that will be available for timber harvest that contributes to the ASQ.

MMBF - abbreviation for million board feet of timber

Noxious Plant/Weed - A plant specified by law as being especially undesirable, troublesome, and difficult to control.

O&C Lands - Public lands granted to the Oregon and California Railroad Company, and subsequently revested to the United States, that are managed by the Bureau of Land Management under the authority of the O&C Lands Act.

Offered (sold) Volume or Offered (sold) Acres - Any timber sold during the year by auction or negotiated sales, including modifications to contracts. This is more of a check on the district's success in meeting the ASQ than it is a socioeconomic indicator, since the volume can get to market over a period of several years.

Off-Highway Vehicle (OHV) - Any motorized track or wheeled vehicle designed for cross-country travel over natural terrain. The term, "Off Highway Vehicle" will be used in place of the term "Off Road Vehicle" to comply with the purposes of Executive Orders 11644 and 11989. The definition for both terms is the same.

Open: Designated areas and trails where Off Highway Vehicles may be operated subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343.

Limited: Designated areas and trails where Off Highway Vehicles are subject to restrictions limiting the number or types of vehicles, date, and time of use; limited to existing or designated roads and trails.

Closed: Areas and trails where the use of Off Highway Vehicles is permanently or temporarily prohibited. Emergency use is allowed.

Outstanding Natural Area (ONA) - An area that contains unusual natural characteristics and is managed primarily for educational and recreational purposes.

Outstandingly Remarkable Values (ORV) - Values among those listed in Section 1 (b) of the Wild and Scenic Rivers Act: "scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar values . . ." Other similar values that may be considered include ecological, biological or botanical, paleontological, hydrological, scientific, or research.

Precommercial Thinning - The practice of removing some of the trees less than merchantable size from a stand so that remaining trees will grow faster.

Prescribed Fire - A fire burning under specified conditions that will accomplish certain planned objectives.

"Projected Acres" are displayed by age class for the decade. These age class acres are estimates derived from modeling various silvicultural prescriptions for regeneration, commercial thinning and density management harvest or are based on other assumptions.

Regeneration Harvest - Timber harvest conducted with the partial objective of opening a forest stand to the point where favored tree species will be reestablished.

Regional Ecosystem Office (REO) - The main function of this office is to provide staff work and support to the Regional Interagency Executive Committee (RIEC) so the standards and guidelines in the forest management plan can be successfully implemented.

Regional Interagency Executive Committee (RIEC) - This group serves as the senior regional entity to assure the prompt, coordinated, and successful implementation of the forest management plan standards and guidelines at the regional level.

Research Natural Area (RNA) - An area that contains natural resource values of scientific interest and is managed primarily for research and educational purposes.

Resource Management Plan (RMP) - A land use plan prepared by the BLM under current regulations in accordance with the Federal Land Policy and Management Act.

Right-of-Way - A permit or an easement that authorizes the use of public lands for specified purposes, such as pipelines, roads, telephone lines, electric lines, reservoirs, and the lands covered by such an easement or permit.

Rural Interface Areas - Areas where BLM administered lands are adjacent to or intermingled with privately owned lands zoned for 1 to 20-acre lots or that already have residential development.

Seral Stages - The series of relatively transitory plant communities that develop during ecological succession from bare ground to the climax stage. There are five stages:

Early Seral Stage - The period from disturbance to crown closure of conifer stands usually occurring from 0-15 years. Grass, herbs, or brush are plentiful.

Mid Seral Stage - The period in the life of a forest stand from crown closure to ages 15-40. Due to stand density, brush, grass, or herbs rapidly decrease in the stand. Hiding cover may be present.

Late Seral Stage - The period in the life of a forest stand from first merchantability to culmination of Mean Annual Increment. This is under a regime including commercial thinning, or to 100 years of age, depending on wildlife habitat needs. During this period, stand diversity is minimal, except that conifer mortality rates will be fairly rapid. Hiding and thermal cover may be present. Forage is minimal.

Mature Seral Stage - The period in the life of a forest stand from Culmination of Mean Annual Increment to an old growth stage or to 200 years. This is a time of gradually increasing stand diversity. Hiding cover, thermal cover, and some forage may be present.

Old Growth - This stage constitutes the potential plant community capable of existing on a site given the frequency of natural disturbance events. For forest communities, this stage exists from approximately age 200 until when stand replacement occurs and secondary succession begins again. Depending on fire frequency and intensity, old growth forests may have different structures, species composition, and age distributions. In forests with longer periods between natural disturbance, the forest structure will be more even-aged at late mature or early old growth stages.

Silvicultural Prescription - A detailed plan, usually written by a forest silviculturist, for controlling the establishment, composition, constitution, and growth of forest stands.

Site Preparation - Any action taken in conjunction with a reforestation effort (natural or artificial) to create an environment that is favorable for survival of suitable trees during the first growing season. This environment can be created by altering ground cover, soil or microsite conditions, using biological, mechanical, or manual clearing, prescribed burns, herbicides or a combination of methods.

SEIS Special Attention Species - a term which incorporates the "Survey and Manage" and "Protection Buffer" species from the Northwest Forest Plan.

Special Status Species - Plant or animal species in any of the following categories

- Threatened or Endangered Species
- Proposed Threatened or Endangered Species
- Candidate Species State-listed Species
- Bureau Sensitive Species
- Bureau Assessment Species

Visual Resource Management (VRM) - The inventory and planning actions to identify visual values and establish objectives for managing those values and the management actions to achieve visual management objectives.

Wild and Scenic River System - A National system of rivers or river segments that have been designated by Congress and the President as part of the National Wild and Scenic Rivers System (Public Law 90-542, 1968). Each designated river is classified as one of the following:

Wild River -A river or section of a river free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. Designated wild as part of the Wild and Scenic Rivers System.

Scenic River -A river or section of a river free of impoundments, with shorelines or watersheds still largely primitive and undeveloped but accessible in places by roads. Designated scenic as part of the National Wild and Scenic Rivers System.

Recreational River - A river or section of a river readily accessible by road or railroad, that may have some development along its shorelines, and that may have undergone some impoundment or diversion in the past. Designated recreational as part of the National Wild and Scenic Rivers System.

Acronyms/Abbreviations

ACEC	-	Area of Critical Environmental Concern
ACS	-	Aquatic Conservation Strategy
APS	-	Annual Program Summary
BA(s)	-	Biological Assessments
BLM	-	Bureau of Land Management
BMP(s)	-	Best Management Practices
CBWR	-	Coos Bay Wagon Road
CFER	-	Cooperative Forest Ecosystem Research
COPE	-	Coastal Oregon Productivity Enhancement project
CT	-	Commercial Thinning
CX	-	Categorical Exclusions
CWA	-	Clean Water Act
CWD	-	Coarse woody debris
DEQ	-	Oregon Dept. Of Environmental Quality
DM	-	Density Management
EA	-	Environmental Analysis
EIS	-	Environmental Impact Statement
EPA	-	U.S. Environmental Protection Agency
ERFO	-	Emergency Relief Federally Owned
ERMA	-	Extensive Recreation Management Area
ESA	-	Endangered Species Act
ESU	-	Evolutionarily Significant Unit
FEIS	-	Final Environmental Impact Statement
FLPMA	-	Federal Land Policy and Management Act
FONSI	-	Finding of No Significant Impacts
FS	-	Forest Service (USFS)
FY	-	Fiscal Year
GFMA	-	General Forest Management Area
GIS	-	Geographic Information System
GTR	-	Green Tree Retention
IDT	-	Interdisciplinary Teams
LSR	-	Late-Successional Reserve
LUA	-	Land Use Allocation
LWD	-	Large Woody Debris
MMBF	-	Million board feet
MOA	-	Memorandum of Agreement
MOU	-	Memorandum of Understanding
NEPA	-	National Environmental Policy Act
NFP	-	Northwest Forest Plan
NMFS	-	National Marine Fisheries Service
O&C	-	Oregon and California Revested Lands
ODF	-	Oregon Department of Forestry
ODFW	-	Oregon Department of Fish and Wildlife
OSU	-	Oregon State University
PACs	-	Province Advisory Councils
PD	-	Public Domain
PGE	-	Portland General Electric
PILT	-	Payment in lieu of taxes
PL	-	Public Law
PSQ	-	Probable Sale Quantity
RA	-	Resource Area
REO	-	Regional Ecosystem Office
RIEC	-	Regional Interagency Executive Committee

RMP	-	Resource Management Plan
RMP/ROD	-	The Roseburg District Resource Management Plan/ Record of Decision
RO	-	FS Regional Office
ROD	-	Record of Decision
RPA	-	Reserve Pair Area
RR	-	Riparian Reserve
R/W	-	Right-of-Way
SEIS	-	Supplemental Environmental Impact Statement
S&G	-	Standard and Guideline
S& M	-	Survey and Manage
SRMA	-	Special Recreation Management Area
TMO	-	Timber Management Objective(s)
TMP	-	Transportation Management Plan
TPCC	-	Timber Productivity Capability Classification
UO	-	University of Oregon
USDA	-	U.S. Department of Agriculture
USFS	-	U.S. Forest Service
USFWS	-	U.S. Fish and Wildlife Service
WC	-	Watershed Council
WFSA	-	Wildfire Situation Analysis
WQMP	-	Water Quality Management Plan

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

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