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

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

September 2000

Roseburg District *Annual Program Summary*

and

Monitoring Report FISCAL YEAR 1999

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.

BLM/OR/WA/PT-00/060+1792

U.S. Department of Interior
Bureau of Land Management

ROSEBURG DISTRICT

ANNUAL PROGRAM SUMMARY

AND

MONITORING REPORT

FISCAL YEAR 1999

September 2000

Table of Contents

Tables

ROSEBURG DISTRICT
ANNUAL PROGRAM SUMMARY
FISCAL YEAR 1999

Executive Summary

This document combines the Roseburg District Annual Program Summary and Monitoring Report for fiscal year 1999. 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 1999 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 1999. 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.

Third Year Plan Evaluation

The Roseburg District Record of Decision and Resource Management Plan requires formal evaluations at the end of every third year after implementation begins. The purpose of the evaluation is to determine whether there is a significant cause for an amendment or revision of the plan. The focus of the evaluation is on whether the RMP goals and objectives are being met, whether the goals and objectives were realistic and achievable, and whether changed circumstances or new information have altered expected impacts as described in the RMP/FEIS.

The plan evaluation will address information and circumstances through September 1998. The evaluation itself has been conducted in fiscal year 1999 and continued towards completion in fiscal year 2000. Information and circumstances that have evolved since September 1998 will be analyzed in subsequent plan evaluations. The Roseburg District plan evaluation along with those for five other western Oregon RMPs will be available later this year and will be mailed to all persons or groups who are on the mailing list for this Annual Program Summary. The State Director's findings will indicate whether or not the western Oregon RMPs require plan amendments or revisions.

Survey and Manage

The Forest Service and Bureau of Land Management propose to modify the Survey and Manage standards and guidelines. A draft supplemental environmental impact statement has been issued that presents three action alternatives that would 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 do not change the underlying purpose of the Northwest Forest Plan and do not address other elements of the plan. The public comment period for the draft SEIS closed on March 3, 2000. A final SEIS is expected to be published later this year, followed by a Record of Decision.

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

RMP Resource Allocation or Management Practice or Activity	Fiscal Year 1999 Accomplishments	Cumulative Accomplishments 1995-1999 Timber 1996-1999 Others	Projected Decadal Practices
Regeneration harvest (acres sold)	56	3,052	11,900
Commercial thinning/density management (acres sold)	413-86	2,466-690	840 - 1,660
Site preparation (acres)	420	1,667	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)	1,082	6,181	8,300
Pre-commercial thinning (acres)	2,315	14,152	39,000
Brush field/hardwood conversion (acres)	0	0	150
Planting/ regular stock (acres)	196	2,841	2,900
Planting/ genetically selected (acres)	432	1,230	11,400
Fertilization (acres)	0	5,338	11,400
Pruning (acres)	146	2,292	4,600
New permanent road const. (miles/acres*)	0	18.9	65
Roads fully decommissioned/ obliterated (miles*)	18.4	80.4	-
Roads closed/ gated (miles**)	0	12.3	-
Open road density (per square mile*)	4.59	4.59	-
Timber sale quantity sold (m board feet)	10,135	152,456	495,000
Timber sale quantity sold (mm cubic feet)	1.674	25.230	7.0
Noxious weed control, chemical (acres)	73	126	-
Noxious weed control, other (acres)	456	1,228	

* 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 1999 Accomplishments	Cumulative Accomplishments 1995-1998
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	0
Realty, road rights-of-way, permits or leases granted	(actions/miles)	15	48
Realty, utility rights-of-way granted (linear/areal)	(actions/miles/acres)	0	5
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	32/56
Recreation, maintained sites	(units/acres)	14/405	42/1,215
Cultural resource inventories	(sites/acres)	35/508	71/2,810
Cultural/historic sites nominated	(sites/acres)	0	0
Hazardous material sites	(identified/cleaned)	0	10/9

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 1998 through September 1999. 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 1999. 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 1999 represent the fourth 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 1999, Roseburg District had a total appropriation of $13,376,000. This included $768,000 for the Jobs-in-the-Woods program; $268,000 Management of Lands and Resources (MLR); $112,000 fire; $10,450,000 Oregon & California Railroad Lands (O&C); $57,000 mining law; $1,016,000 timber pipeline; and $705,000 recreation pipeline.

In fiscal year 1999, there were 160 full-time employees. and a total of 28, term or co-operative student employees. The number of temporary employees on board varied throughout the year with a total of 28 employed at some time during the year.

Total appropriations for the Roseburg District have been relatively stable during the period 1996 through 1999, with an approximate average appropriation of $12,800,000.

The number of full time employees has also been stable during this four year period, with an average of 160 full time employees.

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.

In fiscal year 1999, $705,000 was allocated for a variety of projects. However, due to the inability to complete all required wildlife surveys, $306,000 targeted for construction of the Eagleview Campground was not obligated but was transferred to the Medford District. The South River Resource Area spent $32,000 to improve recreation sites within the Cow Creek Back Country corridor including the Island Day-use Site and kiosk interpretive site. In Swiftwater Resource Area, $296,000 was expended on the Cavitt Creek Falls Recreation Site renovation projects. Recreation pipeline dollars were also used for the salaries of BLM employees to support these recreation projects. Total expenditure of recreation pipeline dollars for fiscal year 1999 was $399,000.

Recreation Fee Demonstration Project

In March 1998, the Roseburg District received approval for establishing 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. This program expires September 30, 2001. A special account was established for the District, in which fees for camping and pavilion use at Susan Creek, Mill Pond, Rock Creek, Cavitt Creek, and Tyee Recreation Sites, and special recreation permits would be deposited.

In fiscal year 1999, $53,901 from campground and pavilion fees was deposited. There was $31,600 from these deposits that was reinvested in recreation site maintenance, projects and renovations. These projects included new pavilion counters, Scaredman water system upgrades, generator purchase, Hill Creek bridge replacement, geo-web installation at Susan Creek Falls parking lot, Tyee pavilion partial replacement, ADA fire rings, three host shelters, Susan Creek water system repairs, interpretive brochures and other supply and equipment expenses.

Land Use Allocations

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

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. Density management on 36 acres within riparian reserves was part of the sold and awarded timber sales for fiscal year 1999.

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 1999, twenty-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, Deadman Creek, Cow Creek, Olalla-Lookingglass, Elkton-Umpqua, Canyonville/Canyon Creek, Upper Middle Fork Coquille and Middle South Ump. 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 95% of the Roseburg District by the end of fiscal year 1999.

Watershed analysis ongoing or proposed in fiscal year 2000 or beyond include: Calapooya, Kent-Creek, Deer Creek, Middle North Umpqua

Table 3 - Watershed Analysis Status

	Watershed Analysis Areas	Number of Key watersheds	BLM Acres	Percent of total acres
Completed through FY99	28	11	403,824	95%
Ongoing FY00	2	0	21,176	5%
Total	30	11	425,000	100%

Watershed Restoration Projects

The aspect of watershed restoration work which consists of decommissioning roads is an ongoing process. During any given fiscal year the status of road decommissioning consists of some of the decommissioning work being completed, and some of the decommissioning work under contract to be completed. As of fiscal year 1999, approximately 101 miles of road have been completed or under contract to be decommissioned. The decommissioning of roads is dependent on complex and sensitive negotiations with permittees who have legal rights on most Roseburg District roads through Road Use Agreements. The district has continued to work towards building understanding and trust concerning the objectives of road decommissioning with permittees. that is expected to facilitate this process in future years. Road renovation and upgrading is another aspect of watershed restoration. Road renovation may include surfacing, replacing or adding culverts, improving drainage, seeding and mulching and other activities that effect water quality and habitat. The wide variety in types and intensity of road renovation limit the meaningfulness of a single total of miles accomplished. Road renovation for watershed restoration purposes is accomplished under timber sale contracts and Jobs-in-the-woods. Additional watershed work included culvert replacement or upgrading to pass 100-year floods as well as to provide fish passage and stream restoration.

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 with the exception of RO 223. Many of the LSR assessments were joint efforts involving the US Forest Service and other BLM districts.

During fiscal year 1999, there were 386 acres of density management and 4 acres of salvage that occurred in late-successional reserves. During the period of 1996 through 1998, there were 500 acres of density management and 130 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 E-Mile timber sale specifically addressed the emphasis for the AMA. The challenge was to harvest timber yet maintain a high quality riparian condition. Unstable slopes were excluded from the sale area where landslide risk was high and 50% crown closure was left on moderate risk areas. Other objectives include stand health improvement, accelerating the development of late-successional conditions in the Riparian Reserve, and upgrading 2.5 miles of road. The impacts of the road upgrades to the stream network will be evaluated and point source erosion will be monitored over time.

One outstanding example of interagency cooperation is the Wolfpine Timber Sale which was sold without protest. The project will develop and test methods of thinning around remaining live trees and use of prescribed fire to restore and maintain populations. An MOU was signed by the BLM, the FS, PNW, Wolf Creek Job Corp, and the Southwest Oregon Insect and Disease Technical Center for the combined timber sale and research project. The Umpqua National Forest will administer the contract.

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 is proposed that would 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 coarse woody debris, landslide, and road inventories and research that investigates the endangered mariposa lily, sugar pine restoration, 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.

Matrix - Retention of Late Successional forest patches - 15% Analysis

The NFP/ROD and ROD/RMP require that BLM and USFS provide for the retention of late successional / old growth fragments in the matrix where little remains. The standards and guidelines are to be applied to any fifth field watershed in which federal forest lands are currently comprised of 15 percent or less late-successional forest (LSF), considering all land allocations. All Roseburg District sales sold under the Roseburg District Resource Management Plan have complied with the 15 percent rule per the initial analysis.

At the time of the initial implementation of the Roseburg District RMP, the district completed an initial screening of watersheds. The initial analysis applies to all actions with decisions prior to October 1, 1999.

A joint BLM / FS Instruction Memorandum was issued on September 14, 1998. This provided additional guidance for implementing the 15% S&G throughout the area covered by the Northwest Forest Plan. Implementation of this guidance is required for all actions with decisions beginning October 1, 1999. A revised 15% analysis has been completed in accordance with this guidance.

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 were caused by lightning, 4 were 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 were lightning caused and 1 was human caused
Off district wildfires:	66 district personnel accepted assignments to 29 wildfires

Fire/Fuels Management - Total, June 1995-September 1999

Prescribed Fire:	1867 acres
On district wildfires:	57 fires for a total of 36 acres - 46 were lightning caused and 11 were human caused
Off district wildfires:	164 district personnel accepted assignments to 103 wildfires from Oregon to Florida.

Water and Soils

Water temperature was monitored at 65 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 10 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.

Summary information for fiscal year 1996-1998

The Roseburg District surveyed 128 miles of streams for proper functioning condition; operated 6 gauging stations; five studies for sediment, water temperature, water chemistry; cooperatively monitored water quality on the North Umpqua Wild and Scenic River; completed a cooperative study with the USGS; two monitoring studies for timber fertilization; a monitoring plan 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; and numerous hydromulching projects to reduce sediment.

State-listed Clean Water Act 303d streams

The Roseburg District has 24 state-listed streams identified by the Department of Environmental Quality (DEQ).

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.

Table 4 - 303(d) Listed Waterbodies in the Roseburg District

Stream of Waterbody Name	Basin/Sub Basin	Criteria for listing	Resource Area
Canton Creek	Umpqua/North Umpqua	Habitat Modification, Sediment, Temperature- Summer	Swiftwater
Cavitt Creek	Umpqua/North Umpqua	Habitat Modification, Sediment, Temperature-Summer	Swiftwater
Jim Creek	Umpqua/North Umpqua	Temperature-Summer	Swiftwater
Little River	Umpqua/North Umpqua	Habitat Modification, pH-Summer, Sediment, Temperature-Summer	Swiftwater
North Umpqua River	Umpqua/North Umpqua	Flow Modification, Temperature-Summer	Swiftwater
Northeast Fork Rock Creek	Umpqua/North Umpqua	Temperature-Summer	Swiftwater
Rock Creek	Umpqua/North Umpqua	Temperature-Summer	Swiftwater
Scaredman Creek	Umpqua/North Umpqua	Temperature-Summer	Swiftwater
Wolf Creek	Umpqua/North Umpqua	pH-Summer, Temperature-Summer	Swiftwater
Cow Creek	Umpqua/South Umpqua	pH-Summer, Temperature-Summer	South River
Deadman Creek	Umpqua/South Umpqua	Temperature-Summer	South River
East Fork Stouts Creek	Umpqua/South Umpqua	Temperature-Summer	South River
Middle Creek	Umpqua/South Umpqua	Temperature-Summer	South River
Olalla Creek	Umpqua/South Umpqua	Temperature-Summer	South River
South Fork Middle Creek	Umpqua/South Umpqua	Temperature Summer	South River
South Myrtle Creek	Umpqua/South Umpqua	Flow Modification, Temperature-Summer	South River
South Umpqua River	Umpqua/South Umpqua	Biological Criteria, Dissolved Oxygen-Cool Water Aquatic Life: May to October, Periphyton-Summer, pH-Summer, Sediment, Temperature-Summer, Water Contact Recreation (Fecal Coliform)-Fall through Spring, Water Contact Recreation (Fecal Coliform)-Summer	South River
West Fork Stouts Creek	Umpqua/South Umpqua	Temperature-Summer	South River

Table 4 - 303(d) Listed Waterbodies in the Roseburg District

Stream of Waterbody Name	Basin/Sub Basin	Criteria for listing	Resource Area
Calapooya Creek	Umpqua/Umpqua	Dissolved Oxygen-Salmonid Spawning: September though March, Flow Modification, pH-Summer, Temperature-Summer, Water Contact Recreation (Fecal Coliform)-Fall through Spring, Water Contact Recreation (Fecal Coliform)-Summer	Swiftwater
Elk Creek	Umpqua/Umpqua	Dissolved Oxygen-Salmonid Spawning: September through March, Flow Modification, Temperature-Summer Water Contact Recreation (Fecal Coliform)-Fall through Spring, Water Contact Recreation (Fecal Coliform)-Summer	Swiftwater
North Fork Smith River	Umpqua/Umpqua	Temperature-Summer	Swiftwater
Smith River	Umpqua/Umpqua	Temperature-Summer	Swiftwater
Umpqua River	Umpqua/Umpqua	Flow Modification, Temperature-Summer, Water Contact Recreation (Fecal Coliform)- Fall through Spring	Swiftwater Swiftwater
Wolf Creek	Umpqua/Umpqua	Temperature Summer	Swiftwater

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 1996-1999 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 conifers 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 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 362 acres of regeneration harvest, 908 acres of commercial thinning, and 116 acres of salvage in connectivity/diversity blocks during fiscal years 1996-1999. 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, sups, marshes, swamps, 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 1999.

Late-Successional Reserve habitat improvement

Density management in stands younger than 80 years old has been accomplished on 499 acres during fiscal year 1996-1999. This density management has as its objective to hasten the acquisition of old growth characteristics such as canopy gaps, layering of understory vegetation, creation of large trees, snags and coarse woody debris.

Special Status Species/Habitat, Wildlife

Survey and Manage/Protection Buffer Species

The Roseburg District has implemented the management action/direction associated with Survey and Manage and Protection Buffer species. However, survey requirements for difficult to locate and identify species, some of which require as much as five years of surveys to determine presence has limited the number of activities requiring species surveys that were able to be implemented in fiscal year 1999. Surveys for the species listed in Appendix H of the ROD, also known as Survey and Manage species and Protection Buffer species, are conducted prior to ground disturbing activities. When surveys locate species listed in Appendix H, sites are managed in accordance with RMP management action/direction.

The Forest Service and Bureau of Land Management propose to modify the Survey and Manage standards and guidelines. A draft supplemental environmental impact statement has been issued that presents three action alternatives that would 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 do not change the underlying purpose of the Northwest Forest Plan and do not address other elements of the plan. The public comment period for the draft SEIS closed on March 3, 2000. A final SEIS is expected to be published later this year, followed by a Record of Decision.

Mollusks

The Roseburg District contains habitat for three species of mollusks listed in Appendix H of the RMP: *Megomphix hemphilli, Prophysaon coeruleum,* and *Prophysaon dubium.* Surveys for these species began in 1997 and are continuing in the district. In fiscal year 1999, 3,092 acres were surveyed for mollusks. *Prophysaon coeruleum* was located at 505 sites, *P. dubium* at 109 sites and *Megomphix hemphilli* at 84 sites. Most sites were located in project areas of timber sales that have been postponed for later implementation, so no buffers were applied. Approximately 18 acres were buffered for mollusks in the Ragu timber sale.

Red Tree Vole

No red tree vole surveys were conducted in fiscal year 1999. A change in survey requirements will result in surveys being conducted in fiscal year 2000.

Del Norte Salamander

Unusual spring weather conditions limited the period in which protocol surveys could be conducted in fiscal year 1999. One new site was located in fiscal year 1999. Buffering for Del Norte salamander as well as other survey and manage species resulted in three acres excluded in one timber sale.

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. For fiscal year 1999-2000 timber sale program formal consultation was for terrestrial species was completed in June 1998.

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 the Pacific Northwest Research Station's efforts in two long term demographic study areas. Results of these efforts are as follows:

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%

[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.

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 designated the North Bank Habitat Management Area / Area of Critical Environmental Concern. The District began preparation of a draft environmental impact statement for the management of this area. The draft EIS was scheduled for release for public comment in December 1999. 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 1999, 1869 acres were surveyed for marbled murrelet at 37 sites. Two of three historically occupied sites were occupied again in fiscal year 1999. Two additional sites were located, one during a clearance for a quarry, the other near a proposed campground.

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 1999, two of the sites fledged young. A pair of falcons was observed at the third site, but nesting was not confirmed. 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 1999 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. A new nest site located on private land adjacent to a proposed timber sale resulted in sale modifications which mitigated any adverse impacts to the birds or the nest site. 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. Northern goshawk surveys are conducted as part of the timber sale planning process. A total of 380 acres were surveyed for goshawks in fiscal year 1999. No new sites were located.

Great Grey Owl

The great grey owl is not a bureau sensitive species but is a species which is tracked to obtain more information as to its status. The great grey owl is a protection buffer species under the Northwest Forest Plan. Most of the Roseburg District is below the elevation of 3,000 which is specified in the great grey owl survey protocol. Great grey owls have been occasionally observed on the district. Survey attempts in fiscal year 1999 located no great grey owl nest sites.

Fish Habitat

There was continued District effort during fiscal year 1999 to address fisheries issues related to Threatened and Endangered anadromous salmonids. Major duties are divided between inventory, assessment, restoration, Watershed Analysis, NEPA documentation, timber sale review, public education, and Section 7 ESA (Endangered Species Act) consultation with the NMFS (National Marine Fisheries Service).

Fisheries Inventory and Assessment

Smolt Trapping

The District operated six rotary screw smolt traps to assess the numbers of juvenile anadromous salmonids migrating to the ocean (smolts) from the subject watersheds (Table 1). This project is in its second year of implementation and helps support the Oregon Plan for Salmon and Watersheds (Oregon Plan). Information collected as part of this project will help fisheries and land managers compare smolt production between watersheds, assess the affects of watershed management on fish survival, and determine priorities for watershed restoration activities.

Traps were operated during the primary period of smolt outmigration (generally March - July) or until stream flows dropped and prevented efficient operation of the traps. A variety of fish species were captured including chinook salmon, coho salmon, steelhead trout and cutthroat trout. In all, over 26,000 fish were captured during the 1999 season. While definitive conclusions cannot be reached after only two years of data, continued smolt trapping will provide better insight into the dynamics of anadromous fish populations within the Umpqua basin.

Fish Distribution Surveys

Fisheries personnel reviewed approximately 26 stream miles to determine the presence or absence of fish within potential timber harvest units and as part of Watershed Analysis. Information was used to accurately establish Riparian Reserve boundaries within proposed project areas and to update fish distribution for the District Fish/Hydro GIS theme.

Spawning and Snorkeling Surveys

The District conducted coho salmon spawning surveys in support of the Oregon Plan. Personnel surveyed 27 stream reaches on a weekly basis. A total of 86 stream miles were reviewed during the

Table 5. Summary of FY 1999 Smolt Trapping Information

Location	Basin Area (Acres)	Coho Smolts (Total Captured)	Chinook Smolts (Total Captured)	Steelhead Smolts (Total Captured)	Cutthroat Smolts (Total Captured)
Calapooya Creek	157,300	1,333	323	345	29
Canton Creek	40,573	0	0	45	3
Little River	131,853	7	3	105	7
Lookingglass Creek	103,109	1,056	146	309	79
Myrtle Creek	76,036	640	287	257	19
Rock Creek	62,684	353	1,380	106	9

survey period. Surveyors observed 216 coho salmon and 169 coho salmon redds (nests). Information was coordinated with the Oregon Department of Fish and Wildlife to help estimate numbers of coho salmon returning to watersheds within the Umpqua basin. Additionally, District personnel conducted snorkeling surveys on approximately 3.5 miles of stream in Upper Days Creek. Information will be used to help assess the affects of stream restoration projects on local fish populations.

Aquatic Habitat Inventories

The District conducted aquatic inventories on approximately 3.5 miles of stream in Upper Days Creek, and "Properly Functioning Condition" assessments on 9.0 miles of streams throughout the Umpqua basin. Information will be used to help assess the affects of stream restoration projects on local habitat conditions and provide information for various project Environmental Assessments and Watershed Analyses.

Fish Passage Assessments

District personnel conducted culvert inventories at 150 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.

Aquatic Habitat Restoration

Fish Passage Restoration

The District continued to identify and sites that have historically been barriers and/or impediments to salmon and trout migration. In FY '99 the District replaced 2 culverts and removed one diversion dam to facilitate upstream fish migration. Culverts were located in the South Fork Smith River, and Suicide Creek. The diversion dam was located on Fate Creek. Overall, these projects resulted in restoring passage to approximately 4 miles of stream and improving passage to approximately 2 miles of stream for spawning and rearing fish.

Roads/Sediment Reduction

Road related activities to improve watershed health and fish habitat continued to receive focus from the District. In FY '99 the District fully decommissioned[1] approximately 2.0 miles of road. This is expected to dramatically reduce the maintenance needs for these roads and prevent future road failures that could damage fish habitat. In addition, measures[2] to reduce road sediment sources we applied to approximately 24.0 miles of road and at 3 culvert sites. This will help reduce the risk of aquatic habitat degradation from road related sources. Road work was focused in the Middle Fork Coquille, North Myrtle Creek, Lower North Umpqua, and Canton Creek drainages.

---

[1]Roads that were determined to have no future need and were sub-soiled or tilled, seeded, mulched, and planted to reestablish vegetation. Cross drains, fills in stream channels, and potentially unstable fill areas were removed where appropriate to restore natural hydrologic flow. Roads were closed with an earthen barrier or similar equivalent.

[2]Roads where extra drainage structures were added and/or surfaced in order to raise the road to current RMP standards, effectively reduce sedimentation, and increase infiltration of intercepted flows.

Fisheries and Aquatic Education

District fisheries personnel continued to educate local school students on fisheries and watershed related issues. One class from Sutherlin Elementary School was taken to Canton Creek where they learned important aspects of fish, fish habitat, and aquatic insects. Students from Phoenix school were taken to the field to observe spawning coho salmon on a weekly basis. Several field trips were conducted to show students how smolt traps operate and techniques for fish handling, identification and enumeration. In addition, presentations were made at BLM recreation sites to educate campers on fisheries related issues in the Umpqua basin.

ESA Section 7 Consultation

Due to an October 1999 court ruling on the PCFFA (II) (Pacific Coast Federation of Fisherman's Associations) vs the NMFS (National Marine Fisheries Service) lawsuit, two BO's (Biological Opinions) were invalidated that covered 17 District timber sales. The Department of Justice is currently in the process of appealing this court ruling. The outcome of this process will influence how the District will proceed with these timber sales. The District also completed three new BA's (Biological Assessments) for 8 new timber sales. These new BA's are awaiting final review and approval by the NMFS. In addition, one BA from 1998 covering 5 timber sales is awaiting final review and approval by the NMFS.

Special Status and SEIS Special Attention Species, Botany

Surveys for special status and special attention species are being conducted prior to ground disturbing activities. Over 18,000 acres have been surveyed for these species during fiscal years 1996-1998, including 12,000 acres in reserve land use allocations. See Tables 6, 7, and 8.

Survey and Manage Species and Protection Buffer Species:

There are approximately 400 species listed in the Northwest Forest Plan and Roseburg RMP as either survey and manage or protection buffer species. Each survey and manage species or protection buffer species has management requirements. Management requirements include one or more of four survey and manage strategy or the requirements for managing the sites. Much of the information to carry out the various strategies has been under development through the Regional Ecosystem Office with the help of species experts from throughout the northwest.

Survey protocols have now been developed for amphibians, mollusks, fungi, lichens and bryophytes. Surveys for most of these species began in 1998. Management recommendations for strategy 1 of survey and manage have currently been developed for bryophytes, fungi, and amphibians. Many of the staff involved with survey and manage or protection buffer species have been trained in implementing survey protocols and identification.

Informal consultation has been conducted for Kincaid's lupine (*Lupinus sulphureus* ssp. *kincaidii*). Habitat restoration has been attempted at two SS plant locations. Two SS plants, popcorn flower (*Plagiobothrys hirtus*) and red root yampah (*Perideridia erythrorhiza*) have been introduced into suitable habitat at four locations. Conservation Strategies have been completed for three species, Umpqua mariposa lily, (*Calochortus umpquaensis*), crinite mariposa lily, (*Calochortus coxii*), and tall bugbane (*Cimicifuga elata*).

Table 6. Total Number of Sites by Taxa Group for Special Status Plant Species (09/30/99)

Taxa Group (#species)	Federal Listed	Federal Candidate	Bureau Sensitive	Assessment Species	Tracking Species
Fungi	0	0	0	0	0
Lichens	0	0	0	0	1
Bryophytes	0	0	0	1	2
Vascular Plants	2	4	48	11	166

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

	Status[2]				
Species Group	PB	SM1	SM2	SM3	SM4
Fungi	54	18	1	249	163
Lichens	0	55	8	55	665
Bryophytes	93	10	9	1	38
Vascular Plants	–	29	29	–	–

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

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

Management recommendations for fungi, bryophytes, and vascular plants have been completed and are now available for field use. Management recommendations for lichens should be released sometime this year.

Survey protocols for all component 2 and protect and buffer fungi, lichens, bryophytes, and vascular plant species have been completed and are being implemented in all pre-ground disturbing clearance surveys.

Port-Orford Cedar

Port-Orford cedar trees growing near roads and streams are at risk for infection by a root disease caused by a water mold *Phytophthora lateralis*. An extensive photo survey to detect and map localities of dead or dying Port-Orford cedar on the Roseburg District was completed. Field surveys are on-going to identify locations of healthy Port-Orford cedar.

One timber sale, the Burma Shave Commercial Thinning, was sold and awarded that contains Port-Orford cedar. Within the special provisions of this timber sale are the following requirements:

- Prior to initial move-in, all logging and road building equipment must be steam cleaned or pressure washed to remove potentially contaminated soil from outside the contract area.
- Any logging or road building equipment removed from the contract area during the duration of the contract must be steam cleaned or pressure washed before it is returned to the contract area.
- All log trucks must be steam cleaned or pressure washed prior to initial move-in on the contract area or prior to returning to the contract area if used elsewhere.

In fiscal year 1999, nearly 100 native Port-Orford cedar trees growing on the Roseburg District were sampled and their vegetative material were tested at Oregon State University for potential genetic resistance to the root disease. An associated interagency research site on the district is also annually planted to validate in a natural forest environment these laboratory results.

Special Areas

The Roseburg District has 12 special areas that total 11,323 acres. Defensibility monitoring has been conducted annually on all Areas of Critical Environmental Concern/Research Natural Area (ACEC/RNA). Habitat has been restored from unauthorized use on one ACEC/RNA and noxious weeds have been controlled on two other ACEC/RNAs. A checklist for vascular plants is currently in preparation for publication for the Myrtle Island ACEC/RNA. Baseline fungi, lichen, and bryophyte inventories have been completed at six ACEC/RNAs, one ACEC, and one candidate ACEC. Baseline fungus inventories are currently being conducted. Draft management plans have been completed for two ACEC/RNAs and two more management plans are in preparation.

Seven ACECs were nominated by the public in the Final RMP. Four of these nominations have been reviewed by the South River Resource Area and determined to be unqualified for ACEC status (Bilger Ridge, Langell Ridge, Lee Creek and North Myrtle Headwaters). All nominated areas are being managed to protect the proposed relevant and important values.

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, 1997, 1998 and 1999 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.

River Segment	BLM Miles	Classification	Miles
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 - 1998 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 mid May and mid-Sept. each year 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 (14) to commercial river permittees. 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 surveys were to:

- Identify types of recreation use occurring on the river.
- Provide a BLM/USFS presence on the river to contact, inform, and educate public users.
- Document 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.

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 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 -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 be 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.

Table 8. Adjusted Visitor Use for Boating on the North Umpqua River

	1996	1997	1998
Private Boating Visits on N. Umpqua River	3,605	4,405	4,343
Commercial Boating Visits on North Umpqua River	2,541	2,360	2,270
Boating Visits on BLM section of North Umpqua River	800	790	680

Cultural Resources

In fiscal year 1999, the cultural resources program worked primarily in support of the district timber and recreation programs. Four contracts were awarded for evaluation of 14 archeological sites involved with potential timber sales. Two contracts were awarded for the evaluation of five sites in or near the North Umpqua Wild and Scenic River corridor. In addition to the evaluation work, all proposed ground disturbing projects were reviewed by cultural resource specialists for compliance with the National Historic Preservation Act. Thirty-five field inventories were conducted in response to those projects.

Roseburg District cultural resource personnel worked with Region 6 of the Forest Service by sponsoring a training session on ground penetration radar at which approximately 40 people were introduced to the basics of the technique. The instructor spent an additional two days applying the technique to the BLM North Bank Habitat Management Area site.

The District senior staff specialist worked throughout fiscal year 1999 with the Oregon State Cultural Database Advisory Group to develop a cultural resource database that can be used by all entities within the state who are involved with cultural resource management. The group represents federal and state agencies, tribes and private contractors.

Visual Resources

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

Class	Guidance
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:

Class	Acres
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 were seven proposed actions 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. Visual resource design features and mitigation methods were implemented in these areas and in one case, the proposed timber harvest unit was dropped from further consideration (due to VRM and other social and resource factors). In the South River Resource Area, all timber proposed actions with VRM II or III were analyzed, totaling four. In the Swiftwater Resource Area, all environmental assessments had VRM input regardless of VRM classification. Districtwide, the total number of environmental assessments analyzed for VRM were eleven in 1996, twelve in 1997, nine in 1998 and one in 1999.

As needed, the visual resource contrast rating system was used during project level planning to determine whether or not proposed activities will meet VRM objectives. Mitigation measures were used to reduce visual contrasts.

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 1996-1999.

Socioeconomic

Employment Trends

Since implementation of the Roseburg District Plan in 1995, Oregon and the United States have benefitted from a robust economy. Douglas County also seemed to benefit from strong economic conditions, adding over 1,000 new jobs per year. This is very different from the 1991-1992 national recessionary period where Douglas County was particularly hard hit, losing 2,000 jobs when compared to 1990 employment. The county regained 1990 employment levels in 1995.

Douglas County 1997 total wage and salary employment was 44,930 an increase of 18.4% from the 1984-88 baseline period used in the Resource Management Plan. This does not compare favorably to the statewide employment increase of 42.7%, for the same period. A major cause of relatively low employment growth has been significant job losses in the Lumber and Wood Products sector. In 1988 Lumber and Wood Products employment in the county, peaked at 8,790 jobs. In the following 5 years, employment nosedived. Reaching a low of 5,970 in 1993, a 32% decrease. 1994 through 1997 were years of slightly increasing Lumber and Wood Products employment, adding a total of 360 jobs. Statewide, Lumber and Wood Products employment has decreased by 15,160, or about 20% since the baseline period, to 59,900. The decline in wood products employment is less than would be anticipated given the 50% decline in harvests. Factors such as decreased exports and manufactured home building employment have had an offsetting effect. Since the 1984-88 baseline period, Douglas County's economy has shown strength in other sectors. Jobs have been added in Construction and Mining, Other Manufacturing, Services, and Trade.

See Tables 9 and 10 for detailed information on employment by industry for Oregon and Douglas County.

Table 9. Resident Labor Force, Employment by Industry, Oregon.

	1970	1980	Average 1984-88 Baseline	1990	1991	1992	1993	1994	1995	1996	1997	1998
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	1,731,700	1,762,200
Unemployment	61,700	107,000	104,800	82,000	90,000	116,000	116,000	89,000	80,300	101,600	100,900	98,500
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	1,524,900	1,556,600
Total Manufacturing	172,300	215,100	203,240	220,300	211,700	209,000	211,700	221,300	229,300	235,800	243,700	244,700
>Lumber & Wood Prod. (& Paper)	76,200	79,900	75,060	73,200	65,800	63,800	62,700	63,300	61,300	59,800	59,900	58,500
>Other Manufacturing	96,100	135,200	128,180	147,100	145,900	145,200	149,000	158,000	168,000	176,000	183,800	186,200
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	1,281,100	1,311,900
>Const. & Mining	30,800	48,800	35,800	54,000	53,000	52,000	55,700	62,900	70,400	79,400	83,500	84,300
>Trans., Comm. & Utilities	48,700	60,500	58,040	64,500	65,200	65,700	66,800	68,900	71,300	73,500	74,100	76,400
>Trade	162,000	255,600	269,680	313,100	314,300	318,700	328,900	344,100	357,000	365,900	377,500	383,900
>Finance, Ins. & Real Estate	36,000	70,000	69,360	80,300	83,200	86,000	84,600	87,800	87,200	91,000	95,100	95,200
>Services & Misc.	112,700	191,400	231,180	296,200	296,900	311,800	328,300	343,200	362,900	382,600	400,500	416,800
>Government	146,700	203,200	201,360	223,500	226,400	231,000	232,600	234,700	240,200	246,600	250,400	255,400

Table 10. Resident Labor Force, Employment by Industry, Douglas County.

	1970	1980	Average 1984-88 Baseline	1990	1991	1992	1993	1994	1995	1996	1997	1998
Civilian Labor Force	27,630	41,780	43,306	45,520	44,660	42,310	43,010	42,990	43,360	44,490	44,930	45,710
Unemployment	2,490	5,180	4,204	3,820	4,490	5,050	5,070	3,920	3,480	3,980	3,950	4,250
Total Wage & Sal. Emp.	21,980	30,850	30,868	33,580	32,130	31,580	31,900	32,850	34,170	35,140	36,560	36,980
Total Manufacturing	8,990	9,430	9,892	9,990	8,870	8,000	7,910	7,980	8,340	8,450	8,860	8,580
>Lumber & Wood Prod.	7,490	7,600	8,240	8,230	6,920	6,020	5,970	6,020	6,070	6,110	6,330	6,280
>Other Manufacturing	1,500	1,830	1,652	1,760	1,950	2,980	1,940	1,960	2,270	2,340	2,530	2,300
Total Non-Manufacturing	12,990	21,420	20,976	23,590	23,270	23,580	23,990	24,880	25,830	26,690	27,700	28,400
>Const. & Mining	710	1,490	774	1,000	990	990	1,080	1,170	1,260	1,360	1,380	1,380
>Trans., Comm. & Utilities	1,030	1,300	1,480	1,720	1,560	1,500	1,500	1,520	1,540	1,590	1,630	1,680
>Trade	3,440	5,730	6,110	6,870	6,740	6,850	7,040	7,390	7,820	7,930	8,210	8,310
>Finance, Ins. & Real Estate	770	1,240	982	960	980	940	1,100	1,130	1,140	1,160	1,290	1,230
>Services & Misc.	2,400	4,600	5,206	6,050	5,960	6,240	6,480	6,800	6,810	7,020	7,320	7,730
>Government	4,640	7,060	6,430	7,000	7,030	7,050	7,020	6,870	7,260	7,630	7,870	8,070

Receipts and Distributions

Forest Development	
FY 1996	$950,000
FY 1997	$1,150,000
FY 1998	$1,542,000
FY 1999	$804,000
Total 1996-1998	$3,642,000

Jobs-in-the-Woods	
FY 1996	$1,075,000
FY 1997	$1,000,000
FY 1998	$1,200,000
FY 1999	$768,000

Timber sale collections	1996	1997	1998	1999
Oregon and California Railroad Lands (O&C)	$18,062,961	$9,344,885	$10,231,933	$12,656,551
Coos Bay Wagon Road Lands (CBWR)	$653,889	$2,533	0	0
Public Domain Lands (PD)	$3,796,970	$10,590	$57,210	0
Total	$22,513,820	$9,358,008	$10,289,143	$12,656,551

Payments to Douglas County	1996	1997	1998	1999
Oregon and California Railroad Lands and Coos Bay Wagon Road Lands (O&C/CBWR)	$18,366,586	$17,669,120	$16,971,654	$16,274,190
Payment in Lieu of Taxes (PILT)	$231,578	$91,143	$230,399	$83,669
Total	$18,598,164	$17,760,263	$17,202,053	$16,357,859

	1996	1997	1998	1999
Value of timber sales, oral auction and negotiated	$19,000,000	$21,102,854	$17,445,591	$12,656,551

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. Fiscal year 1998, which was the fifth year for this program. 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 and 1999-$768,000. Thirty-six projects were funded through contracts on the district under this program in fiscal year 1996-1999. These projects include work such as road restoration, renovation or upgrade, or road decommissioning to benefit watersheds, 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 partnerships to accomplish the work and provide displaced workers with longer term, high skill family-wage jobs.

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 it's programs, policies and activities."

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

1999 Recreation Program Summary

Recreation use statistics have been tracked and documented through the Recreation Management Information System (RMIS).

Number of BLM Acres on the Roseburg District:	425,588 acres
Swiftwater Resource Area	223,205 acres
South River Resource Area	202,383 acres

Extensive & Special Recreation Management Areas (ERMA / SRMA)

Resource Area	ERMA Acres	SRMA / Acres
Swiftwater R.A.	219,243 ac.	North Umpqua River / 1,722
		Umpqua River / 2,240
South River	200,673 ac.	Cow Creek / 1,710

North Umpqua River SRMA:	
North Umpqua W&SR Area	1,620 acres
Satellite Areas:	
Millpond Rec. Site	20
Rock Cr. Rec Site	38
Scaredman Rec. Site	20
Cavitt Cr. Rec Site	21
Wolf Cr. Falls Trail	3
Total	1,722 acres

Number of recreation visits on Roseburg District BLM lands: 370,900.

Number of recreation participants on Roseburg District BLM lands: 1,008,700 (one visitor participating in several recreation activities)

Developed Recreation Sites and Use Statistics

Developed Sites: 14	No. of Visits
Susan Creek Campground	9,000
Susan Creek Day-Use Area	23,000
Rock Creek Recreation Site	3,100
Millpond Recreation Site	7,100
Cavitt Creek Recreation Site	4,100
Tyee Recreation Site	6,200
Scaredman Recreation Site	2,800
Swiftwater Recreation Area	102,000
Wolf Creek Trailhead	2,000

Swiftwater Trailhead	30,000
Lone Rock Boat Launch	1,000
Cow Cr. Rec. Gold Panning Area	1,500
Osprey Boat Ramp	4,200
Miner-Wolf WW Site	800

Recreation Use Permits issued at campgrounds: 3,204
Fees Collected: $50,400

Recreation Use Permits issued for pavilion use: 34
Fees Collected: $1,900

Recreation Trails Managed: 8 Trails; 14.4 miles total.

Table 11. 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	.3	X			X		
Susan Creek Picnic Trail	.5	X			X	X	
Susan Creek Watchable Wildlife Trail	.2	X		X	X	X	X
North Umpqua	11.0	X	X		X	X	X
Deadline Falls	.1	X		X	X	X	X
Susan Creek Falls	0.8	X		X	X		
Miner-Wolf Creek	.3	X		X	X		X

Special Recreation Permits Issued - 13 commercial outfitter permits on North Umpqua River were issued by cooperative management agreement through the Umpqua National Forest, North Umpqua Ranger District. BLM collected $986 (17%) in use fees.

Off-highway Vehicle Designations Managed:

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

Partnerships / Volunteer work:

Twenty-one volunteer groups participated including: Douglas County Inmates, Eagle Scout candidates, Boy Scout Troops, School groups, Church group, Individuals, Job Corps, and Campground Hosts

Table 12. 1999 Volunteer Statistics.

Group	Hours volunteered	Value of work
All groups excluding hosts	2,910	$ 28,617
Campground hosts	15,760	$ 157,600
All groups total:	18,670	$ 182,217

Types of recreation projects and work completed:

Rocking, brushing, mulching and limbing trails.
Revegetating recreation sites.
Installing fences, barriers and safety railing.
Cleaning recreation sites; weeding, removing debris & graffiti.
Building and installing benches and wood/cement picnic tables.
Cutting and stacking firewood.
Installing curb and culverts along hiking trails.
Building new trail around slipouts.
Repairing bridges and puncheons.
Placing crushed rock in rec. pads and along campground roads.
Upgrading accessibility standards on recreation trails.
Performing a wide variety of duties assigned to campground hosts.

Back Country Byways Managed:

North Umpqua Scenic Byway - 8.4 miles,
Cow Creek Back Country Byway - 45 miles

Major Projects Completed:

- Construction of the Island Day-use area and North Kiosk on the Cow Creek Back Country Byway
- Completed site design, awarded contract and began renovation of Cavitt Creek Falls Recreation Site
- Replaced old pavilion at Tyee Recreation Site and constructed new pavilion at Rock Creek Recreation Site
- Completed final design for Eagleview Campground
- Renovated water system and host site at Scaredman Campground
- Built three new host site overhead shelters
- Constructed new parking lot at Susan Creek Falls Trailhead
- Rebuilt trail across two major slide areas on the North Umpqua Trail
- Revegetated areas at Rock Creek, Susan Creek and Cavitt Creek Falls Recreation Sites
- Replaced foot bridge at Hill Creek
- Repaired high water damage on Susan Creek Falls Trail (culverts, waterbars)
- Completed several American Disabilities Act (ADA) upgrade projects in the field and completed a web site ADA listing

Hazard Tree assessments were completed at all developed recreation sites on the District. 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, Miner-Wolf Watchable Wildlife Site, and on the North Umpqua Trail - Tioga Segment. Treatment consisted of a combination of limbing trees, removing tree tops, or felling of hazard trees.

There were no reported public fatalities or serious injuries in 1999.

Status of Recreation Plans:

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

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. If fiscal year 1999, $705,000 for a variety of projects was allocated. However, due to required wildlife surveys, $306,000 targeted for construction of the Eagleview Campground was not obligated but was transferred to the Medford District. The South River Resource Area spent $32,000 to improve recreation sites within Cow Creek Back Country Byway corridor, including the Island Day-use Site and the kiosk interpretive site. In Swiftwater Resource Area, $296,000 was spent on the Cavitt Creek Falls Recreation Site renovation projects. Recreation pipeline funds were also used for salaries of BLM employees. Total expenditure of recreation pipeline funds in fiscal year 1999 was $399,000.

Recreation Fee Demonstration Project

In March 1998, the Roseburg District received approval for establishing 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 program expires September 30, 2001. A special account was established for the District, in which fees for camping and pavilion use at Susan Creek, Mill Pond, Rock Creek, Cavitt Creek, and Tyee Recreation Sites, and special recreation permits would be deposited.

At the end of FY 1999, 53,901 from campground and pavilion fees were deposited. Those funds provided $31,600 that was reinvested in recreation site maintenance, projects and renovations including new pavilion counters, Scaredman water system upgrade, generator purchase, Hill Creek Bridge replacement, Geo Web at Susan Creek Falls Trail parking lot, Tyee pavilion partial replacement, ADA fire rings, three host shelters, Susan Creek water system repairs, interpretive brochures and other miscellaneous supplies and equipment.

Recreation Program Summary 1996 - 1999

Recreation use statistics were tracked and documented in the annual Recreation Management Information System (RMIS) reports for 1996, through 1999. A summary of the four years follows for the Roseburg District BLM Recreation program.

The units of land managed as extensive recreation management areas remained constant during the 1996-1999 period, as did the lands managed as special recreation management areas (SRMA): Cow Creek SRMA - Umpqua River SRMA - North Umpqua SRMA.

The number of recreation visits on Roseburg District BLM lands increased each year:

321,345 visits in 1996
347,580 visits in 1997
360,100 visits in 1998
370,900 visits in 1999
1,399,925 total visits

The number of recreation participants on Roseburg District BLM lands increased annually: (one visitor regularly participates in several recreation activities)

861,100 participants in 1996
890,227 participants in 1997
956,830 participants in 1998
1,008,700 participants in 1999
3,716,859 total participants

There were 14 developed recreation sites managed during the period. No new sites were developed. All sites were maintained and upgraded according to: public needs, safety hazards, ADA requirements, and availability of funding and personnel.

Recreation Use Permits issued at campgrounds remained approximately the same each year:

3,528 permits issued for campgrounds in 1996. Fees collected - $46,649.
3,636 permits issued for campgrounds in 1997. Fees collected - $57,015.
3,597 permits issued for campgrounds in 1998. Fees collected - $51,050.
3,204 permits issued for campgrounds in 1999. Fees collected - $50,400.
13,965 permits issued.

Recreation permits issued for pavilion use.

30 permits issued in 1996. Fees collected - $1,665.
26 permits issued in 1997. Fees collected - $520.
34 permits issued in 1998. Fees collected - $1,810.
34 permits issued in 1999. Fees collected - $1,900.
124 permits issued.

Eight recreation trails were managed during the period with a total of 14.4 miles. Major upgrades for accessibility to the disabled were made on four of the eight.

Fourteen commercial outfitter permits were issued annually on North Umpqua River through cooperative management agreement with the Umpqua National Forest, North Umpqua Ranger District. One additional SPR was issued each year for either mountain bike outfitter guide or Cycle Oregon.

No changes to Off-highway Vehicle (OHV) designations were made during the period. BLM managed 422,464 acres in the Limited category, and 3,124 acres in the Closed category. The District does not host any popular OHV riding areas outside of local use and interest.

Annual volunteer work increased each year. Partners were Douglas County Inmates, Eagle Scout candidates, Boy Scout Troops, School groups, Church groups, Job Corps, and Campground Hosts. The significant increase in hours after 1996 resulted from more use of the Douglas County Inmates in recreation site projects.

Table 13. Partnership and Volunteers

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
Total	68	55,970	$532,917

Back Country Byways Managed:

North Umpqua Scenic Byway - 8.4 miles
Cow Creek Back Country Byway - 45 miles

Major Projects, Plans and Partnerships Completed During the 1996 - 1998 Period:

Completed renovation of Scaredman Campground, repaving of Tyee Recreation Site and construction of new host shelter, renovation of viewing platform at Susan Creek Falls, replacement of Rock Creek day-use area restroom and Cavitt Cr. Falls restroom.

Completed extensive reconstruction of Millpond Campground including new water system, paved campground loop and day-use area, revegetation project, and new restrooms built to ADA standards.

Developed new recreation brochures including "Thundering Waters" waterfalls brochure with the Umpqua National Forest, six campground brochures, Miner-Wolf Watchable Wildlife Site brochure and Cow Creek Back Country Byway brochure.

Completed cultural inventories/evaluation at three recreation sites.

Completed ADA upgrades including accessible picnic tables, trails, restrooms and viewing area at Susan Cr. Falls, Rock Cr. Rec. Site, Scaredman, Cavitt Cr. Falls, and Millpond Campgrounds, Swiftwater Trailhead and Swiftwater Day-Use Area.

Reconstructed Susan Creek Falls Trail to meet ADA standards.

Completed major damage repairs from November Floods of 1996 at Swiftwater, Millpond, Rock Creek, Miner-Wolf, Susan Creek and Osprey Boat Ramp.

Enhanced and improved access on the China Ditch Auto Tour loop.

Organized annual Free-fishing Day Event at Cooper Creek Reservoir in partnership with Oregon Dept. of Fish and Wildlife, U.S. Fish and Wildlife Service, U.S. Forest Service, and Douglas County Parks Dept. (BLM lead)

Staffed the Colliding Rivers Information Center in Glide, OR. in partnership with the Roseburg

Visitor's and Convention Bureau and the Umpqua National Forest.

Completed an OHV Implementation Plan for the Roseburg District.

Developed and implemented the recreation signing program.

Partnership with the USFS on seasonal monitoring of the North Umpqua Wild and Scenic River.

Developed five joint USFS/BLM displays for the annual Douglas County Fair and Outdoor Recreation Show.

Hazard Tree assessments were completed annually at developed recreation sites, with more emphasis on some sites than others on a rotating basis. Treatments consisted of a combination of de-limbing trees, removing tree tops, or felling hazard trees.

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 timber harvest. The Northwest Forest Plan and the Roseburg District Resource Management Plan provide for a sustainable timber harvest, know as the Allowable Sale Quantity (ASQ), from Roseburg District administered public lands of 45 MMBF (million board feet) annually. The district offered 10.1 MMBF in fiscal year 1999. This shortfall was primarily a result of the inability to complete requirements of the survey and manage standards and guidelines which include requirements for multiple year surveys for difficult to locate and identify species.

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.

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

In fiscal year 1999, Roseburg District sold 4 timber sales at auction and 9 negotiated sales of minor volume. The value of these sold timber sales was $6,876,213. The monies associated with these timber sales is paid as the timber is harvested over the life of the contracts, which is generally three years. Timber sale collection for fiscal year 1999 from active harvesting was $12,656,551 for Oregon and California Railroad Lands (O&C) and for Public Domain Lands (PD).

Below is a summary by land use allocation of timber volume and acres of these timber sales. In addition, the harvest prescription of regeneration harvest, thinning, density management or salvage is identified. All regeneration harvest occurred in stands over minimum harvest age of 60 years. No stands in FY 1996-1999 received a regeneration harvest that were less than the culmination of mean annual increment age of 80-110 years.

Table 14. Roseburg District Timber Sale Volume and Acres.

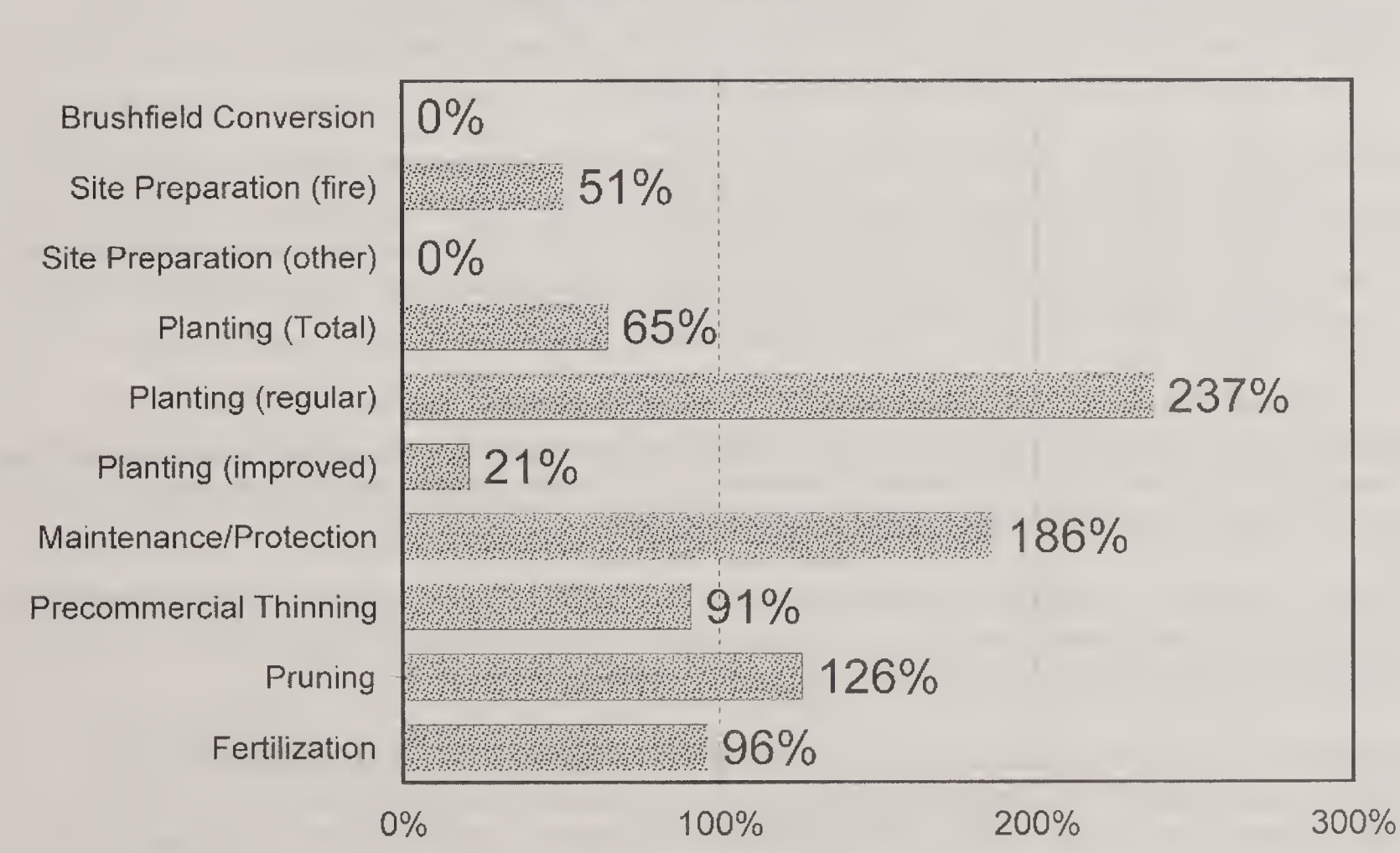
MBF	FY 1995[1]	FY 1996	FY 1997	FY 1998	FY 1999	1996-1999 Total	1996-1999 Annual Average	RMP/EIS Assume Annual Average	Percent of Assumed Average
Total Timber Sale Vol.	16,459	45,993	51,783	44,545	10,135	152,456	38,114	49,500	77
Matrix Timber Sale Vol.	14,442	42,250	47,611	37,817	9,433	137,111	34,278	45,000	76
GFMA Regen Timber Sale Vol.	13,292	32,061	27,708	24,742	1,055	86,566	2,164		
GFMA Comm. Thin TS Vol.	1,178	3,016	2,907	3,451	4,039	13,458	3,365		
GFMA Salvage TS Vol.	207	929	3,384	1,309	438	4,060	1,015		
C/D Block Regen TS Vol.	1,130	865	5,123	5,890	1,353	13,231	3,308		
C/D Block Comm. Thin TS Vol.	0	2,978	3,455	1,739	203	8,375	2,094		
C/D Block Salvage TS Vol.	53	206	117	576	16	915	229		
RR Density Mgmt TS Vol.	0	2,424	2,175	811	378	5,788	1,447		
RR Salvage TS Vol.	0	55	3	236	104	398	100		
LSR Density Mgmt TS Vol.	0	102	1,728	5,559	151	7,540	1,885		
LSR Salvage TS Vol.	0	1,162	266	123	33	1,548	396		
Total All Reserves	0	3,743	4,172	6,729	702	15,346	3,837	4,500	85
Key Watershed TS Vol. from Matrix	0	8,439	18,392	12,765	2,449	42,046	10,512	8,300	127
Little River AMA TS Vol.	0	1,033	4,682	30	0	5,745	1,915	4,600	45
Little River AMA Salvage Vol.	17	162	236	81	0	479	160		
Little River AMA Total Vol.		1,195	4,918	111	0	6,224	2,075		
Acres									
Total Regeneration Harvest	386	906	904	800	56	2,666	667	1,190	56
Total Commercial Thinning	55	666	740	592	413	2,411	603	84	718
Total Density Management	44	5	128	427	100	660	165	166	100
GFMA Regeneration Harvest	354	889	726	649	20	2,284	571		
GFMA Commercial Thinning	55	140	253	361	211	965	241		
GFMA Salvage	13	24	276	119	16	435	109		
C/D Block Regen. Harvest	32	50	123	153	36	362	91		
C/D Block Comm. Thinning	0	220	276	175	203	874	219		
C/D Block Salvage	4	25	25	50	16	116	29		
RR Density Management	0	216	188	97	36	537	134		
RR Salvage	0	4	0	20	9	33	8		
LSR Density Management	0	0	113	386	100	599	150		
LSR Salvage	0	96	33	8	2	139	35		
Total All Reserves	0	316	334	511	147	1,308	327		
Little River AMA Regeneration Harvest	0	0	68	0	0	68	23		
Little River AMA Thinning	0	94	134	0	0	228	76		
Little River AMA Salvage	1	9	36	7	0	52	17		

Matrix Regen totals = Regen + CC
Matrix CT totals = CT + DM + Select Cut + Understory Reduction
RR DM total = DM + CT + Select Cut
LSR DM total = DM + CT + Select Cut
LSR Salvage total = Salvage
AMA Thin total = CT + DM + Select Cut
AMA Salvage total = Salvage + ROW
[1]FY 95 Figures for effective date of RMP; June - September 1995

Silviculture Activities

Table 15. Roseburg District Forest Development Activities.

	FY 96	FY 97	FY 98	FY 99	Totals to date	Average Annual	Projected Annual	Differences Actual-Projected
Brushfield Conversion	0	0	0	0	0	0	15	0
Site Preparation (fire)	252	846	149	420	1,667	417	840	50%
Site Preparation (other)	0	0	0	0	0	0	50	0
Planting (regular stock)	819	665	1,072	196	2,752	688	290	237%
Planting (improved stock)	187	180	157	432	956	239	1,140	21%
Maintenance/Protection	2,224	1,525	1,350	1,082	6,181	1,545	830	186%
PCT	3,629	3,903	4,305	2,315	14,152	3,538	3,900	91%
Pruning	331	858	957	146	2,292	573	460	125%
Fertilization	0	4,278	1,060	0	5,338	1,335	1,140	117%
Reforestation Surveys	14,563	10,736	10,830	18,472	54,601	13,650	0	0



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 is about 50% of planned. This trend may continue for some time given soils protection recommendations from interdisciplinary teams and concern for loss of retention trees, coarse woody debris, snags and survey and manage species.

Site Preparation (OTHER) - To date no acres have been reported. Activity in this category is expected in this decade.

Planting (regular stock) - Total planted acres without regard to genetic quality is at RMP planned levels. Reforestation with genetically unimproved planting stock is 237% of planned. On the surface this constitutes a significant deviation from planned. However, a phase in period of 3-4 years was assumed to allow for older sales outside the GFMA land use allocation to be reforested and for seed orchards to reach production.

Planting (improved stock) - In FY 98, 68% of the acres reforested were planted with genetically improved stock. But, only 26% 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.

The trend should shift to more improved stock planting the rest of the decade. It is too early to determine if there will be a significant deviation from the planned acreage. In fiscal year 1999, the use of genetically improved stock has more than doubled.

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 FY 96 and has declined dramatically each year since. In FY 96 the ratio was 2.2 to 1. In FY 98 the ratio was at 0.9 to 1. The current ratio is likely to be the rate for the rest of the decade. At this rate, assumed RMP levels would be exceeded by about 50%.

Precommercial Thinning (PCT) - Currently PCT is at approximately planned 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 about 125% of 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 117% of assumed RMP levels. There is a multi-year EA in preparation, which when implemented should result in accomplishments of approximately 125% of RMP assumptions. Depending on funding and PCT treatment levels further accomplishments above this could be achieved.

Forest development, reforestation, silvicultural and timber stand improvement practices were accomplished in fiscal year 1998 through contracts valued at approximately $804,000.

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.

Noxious Weeds

The objective of the noxious weed program in the Roseburg District 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. The Roseburg District continues to survey BLM-administered land for noxious weeds primarily by including noxious weeds in all project clearance surveys. Approximately 1500 acres are surveyed during project clearances each year. All infestations are reported to the Oregon Department of Agriculture and the District cooperates with the department in the control of infestations.

Table 16. Special Forest Products

	No. of Contracts				Quantity Sold				Value $			
Product	FY96	FY97	FY98	FY99	FY96	FY97	FY98	FY99	FY96	FY97	FY98	FY99
Boughs-Coniferous (lbs)	183	104	96	80	164,850	96,700	76,600	67,500	3,297	1,948	1,572	1,350
Burls & misc. (lbs.)	9	10	15	1	12,900	20,200	35,275	300	505	816	1,411	12
Christmas Trees (ea.)	266	245	217	159	266	245	217	159	1,375	1,225	1,085	795
Edibles & Medicinals (lbs.)	3	3	0	1	1,578	1,800	0	200	70	72	0	10
Floral & Greenery (lbs.)	120	128	89	161	69,120	83,100	48,525	96,136	3,458	4,019	3,305	4,745
Mosses - Bryophytes (lbs.)	3	4	4	0	6,333	1,998	0	1,833	150	60	05	5
Mushrooms - Fungi (lbs.)	56	50	25	20	1,572	2,524	1,048	875	393	631	262	218
Transplants	7	2	1	1	560	450	20	140	480	350	5	14
Wood Products/Firewood (bf)	210	460	197	219	267,960	600,574	352,729	63,944*	49,111	74,436	73,901	5,380
Totals	857	1,006	640	722					58,839	83,557	87,541	60,379

* cu. ft.

Table 17. Noxious Weed Management Summary

Treatment	Species	FY 96 Acres	FY 97 Acres	FY 98 Acres	FY99 Acres
Manual/ Mechanical	Gorse	1	1	1	1
	Scotch Broom	90	8	453	400
	Yellow Starthistle	21	20	1	1
	Rush Skeletonweed	1	-	1	1
	Woolly distaff thistle	-	-	1	1
	Thistles	-	-	152	50
	Tansy ragwort	-	-	6	1
Chemical	Scotch broom	-	-	38	66
	Yellow starthistle	1	1	1	1
	Diffuse knapweed	3	3	1	1
	Thistles			5	5
Biological	Yellow starthistle	5	-	10	0
	Scotch Broom	0	0	0	1
Total		122	33	670	529

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.

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 lightening caused and 1 was human caused
Off district wildfires:	66 district personnel accepted assignments to 29 wildfires

Total, June 1995-September 1999

Prescribed Fire:	1867 acres
On district wildfires:	57 fires for a total of 36 acres - 46 were lightning caused and 11 were human caused
Off district wildfires:	164 district personnel accepted assignments to 103 wildfires from Oregon to Florida.

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.

Roads

Table 18. Access and R/W Four 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
Total	48	20

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.

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 1999 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

Table 19. Roseburg District Activities

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

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

Land Tenure Adjustments

No land tenure adjustments, exchanges or acquisitions of real property occurred in fiscal year 1999. During fiscal year 1999 the district resolved three unauthorized uses, completed one application to administratively withdraw four recreation sites that include 143 acres of public land, issued or renewed three leases/permits.

Hazardous Materials

A Hazardous Materials building will be placed at the Roseburg District office and compound site for temporary storage of hazardous materials waiting for transport to the proper facility. A Compliance Assessment for Safety, Health and the Environment (CASHE) was conducted on all district facilities including the administration and fire warehouses, road maintenance shops, and major recreation sites. This assessment was conducted to provide the district with a list of findings and recommendations to bring the district into compliance with Federal, State and local environmental and hazardous materials safety regulations.

Table 20. Hazardous Material Incident Summary.

	Incidents Requiring Response
Fiscal Year 1996	5
Fiscal Year 1997	2
Fiscal Year 1998	3

Coordination and Consultation

Federal Agencies

During the period of June 1995 through September 1999, significant increases in cooperation and coordination between federal agencies has been accomplished. 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 proceed 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.

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 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 two 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 30 crew weeks of work provided by the Northwest Youth Corps.

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.

Third Year Evaluation

The Resource Management Plan requires a formal evaluation at the end of every third year after implementation begins. A third year evaluation of the Roseburg District and other western Oregon BLM districts was conducted in fiscal year 1999 and continued into fiscal year 2000. Its purpose is to determine whether there is significant cause for an amendment or revision to the plan. This is done by evaluating cumulative monitoring results and accomplishments, determining if the plan's goals were realistic and achievable in the first place and whether changed circumstances or new information have so altered the levels or methods activities or expected impacts that the plan may

paint a seriously different picture than those anticipated in the Roseburg District RMP. As part of the third year evaluation, the allowable sale quantity is reevaluated. Public outreach was accomplished in the spring of 1998. As a result of this outreach, the Roseburg District received comments from a local interest group that provided twenty-seven issues or questions for consideration in the third year evaluation. If the evaluation concludes that the plan's goals are not achievable a plan amendment or revision will be initiated. If the evaluation concludes that land use allocations or management direction need to be modified, a plan amendment or revision may be appropriate. An analysis will address the need for either.

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.

Results of some of this research has begun to be available. One project which was published in the Canadian Journal of Forestry Research, "Density, ages, and growth rates in old-growth and young-growth forests in coastal Oregon", compares stand densities and growth between old and young stands in the Coast Range. The results indicate that old growth densities were much lower than current young-growth stands regenerated after harvest, and that thinning in younger stands may be needed to help speed development of old-growth characteristics. Another project (still in a review draft), "Effects of thinning on structural development in 40-100 year old Douglas-fir stands in western Oregon", indicates that thinning young Douglas-fir stands will hasten development of multi-story stands, shrub layers, and increased understory conifer regeneration. These studies suggest management activities including thinning in younger forest stands can enhance development of older forest structure and help achieve biodiversity and habitat conditions found in older forests.

This research is a forerunner to 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. In support of the third year evaluation, district GIS efforts have been focused on data and analysis to compare the RMP assumptions with the initial years of plan implementation. 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.

Cadastral Survey

Cadastral survey crews perform an essential function in the accomplishment of resource management objectives. In addition to the normal survey work of locating or establishing property lines and corners, the cadastrals provide technical assistance in geographic positioning system (GPS) for special status species mapping, stream location, and other resource programs on the Roseburg District.

Table 21. Roseburg District Cadastral Survey Activity

	FY 1996	FY 1997	FY 1998	FY 1999
Projects Completed	7	10	13	10
Cadastral Projects	7	7	7	7
Miles of Survey Line Run	35.7	58	78	41

Law Enforcement

Roseburg District has a full time BLM Ranger along with the services of a Douglas County Deputy Sheriff (through a law enforcement agreement with Douglas County) for law enforcement duties. Law enforcement efforts on the Roseburg District for fiscal year 1996 included participating in operations 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 Ranger and Deputy Sheriff, the Roseburg District has been able educate the public concerning appropriate uses of public lands and resources as well as preventing or avoiding potentially unlawful or harmful incidents and activities.

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.

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 Year 1996-1998

During fiscal years 1996-1999, the Roseburg District completed approximately 64 environmental assessments, 324 categorical exclusions, seven NEPA or Plan conformance determinations and no environmental impact statements. 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.

Previous plan maintenance was published in the 1996 and the 1997 Roseburg District Annual Program Summary. The following additional items have been implemented on the Roseburg District as part of plan maintenance. These 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.

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: "Anthropods" is changed to "Arthropods". "Understory and forest gap herbivores" is changed to "Understory and forest gap hebivores (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 FY 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 protocal 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 [FY] 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 1and 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. Guidance on implementation of the 15% retention standard and guideline 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. 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

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.

ROSEBURG DISTRICT
RESOURCE MANAGEMENT PLAN
MONITORING

FISCAL YEAR 1999

Monitoring Report
Fiscal Year 1999

Executive Summary

Introduction

This document represents the third 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 1999. 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 1999 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. 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 18 of the 20 land use allocations and resource programs identified for monitoring in the plan. Monitoring results also found full compliance in 46 of the 50 implementation monitoring questions contained in the plan.

Discrepancies were found in two monitoring questions pertaining to Water and Soils that concerned the implementation of Best Management Practices and maintaining or enhancing soil productivity. These discrepancies constituted instances of non-compliance with RMP management direction.

Although not constituting RMP non-compliance, results from two other monitoring questions pertaining to Timber Resources found differences in some fiscal year 1999 activities and outputs compared to projected annual averages, including the allowable sale quantity. These differences were largely the result of difficulty in fulfilling requirements for Survey and Manage standards and guidelines and ongoing litigation.

Recommendations

The discrepancies pertaining to Water and Soils have been thoroughly analyzed and recommendations for correction can be implemented through existing RMP management direction. The discrepancies pertaining to Timber Resources are within RMP assumptions regarding averages over the life of the plan and identified uncertainties that surround the timber program.

Conclusions

Analysis of the Fiscal Year 1999 monitoring results concludes that the Roseburg District had , on an overall basis, high compliance with RMP management action/direction. Correction of discrepancies relating to Water and Soils can be accomplished within existing management direction. The level of activities pertaining to the timber program will continue to be monitored and will be evaluated as Survey and Manage direction is clarified through the pending supplemental environmental impact statement and resolution of current litigation regarding the Northwest Forest Plan. No major changes in management direction or Resource Management Plan implementation is warranted at this time.

Monitoring Fiscal Year 1999

Introduction

This document represents the fourth 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 1998 through September 1999. 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 1999 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 50 implementation monitoring questions contained in the plan. There were found to be discrepancies regarding four monitoring questions. Two of these questions pertained to Water and Soils and two of the questions pertained to timber. The discrepancies relating to the timber monitoring questions did not constitute RMP non-compliance, however the discrepancies regarding the Water and Soils monitoring questions did constitute RMP non-compliance. Activities 18 of 20 land use allocations and resource programs identified for monitoring in the plan were found to be in full compliance with management action/direction. These generalizations require a more in depth examination of the implementation monitoring questions and monitoring results in order to be fully understood.

Discussion of Discrepancies

Water and Soils

There was found to be a discrepancy in Monitoring Question No. 1 of Water and Soils: Are site specific Best Management Practices, identified as applicable during interdisciplinary review, carried forward into project design and execution?

The RMP states on page 62, "Plan timber sales involving ground yarding systems with skid trails (including trails from previous harvest entries) to have insignificant (less than one percent) growth loss effect. Skid trails will affect less than ten percent of the land. . . . Upon final harvest, all compacted trails, including skid trails from previous entries, will be tilled . . . For entries other than final harvest [eg. thinnings], skid trails will be selectively tilled." To mitigate for compaction, the district soil scientist has stated that the intent of the selective tilling of previously compacted skid trails within thinning units is to at least maintain or decrease the total amount of compaction. This is because in many thinning units with flat slopes the amount of existing compaction already exceeds the one percent productivity loss threshold, as in the case with Coon Creek thinning. The Coon Creek thinning operations with the additional compaction, increased productivity loss rather than maintaining or decreasing it from its current level. The EA stated that 80 to 90 percent of the existing skid trails would be subsoiled but because of practical problems (discussed below) and concern for damage to residual trees this was not accomplished. To reduce the productivity loss to less than one percent, existing compacted skid trails will be subsoiled at final harvest which according to the silviculturist may need to occur within the next 10 to 20 years.

The district soil scientist and the contract administrator for this sale met to discuss soil site productivity, compaction amelioration, contract specifications and equipment capabilities. This discussion was the basis for answering the following questions:
1) Why could the tillage specifications not be practically implemented for the Coon Creek Thinning?

Answer: Tillage was not implemented because slash loading on the skid trails was too heavy and skid trail patterns too sinuous to allow efficient use of the BLM winged subsoiler.

2) What specifications could have been put into the contract that would have corrected/prevented this situation?

Answer:

-Predesignate skid trails as part of harvest operations.
-Select ground based yarding equipment other than a forewarder.
-Require clearing of skid trails prior to tillage.
-Use cable harvest instead of ground based.

Ameliorate compaction by means other than a winged subsoiler pulled by a D-6 tractor (i.e. specially adapted excavator).

There are many ways to correct/prevent this situation but most are not very practical and are very project specific. The easiest way to prevent this situation is to not use a forewarder. A meeting will be set up by the Swiftwater Field Manager to review proposed ground based operations, related specification changes, feed back to ID teams and amelioration of compaction in Coon Creek and other thinnings.

There were found to be discrepancies in Monitoring Question No. 5 of Water and Soils: Is long term site productivity maintained or improved? A) In forest management activities involving ground based systems are growth loss effects insignificant (less than one percent)? The discrepancies involved units on four timber sales: Lean Louis, Coon Creek, Four Gates and Lower Conley.

In Coon Creek reducing productivity loss to less than one percent where past ground based logging occurred by subsoiling was not physically possible even under ideal circumstances because of the high levels of residual compaction. In such a case as this the requirement would then be to maintain or enhance soil site productivity with each subsequent reentry. In Coon Creek soil site productivity decreased from ground based logging instead of being maintained or enhanced due to the inability to subsoil through heavy slash and for the inability of tractor pulled subsoilers to negotiate highly sinuous trails (Refer to the discussion under Question 1 for the adequacy of the interdisciplinary team's analysis of potential impacts and how well the mitigation was applied) .

In the Four gates and Lower Conley units unmitigated productivity loss due to compaction exceeded one percent. The Lower Conley units were slightly out of tolerance for compaction. The Lower Conley units generally met the RMP intent for limiting soil and duff displacement and for the amount of woody debris piled. Because the Lower Conley units were only slightly out of tolerance and the units have been planted, the soil scientist recommends leaving them and learn how to set up a process to improve on ground based activities as discussed below.

The Four gates unit was quite a bit out of tolerance for compaction and did not meet the intent of the RMP for limiting soil and duff displacement and for the amount of woody debris piled. The size of woody debris in piles was the main deficiency. Too much woody debris in excess of eight inches in diameter were in some piles which is contrary to RMP best management practice K8 on page 139. To improve on the process the following will be considered in the future:

— Improve communications between the contract administrator and soil scientist during ground based activities.
— Establish a better understanding between the contract administrator, soil scientist, and equipment operators for an acceptable end product for ground based activities.
— The contract administrator would apply stricter compliance for dry season ground based operations.

Timber Resources

In two questions having to do with timber resources, Fiscal Year 1999 activities and outputs differed from average annual projections. Except for the Roseburg 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. Annual or periodic differences between projected and actual levels of activities will be examined during third year evaluation to determine if the goals and objectives outlined for timber resources are being or are likely to be met.

Timber Resource Monitoring Question No.1: "By land use allocation, how do timber sale volumes, harvested acres, and the age and type of regeneration harvest stands compare to projections in the SEIS Record of Decision, Standards and Guidelines and RMP management objectives?". Discrepancies in this question involved the following:

	Fiscal Year 1999	Projected	Diff
Total Timber Sale Vol:	10.1 MMBF	49.5 MMBF	-80%
Matrix Timber Sale Vol:	9.4 MMBF	45.0 MMBF	-79%
Other wood	0.7 MMBF	4.5 MMBF	-85%
Key Watershed TS Vol:	2.4 MMBF	8.3 MMBF	-71%
Total Regen Harvest	56 acres	1190 acres	-96%
Total Comm Thinning	413 acres	84 acres	+492%
Total Density Mgt	86 acres	66 acres	+30%

The differences between Fiscal Year 1999 timber volumes and the projected average annual rates does not constitute non-compliance with management action direction. Management action/direction for timber resources states that the allowable sale quantity is : "BLM's best assessment of the average amount of timber likely to be awarded annually in the planning area over the life of the plan." However, if these trends were to continue they would represent substantive differences between actual implementation of the timber program and RMP assumptions and decisions. The differences for fiscal year 1999 are the result of the inability, in the short term, to complete complex multi-year surveys required under the Survey and Manage standards and guideline. As species previously thought to be rare or uncommon are found to occur in greater numbers than anticipated, activities, projects and programs including the timber program have been affected and constrained. In addition, litigation and court injunctions regarding aspects of the Northwest Forest Plan have added uncertainty and further constraints on the ability to fully implement the Roseburg District Resource Management Plan.

The differences in fiscal year 1999 and projected commercial thinning and density management may be attributable to two factors. The first factor is that the interdisciplinary teams have found that thinning and density management projects are less complex and relatively easier to implement than regeneration harvests. A second factor may be that the "operability" of available acres to commercial thin or density manage may have been underestimated.

Timber Resource key monitoring question number two is: "Were the silvicultural (eg., planting with genetically selected stock, fertilization, release, and thinning) and forest health practices

anticipated in the calculation of the expected sale quantity, implemented?". Discrepancies in this question involved the following:

	Fiscal Year 1999	Projected
Brushfield/hardwood conversion	0 acres	15 acres
Site Preparation, prescribed fire	420 acres	840 acres
Site Preparation, other	0 acres	50 acres
Planting, regular stock	196 acres	290 acres
Planting, genetic stock	432 acres	1140 acres
Stand maintenance/protection	1082 acres	830 acres
Stand release/precommercial thin	2315 acres	3900 acres
Pruning	146 acres	460 acres
Fertilization	0 acres	1140 acres

The projected figures are an annual average for the first decade of the plan and as such the actual annual level of activity would vary from year to year.

The discrepancy between projected site preparation prescribed fire acres and the actual accomplishment in Fiscal Year 1999 largely represents available acres which vary with recent timber sale harvest activity. No adjustment of the site preparation program is indicated.

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

None of the discrepancies between projected levels of activity and the fiscal year 1999 levels indicate the need for program adjustment.

Recommendations

Implementation and Management

On an overall basis, there was high compliance with RMP management action/direction noted in fiscal year 1999 monitoring. There were no discrepancies noted in 18 of 20 land use allocations and programs. However, the discrepancies found pertaining to four monitoring questions is of substantial concern to the management of the Roseburg District.

The discrepancies that pertain to the timber program are largely a result of conditions that the Roseburg District does not directly control. The discrepancies relate to variations in the level of allowable sale quantity and other timber related activities compared to RMP assumptions. After questions concerning Survey and Manage and ongoing litigation are resolved, the District will be in a better position to adjust programs to more closely match RMP management direction regarding the allowable sale quantity and RMP assumptions for other timber related activities. In the interim, for fiscal year 1999 the programs are within the RMP assumption that regarded levels of activities as averages over the life of the plan and the RMP assumption that anticipated variation in the timber program due to uncertainties that surround the program (RMP pp. 60-61).

The discrepancies that pertain to Water and Soils monitoring questions has been thoroughly analyzed by the staff and management of the Swiftwater Resource Area. This analysis has resulted in specific recommendations which include management involvement. The recommendations are contained in the discussions of the discrepancies.

Clarification of Management Action/Direction

The Resource Area monitoring submissions in previous years to the District indicated difficulties in interpreting the management action/direction and monitoring questions. Through adaptive management, clarification and refinement of the Roseburg District RMP and Monitoring Plan was made and as a result the difficulties related to interpretation of the plan have been reduced significantly. Additional clarification and refinement will be made as needs are identified.

Conclusions

Of the hundreds of discrete actions that were reviewed through the 50 implementation monitoring questions. In the context of implementing many projects through complex management direction and complex environmental conditions, the discrepancies identified through monitoring do not warrant changes to the Resource Management Plan. Discrepancies in some of the fiscal year 1999 activity and output levels of the timber program compared to the average annual projections were either insignificant, within the range of variation provided by management action/direction, and/or had no immediate consequence requiring resource or program adjustment. The correction of the discrepancies pertaining to Water and Soils can be corrected within existing RMP management action/direction.

Analysis of the Fiscal Year 1999 monitoring results concludes that the Roseburg District had high compliance with management action/direction, that discrepancies can be corrected through existing management direction and therefore no major changes in management direction or Resource Management Plan implementation is warranted at this time.

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 four components of species listed in Appendix H, Table H-1 (Survey and Manage) being implemented as required?

Monitoring Requirement:
At least 20 percent of all management actions will be examined prior to project initiation and reexamined following project completion.

Monitoring Performed:
Calochortus coxii Habitat Restoration. Follow-up monitoring is pending on Class of 98 timber sale (sold-unawarded), Dream Weaver timber sale (sold-unawarded) and Smoke Signal timber sale (awarded-inactive).

Findings:
Calochortus coxii Habitat Restoration

Animals:
Locations for Survey and Manage mollusk species were successfully managed according to current Management Recommendations.

Plants:
Surveys were conducted and no survey and manage plant species were located in the project area.

Follow-up Monitoring
Class of 98 timber sale and Dream Weaver timber sale remain sold-unawarded. Smoke Signal timber sale has been awarded, but only road renovation has occurred. Follow-up monitoring is pending on these sales.

Conclusions:
Required management action for the four components of species listed in Appendix H, Table H-1 (Survey and Manage) is being implemented.

Comment/Discussion:
None.

Monitoring Question 2:
Is the management action for the species listed in Appendix H, Table H-2 (Protection Buffer) being implemented as required?

Monitoring Requirement:
At least 20 percent of all management actions will be examined prior to project initiation and reexamine following project completion.

Monitoring Performed:
Calochortus coxii Habitat Restoration. Follow-up monitoring is pending on Final Curtin timber sale (sold-unawarded), Class of 98 timber sale (sold-unawarded), and Smoke Signal timber sale (awarded-inactive).

Findings:
Calochortus coxii Habitat Restoration

Animals:
No Protection Buffer wildlife species were located within the Project area.

Plants:
No Protection Buffer plant species were located within the Project area.

Follow-up Monitoring
Follow-up monitoring is pending on Class of 98 timber sale (sold-unawarded), Final Curtin timber sale (sold-unawarded) and Smoke Signal timber sale (awarded-inactive).

Conclusions:
The required management action for the species listed in Appendix H, Table H-2 (Protection Buffer) 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:
Program review.

Findings:

Projects Having Activity Within Riparian Reserves	Watershed Analysis	Status of W.A.
Red Top II	Myrtle Creek	Completed
	Deadman/Dompier	Completed
Fate Creek Dam Removal	John Days Coffee	Completed

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:
Calochortus coxii Habitat Restoration.

Findings:
Calochortus coxii Habitat Restoration
Prescribed burning was done on a small area for this project during FY '99. None of the burning was within or adjacent to a Riparian Reserve, so no Riparian Reserves were measured and the width and integrity of Riparian Reserves in the general vicinity of the project were maintained.

Follow-up Monitoring
Follow-up monitoring is pending on the remaining High Noon units (operations not completed), Final Curtin timber sale (sold-unawarded), Class of 98 timber sale (sold-unawarded), Smoke Signal timber sale (awarded-inactive), and Dream Weaver timber sale (sold-unawarded).

Conclusion:
Riparian Reserve widths have been established according to RMP management direction.

Comment/Discussion:
None.

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 the 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, 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:
Fate Creek Dam Removal. Follow-up monitoring on Red Top Salvage II (sale completed). Follow-up monitoring pending on Class of 98 timber sale (sold-unawarded).

Findings:
Fate Creek Dam Removal
Standard and Guideline (S&G) WR-1 (ROD, pg. C-37) states that watershed restoration projects should be designed in a manner that promotes long-term ecological integrity of ecosystems, conserves the genetic integrity of native species, and attains Aquatic Conservation Strategy (ACS) objectives (ROD, pg. B-11; ROD/RMP, pg. 19-20). The project was analyzed by an Interdisciplinary Team in keeping with recommendations discussed on pages 34 and 35 of the John/Days/Coffee Watershed Analysis. The proposed action was found to maintain five of the nine ACS objectives and achieve a measure of restoration of the other four objectives at a local (drainage) scale.

The project would specifically 1) restore in-stream habitat connectivity within Fate Creek, and restore connectivity of intact aquatic habitat and refugia between Fate Creek and Days Creek consistent with ACS objective #2; 2) restore the physical integrity of the stream channel, stream bottom and habitat in the project area consistent with ACS objective #3; 3) restore the sediment regime in the lower portion of Fate Creek consistent with ACS objective #5; and 4) restore in-stream habitat complexity to support well-distributed populations of fish and other aquatic organisms consistent with ACS objective #9.

The Environmental Assessment (EA) identified four mitigation measures. The first measure was to cordon off the stream above and below the project site, and remove any fish from within this area. The second measure was limitation of in-stream work to the period between July 1 and September 15, during low summer flow, consistent with BMP IV(C)(4). The temporary road to be used for stream access would be sub-soiled and seeded, consistent with BMP IV(C)(2,3 and 9). The disturbed area would be planted with conifers consistent with BMP IV(C)(2).

Dam removal and weir construction were accomplished in August of 1999. The following month, the temporary access road was sub-soiled, seeded and mulched. The site will be planted with an assortment of conifer seedlings later this winter. The only recommendation from the EA that was not applied in the implementation of the project was the cordoning off of the stream and the removal of fish from within the area of in-stream activities because it was determined to be unnecessary.

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

Red Top Salvage II (sale completed)
The project was designed with a 90 foot no touch buffer along draws having a defined channel and annual scour or deposition. The existing large woody debris (LWD) in that buffer would continue to provide current levels of protection to the fisheries resource as well as the physical complexity and stability of the channel. In addition, in the outer portion of the Riparian Reserve approximately one quarter to one third of the blow down was reserved to provide for present and future LWD. The project was completed during FY99.

No timber or blow down was removed from within the 90 foot no touch buffer. In order to remove the blow down from the outer portion of the Riparian Reserves some standing timber was removed to provide yarding corridors. Along these corridors some bug killed standing trees were also removed from the outer portions of the Riparian Reserves. Approximately 67 MBF of additional volume was removed through timber sale modifications in units no. 2, 3 & 5 that came out of the outer Riparian Reserve buffers.

On unit no. 5, nine trees were allowed to be yarded across a Riparian Reserve because of their location. They presented a blind lead. Full suspension was achieved through the 90 foot no cut buffer, no trees were cut in the buffer, and no ground disturbance occurred.

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 FY 99.

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 were reviewed.

Findings:
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.

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, and pre-commercial thinning.

Findings:
The Late-Successional Reserve Assessment for LSR#223, South Umpqua River / Galesville, was completed and reviewed by the Regional Ecosystem Office (REO). The Assessment was found to provide a sufficient framework and context to exempt future activities from further project level REO review. LSR Assessments have now been completed for all LSRs within the Roseburg District.

Within LSR#259, 30 acres were replanted due to inadequate stocking from previous planting. All units were monitored during planting. A variety of species appropriate to the site were planted on all units to meet LSR objectives.

A manual maintenance project of 202 acres was done within LSR#259 and 191 acres in LSR#223. These units met 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 717 acres within LSRs; 193 acres in LSR#223, 307 acres in LSR#259, and 217 acres in LSR#261. All the precommercial thinning units were reviewed so that they met the treatment specifications and LSR objectives from LSR Assessments and REO exemption criteria. Certain species were reserved from cutting. Sprouting hardwood clumps were cut to one main sprout to maintain the hardwood component.

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 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:
The two timber sales sold in FY 1999 were included in the FY98 monitoring sample because the decision documentation was completed prior to October 1, 1998. No timber sales had decision documentation completed in FY99.

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:
The two timber sales sold in FY 1999 were included in the FY98 monitoring sample because the decision documentation was completed prior to October 1, 1998. No timber sales had decision documentation completed in FY99.

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 FY 98 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.

Findings:
198 acres of prescribed burning was accomplished in FY99. All burning was done under approved Smoke Management clearance from the Oregon Department of Forestry. Late fall/winter burning of 7 units included 58 acres of machine piles and 125 acres of hand piles. Pile burning creates less emissions than broadcast burning because 1) not all fuels are piled, 2) consumption of duff and surface fuels between piles are not consumed, and 3) piles burn with high intensity with near complete combustion of the piled material, thus less emissions than a broadcast burn. Additionally, covered piles can be burned under weather conditions that occur frequently in the fall and which favor good smoke dispersion. A wide prescription window allows scheduling pile burning when the risk of smoke intrusions is minimal.

One 15 acre unit on the High Noon timber sale was broadcast burned during FY99. This was of the total unit acreage. The remaining portion has not been logged. Having only one broadcast burn to accomplish during the FY99 spring season meant that pre-burn fuel moisture monitoring was 100% focused on this unit. The unit was ignited on May 5th under fuel and weather conditions that resulted in low consumption large fuels yet achieved site preparation objectives. 100% Mopup was accomplished within 3 days.

Conclusion:
Efforts were made to reduce particulate emissions from prescribed burns.

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 FY 99 and subject to the current RMP will be monitored to determine if dust abatement measures were implemented where needed.

Monitoring Performed:
Kernel John Timber Sale.

Findings:
Kernel John Timber Sale
The Kernel John Timber Sale includes Exhibit 'C' Specification 601 as part of the contract. Water is required by this specification to abate dust during the construction phase of the contract. In addition, the BLM applied a dust palliative to the 30-3-34.1 and 30-3-26.6 roads to reduce dust problems during log hauling. There are residences near the haul route.

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, 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 implemented as prescribed both before and after implementation. 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:
Fate Creek dam removal. Follow-up monitoring on Lean Louis timber sale units 1 and 3 and Curtin Creek timber sale (Olalla wildcat units 9 &10). Follow-up monitoring is pending on Dream Weaver timber sale(sold-unawarded) -97, Buck Fever timber sale(sold-unawarded)-97, Class of 98 timber sale (sold-unawarded)-98 and Lean Louis timber sale (units 2 & 4 pending broadcast burning).

Findings:
Fate Creek Dam Removal
To minimize surface erosion and sedimentation the following BMP's were recommended: 1) dry season operations, 2) subsoil the access road after work is completed, 3) seed and mulch the bare soil areas including the access road. These were documented in the EA. The project was completed in FY99 by the BLM road maintenance crew. All BMP's were implemented. No future monitoring is required relative to soils concerns.

Follow-up Monitoring:
Follow-up monitoring is pending on Dream Weaver timber sale(sold-unawarded) -97, Buck Fever timber sale(sold-unawarded)-97, Class of 98 timber sale (sold-unawarded)-98, and Lean Louis timber sale (units 2 & 4, Broadcast burning is pending).

Lean Louis timber sale (units 1 and 3, completed)
Temporary spur roads were tilled. Seasonal restrictions limited machine piling to the dry season. Although pile burning was completed after Oct. 1 and was accomplished in FY2000, monitoring

relative to this question has been completed. Broadcast burning was avoided on Category 1 soils. Burning of hand and machine piles resulted in less than 1% productivity loss. RMP objectives have been met. No future monitoring is required on these units.

Curtin Creek timber sale(Olalla wildcat units 9 &10, completed)
This project was completed in FY99. The recommended soils BMP's were implemented. Spur roads were subsoiled and mulched. No additional follow-up monitoring is required.

Conclusion:
RMP objectives have been met.

Comment/Discussion:
None.

Follow-up Monitoring Performed:
Coon Creek Commercial Thinning

Findings:
The project design features which identify the BMPs to mitigate impacts to water resources and soils are carried from the EA into the sales contract. The BMPs specified in the EA and contract were reviewed in the field after the contract was completed and the following results were found:

1. All newly constructed roads would be temporary and built to minimum width standards and outsloped. Existing skid trails would be used as much as possible for temporary road locations. The 24-3-5.0 and 21.0 roads would be rocked and have their drainage structures improved or maintained. No road construction or log hauling on unsurfaced roads would be permitted from Oct. 15 to May 15 or during periods of heavy precipitation unless conditions are such that no excessive environmental damage would occur. All temporary roads would be blocked and water barred at the end of the dry season. When logging is completed and the temporary roads are no longer needed the road would be tilled, water barred, blocked and seeded with a native grass (if available) or elk forage mix from the Oregon Department of Fish and Wildlife.

The requirements were largely met. Of the eleven spurs built, seven were totally on existing road and trail disturbances, three were partially on these existing disturbances and one was apparently on undisturbed ground. Approximately 80 percent of the total spur construction occurred on existing road and trail disturbances. They were built to minimum width standards and then subsoiled, water barred where necessary and blocked with tank traps in the same dry season of use. Little erosion and no sedimentation into streams from these decommissioned spurs have occurred this wet season. The depth of subsoiling was less than what the soil scientist would have liked given the soil depths and bedrock conditions (about 20 inches average depth). 24 inches average depth is the current standard given adequate soil depth. The contract administrator said that the subsoiler operator made repeated efforts to get good depth but met much resistance. Clay subsoils and worn wings might have been factors. Ten spurs were mapped on the Exhibit "A" in the EA. Eleven were built. The eleventh one was constructed off of spur 9 and was about 500 feet in length. Management authorized it upon the recommendation of the contract administrator to avoid downhill yarding. No seeding was done at any of the spur locations. In retrospect seeding was not necessary for any of the spurs except for spur #1 where grades are 20 percent.

The existing permanent roads were improved and maintained as required. Slash and other debris were cleaned from the ditches as required under the contract. Tighter culvert spacing would have been beneficial. One stretch on the 21.0 road between culverts was about 650 feet and had ditch erosion.

2. All ground-based logging would be seasonally restricted from Oct. 15 to May 15 or during periods of heavy precipitation unless conditions are such that no excessive environmental damage would occur.

These requirements were fully met.

3. Ground based activity would be confined to existing skid trails as identified in the logging plan unless a feller/buncher or other low ground pressure system is used. The machinery would be required to cut off branches and limbs in front of the machine tracks in order to reduce the compaction to these soils.

These requirements were fully met.

4. 80 to 90 percent of the skid trails would be tilled with a winged subsoiler in order to compare the effects of tilling within a thinning (ie. Compaction mitigation vs. potential damage to tree roots).

These requirements were not met (see discussion below).

5. Skyline logging would be required on all slopes greater than 35 percent average slopes and disturbance limited by partial suspension (ie. Use of a logging system that" suspends" the front end of the log in haul to the landing and thereby lessening the "plowing" action that disturbs the soil). Cable yarding corridors would be perpendicular to the slope and parallel with each other as much as possible. These areas would be identified in the logging plan for cable logging only.

These requirements were fully met. No gouging was discovered in the skyline roads, evidence that good one-end suspension and deflection was consistently obtained.

6. Down woody debris would be reserved in accordance with ROD guidelines to leave a source of organic material that can be incorporated into the soil structure.

This requirement was fully met.

7. The culverts on the creek crossing of the 24-3-5.1 road would be cleared of debris.

The requirement was fully met.

8. The 24-3-5.2 road, only in Section 5 of BLM ownership, (if approved by Seneca Timber Co.) Plus several old unnumbered haul road spurs would be subsoiled, blocked and drainage structures removed and the natural water course restored.

This requirement was fully met.

Conclusion:
RMP requirements were met except in the case of BMP #4 (See the discussion below).

Discussion:
The RMP states on page 62, "Plan timber sales involving ground yarding systems with skid trails (including trails from previous harvest entries) to have insignificant (less than one percent) growth loss effect. Skid trails will affect less than ten percent of the land. . . . Upon final harvest, all compacted trails, including skid trails from previous entries, will be tilled . . . For entries other than final harvest [eg. thinnings], skid trails will be selectively tilled." To mitigate for compaction, the

district soil scientist has stated that the intent of the selective tilling of previously compacted skid trails within thinning units is to at least maintain or decrease the total amount of compaction. This is because in many thinning units with flat slopes the amount of existing compaction already exceeds the one percent productivity loss threshold, as in the case with Coon Creek thinning. The Coon Creek thinning operations with the additional compaction, increased productivity loss rather than maintaining or decreasing it from its current level. The EA stated that 80 to 90 percent of the existing skid trails would be subsoiled but because of practical problems (discussed below) and concern for damage to residual trees this was not accomplished. To reduce the productivity loss to less than one percent, existing compacted skid trails will be subsoiled at final harvest which according to the silviculturist may need to occur within the next 10 to 20 years.

The district soil scientist and the contract administrator for this sale met to discuss soil site productivity, compaction amelioration, contract specifications and equipment capabilities. This discussion was the basis for answering the following questions:

1) Why could the tillage specifications not be practically implemented for the Coon Creek Thinning?

Answer: Tillage was not implemented because slash loading on the skid trails was too heavy and skid trail patterns too sinuous to allow efficient use of the BLM winged subsoiler.

2) What specifications could have been put into the contract that would have corrected/prevented this situation?

Answer:
-Predesignate skid trails as part of harvest operations.
-Select ground based yarding equipment other than a forewarder.
-Require clearing of skid trails prior to tillage.
-Use cable harvest instead of ground based.

Ameliorate compaction by means other than a winged subsoiler pulled by a D-6 tractor (i.e. specially adapted excavator).

There are many ways to correct/prevent this situation but most are not very practical and are very project specific. The easiest way to prevent this situation is to not use a forewarder. A meeting will be set up by the Swiftwater Field Manager to review proposed ground based operations, related specification changes, feed back to ID teams and amelioration of compaction in Coon Creek and other thinnings.

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:
Watershed analyses will be reviewed for status.

Monitoring Performed:
Program review.

Findings:

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
Olalla-Lookingglass	April 1998
Canyonville/Canyon Creek	December 1998
Upper Middle Fork Coquille	May 1999
Middle South Umpqua	November 1999
Lower South Umpqua	In Progress

Watershed analysis had been completed for the South Umpqua and Middle Creek Key Watersheds within the South River Resource Area, as of September 1997 and for the Smith River and Canton Creek Key Watersheds in the Swiftwater Resource Area.

Conclusions:
RMP requirements were met.

Comment/Discussion:
None.

Monitoring Question 3:
What watershed restoration projects are being developed and implemented?

Monitoring Requirement:
The Annual Program Summary will address Implementation Question 3.

Monitoring Performed:
Program review.

Findings:
The Roseburg District implemented several watershed restoration projects in FY 98, with an emphasis in the district's Tier 1 (Key) Watersheds. Through Job-in-the-Woods funding, the district continued its aggressive program of removal or replacement/upgrading of problem culverts, in order to provide or improve passage for all life stages of fish and aquatic organisms. In addition, the district realized an increase in decommissioning of unnecessary and/or problem roads located in riparian areas. Other rehabilitation work was accomplished jointly through the BLM's maintenance program, procurement contracts, and the district's timber sale program. These rehabilitation projects consisted mainly of road improvement (upgrading) and road decommissioning.

Projects that are in the planning and contracting phases for implementation in FY 99 include road improvements and full decommissioning, pond maintenance, and replacement/upgrading of major culverts to pass the 100-year flood, as well as to provide fish passage, and stream channel restoration.

Specific watershed restoration /rehabilitation projects funded independent of timber sales for FY99:
Major Culvert Replacements/Removal

South River:	1	Suicide Creek (non-fish passage concern)
Swiftwater:	5	South Fork Smith River tributaries

Road Decommissioning

South River:	North Myrtle Creek	0.80 miles
Swiftwater:	South Fork Smith River	

Road Improvements:

South River:	Kola's Ridge	7.49 miles
	North Myrtle Creek	3.07 miles
Swiftwater:	Andrews Creek	

Conclusions:
RMP objectives were met.

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 Question 4.

Monitoring Performed:
Program review.

Findings:
The Western Oregon Transportation Management Plan has been completed (1996). The South River Resource Area is well into the process of developing Transportation Management objectives for individual roads. Individual field evaluation of the roads is 90% complete. The written objective portion of the process is ongoing through watershed analysis and individual project plans. The information is being input into the Ground Transportation Network (GTRN). Approximately 90% of the written objectives have been completed. An up-to-date and functioning storm patrol plan is in place for the resource area.

Conclusions:
RMP objectives were met.

Comment/Discussion:
The Western Oregon Transportation Management Plan completed in 1996 included a target date of October 1999 for completing the initial written objectives for BLM controlled roads in the South River Resource Area (Field Office). The remaining 10% are in the Lower South Umpqua and Cow Creek watersheds. Field evaluations have been completed for Cow Creek but were not completed in time to be incorporated into the watershed analysis. The Lower South Umpqua Watershed Analysis is scheduled to be completed by June 2000 and will include TMO's.

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:
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.

South River Resource Area:
At this point in time there are more miles of road that have been permanently constructed than have been Fully Decommissioned in the Upper and Middle Smith River key watershed. Yet

because of the projects currently under contract, it is expected that this will change over the next several years (see Upper and Middle Smith River active and proposed miles).

Swiftwater Resource Area:
Since the RMP was implemented, 8.96 miles of permanent road have been built throughout the Swiftwater Resource Area (3.33 miles under RMP sales, and 5.63 miles under right-of-way agreements). Of these roads, 1.59 miles have been built in a Tier I Key Watershed. An additional 0.15 miles of permanent road is proposed to be built, none of which is in a Key Watershed.

Since the RMP was implemented, 8.7 miles of road have been fully decommissioned (4.9 miles within Tier 1 Key Watersheds, 3.18 miles outside of Key Watersheds). An additional 7.91 miles of road are under contract to be decommissioned (1.34 miles within Tier 1 Key Watersheds, 6.57 miles outside Key Watersheds).

A net decrease in road mileage will occur, not only in Tier I Key Watersheds, but also for the resource area. Road mileage within Tier I Key Watersheds will decrease by 4.65 miles when all projects are completed, and there will be a decrease of 2.23 miles of road outside of Key Watersheds.

Conclusion:
RMP requirements were met.

Comment/Discussion:
None.

Monitoring Question 6:
Is long term site productivity maintained or improved?

A) In forest management activities involving ground based systems, are growth loss effects insignificant (less than one percent)?
B) Was prescribed burning on highly sensitive soils (Category I) avoided? If prescribed burning took place on highly sensitive soils, was 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:

A) All ground based activities will be assessed to determine if growth loss effects are insignificant (less than 1 percent). Ground-based skidding and ground-based site preparation activities will be assessed whether they followed the pertinent RMP management action/direction provided under water and soils, and timber.
B) All prescribed burning on highly sensitive soils carried out in FY 98 and subject to the current RMP will be assessed to answer question 7.B.

Monitoring Performed:
Program review.

Findings:

A) Portions of the Kernel John timber sale, Lean Louis timber sale and Red Top II Salvage timber sale had ground based activities that included tractor yarding, shovel yarding, and/or machine piling. With the exception of Lean Louis unit 1, field review concluded the areas with ground-based activities had less than 1% site productivity loss. Field surveys on unit 1 of

Table 22. All South River Projects Not in a Key Watershed Through FY '99

5th Field Watershed	Status	Permanent New Road Construction (miles)	Temporary Road Construction (miles)	Semi-Perment Road Construction (miles)	Decommission Existing Roads (miles)	Full Decommission ExistingRoads (miles)	Improve Drainage &/or Rock Existing Natural Surface Road (miles)
Lower Cow Creek	Completed	4.60					
Middle Fork Coquille River	Completed	0.24					
	Active		1.60				0.63
	Proposed						0.16
Myrtle Creek	Completed	0.63	2.50			4.86	29.09
	Active		0.30				
	Proposed	0.03	1.88	0.37		2.97	25.37
Middle South Umpqua River/ Rice Creek	Completed		1.61		0.13		0.11
Olalla Creek/ Lookingglass Creek	Completed	0.54				3.00	11.10
South Umpqua River	Completed	0.48					
Total	Proposed	0.03	1.88	0.37		2.97	25.37
Total	Active		1.90				0.16
Total	Completed	8.13[1]	2.55	0.13	0	7.97	40.82

[1] **5.97 miles of the total 8.13 miles of permanent road were built by private Right-of-way holders**

Table 23. Swiftwater Resource Area Nonkey Watersheds.

5th Field Watershed	Status	**Permanent** New Road Construction (miles)	**Temporary** Road Construction (miles)	**Semi-Perment** Road Construction (miles)	**Decommission** Existing Roads (miles)	**Full Decommission** ExistingRoads (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		1.0	1.2		1.5	21.5
	Active	0.5	2.3		0.5	15.5	50.8
	Proposed						
Rock Creek	Completed		0.6		0.9	0.9	2.4
	Active						2.6
	Proposed		0.8			0.3	1.7
Lower N. Umpqua	Completed		0.2		12.3	0.6	
	Active						
	Proposed						
Middle N. Umpqua	Completed	0.1			0.4		
	Active	0.1	0.7			2.4	5.7
	Proposed						
R/W Plats 95-97		5.3					
Total		8.1	13.4	2.3	21.5	29.8	167.3

[1] Figures include USFS activities in this 5th field watershed which are part of the federal land base. The USFS portion includes: Permanent Road, 0.5 mi; Temp Road, 2.0 mi; Decommission, 0.5 mi; Full Decommission, 14.8 miles; Improvement, 48.3 miles

Table 24. Roseburg District Key Watersheds

5th Field Watershed	Status	**Permanent** New Road Construction (miles)	**Temporary** Road Construction (miles)	**Semi-Perment** Road Construction (miles)	**Decommission** Existing Roads (miles)	**Full Decommission** ExistingRoads (miles)	**Improve Drainage** &/or Rock Existing Natural Surface Road (miles)
South Umpqua	Completed	1.38	2.18		1.20	6.61	
	Active		0.24	0.86			
	Proposed						
Cow Creek	Completed	0.30					
	Active						
	Proposed						
Canton Creek	Completed[1]				2.0	19.3	19.3
	Active		0.1				16.7
	Proposed[2]					8.3	2.7
Upper & Middle Smith River	Completed	1.4			1.5	1.9	0.2
	Active	0.3	2.0			1.6	24.1
	Proposed				16.2	11.5	82.0
Total		1.7	2.1	0	19.7	42.6	145

[1] These figures include USFS **completed** activities which are part of the federal land base in this 5th field watershed. They include: Full Decommission, 14.4 miles; Improvement, 14.7 miles
[2] These figures include USFS **planned** activities which are part of the federal land base in this 5th field watershed. They include: Full Decommission, 7.5 miles; Improvement, 3.3 miles

Lean Louis timber sale concluded that the machine piled areas had 2.5% productivity loss due to soil compaction.

B) No prescribed burning occurred in FY99 on category 1 soils.

Conclusions:
RMP objectives were met except for the area of unit 1 that was machine piled.

Comment/Discussion:
The area in unit 1 where soil compaction was considered unacceptable was due to an inexperienced machine operator. The problems were corrected with a more experienced operator and through close monitoring of the operation.

Follow-up Monitoring Performed:

A.) Field reviews of 3 timber sales (Coon Creek Commercial Thinning unit 1, Four Gates regeneration unit 2, and Lower Conley regeneration units 1 & 3) were conducted to determine effectiveness in regards to question 6a.

B.) Program review included the Lower Conley timber sale in Swiftwater R.A.

Findings:
A.) Ground Based Activities: All of the following timber sales, with respect to ground based activity, had adequate documentation in the EA and proper follow through of BMP's into the contract. These BMP's were anticipated to lessen productivity loss in the Coon Creek Thinning which had high levels of compaction from ground based logging in the 1940s and 60s and to keep this project within standards and guidelines. The BMPs were anticipated to maintain less than 1% productivity loss due to compaction from machine piling in the three Four gates and Lower Conley units and keep these projects within standards and guidelines. The field reviews found the following results for each timber sale.

Coon Creek Commercial Thinning unit 1;
1) About 50 acres were ground based logged using the harvester/forwarder system.
2) An extra increment of compaction was added by the harvester-forwarder operation to the existing compaction from past ground-based cat skidding operations. The total compaction on both old trails used by the harvester and forwarder and those new tails created by these two pieces of equipment covers approximately ten percent of the 50 acres. This translates into a five percent productivity loss.
3) Subsoiling of compacted trails was not accomplished because of heavy slash loadings and the sharper curves of many of these trails (a tractor pulled subsoiler generally needs somewhat straighter trails).

Four Gates unit 2;
1)Removal of duff and soil into piles was excessive.
2)More slash and woody debris were piled than necessary to obtain adequate planting spots.
3)Ground compacted exceeded two percent of the unit's area. No subsoiling was done. The sites are now planted.

Lower Conley units 1 & 3;
1)Removal of duff and soil into piles was within acceptable limits.
2)The amount of slash and woody debris removed was generally within acceptable limits. Some piles contained material in excess of eight inches diameter.
3)Ground compacted exceeded two percent of the units' areas. No subsoiling was done. The sites are now planted.

Conclusion:
The RMP requirements for productivity loss due to ground based compaction were not met.

Discussion:
In Coon Creek reducing productivity loss to less than one percent where past ground based logging occurred by subsoiling was not physically possible even under ideal circumstances because of the high levels of residual compaction. In such a case as this the requirement would then be to maintain or enhance soil site productivity with each subsequent reentry. In Coon Creek soil site productivity decreased from ground based logging instead of being maintained or enhanced due to the inability to subsoil through heavy slash and for the inability of tractor pulled subsoilers to negotiate highly sinuous trails (Refer to the discussion under Question 1 for the adequacy of the interdisciplinary team's analysis of potential impacts and how well the mitigation was applied) .

In the Four gates and Lower Conley units unmitigated productivity loss due to compaction exceeded one percent. The Lower Conley units were slightly out of tolerance for compaction. The Lower Conley units generally met the RMP intent for limiting soil and duff displacement and for the amount of woody debris piled. Because the Lower Conley units were only slightly out of tolerance and the units have been planted, the soil scientist recommends leaving them and learn how to set up a process to improve on ground based activities as discussed below.

The Four gates unit was quite a bit out of tolerance for compaction and did not meet the intent of the RMP for limiting soil and duff displacement and for the amount of woody debris piled. The size of woody debris in piles was the main deficiency. Too much woody debris in excess of eight inches in diameter were in some piles which is contrary to RMP best management practice K8 on page 139. To improve on the process the following will be considered in the future:
-Improve communications between the contract administrator and soil scientist during ground based activities.
-Establish a better understanding between the contract administrator, soil scientist, and equipment operators for an acceptable end product for ground based activities.
-The contract administrator would apply stricter compliance for dry season ground based operations.

Findings:
B.) Burning on Highly Sensitive Soils - Lower Conley timber sale
In 1999 Lower Conley timber sale Unit #2 was the only prescribed burn unit that had significant "category 1" soils present. These soils were classified as category 1 due to steepness of slope and shallow soil depths and cover about 10 percent of the unit. The broadcast burn was of short duration and low intensity. It provided adequate planting spots without exposing more than ten percent of the soil.

Conclusion:
RMP requirements were met.

Findings:
B.) Burning on Highly Sensitive Soils - Lower Conley timber sale
In 1999 Lower Conley timber sale Unit #2 was the only prescribed burn unit that had significant "category 1" soils present. These soils were classified as category 1 due to steepness of slope and shallow soil depths and cover about 10 percent of the unit. The broadcast burn was of short duration and low intensity. It provided adequate planting spots without exposing more than ten percent of the soil.

Conclusion:
RMP requirements were met.

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.

RMP requirements were met.

Monitoring Performed:
None. No Regeneration harvest timber sales occurred within the FY99 sample.

Findings:
No Regeneration harvest timber sales occurred within the FY99 sample

Follow-up Monitoring
Follow-up monitoring is pending on Lean Louis timber sale(site preparation not completed), Class of 98 timber sale (sold-unawarded), Dream Weaver timber sale (sold-unawarded), and Sweet Pea timber sale (sold-unawarded).

Conclusion:
Suitable numbers of snags, coarse woody debris, and green trees are being left, in a manner as called for in the SEIS Record of Decision Standards and Guidelines and RMP management direction. RMP objectives are being met.

Comment/Discussion:
Of the 4 units in the Lean Louis timber sale, units 2 and 4 have not had site preparation (broadcast burning) completed. Units 1 and 3 are completed. Data has been collected on the completed units but because the FY96 monitoring report listed pre-activity data for all units combined the final monitoring report is pending. Broadcast burning units 2 and 4 is planned for spring 2000.

Follow-up Monitoring Performed:
Four Gates.

Findings:
Regeneration harvest unit for the Four Gates timber sale are included in the table below. It is expected that the extra retention trees will provide the missing/needed recruitment CWD within the units after harvesting is completed.

	Post-Harvest							RMP Post Harvest Required
Four Gates Timber Sale	Unit #1	Unit #2	Unit #3	Unit #4	Unit #5	Unit #6	Unit #7	
Green Retention Trees (trees 20"DBH/Acre)	6.7	7.5	7.4	8.0	7.3	8.1	8.4	6 to 8 per acre
Snags* (snags 20" DHB/Acre)	1.6	2.7	2.8	2.9	1.5	1.8	4.9	1.2/ac**
Coarse Woody Debris (Linear Feet/Acre)	132	102	87	156	105	166	143	120ft/ac

* Snags were tallied only within harvest units.
**1.2 snags/acre represents the number of snags needed to meet 40% of the population level for cavity nesting birds, averaged over a 40 acre area, which may be within or outside harvest units, RMP page 64.

Follow-up Monitoring Performed:
Lower Conley.

Findings:
Regeneration harvest units for the Lower Conley timber sale are included in the table below. It is expected that extra retention trees will provide the missing/needed recruitment for CWD and snags within the units.

	Post-Harvest		RMP Post Harvest Required
Lower Conley Timber Sale	Unit #1	Unit #2	
Green Retention Trees (trees 20"DBH/Acre)	7.3	9.0	6 to 8 per acre
Snags* (snags 20" DHB/Acre)	2.9	1.3	1.2/ac**
Coarse Woody Debris (Linear Feet/Acre)	138	103	120ft/ac

* Snags were tallied only within harvest units.
**1.2 snags/acre represents the number of snags needed to meet 40% of the population level for cavity nesting birds, averaged over a 40 acre area, which may be within or outside harvest units, RMP page 64.

Conclusion:
Assuming recruitment of snags and coarse woody debris from the excess trees that have been left on this sale, RMP requirements have been met. Additionally, 71 trees in unit 1 and 145 trees in unit 2 that were between 12 and 20 inches DBH were left standing post harvest. This will provide small snags and perch trees that will greatly enhance the area for wildlife.

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:
Calochortus coxii Habitat Restoration.

Findings:
Ground evaluation of the *Calochortus coxii* project area showed that potential Del Norte salamander (*Plethodon elongatus*) was present in the adjacent drainage areas. The restoration project proposed to burn parts of the overall project area. The botanist marked the desired burn areas on the ground using input from the area biologist and the location of the potential Del Norte salamander habitat. The goal was to protect the special habitat from direct impact from the fire. Post-fire evaluation showed that approximately three acres of the total 10+ acres identified for burning were burned in FY 99. The area burned was away from the identified special habitat areas. More burning is scheduled in FY-00 in this 10+ acre plot. All future burn areas will be evaluated for special habitat locations prior to burning.

Conclusions:
RMP requirements were met.

Comment/Discussion:
None.

Follow-up Monitoring Performed:
Lower Conley.

Findings:
Special habitat areas that were noted during pre-sale monitoring were buffered out of the sale units and were not impacted by harvest activity.

Conclusion:
RMP requirements were met.

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

Monitoring Requirement:
The Annual Program Summary will address Question 3.

Monitoring Performed:
Reviewed AWP accomplishments.

Findings:
The Area Lead Wildlife Biologist and Silviculturist began scoping for the Slimewater Creek Density Management Project in FY-98. The Environmental Analysis started in FY-99. This project is in the South Umpqua River/Galesville LSR and is designed to accelerate the development of late-

successional forest components and enhance spotted owl habitat. The interdisciplinary team is concentrating on the specifics of the proposed action. Designing the silvicultural prescription that will lead to a forest stand with a multilayered canopy, large trees, canopy gaps for spatial diversity, understory development, snags, and down wood is ongoing.

Conclusions:
RMP requirements were met.

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:
Fate Creek Dam Removal.

Findings:
One instream project was designed and implemented during FY 99 - Fate Creek Dam Removal. ACS Objectives were considered in the project design.

An environmental assessment was completed during FY99 and the project was implemented and completed during the summer of 1999. The purpose for the project was to remove a long-standing man-made structure located on BLM-administered lands. This dam was a barrier to upstream migration of salmonid species as well as other native, nongame species. In a collaborative effort between the BLM and the private land owner, who utilized the dam as a diversion point for irrigation purposes, an agreement was reached to remove the concrete structure. The land owner will maintain their right-of-way with the BLM for purposes of withdrawing water from Fate Creek. Short term adverse impacts from the removal of the Fate Creek dam were discussed in the EA and were minimized by employing BMP's. Long term impacts from this project are considered to be beneficial to the fisheries/aquatic resources. Upstream reaches of habitat will be available to the fisheries resource. Umpqua River cutthroat trout and Oregon Coast coho salmon, two Federally listed Threatened and Endangered species, are located in Fate Creek. RMP requirements have been met and no follow-up monitoring is required.

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

Comment/Discussion:
None.

Monitoring Performed:
Program review.

Findings:
-Culvert replacements for fish passage (1)
-unnamed trib in South Fork Smith River, BLM road 21-5-18.0

Conclusion:
RMP requirements were met.

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:
Fate Creek Dam Removal. Follow-up monitoring on Old Dillard timber sale and Curtin Creek timber sale (Olalla wildcat unit 10). Follow-up monitoring is pending on Class of 98 timber sale(sold-unawarded), Smoke Signal timber sale(awarded-inactive), and Dream Weaver timber sale(sold-unawarded)

Findings:
Fate Creek Dam Removal
An environmental assessment was completed during FY99 and the project was implemented and completed during the summer of 1999. The purpose for the project was to remove a long-standing man-made structure located on BLM-administered lands. This dam was a barrier to upstream migration of salmonid species as well as other native, nongame species. In a collaborative effort between the BLM and the private land owner, who utilized the dam as a diversion point for irrigation purposes, an agreement was reached to remove the concrete structure. The land owner will maintain their right-of-way with the BLM for purposes of withdrawing water from Fate Creek. Short term adverse impacts from the removal of the Fate Creek dam were discussed in the EA and were minimized by employing BMP's. Long term impacts from this project are considered to be beneficial to the fisheries/aquatic resources. Upstream reaches of habitat will be available to the fisheries resource. Umpqua River cutthroat trout and Oregon Coast coho salmon, two Federally listed Threatened and Endangered species, are located in Fate Creek. RMP requirements have been met and no follow-up monitoring is required.

Follow-up Monitoring
Follow-up monitoring is pending on Class of 98 timber sale(sold-unawarded), Smoke Signal timber sale(awarded-inactive), and Dream Weaver timber sale(sold-unawarded)

Old Dillard timber sale
The sale has been completed. The fence construction was completed and approved during the summer of 1999. Potential livestock trespass has been reduced by construction of the fence.

Riparian areas and upland areas have been protected from future impacts from livestock. This completes all monitoring related to fisheries.

Curtin Creek (Replacement Volume for Olalla Wildcat)
Current status of Project: Completed. The thinning unit was harvested last summer. The temporary road to access the unit was constructed and decommissioned during the same operating season. This completes all monitoring related to fisheries.

Conclusions:
RMP objectives have been met.

Comment/Discussion:
None.

Special Status and SEIS Special Attention Species Habitat

Expected Future Conditions and Outputs

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

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

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

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

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

Implementation Monitoring

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

Monitoring Requirement:
At least 20 percent of the files on each year's timber sales and other relevant actions (e.g., rights-of-way, instream structures) will be reviewed annually to evaluate documentation regarding special status species and related recommendations and decisions in light of Endangered Species Act requirements, policy and SEIS Record of Decision Standards and Guidelines, and RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.

Monitoring Performed:
Calochortus coxii Habitat Restoration. Follow-up monitoring is pending on Dream Weaver timber sale (sold-unawarded) Class of 98 timber sale (sold-unawarded) and Smoke Signal timber sale (awarded, inactive).

Findings:
Calochortus coxii Habitat Restoration

Animals:
Two species of Survey and Mange mollusks were located in the project area during pre-project clearance surveys. These locations were successfully managed using the current Management

Recommendations. There were no adverse impacts to these species during the implementation of the project.

Plants:
Special Status Plants of the Roseburg District (Holmes, 1991) lists *Calochortus coxii* as a Bureau Sensitive plant. The *Calochortus coxii* Habitat Restoration project was initiated in FY99. An environmental analysis was completed and is being implemented over a 10 year period. In FY99 approximately 3 acres of habitat was broadcast burned to improve and maintain *Calochortus coxii* habitat on the Langell Ridge population. Additional treatments are planned in future years. Also present in the area burned is *Allium bolanderi,* managed as an assessment species. The application of fire is intended to restore and maintain the natural conditions (prior to fire suppression) which these plants favor.

To minimize potential adverse impacts to the plants, mitigation included not building firelines and minimizing the amount of soil disturbed during mopup. Course woody debris was protected during the burn and immediate 100% mopup was accomplished the same day of the burn. Plots within the area burned will be monitored every 2 years to assess the beneficial or negative impacts of using fire to maintain the habitat. Pruning and girdling treatments are planned on additional habitat areas but were not accomplished in FY 99.

Conclusions:
Special status species are being addressed in deciding whether or not to go forward with forest management and other actions and steps are being taken to adequately mitigate disturbances.

Comment/Discussion:
None.

Monitoring Question 2:
Do management actions comply with plans to recover threatened and endangered species?

Monitoring Requirement:
Review currently approved recovery plans for Bald Eagle, Peregrine Falcon, Marbled Murrelet and Columbian White-tailed Deer and draft recovery plan for the Northern Spotted-owl.

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

Monitoring Requirement:
The Annual Program Summary will address Implementation Question 3.

Monitoring Performed:
See Coordination and Consultation section of Annual Program Summary

Cultural Resources Including American Indian Values

Expected Future Conditions and Outputs

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

Conservation and protection of cultural resource values for future generations.

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

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

Implementation Monitoring

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
Calochortus coxii Habitat Restoration.

Findings:
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 "no known cultural resources will be impacted by this action". No mitigation was required and no follow-up monitoring is required.

Follow-up Monitoring
There is not any follow-up monitoring pending from any previous years monitoring.

Conclusion:
Cultural resources have been addressed in deciding whether or not to go forward with FY99 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
All Fiscal Year 1999 timber sale files.

Findings (South Resource Area):
No timber sales or substantial actions occurred in VRM class II or III lands in 1999. No followup was required from the previous years of monitoring as no actions occurred in VRM class II or III lands.

The Swiftwater Resource Area completed one environmental assessment for the Cavitt Creek Falls renovation project with full visual resource management analysis.

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 1999 projects.

Findings:
No actions occurred within rural interface areas as identified in the RMP 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:
Cow Creek Recreation Area draft Management Plan has been completed. The Cow Creek orientation kiosk site and frame has been constructed. Mineral withdrawals at recreation sites in the corridor are published in the FR and are scheduled to be completed within one year. Island Day-use site has been improved. Planning for the watchable wildlife Day-Use Sites continues.

In the North Umpqua and Umpqua Special Recreation Management Area, facility upgrades and renovations continue to be implemented through Recreation Pipeline Restoration Funds under the existing North Umpqua Recreation Area Management Plan and Roseburg RMP.

Conclusion:
RMP requirements were met.

Comment/Discussion:
None.

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. No major action or uses, all actions and uses consistent with objectives and management direction. Defensibility monitoring has been conducted annually on all ACEC/RNAs. Habitat has been restored from unauthorized use on one ACEC/RNA and noxious weeds have been controlled on two other ACEC/RNAs. A checklist for vascular plants is currently in preparation for publication for the Myrtle Island ACEC/RNA. Baseline fungi, lichen, and bryophyte inventories have been completed at six ACEC/RNAs, one ACEC, and one candidate ACEC. Baseline fungus inventories are currently being conducted.

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

Findings:
Draft management plans have been completed for four ACEC/RNAs.

Seven ACECs were nominated by the public in the Final RMP. Four of these nominations have been reviewed by the South River Field Area and determined to be unqualified for ACEC status (Bilger Ridge, Langell Ridge, Lee Creek, and North Myrtle Headwaters). All remaining nominated areas are being managed to protect the proposed relevant and important values. Land acquisition proposed in the Final RMP to expand the Beatty Creek ACEC/RNA has not been pursued.

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 25, 1999 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 0f 15) to commercial river outfitters. Employees engaged in monitoring included one full time BLM River Manager and one temporary USFS person. Objectives of the 1999 river survey were to:

- Identify types of recreation use occurring on the river.
- Provide a BLM/USFS presence on the river to contact, inform, and educate public users.
- Document 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:
1999 Use:

- Boating Use: 750 visits (BLM only)
- Fishing Use: 2,100 visits (BLM only)

- For entire W&S River: Commercial Adjusted Use - 2,490 visits;
  Private adjusted use - 4,313 visits.
- Conflict between users: No major incidents were reported on the BLM segment of the Wild & Scenic River in fiscal year 1999. Groups contacted include: Boaters, campers along the river, anglers, fly-fishermen.

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 regeneration harvest stands 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 regeneration 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 14 following.

Conclusion:
The comparison of timber sale volumes and harvested acres reveal notable differences.

Comment/Discussion:
Discrepancies in this question involved the following:

	Fiscal Year 1998	Projected	Diff
Total Timber Sale Vol:	10.1 MMBF	49.5 MMBF	-80%
Matrix Timber Sale Vol:	9.4 MMBF	45.0 MMBF	-79%
Other wood	0.7 MMBF	4.5 MMBF	-85%
Key Watershed TS Vol:	2.4 MMBF	8.3 MMBF	-71%
Total Regen Harvest	56 acres	1190 acres	-96%
Total Comm Thinning	413 acres	84 acres	+492%
Total Density Mgt	86 acres	66 acres	+30%

The differences between Fiscal Year 1999 timber volumes and the projected average annual rates does not constitute non-compliance with management action direction. Management action / direction for timber resources states that the allowable sale quantity is : "BLM's best assessment of the average amount of timber likely to be awarded annually in the planning area over the life of the

Table 14. Roseburg District Timber Sale Volume and Acres.

MBF	FY 1995[1]	FY 1996	FY 1997	FY 1998	FY 1999	1996-1999 Total	1996-1999 Annual Average	RMP/EIS Assume Annual Average	Percent of Assumed Average
Total Timber Sale Vol.	16,459	45,993	51,783	44,545	10,135	152,456	38,114	49,500	77
Matrix Timber Sale Vol.	14,442	42,250	47,611	37,817	9,433	137,111	34,278	45,000	76
GFMA Regen Timber Sale Vol.	13,292	32,061	27,708	24,742	1,055	86,566	2,164		
GFMA Comm. Thin TS Vol.	1,178	3,016	2,907	3,451	4,039	13,458	3,365		
GFMA Salvage TS Vol.	207	929	3,384	1,309	438	4,060	1,015		
C/D Block Regen TS Vol.	1,130	865	5,123	5,890	1,353	13,231	3,308		
C/D Block Comm. Thin TS Vol.	0	2,978	3,455	1,739	203	8,375	2,094		
C/D Block Salvage TS Vol.	53	206	117	576	16	915	229		
RR Density Mgmt TS Vol.	0	2,424	2,175	811	378	5,788	1,447		
RR Salvage TS Vol.	0	55	3	236	104	398	100		
LSR Density Mgmt TS Vol.	0	102	1,728	5,559	151	7,540	1,885		
LSR Salvage TS Vol.	0	1,162	266	123	33	1,548	396		
Total All Reserves	0	3,743	4,172	6,729	702	15,346	3,837	4,500	85
Key Watershed TS Vol. from Matrix	0	8,439	18,392	12,765	2,449	42,046	10,512	8,300	127
Little River AMA TS Vol.	0	1,033	4,682	30	0	5,745	1,915	4,600	45
Little River AMA Salvage Vol.	17	162	236	81	0	479	160		
Little River AMA Total Vol.		1,195	4,918	111	0	6,224	2,075		
Acres									
Total Regeneration Harvest	386	906	904	800	56	2,666	667	1,190	56
Total Commercial Thinning	55	666	740	592	413	2,411	603	84	718
Total Density Management	44	5	128	427	100	660	165	166	100
GFMA Regeneration Harvest	354	889	726	649	20	2,284	571		
GFMA Commercial Thinning	55	140	253	361	211	965	241		
GFMA Salvage	13	24	276	119	16	435	109		
C/D Block Regen. Harvest	32	50	123	153	36	362	91		
C/D Block Comm. Thinning	0	220	276	175	203	874	219		
C/D Block Salvage	4	25	25	50	16	116	29		
RR Density Management	0	216	188	97	36	537	134		
RR Salvage	0	4	0	20	9	33	8		
LSR Density Management	0	0	113	386	100	599	150		
LSR Salvage	0	96	33	8	2	139	35		
Total All Reserves	0	316	334	511	147	1,308	327		
Little River AMA Regeneration Harvest	0	0	68	0	0	68	23		
Little River AMA Thinning	0	94	134	0	0	228	76		
Little River AMA Salvage	1	9	36	7	0	52	17		

Matrix Regen totals = Regen + CC
Matrix CT totals = CT + DM + Select Cut + Understory Reduction
RR DM total = DM + CT + Select Cut
LSR DM total = DM + CT + Select Cut
LSR Salvage total = Salvage
AMA Thin total = CT + DM + Select Cut
AMA Salvage total = Salvage + ROW
[1]FY 95 Figures for effective date of RMP; June - September 1995

plan." However, if these trends were to continue they would represent substantive differences between actual implementation of the timber program and RMP assumptions and decisions. The differences for fiscal year 1999 are the result of the inability, in the short term, to complete complex multi-year surveys required under the Survey and Manage standards and guideline. As species previously thought to be rare or uncommon are found to occur in greater numbers than anticipated, activities, projects and programs including the timber program have been affected and constrained. In addition, litigation and court injunctions regarding aspects of the Northwest Forest Plan have added uncertainty and further constraints on the ability to fully implement the Roseburg District Resource Management Plan.

The differences in fiscal year 1999 and projected commercial thinning and density management may be attributable to two factors. The first factor is that the interdisciplinary teams have found that thinning and density management projects are less complex and relatively easier to implement than regeneration harvests. A second factor may be that the "operability" of available acres to commercial thin or density manage may have been underestimated.

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.

Findings:

Table 16. Roseburg District Forest Development Activities.

	FY 96	FY 97	FY 98	FY 99	Totals to date	Average Annual	Projected Annual	Differences Actual-Projected
Brushfield Conversion	0	0	0	0	0	0	15	0
Site Preparation (fire)	252	846	149	420	1,667	417	840	50%
Site Preparation (other)	0	0	0	0	0	0	50	0
Planting (regular stock)	819	665	1,072	196	2,752	688	290	237%
Planting (improved stock)	187	180	157	432	956	239	1,140	21%
Maintenance/Protection	2,224	1,525	1,350	1,082	6,181	1,545	830	186%
PCT	3,629	3,903	4,305	2,315	14,152	3,538	3,900	91%
Pruning	331	858	957	146	2,292	573	460	125%
Fertilization	0	4,278	1,060	0	5,338	1,335	1,140	117%
Reforestation Surveys	14,563	10,736	10,830	18,472	54,601	13,650	0	0

Conclusion:
Examination of fiscal year 1999 data indicate differences between implementation and RMP assumed levels of activity.

Comment/Discussion:
Discrepancies in this question involved the following:

	Fiscal Year 1999	Projected
Brushfield/hardwood conversion	0 acres	15 acres
Site Preparation, prescribed fire	420 acres	840 acres
Site Preparation, other	0 acres	50 acres
Planting, regular stock	196 acres	290 acres
Planting, genetic stock	432 acres	1140 acres
Stand maintenance/protection	1082 acres	830 acres
Stand release/precommercial thin	2315 acres	3900 acres
Pruning	146 acres	460 acres
Fertilization	0 acres	1140 acres

The projected figures are an annual average for the first decade of the plan and as such the actual annual level of activity would vary from year to year.

The discrepancy between projected site preparation prescribed fire acres and the actual accomplishment in Fiscal Year 1999 largely represents available acres which vary with recent timber sale harvest activity. No adjustment of the site preparation program is indicated.

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

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:
One overall project 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 nor 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 and Little River Adaptive Management Area Plan are either complete or in draft form. 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 have begun. Some analyses is being done in conjunction with Late-Successional Reserve Assessments.

Conclusions:
RMP requirements were met.

GLOSSARY

AMA - Adaptive Management Area - The Salem District's Northern Coast AMA is managed to restore and maintain late-successional forest habitat while developing and testing new management approaches to achieve the desired economic and other social objectives.

Allowable Sale Quantity (ASQ) - an estimate of annual average timber sale volume likely to be achieved from lands allocated to planned, sustainable harvest. ASQ is used interchangeably with PSQ in this Annual Program Summary to avoid confusion related to technical differences in their definitions. See Salem FEIS glossary for technical differences.

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 - The Connectivity / Diversity blocks are specific lands spaced throughout the matrix lands, which have similar goals as matrix but have specific Standards & Guidelines 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 PSQ.

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 federal land not encumbered by any other land use designation, on which most timber harvest and silvicultural activities will be conducted.

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. Those discussed below include Matrix (or GFMA), Connectivity, LSR and AMA.

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 - Federal land outside of reserves and special management areas that will be available for timber harvest at varying levels.

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 "pulse" check on the district's success in meeting PSQ goals than it is a socioeconomic indicator, since the volume can get to market over a period of several years. It should be noted that for this Annual Program Summary we are considering "offered" the same as "sold". Occasionally sales do not sell. They may be reworked and sold later or dropped from the timber sale program. Those sold later will be picked up in the APS tracking process for the year sold. Those dropped will not be tracked in the APS.

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.

Probable Sale Quantity (PSQ) - An estimated volume that can be harvested from matrix and AMA lands based on certain computer modeling assumptions.

"Projected Acres" are displayed by modeled age class for the decade. These "modeled" age class acres are estimates derived from modeling various silvicultural prescriptions for regeneration, commercial thinning and density management harvest. Modeled age class acre projections may or may not correspond to "Offered" or "Harvested" age class acres at this point in the decade.

Additional age classes are scheduled for regeneration, commercial thinning and density management harvest at other points in the decade.

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. (RMP30)

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 of 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

☆ U.S. GOVERNMENT PRINTING OFFICE: 2000 — 589-124 / 04033 Region No. 10

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Roseburg District Office
777 NW Garden Valley Blvd
Roseburg, Oregon 97470

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

PRIORITY MAIL
POSTAGE & FEES PAID
Bureau of Land Management
Permit No. G-76