



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

Medford District
3040 Biddle Road
Medford, Oregon 97504

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**Annual Program Summary
and Monitoring Report**

for Fiscal Year 1998



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

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**ANNUAL PROGRAM
SUMMARY AND
MONITORING REPORT**

for Fiscal Year 1998



TABLE OF CONTENTS

Table of Contents	3
Executive Summary..	7
Table: Medford RMP, Summary of Renewable Resource Management Actions, Directions and Accomplishments..	8
Table: Medford RMP, Summary of Non-Biological Resource or Land Use Management Actions, Directions and Accomplishments	9
Introduction	11
Budget	12
Land Use Allocations	13
Aquatic Conservation Strategy Implementation..	14
Late Successional Reserves and Assessments	16
Applegate Adaptive Management Area	16
Matrix	18
Water and Soils	19
Wildlife and Wildlife Habitat	20
Fish Habitat	23
Special Status and Special Attention Species	25
Special Areas	27
Cultural Resources..	27
Rural Interface Areas	28
Socio-Economic	28
Recreation	33
Forest Management	34
Special Forest Products	38
Noxious Weeds	38
Wildfire and Fuels Management	39
Access	41
Transportation/Roads..	41
Energy and Minerals..	42
Land Tenure Adjustments	42
Hazardous Materials	42
Coordination and Consultation	43
Research and Effectiveness Monitoring	43
Information Resource Management	44
Cadastral Survey..	44
Law Enforcement	44
Rangeland Management	45
Planning and NEPA Documents	46



Monitoring Report for Fiscal Year 1998.. 49

Appendix A: Monitoring 57

Appendix B: Plan Maintenance 60

Appendix C: Summary of Ongoing Plans and Analyses 63

Appendix D: Acronyms and Abbreviations 64

Appendix E: Definitions 65

Appendix F: Modifications Being Considered for Survey & Manage/Protection Buffer
Guidelines 66





ANNUAL PROGRAM SUMMARY AND MONITORING REPORT

for Fiscal Year 1998

EXECUTIVE SUMMARY

This document combines the Medford District Annual Program Summary and Monitoring Report for fiscal year 1998. The Annual Program Summary addresses the accomplishments of the Medford District in areas such as watershed analysis, Jobs-in-the-Woods, forestry, fire recreation, and other programs. It also provides information concerning the Medford District budget, timber receipt collections, and payments to counties. The results of the Annual Program Summary show that the Medford District is fully and successfully implementing the Resource Management Plan and Northwest Forest Plan.

The Monitoring Report compiles the results and findings of implementation monitoring for fiscal year 1998, the third full fiscal year of implementation of the Medford District Resource Management Plan.

Although the Annual Program Summary gives only a very basic and very brief description of the programs, resources, and activities in which the Medford District is involved, the report does give the reader a sense of the large scope, complexity and diversity involved in management of the Medford 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 Medford District take pride in the accomplishments described in this report.



Medford RMP, Summary of Renewable Resource Management Actions, Directions and Accomplishments

RMP RESOURCE ALLOCATION OR MANAGEMENT PRACTICE OR ACTIVITY	FISCAL YEAR 1998 ACCOMPLISHMENTS	CUMULATIVE ACCOMPLISHMENTS 1996-1998	PROJECTED DECADAL PRACTICES
Regeneration harvest (acres offered)	832	2,721	10,400
Commercial thinning/ density management/ uneven age harvests (acres offered)	8,443	34,415	44,900
Site preparation (acres)	3,217	4,661	6000
Hazardous Fuel Reduction/ Ecosystem Restoration (burning and mechanical (acres)	1,623	2,047	—
Forest Ecosystem Health and Recovery (burning and mechanical)(acres)	1,619	4,437	—
Forest Management-Purchaser assistance (burning and mechanical)(acres)	2,377	4,430	—
Maintenance Work and Animal damage control (acres)	2,085	4,185	—
Pre-commercial, thinning (acres)	6,323	19,605	78,000
Brush field/hardwood conversion (acres)	0	0	—
Planting/ regular stock (acres)	1,857	5,698	2,700
Planting/ genetically selected (acres)	323	814	10,300
Fertilization (acres)	360	1,329	57,000
Pruning (acres)	350	444	18,600
New permanent road const. (miles)	2.9	8.7	300
Roads fully decommissioned/ obliterated (miles)	18.8	102	—
Roads closed/ gated (miles)*	119.8	158	—
Timber sale quantity offered (mm board feet)	77.72	212.95**	571
Timber sale quantity offered (mm cubic feet)	13.21	36.18**	96.9
Noxious weed control, chemical (acres)	0	50	—
Noxious weed control, other (acres)	250	360	—
Livestock grazing permits or leases (total/renewed units/animal unit months)	73/16/10,578	235 / 43/32,486	—
Reservoirs or springs constructed or developed (units each)	1	1	—
Livestock fences constructed (units/miles)	5/8 miles	12/15 miles	—

* Roads closed to the general public, but retained for administrative or legal access.

**Total includes volume of 4.253 mmbf from Recission Act Sale, Mules' Brew.



**Medford RMP, Summary of Non-Biological Resource or Land Use
Management Actions, Directions and Accomplishments**

RMP RESOURCE ALLOCATION OR MANAGEMENT PRACTICE	ACTIVITY UNITS	FISCAL YEAR 1998 ACCOMPLISHMENTS	CUMULATIVE ACCOMPLISHMENT: 1998
Realty, land sales	(actions/acres)	1/120	1/120
Realty, land exchanges	(actions/acres acquired/disposed)	—	2/1238/943
Realty, R&PP leases/patents	(actions/acres)	—	—
Realty, road rights-of-way acquired for public/agency use	(actions)	7	26
Realty, road rights-of-way granted (linear/areal)	(actions)	10	50
Realty, utility rights-of-way granted (linear/areal)	(actions)	3	18
Realty, withdrawals completed	(actions/acres)	—	—
Realty, withdrawals revoked	(actions/acres)	—	—
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	0
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	(areas/acres)		3/25,570
Recreation, maintained hiking trails	(trails/miles)	3/12	14/89
Recreation, sites	(sites/acres)	3/100	14/1097
Cultural resource inventories	(sites/acres)	29/4,433	111/20,439
Cultural/historic sites nominated	(sites/acres)		
Hazardous material sites	(identified/cleaned)	23/15	39/28





INTRODUCTION

This Annual Program Summary is a review of the programs on the Medford District Bureau of Land Management for the period of October 1997 through September 1998. 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 1998. This report addresses the accomplishments for the Medford District in such areas as watershed analysis, Jobs-in-the-Woods, forestry, recreation, and other programs. It also provides information concerning the Medford District budget, timber receipt collections, and payments to counties. Included in the Annual Program Summary is the Monitoring Report for the Medford District.

Both the Northwest Forest Plan (NFP) and the Resource Management Plan (RMP) embrace the concepts of ecosystem management in a broader perspective than had been traditional in the past. Land use allocations covering all federal lands within the range of the spotted owl were established in the NFP. Analyses such as watershed analyses and late-successional reserve assessments are conducted at broader scale and involve landowners in addition to BLM. Requirements to conduct standardized surveys or inventories for special status species have been, or will be, developed for implementation at the regional level.

Implementation of the NFP began in April 1994 with the signing of the Northwest Forest Plan Record of Decision. Subsequently, with the signing of the RMP Record of Decision in June 1995, the Medford District began implementation of the RMP which incorporates all aspects of the Northwest Forest Plan.



BUDGET

In fiscal year 1998, Medford District, had total fiscal resources of \$30,795,000. This included appropriated funds of \$492,000 in Management of Land and Resources, and \$20,354,000 in Oregon and California Railroad Lands, as well as non-appropriated funds of \$9,949,000 which included funding from the following sources: forest ecosystem health and recovery funds, timber pipeline restoration funds, fuel hazard reduction funds, mining law administration funds, road use fee collections, emergency flood related repair funds, and other minor reimbursable accounts.

Employment levels at their peak exceeded 400 employees which included 246 permanent, full time employees and the remainder consisting of full time and part time temporary, volunteer, and contract employees.

Medford RMF' Summary of Socio-Economic Activities and Allocations

Program Element	Fiscal Year 1996	Fiscal Year 1997	Fiscal Year 1998
District budget	\$21,954,000	\$25,912,000*	\$26,988,000**
Timber sale collections, O&C lands	\$9,309,395	\$10,439,307	\$9,534,768
Timber sale collections, CBWR lands	0	0	0
Timber sale collections, PD lands	\$1,586,722	\$1,649,630	\$1,155,307
Payments to Jackson County (O&C/CBWR)	\$11,445,240	\$11,010,610	\$10,575,981
Payments to Josephine County (O&C/CBWR)	\$8,823,133	\$8,488,077	\$8,153,022
Payments to Jackson County (PILT)	\$129,849	\$44,855	\$113,337
Payments to Josephine County (PILT)	\$90,736	\$33,616	\$101,045
Value of forest development contracts	\$3,739,000	\$5,992,618	\$4,770,119
Value of timber sales, oral auctions (#) and negotiated (#)	\$12,167,731 (20) \$1,690,984 (15)	\$14,398,104 (19) \$246,618 (21)	\$11,762,558 (21) \$69,114 (9)
Jobs-in-the-Woods funds in contracts	\$967,597	\$847,544	\$1,053,076
Timber Sale Pipeline Restoration Funds			\$1,041,756
Recreation Fee Demonstration Project receipts		55,896	\$284,965
Challenge cost share project contributions/value-in-kind or volunteer efforts	\$72,000/\$69,500	\$75,000/\$69,500	\$66,500/\$104,330
Value of land sales			\$18,050

* Medford District received another \$1,066,000 in a shared appropriation for flood damages and some 1996 flood carryover dollars.

** Medford District received another \$817,000 in a shared appropriation for flood damage funds, carryover dollars from 1996 & 1997. This number does not include \$2,915,000 in non appropriated funds.



LAND USE ALLOCATIONS

Lands administered by the BLM will be managed to maintain or restore healthy, functioning ecosystems from which a sustainable production of natural resources can be provided. Ecosystem management involves the use of ecological, economic, social, and managerial principles to achieve healthy and sustainable natural systems.

The building blocks for this strategy are composed of several major land use allocations: riparian reserves; late-successional reserves; adaptive management areas; matrix, which includes general forest management areas and connectivity/diversity blocks; and a variety of special purpose management areas such as recreation sites, wild and scenic rivers, and visual resource management areas.

The Medford District has the following major land allocations:*

Congressional Reserves	14,267
Late-Successional Reserves	178,467
Late-Successional Reserve within AMA	32,937
Marbled Murrelet Reserve	3,478
District Defined Reserves	1,290
Connectivity/Diversity Blocks	27,237
Applegate Adaptive Management Area	113,912
Reserved Habitat Area	16,732
General Forest Management Area	<u>470,776</u>
Total	859,096

*Allocations do not have any overlapping designations. There are approximately 369,200 acres of riparian reserves

In FY 1998 the Medford District sold two parcels of land that were identified as parcels for disposal. These parcels totaled 120 acres and were located east of Ashland. Since 1996, the district has completed two exchanges, one with Cascade Ranch and one with the Nature Conservancy. We disposed of 943 acres and acquired 1,238 acres.

A minor district boundary adjustment was made on the common boundary with the Coos Bay District. Management was assumed by the Medford District of approximately 3,720 acres in the Illinois Valley area which was technically within the Coos Bay District, but separated from that district by a large section of U.S. Forest Service-administered land. This adjustment was made so that records for this small parcel would reside within the district which managed the land.



AQUATIC CONSERVATION STRATEGY IMPLEMENTATION

Riparian Reserves

Riparian reserves are managed to achieve Aquatic Conservation Strategy objectives through restoration projects, density management, and timber sales. Riparian reserve boundaries were designated for timber sales and silvicultural treatments along approximately 79 stream miles. Riparian reserves were either identified for no treatment or for density management within a portion of the reserve to enhance the old-growth structural components, increase the amounts of large woody debris, and reduce fire hazard. Timber sales, the Jobs-in-the-Woods program, and road maintenance provided opportunities for road upgrades, renovation, and decommissioning within riparian reserves. These activities improved watershed condition and improved fish passage and accommodated large flow events by replacing culverts.

Key Watersheds

A system of key watersheds that serve as refugia is crucial for maintaining and recovering habitat for at-risk fish stocks of anadromous salmonids and resident fish species. These refugia include areas of high quality habitat and areas of degraded habitat. Key watersheds with high quality conditions will serve as anchors for the potential recovery of depressed stocks. Those of lower quality habitat have high potential for restoration and will become future sources of high quality habitat.

Key watersheds are of two types. Tier 1 watersheds contribute directly to conservation of at-risk anadromous salmonids, bull trout, and resident fish species. Tier 2 watersheds may not contain at-risk fish stocks, but they are important sources of high quality water. All key watersheds in the Medford District are Tier 1.

In FY 1998, restoration work in key watersheds included tree planting within the Jenny Creek Riparian Reserve and decommissioning roads in the West Fork of Cow Creek watershed.

Watershed Analysis

Watershed analysis (first iteration) was completed for Jumpoff Joe Creek and Rogue-Grants Pass watersheds. These watershed analyses involved a total of 123,336 acres, including 34,300 acres administered by the BLM. A second iteration watershed analysis was completed for Middle Cow Creek Watershed for a total of 68,567 acres, including 44,503 acres administered by the BLM. First iteration watershed analyses have been completed for 72 percent of the Medford District.



Watershed Analysis Status

	Watershed Analysis Area	Number of Key Watersheds	BLM Acres	Percent of Total Acres
Completed through FY 98	16	5	622,507	72%
Ongoing FY 99	7	0	128,178	15%
Remaining FY 2000+	4	0	108,411	13%
Total	27	16	859,096	100%

Watershed Restoration Projects, Jobs-in-the-Woods

The Jobs-in-the-Woods program was established under the Northwest Forest Plan to mitigate the economic and social impacts of a reduced timber harvest in the Pacific Northwest, while addressing the issue of watershed restoration. Fiscal year 1998, the fifth year for the program, resulted in a budget of over a million dollars for on-the-ground projects. Projects funded for the program included: watershed restoration, the aquatic conservation strategy, the Governor's Coastal Salmon Initiative, and long-term, family-wage jobs in timber-dependent communities.

Twenty-two projects were initiated this year, including projects to

- reduce sedimentation (road decommissioning, cutbank stabilization, culvert installation, and road surfacing, storm proofing and repair),
- improve fish habitat (replacement of culverts impeding fish passage with open bottom structures, instream work and diversion dam removals),
- reduce fire hazards on public and private lands,
- produce native seed, and
- meet the training needs of the local demonstration project (a program run by the Rogue Institute of Ecology and Economy to train displaced timber workers in ecoforestry skills).

The Medford BLM is working with multi-agency groups, including local watershed councils, to further Jobs-in-the-Woods program objectives. Funds have been transferred to these groups this year and last to implement fish habitat improvement projects. The Wyden Amendment and a memorandum of understanding signed by ten agencies (including the State of Oregon) are new tools helping us incorporate a watershed approach which will address restoration needs across federal, state and private lands.



LATE SUCCESSIONAL RESERVES AND ASSESSMENTS

Late successional reserves (LSRs) are areas established by the NFP and the Medford District RMP to maintain functional interactive late successional and old growth forest ecosystems. They are designed to serve as habitat for late-successional and old growth related species including the northern spotted owl.

The Medford District contains portions of five late successional reserves designated in the Resource Management Plan: Elk Creek, Azalea, Galice Block, Munger Butte, and Jenny Creek.

The Jenny Creek assessment has been completed and sent to the Regional Ecosystem Office for review. The Munger Butte, Galice Block and Elk Creek Reserves assessments have all been completed as a joint effort with the Forest Service. The last reserve area, Azalea, is being completed. It is managed jointly by the Forest Service and the Medford and Roseburg BLM Districts.

APPLEGATE ADAPTIVE MANAGEMENT AREA

The Bureau of Land Management and the Forest Service are working extensively with communities interested in the Applegate River Watershed. Work with neighbors, interest groups, and the Applegate Partnership has resulted in increased understanding about the land and the people. This year's work has focused in landscape planning, projects, research and monitoring, and outreach.

The Little Applegate Landscape Plan and Design for the 72,000-acre watershed was completed through an interagency team working with a locally based, multiple resource volunteer task force. The teams wrangled with the question, "What is the balance between short-term use of forest resources to sustain jobs, quality of life, and long-term moral and ethical stewardship for future generations?"

The overall goals of the project focused on:

- linking good science tied to passion and connection with the community
- understanding and defining the cultural boundaries and neighborhood networks within the larger Little Applegate community
- balancing individual best interest (physiological satisfaction) with mutual community benefits
- coupling community values to ecology and current policies (e.g., Northwest Forest Plan for federal lands, county zoning laws, etc.)

The teams developed mutual community goals (for agency and private lands) and educational forums through slide shows, workshops, and field trips. A geographically based vision was created as a starting point describing desired vegetation structures and functions across the watershed. Currently teams are working on a resource action plan for all ownerships identifying projects needed to move the landscape in the desired direction.

The Applegate River Watershed Forest Simulation Project has been initiated by the College of Forestry at Oregon State University under the direction of Dr. Norm Johnson. This work grew out of a recent **study** of the Sierra Nevada Mountains in California in which scientists at the College of Forestry (Drs. Norm Johnson and John Sessions) developed an approach to simulating forest and watershed condition



under different management practices that emphasized the interaction of forests, fire, watersheds, and people. This project will adapt the Sierra Nevada approach for use in evaluating alternative management practices for the forests, streams, and watersheds of the Applegate River Watershed.

Scientists from OSU, the University of Washington (including Dr. Jim Agee), and the Forest Service as well as managers, landowners, specialists, and interested citizens are involved. Johnson said, "We have put together an interdisciplinary team of researchers to work on the project including experts in fire ecology, forestry, aquatic ecology, wildlife ecology, forest operations, planning and other disciplines. We plan to combine sound scientific methods with community involvement and technical advice from the federal agencies to develop a model specific to the Applegate River Watershed that will reveal the outcomes of different management strategies relative to achievement of resource management goals."

One innovative aspect of the project is to include numerous disturbance agents in addition to fire into the model such as insects and disease and floods. Various management strategies (such as thinning) will be evaluated relative to how well they achieve the resource management goals of the analysis. Preliminary goals have been described based on outreach by the team; a first model will be available soon. At a recent Society of American Foresters workshop in Medford (November, 1998) Johnson suggested a number of questions we all seem to share and that hopefully the research model might begin to address:

- Will our actions make a difference?
- Will they move us toward our goals?
- What unintended consequences might there be?
- How can we think about these issues in ways we can understand and communicate?

Timber sales and forest products continue to be outcomes from landscape projects in the Applegate AMA. Landscape sales have multiple objectives-reducing fire hazard, increasing resilience of residual trees, improving riparian and wildlife habitat, and reintroducing fire. Generally, silvicultural prescriptions for the commercial sales recommend thinning from below using a variety of logging systems. Adjacent brush fields are treated using mechanical and prescribed fire, as well as testing reintroduction of native grass and avoiding noxious weeds. In fiscal year 1998, approximately 21 million board feet were sold treating 3,140 acres in the Applegate Adaptive Management Area. Of this, 11.5 million board feet were sold from BLM lands in the Applegate AMA.

Collaboration with communities is a primary focus in working in the area. Ashland Resource Area manager, Rich Drehobl, has coined the motto, "We'll meet with anyone, anytime, any place, about most anything." This extensive public participation means weekend and evening meetings, field trips, and workshops as agency personnel go to the people (rather than expecting the people to come to us). We continue to explore what is meant by collaboration through workshops with the Applegate Partnership and others, how to describe parameters of collaboration and decision-making, and how to create the best forums for mutual learning.

Research and monitoring across the agency boundaries offer learning opportunities from landscape projects as well as other projects. Comparative studies on BLM and FS projects include:

- examining the effects of prescribed fire and fuel management strategies
- growth and development of late-successional and younger Douglas-fir conifer stands
- examining riparian reserve components of the Northwest Forest Plan for Klamath Mountain Province
- comparison of silvicultural systems designed to enhance late successional forest stands



Additional research work includes: developing low-impact logging and transportation systems, designing effective community participation, and maintaining soils productivity. Developing, collecting and storing compatible monitoring data is on going with the Applegate River Watershed Council and the Southwest Oregon Province Advisory Committee. Working with the Applegate Partnership, the agencies are exploring methods of all-party monitoring which could offer an opportunity for increased participation and credibility in monitoring.

The Applegate Adaptive Management Area Guide was printed and distributed September 1998. This followed the Draft Guide offered in 1996. The guide summarizes:

- information about the biophysical, social, and economic aspects in the area
- public and agency issues across multiple jurisdictions
- key questions reflecting what people want to learn from this experiment
- strategies and future actions which are most responsive to social and resource issue

The guide is seen as a working document and will change as new information is available. It is written in accessible language and reflects years of collaboration with the communities.

MATRIX

The matrix land allocation is defined in the Resource Management Plan (RMP) as federal lands outside of reserves and special management areas that will be available for timber harvest at varying levels. The matrix within the planning area has been divided into the northern and southern General Forest Management Area (GFMA) and Connectivity/Diversity blocks. There are approximately 482,081 acres of BLM administered land in the General Forest Management Area and 28,761 acres in Connectivity / Diversity blocks. Connectivity/Diversity blocks vary in size and are distributed throughout the northern GFMA.

The following objectives are for the matrix lands:

- Produce a sustainable supply of timber and other forest commodities to provide jobs and contribute to community stability.
- Provide connectivity (along with other allocations such as riparian reserves) between late-successional reserves.
- Provide habitat for a variety of organisms associated with both late-successional and younger forests.
- Provide for 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.
- Provide early-successional habitat.

15 Percent Analysis

The NFP/ROD (pg C-44) and ROD/RMP (pg 73) require that BLM and USFS provide for the retention of late successional/old growth fragments in watersheds where little remains. The standard and guideline is to be applied to any fifth field watershed in which federal forest lands are currently com-



posed of 15 percent or less late successional forest (LSF), considering all land allocations. All Medford District FY 1998 sales sold under the NFP have complied with the 15 percent Standards and Guidelines S&G per the initial analysis.

A joint BLM/FS Instruction Memorandum was issued on September 14, 1998. It provided further guidance for implementing the 15 percent 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 15 percent analysis, based on the September 1998 guidance, is currently in progress, but overall results will not be available for publication in the this Annual Program Summary. They will be published concurrent with completion of the Medford third year RMP evaluation in Spring 1999.

WATER AND SOILS

The Medford District conducted riparian assessments to determine the functioning condition status on 248 stream miles. These streams plus 198 additional stream miles were surveyed for stream and channel characteristics. Aquatic macroinvertebrate sampling was performed at 50 sites, summer stream temperature was monitored at 232 sites, streamflow and turbidity were measured at 23 sites, channel cross sections were surveyed at 28 sites, and 3 stream gaging stations were installed.

State-listed Clean Water Act 303(d) streams

Stream temperature data was provided to the Oregon Department of Environmental Quality (DEQ) for use in developing the draft 1998 list of water-quality-limited streams. Approximately 100 stream segments included on the draft DEQ 1998 Section 303(d) List of Water Quality Limited Waterbodies cross BLM-administered land in the Medford District. These streams are primarily listed as water quality limited due to temperature, but some stream segments are listed for additional reasons such as flow modification, habitat modification, and sedimentation. These stream segments are being evaluated as part of the watershed analysis process. More intensive stream temperature monitoring this year should help identify the upper end of some water-quality-limited streams.

Municipal watersheds

Eight communities within the Medford District use a surface water sources for their water supply. There are no formal municipal watershed agreements with these communities. A watershed management plan was developed in conjunction with the City of Butte Falls for their ground water source, Ginger Springs.



WILDLIFE AND WILDLIFE HABITAT

Green tree retention

Timber sales in the south General Forest Management Area (GFMA) maintain 16 to 25 large green trees per acre in harvest units. Units in the north GFMA maintain 6 to 8 green trees per acre.

Snags and snag recruitment

Snags are left standing in units if they do not conflict with Occupational Safety and Health Administration safety guidelines and if they do not conflict with prescribed burning.

Coarse wood

As per the Northwest Forest Plan, all timber sale units maintain a minimum of 120 lineal feet of down logs per acre greater than or equal to 16 inches diameter, assuming there are downed logs on the site. Additional reserve standing trees provide for coarse wood recruitment in future decades.

Connectivity

Designated connectivity blocks are spaced across the district. Twenty-five to 30 percent of each block (640 acre section) is to be maintained in late-successional forest, managed on a 150-year rotation. Harvest areas are to maintain a minimum 12 to 18 green trees per acre. Additional connectivity is provided by the riparian management network (100 to 350 feet wide) and by 250 owl core 100 acre unmapped LSRs.

Special habitats

As part of the salamander surveys, tams habitat in project areas was mapped. Entrances to caves and old mine adits are being buffered in upcoming sales. Meadows receive a 300-foot no-harvest buffer. Several underburn projects have been undertaken to maintain historic oak woodlands. BLM continues its partnership with The Nature Conservancy to manage The Table Rocks and their associated vernal pool habitat.



Nest sites, activity centers, and rookeries

Protocol surveys were completed on a third of upcoming project areas for northern goshawks, a Bureau-sensitive species. Helicopter surveys monitored osprey productivity at Hyatt/Howard Prairie Lakes, Butte Creek, Lost Creek Reservoir, and along the Rogue River. Fourteen survey routes for pygmy owls were run as part of a statewide one-year survey. Over 1200 neotropical birds were banded in 1998 at a Monitoring Avian Productivity & Survivorship (MAPS) station in a long-term Partners In Flight project begun in 1995. Three bats were radio tagged to monitor foraging strategy at a maternity colony and six ponds were mist netted in a long-term bat monitoring study.

Elk habitat

The Grants Pass area underburned 420 acres in three project areas (North Murphy, Noreast, Trowbridge) for oak woodland maintenance and for fuels hazard reduction. The Ashland area burned 200 acres and completed a 7.7 mile perimeter fence at the Box 0 Ranch to restore a floodplain and rejuvenate habitat. The Butte Falls area burned or seeded 80 acres and continued a cooperative road closure area with Oregon Department of Fish & Wildlife, Boise Cascade and the Corps of Engineers to benefit big game winter range.

Late-successional Reserve (LSR) habitat improvement

The widespread South Cascades LSR Assessment was completed in 1997, and opens the way for projects to occur within the Elk Creek LSR (#224). The Butte Falls Resource Area completed the planning for a Morine Fuels Hazard Reduction project to reduce the potential for catastrophic stand replacement fire in this LSR. The Grants Pass Resource Area completed the LSR analysis for the Galice/Fishhook and the Williams LSRs. They completed planning for road obliteration and brushing projects. The Ashland Resource Area has completed a draft of the Jenny Creek/Soda Mountain (#234) LSR Assessment, which will facilitate doing projects in future years.

Survey and Manage (S&M)/Protection Buffer Species

The Medford District has been able to implement the management/action direction associated with Survey and Manage Protection Buffer species through fiscal year 1998. The adaptive management application of the experience gained in implementing this management action/direction has resulted in the consideration of possible adjustments (See Appendix F, Modifications being considered for Survey and Manage/Protection Buffer guidelines). The information in the Annual Program Summary for Survey and Manage/Protection species is not meant to be comprehensive or exhaustive.

Red Tree Vole. Upcoming timber sale units were surveyed for vole presence. This effort began in 1996, so range maps for the species are being refined. Mitigation for voles may include deferring a



harvest unit, deleting a portion of a unit (one tree length buffer), or relying on neighboring concentrations of nests in adjacent unentered riparian management areas.

Mollusks. Preliminary surveys were begun on a small scale for timber sales selling after October 1, 1998. Contracts were being let to survey upcoming sales. Blue-gray taidroppers (slugs) were being found in most units. The other S&M snails appear to be rare, but little acreage has been surveyed thus far.

Del Norte Salamander and Siskiyou Mountains Salamander. Continuing work begun in 1996, all upcoming sale units within 2.5 miles of the known range were surveyed, talus habitat was mapped, and areas of occurrence were deferred from harvest units. Del Norters are found in the northwest quarter of the district and Siskiyou's are found in the southwest quarter. No S&M salamanders have been detected in the east half of the district.

Great Gray Owl (protection buffer species). Intensive surveys in suitable habitat began in 1996. Several nests have been found down to 2,000 feet elevation (extending the protocol survey area below the originally recommended 3,000-foot cutoff). As per the Northwest Forest Plan, a 300 foot buffer around meadow habitat is being maintained and seasonal restrictions are imposed within a quarter mile of nest sites.

Threatened/Endangered Species

Peregrine Falcon. Two nest sites on BLM land and one on adjacent private land were monitored. District personnel assisted in identification of an additional new site on adjacent Forest Service land.

Bald Eagle. Six nest sites on BLM land and three on adjacent private land were monitored for occupancy and productivity. An additional new nest territory was identified.

Marbled Murrelet. The Grants Pass and Glendale Resource Areas are cooperating with the Siskiyou National Forest in the development and validation of a landscape scale sampling effort to address whether there is a need for continued surveys for marbled murrelets prior to habitat-disturbing activities in inland portions of the 50-mile survey zone. Additional survey efforts in FY1999 and FY2000 will be analyzed along with past years' surveys to determine if the results will provide support for not continuing protocol surveys in light of the unlikely occurrence of marbled murrelets. No murrelets have ever been detected on the Medford District since the surveys of habitat-disturbing projects began in 1993.

Northern Spotted Owl. The Glendale Resource Area intensively monitored 70 historic owl sites as part of the long-term Klamath demographic study (begun in 1997) as mandated by the Northwest Forest Plan. The other resource areas opportunistically monitored another 170 sites to verify site location and continue gathering demographic data.

Vernal Pool Fairy Shrimp. In cooperation with the Oregon Natural Heritage Program (The Nature Conservancy), fairy shrimp were identified in ephemeral pools of water at The Table Rocks, a 100-mile northward extension of the known species range. This federally threatened species was first discovered in this area in spring 1998.



FISH HABITAT

A variety of activities to protect and enhance fish habitat were implemented in fiscal year 1998. The listing of coho salmon prompted the hiring of two term and two temporary fisheries employees in the past two years to assist with timber sale, road construction impact assessments and watershed analyses. These activities represent the majority of workload and involves many field visits and meetings. The following are other activities performed by fisheries personnel.

Watershed Council Cooperation

The district provided technical support to various councils which support the Governor's Salmon Plan commitments. BLM funded watershed councils' projects with the councils applying provisions of the Wyden Amendment to remove irrigation diversions and provide alternatives for fish passage in the Illinois River Basin. Projects in the Applegate River Basin included one mile of riparian fencing and removal of an abandoned irrigation diversion.

Stream and Riparian Inventory

Since 1992, the district has contracted with the Oregon Department of Fish and Wildlife to inventory streams. To date approximately 90 percent of the streams in the district have completed inventories and 58.3 miles were inventoried in fiscal year 1998. Tributaries to the Wild and Scenic section of the Rogue River were included in this estimate and will continue to be surveyed in fiscal year 1999.

Fish Passage

Fish passage is a high priority and an ongoing need in the district. Four instream culverts were constructed to allow passage of fish. Three of these culverts used the new bottomless arch conspan design to maintain a natural streambed and no pool below the *culvert*. The only funding for these projects is Jobs-in-the-Woods Program monies.

Fish Population Monitoring

Under the Northwest Forest Plan, coho salmon spawning surveys were conducted and completed in cooperation with the Oregon Department of Fish and Wildlife on approximately eight miles of stream. Snorkeling along six miles of stream was used to estimate fish. Two juvenile fish traps were operated to determine juvenile fish composition and abundance. Riparian treatment monitoring for improved fish habitat was completed along four miles of stream. Aquatic insect monitoring occurred at 54 sites in addition to the sites monitored in a district contract.



Instream Fish Habitat

Boulder weirs were placed in the Elk Creek key watershed for fish habitat enhancement. An irrigation ditch was breached in six places to allow uninterrupted natural streamflow from several tributaries.

Riparian Fish Habitat

Additional riparian habitat surveys were conducted along approximately 400 miles of stream, along which some 4,000 trees were planted. Riparian habitat monitoring involved seven miles of surveys. Ten miles of riparian habitat were fenced and maintained.

Road decommissioning

Road decommissioning is a high priority for protection of fish habitat because of the possible erosion of soil into streams and the potential for fish habitat degradation. Five miles of roads were decommissioned for protection of fish habitat.

Endangered Species Act

Coho Consultation included a Rogue Basin/Southern Oregon/North Coast Biological Assessment (BA) submitted to the National Marine Fisheries Service (NMFS) on July 15, 1998. The BA was initiated in October 1997 and redrafted in January and March 1998. The redrafts were the result of NMFS legal guidance to the consultation process because of a pending lawsuit. The Court mandated the previous Streamline Guidance which incorporates consistency determinations for the Northwest Forest Plan's Aquatic Conservation Strategy to be linked to Biological Assessments. This linkage was performed in the July 15, 1998 BA.

Public Outreach

Twenty-four major presentations were conducted with watershed councils and schools. Two fishing events were hosted with educational talks.



SPECIAL STATUS AND SPECIAL ATTENTION PLANT SPECIES

Surveys, Monitoring, Consultation, and Restoration

Surveys for special status (SS) and special attention (SA) species are being conducted prior to all ground disturbing activities. Approximately 50,000 acres of pre-project clearance surveys have been completed annually since publication of the resource management plan. Baseline fungi, lichen, and bryophyte inventories have been completed on approximately 10,000 acres on the district. This has included two research natural areas. Four SS plants have been monitored on an annual basis to determine population trends. Pre-project surveys and monitoring have been accomplished by a permanent botanical staff of three botanists, one natural resource specialist and one forestry technician plus two temporary botanists. Most of the pre-project inventory has been completed by botanical contracts. The number of SS plant sites known to occur on public lands within the district at the end of 1998 are presented by status category in Table 1. The number of SA plant sites are presented by status category in Table 2. There are a total of 1,935 SS sites and 2,198 SA sites. Clustered lady's-slipper (*Cypripedium fasciculatum*) sites occur in both categories as it has both designations.

Table 1. Number of Sites by Species Group for Special Status Plant Species

Status 1

Species Group	Federal Proposed	Federal Candidate	Bureau Sensitive	Assessment Species	Tracking Species
Fungi	—	—	—	—	—
Lichens	—	—	—	—	—
Bryophytes	—	—	—	—	—
Vascular Plants	8	85	1238	272	340



Table 2. Number of Sites by Species Group for Special Attention Plant Species

Status 2

Species Group	Protection Buffer	Survey & Manage strategy 1	survey & Manage strategy 2	Survey & Manage strategy 3	Survey & Manage strategy 4
Fungi	103	23	0	185	47
Lichens	0	13	0	26	290
Bryophytes	1	1	1	0	12
Vascular Plants		751	751		—

Note: Some special attention species are included in more than one status category.

No consultation has been initiated for SS plants. The U.S. Fish and Wildlife Service has proposed one SS plant species, Gentner's fritillary (*Fritillaria gentneri*) for listing as endangered. Habitat restoration has been attempted at one SS plant location. Three conservation strategies have been completed and two more are in preparation.

C-3 Process Overview

The Medford District has been able to implement the management/action direction associated with Survey and Manage Protection Buffer species through fiscal year 1998. The adaptive management application of the experience gained in implementing this management action/direction has resulted in the consideration of possible adjustments (See Appendix F, Modifications being considered for Survey and Manage/Protection Buffer guidelines). The information in the Annual Program Summary for Survey and Manage/Protection Buffer species is not meant to be comprehensive or exhaustive.

Approximately 400 species are listed in Table C-3 in the Northwest Forest Plan Record of Decision (pp. C 49 - C61). These species are known as Survey and Manage Species. Each has management recommendations of one or more of four survey and manage strategies in the Northwest Forest Plan Record of Decision. Much of the information to carry out the various strategies has been under development through the Regional Ecosystem Office with the help of species experts throughout the northwest.



SPECIAL AREAS

Defensibility monitoring has been ongoing on the 34 designated special areas, areas of critical environmental concern (ACEC), research natural areas (RNA) and, environmental education areas (EEA) on the district. Habitat restoration has occurred at Jenny Creek and French Flat ACECs. Noxious weed control has been conducted at Round Top Butte, Poverty Flat and Table Rocks ACECs. Draft management plans have been completed on Round Top Butte RNA and Rough and Ready ACEC. Management plans are currently underway for Scotch Creek and Oregon Gulch RNAs and Pilot Rock and Jenny Creek ACECs. These plans are part of the Cascade/Siskiyou Ecological Area Plan. Inventories for Survey & Manage non-vascular plants have been completed at Holten Creek and Lost Lake RNAs.

Status of ACEC Management Plans

#ACECs from RMP	ACEC Plans Written in FY98	#ACEC Plans That Need Revision	#ACEC Plans Previously Completed and Current in FY 98	# New ACEC Plans That Need to be Written
30	0	2	2	26

Five caves, No Name Cave, Lake Cave, Manzanita Cave, Holten Creek Cave and Crooks Creek Cave, have been identified in the Medford District. They continue to be protected and managed under the Cave Resources Protection Act. Current plans for the caves are to have them gated in a manner which will allow bats to move freely in and out of the caves while keeping humans out. If any requests for entry are received from spelunking groups, a free use permit can be obtained at the district.

The Wild Rogue Wilderness is approximately 36,500 acres of which about 8,700 acres are on BLM-administered lands. The entire area is administered by the Siskiyou National Forest, Grants Pass, Oregon.

CULTURAL RESOURCES

The program provides environmental history information, addressing the role of human beings in the evolution of the landscape. This information is synthesized from a variety of sources including reports, maps, photos, and historic documents. Several overview studies were completed on this subject. The program continues to solicit tribal input to important projects, especially those concerning interpretation to the public of the history of native. Such projects include the display at the Rogue River Ranch and the proposed kiosk at Table Rock. Public outreach and education goals were addressed through various means including:

- formulation of an assistance agreement with The University of Notre Dame to continue summer field school work on the district;
- formulation of agreements with Southern Oregon University for student intern assistance in site inventory and recording projects;
- collaboration with Southern Oregon University in presenting an introduction to the BLM's *Exploring Oregon's Past: A Teachers' Activity Guide*;



- beginning a public partnership in the reconstruction and interpretation of an historic cabin; and
- participation of district personnel in a number of public presentations and workshops.

RURAL INTERFACE AREAS

The objective of the resource management plan for the rural interface areas is to consider the interests of adjacent and nearby rural residential land owners during analysis, planning and monitoring activities occurring within managed rural interface areas. These interests include personal health and safety, improvements to property, and quality of life.

The BLM manages rural interface areas encompassing approximately 136,000 acres within one-quarter mile of private land zoned for 1-5 acre or 5-20 acre lots located throughout the Medford District.

In the past year, the BLM has worked with numerous local individuals and groups such as watershed councils, fire protection groups, area citizen groups, and environmental coalitions to mitigate many features of land management that are in close proximity to private residences.

Gates and other barricades are used to stop unauthorized use of public roads and dust abatement measures to mitigate impacts to neighbors. The BLM is also attempting to reduce fuels hazards on public lands adjacent to private properties.

SOCIOECONOMIC

Employment Trends

Since implementation of the plan in 1995, Oregon and the United States have benefitted from a robust economy. In Jackson County, total wage and salary employment has steadily increased since 1992. Total employment decreased in 1991. This was during a national recessionary period that lasted from third quarter 1990 through the first quarter of 1991. (Council of Economic Advisors, 1997) Statewide, total employment also decreased in 1991. In the less populated Josephine County, total employment decreased in 1990 and 1991, but has shown steady gains since 1992.

Lumber and wood products employment in Jackson County has steadily decreased since 1989. In 1992, a large increase was recorded, but it was virtually erased the following year. Since the 1984-88 baseline period, lumber and wood products employment has decreased by 1,210 jobs, or 22 percent. Despite this decrease, the industry remains a vital contributor to the local economy, representing 6.4 percent of total employment. During the baseline period lumber and wood products represented 11.8 percent of total employment. Statewide, lumber and wood products represents 4 percent of total employment.

In Josephine County, lumber and wood products employment has decreased by 866 jobs, or 38 percent, since the baseline period. During the baseline period, lumber and wood products represented 13.8 percent of all wage and salary employment. In 1997, it represented 6.8 percent of total employment.

Employment increases have come from a variety of sectors. In Jackson County, increases in other manufacturing have out paced losses in the lumber and wood products sector. These jobs do not directly



replace lost jobs, but do offer local reemployment opportunities for people with necessary skills or access to retraining/education. Other sectors that have grown significantly since the baseline period include construction and mining, services, and trade. In Josephine County, growth in other manufacturing has not been significant. Most non-manufacturing sectors, including construction and mining, services, finance-insurance-real estate, and trade have all shown large increases in employment since the 1984-88 baseline period. In Josephine County, the construction, trade, services, and government sectors have all added significant numbers of jobs since the baseline period.

See the tables below for detailed information on employment by industry for Oregon, Jackson County and Josephine County.



Resident Labor Force, Employment by Industry, Josephine County

	1970	1980	Average 1984-88 Baseline	1990	1991	1992	1993	1994	1995	1996	1997
Civilian Labor Force	13,050	23,790	25,040	126,510	26,240	27,060	28,310	28,490	28,190	28,900	28,720
Unemployment	1,340	3,100	2,314	2,100	2,280	2,690	3,060	2,600	2,360	2,870	2,710
Total Wage and Salary Emp.	8,820	15,740	16,589	18,520	17,950	18,500	19,160	19,680	20,010	20,360	20,980
Total Manufacturing	2,630	3,580	3,964	3,980	3,620	3,540	3,490	3,230	3,060	3,020	3,190
*Lumber & Wood Products	1,840	2,220	2,296	2,010	1,670	1,670	1,620	1,510	1,440	1,390	1,430
*Other Manufacturing	790	1,360	1,668	1,970	1,950	1,870	1,870	1,720	1,620	1,630	1,760
Total Non-Manufacturing	6,190	12,160	12,636	14,540	14,330	14,970	15,670	16,460	16,960	17,340	17,790
•Const. & Mining	230	580	430	630	600	620	750	870	890	940	940
*Trans., Comm. & Utilities	400	580	622	680	630	660	690	740	760	780	750
*Trade	2,060	3,830	4,326	4,990	4,990	5,120	5,270	5,480	5,540	5,540	5,750
*Finance, Ins. & Real Est.	270	850	784	900	890	940	1,000	1,090	1,090	1,050	1,080
*Services & Misc.	1,210	2,780	3,478	4,030	3,990	4,310	4,580	4,850	5,090	5,340	5,500
*Government	2,020	3,540	3,002	3,310	3,240	3,320	3,370	3,450	3,590	3,690	3,780

Resident Labor Force, Employment by Industry, Jackson County

	1970	1980	Average 1984-88 Baseline	1990	1991	1992	1993	1994	1995	1996	1997
Civilian Labor Force	37,240	63,070	67,136	73,430	74,820	76,340	79,520	82,390	82,690	86,280	86,760
Unemployment	3,040	6,510	5,454	4,950	5,700	6,320	6,850	5,530	5,420	7,100	6,600
Total Wage and Salary Emp.	26,500	43,500	47,136	54,840	54,710	56,810	58,620	61,990	63,570	65,520	68,160
Total Manufacturing	6,010	7,690	8,684	8,920	8,150	8,790	8,650	9,050	9,140	9,130	9,240
•Lumber & Wood Products	4,570	5,030	5,550	5,370	4,690	5,140	4,740	4,720	4,600	4,500	4,340
•Other Manufacturing	1,440	2,660	3,134	3,550	3,460	3,650	3,910	4,330	4,540	4,630	4,900
Total Non-Manufacturing	20,490	35,810	38,454	45,920	46,560	48,020	49,970	52,940	54,430	56,390	58,920
•Const. & Mining	810	1,960	1,578	2,150	2,060	2,100	2,420	2,710	2,790	2,980	3,370
•Trans., Comm. & Utilities	1,590	2,240	2,672	2,920	2,950	2,850	2,870	2,880	3,080	3,250	3,310
•Trade	6,600	11,890	13,300	16,160	16,320	16,670	17,190	18,640	19,090	19,510	20,150
•Finance, Ins. & Real Est.	980	2,230	2,320	2,620	2,660	2,710	2,870	3,020	2,990	3,030	3,090
•Services & Misc.	4,500	8,040	9,872	12,530	12,910	13,860	14,690	15,620	16,240	17,280	18,620
•Government	6,010	9,450	8,712	9,530	9,660	9,820	9,930	10,070	10,240	10,350	10,400





Resident Labor Force, Employment by Industry, Oregon

	1970	1980	Average 1984-88 Baseline	1990	1991	1992	1993	1994	1995	1996	1997
Civilian Labor Force	864,500	1,295,000	1,362,400	1,491,000	1,508,000	1,542,200	1,596,000	1,640,000	1,656,200	1,719,700	1,731,700
Unemployment	61,700	107,000	104,800	82,000	90,000	116,000	116,000	89,000	80,300	101,600	100,900
Total Wage and Salary Emp.	709,200	1,044,600	1,068,680	1,251,900	1,250,800	1,274,200	1,308,400	1,362,900	1,418,400	1,474,600	1,524,900
Total Manufacturing	172,300	215,100	203,240	220,300	211,700	209,000	211,700	221,300	229,300	235,800	243,700
•Lumber & Wood Products (& Paper)	76,200	79,900	75,060	73,200	65,800	63,800	62,700	63,300	61,300	59,800	59,900
•Other Manufacturing	96,100	135,200	128,180	147,100	145,900	145,200	149,000	158,000	168,000	176,000	183,800
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
•Const. & Mining	30,800	48,800	35,800	54,000	53,000	52,000	55,700	62,900	70,400	79,400	83,500
•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
•Trade	162,000	255,600	269,680	313,100	314,300	318,700	328,900	344,100	357,000	365,900	377,500
*Finance, Ins. & Real Est.	36,000	70,000	69,360	80,300	83,200	86,000	84,600	87,800	87,200	91,000	95,100
•Services & Misc.	112,700	191,400	231,180	296,200	296,900	311,800	328,300	343,200	362,900	382,600	400,500
•Government	146,700	203,200	201,360	223,500	226,400	231,000	232,600	234,700	240,200	246,600	250,400



Environmental Justice

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

New projects with possible effects on minority 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

The Medford District's Recreation Management Program is one of the most diverse in the state and opportunities continued to expand in FY 1998. Developed recreation areas include campgrounds at Hyatt Lake, Tucker Flat, and Elderberry Flat. The new play field/ball diamond at Hyatt Lake was completed this year. Day use sites are maintained at Gold Nugget, Elderberry Flat, Kenny Meadows, Hyatt Lake, and along the Recreational Section of the Rogue River. Interpretive trails and sites are maintained at Eight Dollar Mountain, Table Rocks, Hyatt Lake, Gold Nugget, Rand Administrative Site, and two National Register Sites; the Whisky Creek Cabin and the Rogue River Ranch. More than 2,700 school children and 1,700 adults were taken on guided interpretive hikes on the Table Rocks this spring. The discovery of fairy shrimp in the Table Rock's vernal pools added another endangered species to those already known to occur there.

In addition, two nationally designated trails, the Rogue River National Recreation Trail and the Pacific Crest National Scenic Trail (PCNST), are maintained. The Recreation Area Management Plan for the PCNST Special Recreation Management Area was finalized and signed in August 1998.

Forty-seven miles of the Rogue National Wild and Scenic River are managed by the district, with BLM administering both the commercial and private permits.

For users who enjoy driving for pleasure, two Back Country Byways and two designated Off Highway Vehicle (OHV) areas are managed. For non-motorized cyclists, the 74-mile Glendale-to- Powers Bicycle Recreation Area was dedicated in the summer of 1998. This project was a cooperative effort between numerous government entities and private organizations.

The 5,867-acre Soda Mountain Wilderness Study Area continues to be managed under the Interim Management Policy for Lands Under Wilderness Review, pending legislation.

Winter recreation use figures continue to increase at the Table Mountain Tubing Hill and the 60+ miles of snowmobile trails and 18+ miles of cross-country ski trails maintained around Hyatt Lake. The Table Mountain Tubing Hill is scheduled for redesign and reconstruction in FY 1999.

Dispersed use throughout the district includes hunting, fishing, camping, driving for pleasure, horse-back riding, hang gliding, caving, shooting, mountain biking, water play, sightseeing, hiking, and mushroom and berry gathering. The types of uses increase every year as does the amount of use.



In addition to these activities the district issues approximately 140-150 special recreation permits yearly. About 135 permits are issued to outfitters on the Rogue River and the remainder are used for hunting guides, fishing guides, paint ball wars, coonhound trials, equestrian events, bicycle events, photography, and OHV events.

FY 1998 saw flood repair work completed at Gold Nugget and numerous sites along the Rogue River. In addition, much-needed maintenance projects were performed at Hyatt Lake, Eight Dollar Mountain, Tucker Flat, Rogue River Ranch, Rand, and Table Rocks. These maintenance projects were part of the Recreation Pipeline Initiative funded in FY 1998.

The Medford District was also designated a Pilot Fee Demonstration Site in FY 1998. This program allows the district to keep and spend recreation-related receipts to on district recreation sites. The users can see the direct effect of the fees they pay.

This year also saw the National Park Service and Jackson County Parks join the district, the City of Jacksonville, and the Jacksonville Woodlands Association in a partnership to develop a trail system in and around Jacksonville, a National Historic Landmark.

FOREST MANAGEMENT

The Medford District manages approximately 859,096 acres of land located in Jackson, Josephine, Douglas, Curry, and Coos counties. Under the Northwest Forest Plan, approximately 191,000 acres (or 22 percent of the Medford District land base) are available for timber production. The Northwest Forest Plan and the Medford District Resource Management Plan provide for a sustainable timber harvest, know as the Allowable Sale Quantity, from Medford District administered public lands of 57.1 MMBF (million board feet) annually. The district offered 77.7 MMBF in fiscal year 1998.

Beginning in fiscal year 1998, all BLM timber sales were measured, sold and reported in volumes of hundred cubic feet. The cubic foot measurement takes into account the taper in logs and offers a more accurate, consistent measurement that accounts for lumber, chips, and the sawdust that is produced from logs of all sizes. Volumes in board feet will continue to be reported for informational purposes.

In fiscal year 1998, Medford District sold 2.5 timber sales at auction and negotiated 9 sales of minor volume. The value of these sold timber sales was over \$12.5 million. 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 1998 from active harvesting was \$11,921,686 for Oregon and California Railroad Lands and \$619,451 for Public Domain Lands.

A number of harvest methods are employed in the Medford District. These consist of regeneration harvest, density management, selective, clearcut, and salvage.

The tables shown on the following pages are summarized at a district level only. A more complete analysis of the volumes harvested and a comparison of these actual harvests with the computer projections of the decade's harvest will be completed as part of the 3rd year evaluation expected to be completed in the summer of 1999.



Timber Sale Volume Offered 1995-1998 MMBF

Land Use Allocation	Offered FY 1995	Offered FY 1996	Offered FY 1997	Offered FY1998	Total 1995-1998
AMA	5,530	1,521	23,458	20,206	56,121
North GFMA	15,553	25,488	21,519	36,046	98,606
South GFMA	10,606	4,172	12,125	13,931	40,834
Connectivity	0	4,309	150	3,082	1,541
Total Volume from ASO lands	31,689	41,496	57,252	13,265	203,702
LSR volume	151	411	318	2,841	3,721
Riparian Reserve volume	1,321	755	1,024	1,372	4,472
Hardwood volume	24	5	0	0	29
Misc. volume	235	189	356	248	1,028
Total Volume Offered	33,420	42,856	58,950*	11,726	212,952
District FY Target Volume	32,000	52,253	57,075	57,075	198,403

Notes:

. Data shown is for all "Offered" timber sales, which include advertised and negotiated sales with associated modifications and volume that was a part of the Rescission Act. Of these sales only four were offered but went no-bid, and are not planned to be re-offered.

- . Riparian reserve includes volume from administrative withdrawn land.
- Misc. volume includes special forest products sold as sawtimber.

*Total includes volume of 4.253 MMBF from a Rescission Act Sale, Mules' Brew



Regeneration Harvest Timber Sale Volume

Land Use Allocation	MBF FY 1995	MBF FY 1996	MBF FY 1997	MBF FY 1998	TOTAL FY 95-98
North GFMA	1,141	14,121	10,559	18,182	44,609
South GFMA	988	97	0	412	1,497
Connectivity	0	730	0	0	730
Riparian Reserves	0	0	0	0	0
Hardwood volume	24	5	0	0	29
AMA	413	3,879	3,632	466	8,390
Totals	3,175	18,836	14,192*	19,060	55,263

Notes:

- Data shown is for all “Offered” timber sales, which include advertised and negotiated sales with associated modifications and volume that was a part of the Rescission Act.
 - Regeneration harvest data includes clearcut values that are generally associated with right-of-way , rock pits, etc. Hardwood volume came from rights-of-way.
 - Riparian reserves include volume from administrative withdrawn land
- *Total includes volume of 4.253 MMBF from a Rescission Act Replacement Volume Sale, Mules’ Brew.

Density Management Harvest Timber Sale Volume

Land Use Allocation	MBF FY 1995	MBFFY 1996	MBFFY 1997	MBFFY 1998	TOTAL FY 95-98
North GFMA	13,864	11,384	11,323	17,972	54,543
South GFMA	9,684	4,043	11,771	13,421	38,919
Connectivity	0	3,580	147	3,082	6,809
LSR	148	407	317	2,841	3,713
Riparian Reserves *	1,321	755	1,024	1,372	4,472
AMA	4,993	3,662	19,820	19,730	48,205
Misc. volume	235	189	356	248	1,028
Totals	30,245	24,020	44,758	58,666	157,689

Notes:

- Data shown is for all “Offered” timber sales, which include advertised and negotiated sales with associated modifications and volume that was a part of the Rescission Act.
- Riparian reserves include volume from administrative withdrawn land
- Misc. volume includes special forest products sold as sawtimber
- Includes acres from mortality salvage.



Regeneration Harvest Timber Sale Acres

Land Use Allocation	ACRES FY 1995	ACRES FY 1996	ACRES FY 1997	ACRES FY1998	TOTAL ACRES FY 95-98
North GFMA	71	554	334	720	1,679
South GFMA	54	15	0	43	112
Connectivity	0	36	0	0	36
LSR	0	0	0	0	0
Riparian Reserves	0	0	0	0	0
AMA	19	380	426	69	894
Totals	144	985	760	832	2,721

Note:

- Acres shown include right-of-way acres.

Density Management Harvest Timber Sale Acres

Land Use Allocation	ACRES FY 1995	ACRES FY 1996	ACRES FY 1997	ACRES FY 1998	TOTAL ACRES FY 95-98
North GFMA	1,009	2,197	2,351	1,943	7,500
South GFMA	6,248	1,020	2,542	1,953	11,763
Connectivity	0	640	33	424	1,097
LSR	26	79	23	433	561
Riparian Reserves	371	1,109	928	388	2,796
AMA	2,567	1,208	3,621	3,302	10,698
Totals	10,221	6,253	9,498	8,443	34,415

Notes:

- Includes acres from administrative withdrawn land.
- Riparian reserves include volume from administrative withdrawn land
- Includes acres from mortality salvage.



SPECIAL FOREST PRODUCTS

The Medford District sold a wide variety of products under the Special Forest Products Program in FY1998. These sales included mushrooms, mosses, Christmas trees, wood burls, plant transplants, floral greenery and wood products such as poles or fence posts.

The record of decision does not have any commitments for the sale of special forest products. The following table shows the special forest product sales for fiscal year 1998 on the Medford District.

Product	Number of Contracts	Quantity Sold	Value
Boughs-Coniferous	55	194,050 lbs	\$5,710
Burls & Miscellaneous	25	86,555 lbs	\$12,459
Christmas Trees	355	573 trees	\$1,965
Floral & Greenery	58	77,688 lbs	\$1,416
Mosses-Bryophytes	1	333 lbs	\$10
Mushrooms-Fungi	202	9,835 lbs	\$8,832
Seed & Seed Cones	2	40 bushels	\$80
Transplants	2	130 plants	\$25
Wood Products	547	157,364 cu. ft.	\$57,308
Total	1,247	—	\$87,805

NOXIOUS WEEDS

Containment and/or reducing noxious weed infestations on Medford District-administered lands in five counties (Jackson, Josephine, Douglas, Coos, and Curry) using an integrated pest management approach is critical if native and natural ecosystems are to survive. Currently, we are tracking 12 species of noxious weeds (yellow starthistle, purple loosestrife, spotted knapweed, diffuse knapweed, rush-skeletonweed, leafy spurge, Canada thistle, Scotch broom, Spanish broom, tansy ragwort, puncturevine, meadow knapweed). The number of sites targeted for treatment each year is subject to change depending on new infestations, funding, cooperation from neighboring landowners, and effectiveness of control method.

The following projects were completed in 1998:

1. Contract with Rural Outdoor Education for:
 - hand pulling yellow starthistle scattered over 5 acres
 - clipping seed heads from purple loosestrife on 1 acre
 - Pulling purple loosestrife plants on .5 acre



2. Box 0 yellow starthistle treatment on 150 acres.
3. Spanish Broom treatment on Rogue River on .25 acre
4. Hand pull 9.5± acres of scotch broom
5. Purchased 9 weed wrenches
6. Release of 800 black-margined loosestrife beetles (*Galarucela calamariensis*) and 800 golden loosestrife beetles (*Galarucela pusilla*) at 5 different sites for Purple Loosestrife.
7. Hand pulled spotted, diffuse, and meadow knapweed in Ashland Resource Area.
8. Three days hand-pulling diffuse knapweed in Grants Pass Resource Area on 1 acre. Twenty-nine garbage bags full
9. Production of noxious weed litter bags
10. Interagency Noxious Weed Workshop
11. Stopped by five nurseries in Rogue Valley to discuss noxious weeds.
12. Noxious weed displays at Jackson and Josephine County Fairs
13. Development, funding and construction of wash rack at BLM wareyard; funded 50:50 with the U.S. Forest Service.
14. Production and printing of Medford District Noxious Weeds handbooks
15. Completion of noxious weed survey on entire district
16. Purple loosestrife aerial survey (72 miles) contract award and completion

WILDFIRE AND FUELS MANAGEMENT

Medford District provides fire protection and wildland fire suppression through a cost-reimbursable contract with the Oregon Department of Forestry. For the 1998 fire season, the district had 29 wildfires which burned a total of 22.5 acres. Of that total, 25 were lightning caused and 4 human caused.

In all cases the suppression actions were completed within the framework of the Medford District's Resource Management Objectives.

The district treated fuels on 8,836 acres in fiscal year 1998. Of that total, the district used prescribed burning (Le., underburning, broadcast burning, and pile burning) on 3,210 acres of federal land. The remaining 5,626 acres was prepared for later burning by either hand piling or excavator machine piling, or the material was crushed to reduce overall flammability.

The objective of the piling operations was to include the majority of the smaller diameter material which significantly reduces flammability and is referred as the "fine fuels." The material generally greater than 3 inches in diameter is not included in the piling operation it remains on site for nutrient cycling, erosion control, and wildlife habitat retention. The application and use of fire and fuels management was completed within the objectives established for each land allocation under RMP.

All prescribed burning was done under the Oregon Smoke Management Plan. The majority of the burning, roughly 70 percent, was pile burning, which was used to minimize particulate matter emissions and allowed for burning during heavy precipitation periods when the risk of escapes is minimized and smoke impacts reduced due to better consumption and a reduction in the smoldering phase of combustion. The smoldering phase produces the highest level of smoke emission typical of broadcast type burning that involves the forest duff layer and larger diameter material.



No smoke intrusion occurred due to BLM burning during the fiscal year. No conformity determinations were made under the State Implementation Plan and Clean Air Act because no burning occurred during the year on BLM land within the designated smoke sensitive areas identified by the Oregon Smoke Management Plan for the Ashland/Medford Air Quality Management Area and Grants Pass Designated Area.

The district completed the installation of its first fixed smoke management monitoring site at the Provolt Seed Orchard. The station was purchased by the BLM and installed and maintained cooperatively by the BLM and Oregon State Department of Environmental Quality (ODEQ) under a Master Memorandum of Understanding (MOU). The MOU includes not only Medford District and ODEQ, but also the Rogue River and Siskiyou National Forests.

Under the MOU the Forest Service will upgrade an existing station and add a new station next fiscal year. The Medford District will also add another station next year to be installed in the north half of the District.

This smoke monitoring network will allow for real time monitoring of smoke emissions. Such information can provide information on whether smoke will affect local private land owners in the rural interface areas of the Rogue River Basin.

The grid system will also help establish baseline levels for particulate matter emissions so that the contribution of all emission sources such as backyard burning, wood stove smoke, and prescribed burning can be determined.

The BLM, Forest Service, and the Oregon Department of Forestry are concerned with reducing the potential for large catastrophic wildfires that routinely plague the Rogue River Basin. Conversely the land management agencies are also concerned with managing smoke emission from their resource management practices. The federal agencies are still on track with meeting the State Implementation Plan requirement which calls for a 50 percent reduction in total emissions by the year 2000. Wild fire emissions represent the only real potential for health problems stemming from particulate in this area.

Through its resource management programs, the Medford District is making an impact in reducing wildfire potential at the watershed level. The on term trade-off between prescribed fire emissions and wildfire emissions will continue to be a focal point of the district overall fuels management strategy.

The district continues to actively develop late succession reserve (LSR) implementation strategies that include the use of prescribed fire and fuel hazard reduction in the Jenny Creek and Elk Creek portion of the South Cascade LSRs. The Elk Creek LSR Plan is a cooperative effort between the Medford District's Butte Falls Resource Area and the Prospect and Butte Falls Ranger District of the Rogue River National Forest.

The Jenny Creek LSR Assessment has targeted the use of prescribed fire for a range of vegetative management practices including noxious weed control, fuel hazard reduction, and ecosystem restoration.



**Medford District Treatment Acres by Appropriations and Activity Type
Acres/Units**

	Unit Prep.	Underburn	Broadcast Burn	Handpile Burn	Total	% of Total
2810	22/2	100/5	165/3	71/3	358/13	4%
2823	733/18	0	0	0	733/18	8%
5500	192/4	105/6	0	235/7	532/17	6%
5900	844/26	0	0	259/9	1,103/35	13%
6310	1,836/76	243	349/15	168/8	2,377/102	27%
6320	1,791/65	20/2	224/4	1,182/55	3,217/126	36%
6650	208/7	0	0	308/8	516/15	6%
Total	5,626/198	249/16	738/22	2,223/90	8,836/326	100%
% of Total	64%	3%	8%	25%	100%	

Notes:

- 2810 - Wildland Fire Preparedness
- 2823 Hazardous Fuel Reduction (Ecosystem Restoration)
- 5500 Slash Disposal (C-1 Buy out)
- 5900 - Forest Ecosystem Health and Recovery Fund
- 6310 Forest Management (Purchaser Assistance)
- 6320 Forest Development (Site Preparation)
- 6650 - Jobs-in-the-Woods

ACCESS

Because public and private lands are intermingled within the district boundary, each party must cross the lands of the other in order to gain access to 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 103 on the district) are subject to the regulations which were in effect when they were executed or assigned. Additional rights-of-way have been granted for projects such as driveway construction, residence utility lines, domestic and irrigation water pipelines, and legal ingress and egress.

TRANSPORTATION / ROADS

The Western Oregon Transportation Management Plan was completed in 1996. One of the stated objectives of the plan is to comply with the Aquatic Conservation Strategy objectives. The four resource areas are developing transportation management objectives as part of the watershed analysis process. Road inventories, watershed analyses, and individual timber sale projects identified some roads and



associated drainage features that posed a risk to aquatic or other resource values. Those activities identified included:

- surfacing dirt roads
- replacing deteriorated culverts
- replacing log fill culverts
- replacing undersized culverts in perennial streams to meet 100-year flood events

Other efforts were made to reduce overall road miles by closure or elimination of roads.

The district decommissioned approximately 19 miles of road through timber sale projects. Another 120 miles of road were closed by gates or barricades.

ENERGY AND MINERALS

The Medford District has more than 150 active mining notices. Each year we inspect about half of all mining sites on the district. In 1998, 80 sites that were the most likely to have impacts on other resources were inspected. One site was placed in noncompliance status.

The district continues to sell mineral materials to the public including clay, decorative rock, and quarry rock used for driveways and roads. Materials sales were made to business and private citizens in FY 1998.

LAND TENURE ADJUSTMENTS

Since FY 1996, the district has completed two land exchanges, one with Cascade Ranch and one with The Nature Conservancy. We disposed of 943 acres and acquired 1,237 acres.

In FY 1998, we sold two parcels totaling 120 acres located east of Ashland. The purchase price was \$18,000.

For FY 1999, we will continue to work on the Pilot Rock Exchange with Boise Cascade and the Soda Mountain exchange with U.S. Timberlands. These acquisitions will block up an area of critical environmental concern and the Soda Mountain Wilderness Study area.

HAZARDOUS MATERIALS

The district hazardous materials coordinator participated in a number of actions involving investigations and/or cleanup of reported hazardous waste sites including:

- Completed six environmental site assessments for easement acquisitions.
- Activated and administered the emergency response contract for six incidents.
- Coordinated environmental testing at various sites for sediments, soil, and building materials (asbestos).



- Recovered refrigerant and waste oils and disposed of 60 junk appliances from illegal dumping on public lands.
- Performed preliminary investigations and carried out appropriate actions on 17 reported hazmat incidents.

COORDINATION AND CONSULTATION

The Medford District participates in the southwest Oregon Provincial Executive Committee (which includes the heads of federal agencies in southwest Oregon). The district continued an interagency effort on late-successional reserve assessments and worked with agencies on the endangered species act consultation process involving Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Forest Service and National Marine Fisheries Service. Intergovernmental tribal coordination continues on the district with **many** planned projects. The Applegate Adaptive Management Area continues to be a strong focal point for the Bureau, the Forest Service, and local, private landowners.

The Medford District continues to meet with the Jackson County Forest Subcommittee and the Environmental Coalition groups on a regular basis. Interagency discussions started this year on the Rogue Basin assessment with the Forest Service, U.S. Fish and Wildlife Service, Department of Environmental Quality and local watershed councils.

RESEARCH AND EFFECTIVENESS MONITORING

In 1998, the Medford District developed a five-year research and monitoring plan (FY 1998-2002). This plan was based on the concept that the Northwest Forest Plan would be carried out in an adaptive management framework that provides for management changes as we learn more from research and monitoring results. Three priorities were identified:

- a) Young stands biodiversity (managed vs. natural),
- b) Riparian reserves (structure and functions to meet the Aquatic Conservation Strategy objectives, and
- c) Survey and manage species (assessing habitats needs and protection requirements).

Some studies that are underway are designed to evaluate mortality rates in large old trees, responses of old trees to thinning, developmental patterns of old-growth forests and future trajectories of young stands.

Some studies would be retrospective in nature to evaluate/monitor the effects of past management practices on various ecosystems' parameters, while other studies would involve testing new concepts that require disturbance (i.e., thinning, underburning, creating snags and coarse woody debris). The Medford District is also in the early stages of cooperating with other federal agencies and private landowners in southwest Oregon to develop plant association group maps that would assist in large scale planning and monitoring across watersheds and landscapes.



INFORMATION RESOURCE MANAGEMENT

The BLM in Western Oregon made a substantial investment in building a geographic information system (GIS) as it developed its 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, efficient manner. In support of the third year evaluation, our 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 our resource data as conditions change and further field information is gathered. The GIS plays a fundamental role in ecosystem management which allows us to track constantly changing conditions, analyze complex resource relationships, and take an organized approach to managing resource data.

CADASTRAL SURVEY

Cadastral survey crews completed four projects and commenced work on three large projects during the fiscal year 1998. A total of 72 miles of line were surveyed, 38 miles of federal boundaries were posted, and 101 survey monuments were set. Medford cadastral survey utilized survey-grade global positioning systems (GPS) to establish control points on the projects it completed as well as using GPS to conduct surveys where practical. Two of the survey projects were for proposed timber sales, two were for timber trespass cases, and three were for work in the Applegate Adaptive Management Area. Cadastral Survey crews did one mile of administrative survey.

Cadastral survey serves as the district lead for all levels of GPS work-resource grade and survey grade. Cadastral survey also completed work on the Geographic Coordinate Data Base for six townships. The crews conducted site surveys at seven different locations, including one that helped resolve possible litigation.

Cadastral survey responded to numerous questions from private landowners, timber companies, private land surveyors and district personnel regarding surveying procedures, status of surveys, and information about official survey plats and field notes. One interesting inquiry was from the Applegate Watershed Council which wanted to use the field notes and plats as a history of the vegetation types, stream widths, and stream and river locations at the time of the original surveys.

LAW ENFORCEMENT

Medford District has two full time BLM rangers and, through a law enforcement agreement with the counties, the services of a deputy sheriff from both Jackson and Josephine Counties. Law enforcement efforts on the Medford District for fiscal year 1998 included the following:

- Participating in operations at Medford District 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,
- Exchanging information concerning illegal or planned illegal activities on BLM lands,
- 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.

RANGELAND MANAGEMENT

The Medford District rangeland program administers grazing for 70 livestock operators on 104 allotments. These grazing allotments include approximately 352,313 acres of the Medford District's 863,095 total acres. In addition to public lands, grazing authorizations may include several thousand acres leased from private timber company holdings.

Grazing is one of the many uses of the public lands. The primary goal of the grazing program is to provide livestock forage while maintaining or improving range conditions and riparian areas. To ensure that these lands are properly managed, the Bureau conducts monitoring studies to help the manager determine if resource objectives are being met.

A portion of the grazing fees collected and operational funding is spent each year to maintain or complete rangeland improvement projects. These projects are designed to benefit wildlife, fisheries, and watershed resources while improving conditions for livestock grazing. The Medford District has conducted the long-running Jenny Creek Riparian Enhancement Projects each year since 1988 as part of the rangeland program. These projects have resulted in numerous improvements and enhanced riparian systems and have built strong partnerships with friends, neighbors, and organizations.

FY 98 Accomplishments

Allotment Evaluations: Billy Mountain Allotment: Completed joint water quality evaluations in preparation for state water quality certification applications on eight allotments.

Allotment Monitoring: Collected utilization, trend, and riparian monitoring data on 28 priority allotments. Evaluated future needs to increase monitoring protocol for new Standards and Guidelines for Rangeland Health.

Rangeland Improvements: Reconstructed six miles of barbed wire fence to lay down fence in snow zone on Moon Prairie and Brushy Mountain; reconstructed a portion of Dead Indian Creek Exclosure; constructed pole fence and maintained spring at Griffin Pass; reconstructed fence at Hyatt Lake Campground; constructed fisherman access stiles on Jenny Creek; mulched and seeded disturbed areas at berm removal sites along Jenny Creek, removed old barbed wire hazard fence at Box 0 Ranch.



PLANNING AND NEPA DOCUMENTS

Plan Maintenance

The Medford District Resource Management Plan and Record of Decision (RMP/ROD) was approved in April 1995. Since then, the district has implemented the plan across the entire spectrum of resources and land use allocations. During the life of a plan, both minor changes or refinements and possibly major changes brought about by new information or policy may occur. The plan establishes mechanisms to respond to these situations. 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.

Previous plan maintenance was published in the 1997 Medford District Annual Program Summary. The following additional items have been implemented on the Medford District as part of the plan maintenance during fiscal year 1998. 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 1998

Northern Goshawk Management Guidelines. In response to the concern for this species, this memorandum, OR-98-12, refines and extends the interim management direction for northern goshawks (issued June 22, 1994, in Instruction Memorandum OR-94-112) for all districts within the range identified on attachment 1. As you will recall, we initially began systematic inventorying, monitoring, and managing for the northern goshawk throughout its range in Oregon and Washington in FY 1994.

Bryophytes-Survey and Manage Protocols. This Instruction Memorandum (OR-98-5 1) provides the protocols for surveys which are required within the known or suspected range and within the habitat types or vegetative communities associated with the five bryophyte species identified within Component 2: *Diplophyllum plicata*, *Kurzia makinoana*, *Marsupella emarginata var. aquatica*, *Ptilidium californicum*, and *Tritomaria exsectiformis*.

Although the protocol will likely be revised, projects surveyed according to this protocol will be considered as meeting the requirements of Component 2 until further notice.

Marbled Murrelet Inland Survey Protocol. Based upon review of the March 11, 1998, letter issued by the Pacific Seabird Group on suggestions for 1998 inland surveys for the marbled murrelet (*Brachyramphus marmoratus*), a threatened species listed under the Endangered Species Act, this memorandum (OR-98-058) establishes the survey visit levels for project surveys.

Mollusks. *The Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl (S&G)* include the conducting of surveys prior to all ground-disturbing activities implemented in FY 1999 or later (S&G,



Component 2, page C-5). Surveys are required within the known or suspected range and within the habitat types or vegetative communities associated with the Mollusk species identified within Component 2. (OR-98-097)

The protocol is being distributed as a working version for use, field testing, and comment in 1998 and 1999. It will undergo peer review at the same time. Although the protocol will likely be revised, projects surveyed according to this protocol will be considered as meeting the requirements of Component 2 until further notice.

Implementation of Survey and Manage Component 2 and Protection Buffer Standards and Guidelines Regarding “Survey Prior to Ground-Disturbing Activities.” This memorandum (OR-98-099) pertains to the implementation of survey requirements for Survey and Manage Component 2 and Protection Buffer species. It clarifies at which point implementation takes place.

Survey and Manage and Protection Buffer Species Strategy. (OR-98-101). The agencies have developed survey protocols and management recommendations for most of these species and have begun pre-project, extensive, and general regional surveys. Beginning in FY 1999, pre-project surveys are required for an additional 80 S&M and Protection Buffer species. However, surveys are not technically feasible at this time for 33 of these species for one of three reasons: (1) the species is impossible to identify in the field; (2) it can only be identified in the field by a few experts; or (3) multi-year surveys are required to determine species absence.

A two-phase action plan has been developed to deal with this situation. Phase I, the Regional Inter-agency Executive Committee proposes that the survey schedule be delayed one year for the 33 species of mollusks, mosses, and fungi for which surveys are not technically feasible. The proposed schedule change will be analyzed and public input solicited through an environmental assessment. Phase II, the agencies will also begin work on evaluating the need for long-term changes to S&M and Protection Buffer Standards and Guidelines. This analysis will be done through appropriate environmental analyses, with multiple opportunities for public involvement.

Extension of Draft Interim Guidance for Survey and Manage Component 2 Species: Red Tree Vole; On November 4, 1996, “Interim Guidance for Survey and Manage Component 2 Species : Red Tree Vole” was issued to the field to use to implement Component 2 of the Survey and Manage Standard and Guideline under the Northwest Forest Plan Record of Decision (BLM Instruction Memorandum No. Or-97-009). The red tree vole taxonomic group, including the researcher leading the PNW survey effort, consider the 1996 protocol and interim guidance suitable for continued use until the study results can be incorporated into the revised documents.

15 Percent Analysis. Joint BLM/FS final guidance, which incorporated the federal executives’ agreement, was issued on September 14, 1998, as BLM Instruction Memorandum No. OR-98-100. It emphasizes terminology and intent related to the S&G, provides methods for completing the assessment for each fifth field watershed, dictates certain minimum documentation requirements and establishes effective dates for implementation.

Lichens-Survey and Manage Protocols. Instruction Memorandum OR-98-38 provides the protocols for surveys which are required within the known or suspected range and within the habitat types or vegetative communities associated with three lichen species identified within Component 2: *Hypogymnia duplicata*, *Lobaria linita*, and *Pseudocyphellaria rainierensis*.

Although the protocols will likely be revised, projects surveyed according to these protocols will be considered as meeting the requirements of Component 2 until further notice.



Fungus Survey and Manage Protocols. Instruction Memorandum OR-98-103 provides the protocols for surveys which are required within the known or suspected range and within the habitat types or vegetative communities associated with the fungus species identified within Component 2:

Bridgeporus (=Oxyporus) nobilissimus.

Although the protocols will likely be revised, projects surveyed according to this protocol will be considered as meeting the requirements of Component 2 until further notice.

Amphibians-Survey and Manage Protocol Adjustments. Informational Bulletin OR-98-246 replaces letters sent to the Forest Service/Region 6 dated October 2, 1997, and January 29, 1998, and to Forest Service/Region 5 dated October 31, 1997, concerning adjustments in the draft Survey and Manage amphibian protocol. The adjustments identified are in response to review comments and are intended to clarify and simplify procedures during the interim period before the next version of the protocol is completed.

Third Year Evaluation

The RMP will be formally evaluated at the end of every third year after implementation begins. Fiscal year 1998 will be the third full year of implementation for the Medford District RMP which was signed in April 1995.

Simultaneously with other western Oregon BLM districts, Medford District has initiated the collection of supplemental information and analyses required for evaluating the RMP. The evaluation will be based on the implementation actions and plan and project monitoring from April 1995 through September 30, 1998. Meetings have been held in which key staff and managers from western Oregon districts consolidated and refined a list of internal issues. They also developed a strategy and process for accomplishing the third year evaluation.

All of the supplemental analyses and RMP evaluations are expected to be completed by the summer of 1999, when they will be made available for public review prior to approval by BLM's Oregon/Washington State Director. The State Director's findings will indicate whether or not the Western Oregon RMP's are individually or collectively still valid for continued management direction or require plan amendments or revisions, together with appropriate environmental analyses and public participation.

Other planning and NEPA related activities

Approximately 43 environmental assessments were either begun, ongoing or completed during fiscal year 1998. Environmental assessments vary in complexity, detail and length depending on the project involved. Almost all Medford District timber sale environmental assessment decision records were protested and appealed. Protest and appeal issues have challenged compliance with the RMP ROD, compliance with NEPA, analyses, assumptions and conclusions.



MONITORING REPORT FOR FISCAL YEAR 1998





Introduction

This document represents the third monitoring report of the Medford District Resource Management Plan for which the Record of Decision was signed in April 1995. This monitoring report compiles the results of implementation monitoring of the third year of implementation of the Resource Management Plan. Included in this report are the projects that took place from October 1997 until September 1998. 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.

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 L, Record of Decision and Resource Management Plan).

Some effectiveness monitoring 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.

Monitoring Overview

This monitoring report focuses on the implementation questions contained in the Resource Management Plan. 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 Council (RIEC). At the request of the RIEC, the Regional Ecosystem Office started a regional-scale implementation monitoring program. This province-level monitoring was completed for the third year.



Monitoring Results and Findings

Implementation monitoring was based on a process developed by the Medford District Research and Monitoring Committee. The basis was Appendix L of the RMP/ROD. Questions were separated into those which were project related and those which were more general and appropriately reported in the Annual Program Summary or completed reports. The district monitoring team randomly selected projects for monitoring for the period from October 1997 to September 1998. A summary of the district monitoring follows.

Summary of Numbers and Types of Projects for FY 1998

Project Type	# Ashland R.A.	# Butte Falls R.A.	# Glendale R.A.	# Grants Pass R.A.	Total # District
Timber Sales	3	3	5	11	22
Silviculture Projects	8	3	1	4	16
Riparian Projects	0	1	0	0	1
Fish Habitat Projects	0	0	0	3	3
Wildlife Habitat Projects	0	0	2	0	2
Prescribed Burns	0	2	0	0	2
Road Restoration/Bridge Replacement	2	2	1	1	6
Other Projects	6	4	3	4	17

Summary of Numbers and Types of Projects Selected for Monitoring FY 1998

Project Type	# Ashland R.A.	# Butte Falls R.A.	# Glendale R.A.	#Grants Pass R.A.	Total # District
Timber Sales	3	3	4	8	18
Silviculture Projects	4	1	1	3	9
Riparian Projects	0	1	0	0	1
Fish Habitat Projects	0	0	0	3	3
Wildlife Habitat Projects	0	0	0	2	2
Prescribed Burns	0	2	0	0	2
Road Restoration	1	0	0	1	2
Other Projects	2	1	1	2	6

Note: See Appendix A for all projects considered and projects selected for monitoring.



The monitoring team consisted of district core team members and was supplemented with area personnel. Projects were selected for monitoring based on the guidelines contained in Appendix L of the RMP/ROD.

The Medford District started or completed 69 projects from October 1997 through September 1998. These projects included timber sales, small salvage sales, road rights-of-way, collection of special forest products and trail construction. The projects were sorted into the following categories:

- Timber Sales
- Silvicultural Projects
- Wildlife Habitat
- Road Restorations
- Riparian Projects
- Fish Habitat work
- Prescribed Burns
- Other

Projects that required environmental assessments or categorical exclusions were randomly selected for office and field review. Appendix L generally requires a 20 percent sample to be evaluated.

FY 1998 Implementation Monitoring Selection Categories

Selection categories from Data Base Done	# Projects FY 98	# Projects Monitored FY 98	% Monitored
Ground Disturbing Activities	63	40	63%
Projects occurring in Riparian Reserves	36	7	20%
Structures within Riparian Reserves	16	16	100%
Projects in Late Successional Reserves	1	1	100%
Projects in Adaptive Management Areas	15	10	66%
Timber Sales in watersheds w/ <15% Late Successional Forest	0	0	N/A
Matrix Regeneration Harvests	8	4	50%
Salvage Timber Sales	5	4	80%
Projects in Municipal Watersheds	0	0	N/A
Projects within or adjacent to Special Areas	2	2	100%
Projects which include or are adjacent to special habitats	23	5	21%
Projects in VRM II or III areas	31	7	22%
Projects in Wild & Scenic River Corridors	1	1	100%
Projects in Rural Interface	27	5	19%
Noxious Weed Project	1	1	100%
Prescribed Burn Projects	22	5	22%
Projects which required dust abatement	16	3	19%



For each project selected, we answered the project-specific questions included in Appendix L. Questions of a general nature are addressed in the specific program articles found in the beginning of this document.

The Medford District is separated into four resource areas. The resource area landscape planners prepared answers to the monitoring questions for the individual actions based on a review of the files and NEPA documentation. Some questions asked for information that required field review of projects before they were started and other questions required information gathered after projects were completed. The district monitoring group reviewed the entire monitoring package and attended the necessary field trips.

The Medford District monitoring group found a high level of compliance with the Standards and Guidelines (S&Gs) contained in the Medford Resource Management Plan and the Northwest Forest Plan.

Field review of the timber sales and projects indicated that the intent and requirements for the S&Gs had been met for the sampled and completed sales. Projects received field visits so that the selected monitoring questions could be answered or required pre-harvest measurements taken. The projects were reviewed in the field for the different factors listed below.

Special Attention Species	Riparian Reserves	Snag Retention
Coarse Woody Debris	Wildlife Habitat	Special Status Species
Cultural Resources	Noxious Weeds	

All projects were found to be in full compliance with the S&Gs from the record of decision. The project results and information on the monitoring process is available at the Medford District Office. As a result of observed very high compliance with management action/direction in the past three years, no implementation or management adjustments are recommended.

A portion of the questions asked in the monitoring appendix concern projects that have not been completed and which deal with pretreatment conditions. Measurements of riparian reserves, surveys of green tree and snag retention, coarse woody debris levels, and special attention species were completed on the projects in the following list and will be reviewed again when the project has been completed. Some projects may take up to three years to be completed.

Cenoak	North Murphy	Kerby Pole Area Thinning
Tucker Flat Rec Site	Musty Donut	Lost Creek South
Serpents Grave	Forest Creek	



APPENDICES





APPENDIX A. MONITORING

Projects subjected to sampling:

Timber Sales

Forest Creek	Salvage/Blowdown Trees	Release
Wildcat Thin	Bonnie and Slyde	Key Elk
Serpents Grave	Byway Hazard and Salvage	Titanic
Lost Creek South	Musty Donut	Wild Wonder
Stratton Hog	Cenoak	Berlin Mummer
Williams POC Project	McCoy Creek Blowdown	Elk Mountain
Jumpin Jack	Maple Syrup	North Murphy
Deer Mom		

Silvicultural Projects

Brushing Project/Fire Hazard reduction	Tree Planting/Release -PCT/Pruning
Gopher Trapping	Tree Planting/Maintenance
Precommercial Thinning/Girdling	Box 0 Tree Planting/Scalping
Thinning & Maintenance	Plantation Release/PCT/Pruning
PCT I Release	Gopher Baiting
Conifer Pruning	Brushing, PCT, Hwd. Cutting or Girdling
FY 98 Planting & Associated Treatments	Spring & Fall Maintenance Brushing
PCT & Hardwood Spacing	Native Plant Seed & Cutting Collection

Roads and Construction

Culvert Maintenance Projects	Road Maint-Wagner Creek Road
Bear/Mule Road	ERFO Projects
R/W for Road Maintenance	Josephine Co. Road Permit

Slash Burn

Geppert Butte Prescribed Fire Project
Moline Creek Hazard Fuels Reduction

Riparian Restoration Projects

Windthrow Trees for Stream Improvement



Fish Habitat Improvement Projects

East Fork Illinois Habitat Improvement Project
Reeves Creek Fish Passage Project
Elliot Creek Dam Removal

Wildlife Habitat Restoration

Hayes Creek Elk Habitat
Elk Transplant

Other

Oregon Aeronautics ROW	Jenny Creek (Box 0) Projects
Fisher Flat Fencing Project	Cantrall Buckley Trail
Pilot Rock Exchange	Progeny Test Site Brushing
Evergreen Boughs	Tucker Flat Recreation Site
Pleasant Creek RW	Hwy 140 Burls
Hazard Trees at Gold Nugget	Roadside Brush Removal
Gary Wallace Road R/W Grant	Rust Resistant Sugar Pine
Eight Dollar Mountain Project	Kerby Pole Area Thinning

FY 1998 Sampled Project List (by category)

Timber Sales

Forest Creek	Salvage / Blowdown Trees	Release
Wildcat Thin	Key Elk	Serpents Grave
Byway Hazard & Salvage	Titanic	Lost Creek South
Musty Donut	Wild Wonder	Stratton Hog
Cenoak	Williams POC Project	McCoy Creek Blowdown
Jumpin Jack	North Murphy	Deer Mom

Silvicultural Projects

Gopher Trapping	Tree Planting / Release	Thinning and Maintenance
Plantation Release/PCT	PCT/Release	Brushing/PCT
FY 98 Planting	Spring & Fall Maintenance	PCT & Hdw Spacing



Fish Habitat

East Fork Illinois Habitat Imp. Project
Reeves Creek Fish Passage Project
Elliot Creek Dam Removal

Slash Burn

Geppert Butte Prescribed Fire Project
Moline Creek Hazard Fuels Reduction

Road Restoration Projects

Culvert Maintenance Project
Josephine Co. Road Permit

Other

Cantrall Buckley Trail



APPENDIX B. PLAN MAINTENANCE

Fiscal Year 1996

Clarification on determining “Site Potential Trees”: The term “site-potential tree height , “ used for determining widths of riparian reserves, has been defined as: “The average maximum height of the tallest dominant trees (200 years or older) for a given site class.” (NFP C-3 1) The BLM Oregon State Office (OSO) provided one possible method for determining the height of a “site-potential tree” in Instruction Memorandum OR-95-075, which is adopted in its entirety as RMP clarification. REO concurred with the proposed method. Both OSO and REO recognized that there might be many ways to determine site potential tree and emphasized that this should not be the only approved way to determine the trees’ height.

The OSO “site-potential tree” determination method basically includes the following:

- Determining the naturally adapted tree species which is capable of achieving the greatest height within the fifth field watershed and/or stream’reach in question.
- Determining the height and age of dominant trees through on-site measurements or from inventory data.
- Averaging the site index information across the watershed using inventory plots, or well-distributed site index data or riparian specific data where index values have large variation.
- Selecting the appropriate site index curve.
- Using Table I from the guidance to determine the maximum tree height potential which equates to one site potential tree for prescribing riparian reserve widths.

Guidance on measuring riparian reserves width: Both the RMP/ROD (pg 26) and the NFP ROD (pg B-13) contain the statement, “Although riparian reserve boundaries on permanently flowing streams may be adjusted, they are considered to be the approximate width...necessary for attaining Aquatic Conservation Strategy objectives.” The REO (letter dated March 22, 1995) and the Research and Monitoring Committee agreed that a reasonable standard of accuracy for measuring riparian reserves in the field is plus or minus 20 feet or plus or minus 10 percent of the calculated width. This guidance has been adopted as RMP clarification.

Guidance on coarse woody debris in the matrix: Both the NFP (pg. C-40) and the Medford RMP/ROD (pg. 13) have specific guidelines on coarse woody debris (CWD) retention in the matrix. The requirement was to leave a minimum per acre of 120 linear feet of logs greater than or equal to 16 inches in diameter and greater than 16 feet in length. Numerous questions on proper implementation arose and several efforts were made to clarify those questions. The BLM Oregon State Office (OSO) issued Instruction Memorandum No. OR-95-028 (November 29,1994) and Change 1 (draft) (July 21,1995) to clarify using **the large end of the log for the diameter** criteria, retention of existing CWD, retention of standing trees to meet CWD and other items. On November 19, 1996,OSO issued Information Bulletin No. OR-97-064, entitled **Implementation of Coarse Woody Debris Standards and Guidelines**. This IB provided further clarification of previous guidance and several alternative methods of meeting the CWD requirements of the NFP and RMPs. All of these OSO instructions are adopted as RMP clarification and are being implemented on the Medford District.



Clarification/correction on Special Status Species Protection Buffers: The RMP/ROD (p. 54) and the NFP ROD (p. C-27), included bug-on-a-stick (*Buxbaumia piperi*) as a protection buffer species. OSO Instruction Memorandum OR-96-108 advised us that inclusion of this species as a protection buffer species was an error and directed us to remove it from the protection buffer species status.

Adoption of Interagency Resource Information Coordination Council (IRICC) Aquatic Data Standards: The Oregon State Director adopted the core data elements as defined in the Report of the IRICC Fish I Hydrography Strike Team, *Stage I Common Data Standards for Aquatic Inventory and Stream Identification* (see BLM Instruction Memorandum No. OR-97-069, copy available in Medford District Office). These standards were developed in 1996 by an interagency team of aquatic specialists for use by federal and state agencies in basin-wide aquatic inventories, and approved by the Regional Interagency Advisory Council. Common core data elements will allow the comparison and aggregation of information across whole watersheds, regardless of ownership or agency jurisdiction. Although these have been available for awhile, the Bureau of Land Management has not had a standardized stream inventory protocol in which to apply them. Beginning in FY 98, basin-wide inventories will be completed through a single statewide contract with the Oregon Department of Fish and Wildlife Corvallis lab (details forthcoming). The state's protocols have already been modified to include these standards.

New Federal Regulations

Occupancy Regulations: 43CFR 3715, May 20, 1996, Use and occupancy under the mining laws.

Purpose: Establishes guidelines for occupancy on mining claims and provides for civil and criminal penalties.

Fiscal Year 1997

Survey Prior to Ground-Disturbing Activities. Instruction Memorandum OR-97-007 provided clarification on Management Actions/Direction implementation for Survey and Manage Component 2 species as shown on pages 25 and 53 of the Medford ROD. The Instruction Memorandum provides clarification for the terms "ground disturbing activities, when a project is implemented, and implemented in 1997 or later." When disturbances are likely to have a significant negative impact on a species habitat, its life cycle, microclimate, or life support requirements, the species should be surveyed and assessed per protocol.

Coarse Woody Debris Management. Information Bulletin OR 97-064 provided clarification on Implementation of Coarse Woody Debris Management Actions/Direction as shown on pages 39, 47, and 73 of the Medford ROD. This Information Bulletin provided options and clarification for the following coarse woody debris (CWD) features:

- Retaining existing CWD;
- Crediting linear feet of logs;
- Crediting large diameter short pieces using a cubic foot equivalency alternative;
- Retaining standing tree CWD versus felling to provide CWD substrate, and ;
- Applying the basic guideline in areas of partial harvest.



Red Tree Vole. Instruction Memorandum OR 97-009 provided Interim Guidance and Survey Protocol for the Red Tree Vole, a Survey and Manage Component 2 species, in November 1996.

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 Medford District RMP ROD declared and allowable harvest level of 9.7 million cubic feet. See Oregon State Office Instruction Memorandum OR 97-045.



APPENDIX C. SUMMARY OF ONGOING PLANS AND ANALYSES

Integrated Pest Management

Presently an EIS is being developed for the seed orchards of four Western Oregon districts. The Integrated Pest Management Plan (IPM) is needed primarily because of a significant loss of seed to cone insects and other pests. Insecticide use and other alternatives would be considered to control the pests. The plan would only apply to IPM activities within the seed orchards themselves. If we decide to proceed with the IPM plans, formal identification to the public will be made in the next few months. If you are interested in providing scoping information, please contact the appropriate orchard manager. Harvey Koester, 541-770-2200 (Medford District).

Hellgate Segment, Wild and Scenic River Plan EIS

The Medford District is revising its river plan for the 27-mile Hellgate Recreation Area of the National Wild and Scenic Rogue River. The Hellgate Recreation Area begins at the confluence of the Applegate River and the Rogue River and proceeds downstream to Grave Creek. The Hellgate Recreation Management Plan/Draft Environmental Statement is scheduled for a 60-day public review period in FY 1999.

Land Tenure Adjustment Amendments

Since FY 1996, the district has completed two exchanges, one with Cascade Ranch and one with The Nature Conservancy. We disposed of 943 acres and acquired 1,237 acres.

In FY 1998, we sold two parcels totaling 120 acres located east of Ashland. The purchase price was \$ 18,000.

For FY 1999, we will continue to work on the Pilot Rock Exchange with Boise Cascade and the Soda Mountain exchange with U.S. Timberlands. These acquisitions will block up an area of critical environmental concern and the Soda Mountain Wilderness Study Area.



APPENDIX D. ACRONYMS AND ABBREVIATIONS

ACEC	- Area of Critical Environmental Concern
AMA	- Adaptive Management Area
ASQ	- Allowable Sale Quantity
BLM	- Bureau of Land Management
CBWR	- Coos Bay Wagon Road
CCF	- Hundred cubic feet
CFR	- Code of Federal Regulations
DEQ	- Department of Environmental Quality
EEA	- Environmental Education Area
FY	- Fiscal Year
GCDB	- Geographic Coordinates Data Base
GFMA	- General Forest Management Area
GIS	- Geographic Information System
GPS	- Global Positioning System
LSF	- Late Successional Forest
LSR	- Late-Successional Reserve
MBF	- Thousand board feet
MMBF	- Million board feet
MOU	- Memorandum of Understanding
NFP	- Northwest Forest Plan
O&C	- Oregon and California Revested Lands
ODEQ	- Oregon Department of Environmental Quality
ODFW	- Oregon Department of Fish and Wildlife
OSHA	- Occupational Safety and Health Administration
o s u	- Oregon State University
PD	- Public Domain Lands
PILT	- Payment in Lieu of Taxes
PL	- Public Law
REO	- Regional Ecosystem Office
RIEC	- Regional Interagency Executive Committee
RMP	- Resource Management Plan
RMP/ROD	- The <i>Medford District Resource Management Plan and Record of Decision</i>
RNA	- Research Natural Area
ROD	- Record of Decision
SA	- Special Attention Species
S&G	- Standards and Guidelines
SS	- Special Status Species
USFS	- U.S. Forest Service



APPENDIX E. DEFINITIONS

anadromous fish-Fish that are born and reared in fresh water, move to the ocean to grow and mature, and return to fresh water to reproduce, e.g., salmon, steelhead and shad.

fifth field watershed-A watershed size designation of approximately 20-200 square miles in size.

fiscal year-The federal financial year. It is a period of time from October 1 of one year to September 30 of the following year.

iteration-Something said or performed again; repeated.

late successional reserve-A forest in its mature and/or old-growth stages that has been reserved

lay down fence-A fence capable of being put down in winter to allow less damage from winter weather.

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

refugia-Locations and habitats that support populations of organisms that are limited to small fragments of their previous geographic ranges.

Regional Interagency Executive Council-A senior regional interagency entity which assures the prompt, coordinated, successful implementation at the regional level of the forest management plan standards and guidelines .:

riparian reserves-Designated riparian areas found outside late successional reserves.

site index-A measure of forest productivity expressed as the height of the tallest trees in a stand at an index age.

stream mile-A linear mile of stream



APPENDIX F: MODIFICATIONS BEING CONSIDERED FOR SURVEY & MANAGE/ PROTECTION BUFFER GUIDELINES

On November 15, 1998, the Forest Service and Bureau of Land Management (the Agencies) filed a Notice of Intent to prepare an Environmental Impact Statement (EIS) in the Federal Register. During the four years since the Record of Decision (ROD) was published, the Agencies have acquired considerable information about species' abundance and survey feasibility that prompted consideration of adjustments to the Survey and Manage and Protection Buffer provisions. The Agencies are developing and considering alternatives for a process to revise the Survey and Manage and Protection Buffer standards and guidelines in order to increase the efficiency and consistency of these mitigation measures.

The Northwest Forest Plan stated that the standards and guidelines must have the flexibility to adapt and respond to new information, and that an adaptive management process would be implemented to maximize the benefits and efficiency of the standards and guidelines (ROD, pp. E-12-E-13). The ROD anticipated that, as experience was gained in the implementation of this mitigation measure, the Agencies could make changes in Survey and Manage provisions, including "changing the schedule, moving a species from one survey strategy to another, or dropping this mitigation requirement for any species whose status is determined to be more secure than originally projected" (ROD, p. 37). There is a need to clarify the process by which the Agencies make changes to the Survey and Manage provisions.

As stated in the Northwest Forest Plan, our goal is to continue the current Survey and Manage strategy on Federal lands—a combination of managing known sites and increasing our information base through surveys—but making the process more efficient and consistent. At this initial stage, the EIS is planned to address:

- revision of Survey and Manage standards and guidelines and survey strategy classifications of species; making the standards and guidelines clearer and more easily understood;
- discontinuation of the Protection Buffer standards and guidelines and covering those species under the Survey and Manage standards and guidelines;
- providing a detailed process and clearer criteria for making changes to species' status in response to new information; and
- recategorization of some Survey and Manage species through an initial use of the above process.

This initial proposed action may be refined or modified based on scoping from within the Agencies and from the public. The Agencies are tentatively planning to consider a range of alternatives.

We are preparing an EIS to analyze the effects of the proposed action and alternatives. We expect to release the Draft EIS for public review in spring of 1999. In the 90 days following release of the Draft EIS, we will accept public comments on the proposed action and alternatives and our assessment of the effects. A final EIS will be prepared and, at this time, the decision regarding this action is expected in the fall of 1999.