Roseburg District

ANNUAL PROGRAM SUMMARY & MONITORING REPORT

FY 2015

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

The BLM manages more than 245 million acres of public land, the most of any Federal agency. This land, known as the National System of Public Lands, is primarily located in 12 western states, including Alaska. The BLM also administers 700 million acres of sub-surface mineral estate throughout the nation.

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U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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ROSEBURG DISTRICT
ANNUAL PROGRAM SUMMARY
FISCAL YEAR 2015

Executive Summary

Annual Program Summary and Monitoring Report

This document combines the Bureau of Land Management Roseburg District Annual Program Summary (APS) and Monitoring Report for Fiscal Year 2015. Both reports are required by the 1995 Roseburg District Record of Decision and Resource Management Plan (ROD/RMP).

The 2008 ROD/RMPs for the western Oregon BLM districts were reinstated on March 31, 2011 in Douglas Timber Operators et al. v. Salazar-DOI, but were subsequently vacated by the U.S. District Court for the District of Oregon on May 15, 2012, in *Pacific Rivers Council et al. v. Shepard-BLM/DOI*. The 2008 ROD/RMPs were also the subject of a lawsuit in *AFRC et al. v. Salazar-DOI/Locke-DOC*, in the U.S. District Court, District of Columbia. This suit was voluntarily dismissed, by court order, on August 3, 2015. Consequently, the accomplishments being reported are derived from projects that were designed exclusively under the management direction, land use allocations and objectives of the 1995 ROD/RMP.

The APS addresses the accomplishments of the Roseburg District in such areas as forestry, recreation, restoration, fire, and other programs. It also provides information concerning the Roseburg District budget, timber receipt collections, and payments to Douglas County. The Fiscal Year 2015 APS illustrates that the Roseburg District is generally implementing the Northwest Forest Plan as envisioned. However, the ability to fully implement some programs or program elements over the past 19 years, particularly timber harvest, has been affected by factors such as the challenge of implementing the Survey and Manage standards and guidelines and litigation on a variety of topics.

The Monitoring Report compiles the results and findings of implementation monitoring for Fiscal Year 2015. The Monitoring Report is a separate document with a separate Executive Summary, though it follows the APS in this publication.

Although the APS provides only a very basic and brief description of the programs, resources and activities in which the Roseburg District is involved, the report gives the reader a sense of the enormous scope, complexity and diversity involved in management of the Roseburg District public lands and resources. The managers and employees of the Roseburg District take great pride in the accomplishments described in this report.

Table 1. Resource Management Actions, Directions and Accomplishments

RMP Resource Allocation or Management Practice or Activity	Accomplishments Fiscal Year 2015	Cumulative Accomplishments 1995-2015 Timber 1996-2015 Others	Projected Decadal Practices[1]
Regeneration harvest (acres sold)	108	4,088	11,900
Commercial thinning/density management (acres sold)	146/799	10,696/8,198	800/1,700
Site preparation (acres)	0	2,606	8,400
Vegetation control, fire (acres)	0	0	N/A-
Prescribed burning (hazard reduction acres)[2]	168	1,408	N/A
Prescribed burning (wildlife habitat and forage improvement acres)[2]	130	4,383	N/A
Prescribed burning for ecosystem enhancement (acres)[2]	0	300	N/A
Plantation Maintenance/Animal damage control (acres)	281	21,543	8,300
Pre-commercial thinning (acres)	1,425	64,232	39,000
Brush field/hardwood conversion (acres)	0	0	150
Planting/all stock types (acres)	1,146	8,994	2,900
Planting/genetically selected (acres)	0	1,564	11,400
Fertilization (acres)	0	5,504	14,400
Pruning (acres)	0	9,266	4,600
New permanent road const. (miles[3])	0	57.21	65
Roads fully decommissioned/obliterated (miles[4 & 5])	0	57.75	N/A
Roads closed/ gated (miles[6])	0	12.78	N/A
Open road density (per square mile[3])	n/a	4.59	N/A
Timber sale quantity sold (m board feet)	42,575	554,838	495,000
Noxious weed control, chemical (acres)	1,601	17,809	N/A
Noxious weed control, other (acres)	114	5,467	N/A

[1] These are the projected decadal (ten year) totals under the RMP. The cumulative accomplishments reflect 19 years of timber management practices, and 18 years for all other management actions.
[2] The prescribed burns totaled 483 acres, all of which occurred within the wildland urban interface (reducing hazardous fuels). These acres are counted twice, as they also provide benefits to wildlife habitat and ecosystem enhancement.
[3] Bureau managed lands only, but including roads rocked or constructed under reciprocal rights-of-way agreements.
[4] Bureau managed lands only.
[5] Reporting for FY2010 included only roads fully decommissioned in key watersheds.
[6] Roads closed to the general public, but retained for administrative or legal access.
[7] Initial sale offerings only including advertised sales, negotiated sales and modifications to existing contracts.

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

RMP Resource Allocation or Management Practice	Activity Units	Accomplishments Fiscal Year 2015	Accomplishments 1995 through 2015
Realty, land sales	actions/acres	0	2/199.14
Realty, land exchanges	actions/acres acquired/disposed	0	1/765/143
Realty, R&PP leases/patents	actions/acres	0	2
Realty, road. Easements and rights-of-way acquired for public/agency use	actions	0	23
Realty, FLPMA road rights-of-way, permits or leases granted	actions	2	144
Realty, utility rights-of-way granted (linear/aerial)	actions	1	18
Realty, withdrawals completed	actions/acres	0	0
Realty, withdrawals revoked	actions/acres	0	0
Mineral/energy, total oil and gas leases	actions/acres	0	0
Mineral/energy, total other leases	actions/acres	0	0
Mining plans approved	actions/acres	0	1
Mining claims patented	actions/acres	0	0
Mineral material sites opened	actions/acres	0	0
Mineral material sites, closed	actions/acres	0	0
Recreation, maintained off highway vehicle trails	units/miles	0	0
Recreation, maintained hiking trails	units/miles	7/18	178/325
Recreation, maintained sites	units/acres	25/245	421/7,943
Cultural resource inventories	sites/acres	6/1,400	408/28,014
Hazardous material sites	incidents	3	37

Introduction

This APS is a review of the programs on the Roseburg District Bureau of Land Management for the period of October 1, 2014 through September 30, 2015 (fiscal year 2015). It provides a broad overview of management activities and accomplishments for fiscal year 2015.

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

The BLM completed an RMP revision effort in December 2008. The Secretary of the Interior withdrew the 2008 RODs/RMPs in July, 2009 and the western Oregon districts reverted to implementing the 1995 RMPs. On March 31, 2011, the United States District Court for the District of Columbia vacated and remanded the Secretary of the Interior's decision to withdraw the 2008 RODs/RMPs (Douglas Timber Operators et al. v. Salazar) effectively returning the districts to the 2008 RMPS.

Plaintiffs in the Pacific Rivers Council V. Shepard litigation filed a partial motion for summary judgment in the U.S. District Court for the District of Oregon on Endangered Species Act (ESA) claims and requested the court to vacate and remand the 2008 RODs/RMPs. A magistrate judge issued findings and recommendations on September 29, 2011 and recommended granting the Plaintiffs motion for partial summary judgment on their ESA claim. The Court recommended setting aside the agency action, vacating the 2008 RODs and reinstating the Northwest Forest Plan as the appropriate remedy. The 2008 ROD/RMPs for the western Oregon BLM districts were subsequently vacated by the U.S. District Court for the District of Oregon on May 15, 2012 in *Pacific Rivers Council et al. v. Shepard-BLM/DOI*. The 2008 ROD/RMPs were also the subject of a lawsuit in *AFRC et al. v. Salazar-DOI/Locke-DOC*, in the U.S. District Court, District of Columbia. This suit was voluntarily dismissed, by court order, on August 3, 2015.

Fiscal year 2015 represents the nineteenth fiscal year of implementation of the 1995 ROD/RMP.

There are 20 land use allocations and resource programs under the 1995 Roseburg District ROD/RMP. Not all land use allocations and resource programs are discussed individually in a detailed manner in this APS because of the overlap of programs and projects. To keep this summary concise, a detailed background of various land use allocations or resource programs is not provided in this text. Additional information can be found in the 1995 ROD/RMP and supporting 1994 Proposed Resource Management Plan/Environmental Impact Statement, which are available at the Roseburg District Office. The 1995 ROD/RMP may also be found on the Roseburg District external internet site at http://www.blm.gov/or/plans/wopr/exrmp/roseburg/index.html.

The manner of reporting activities differs among the various resource programs. Some resource programs lend themselves to a statistical summary of activities while others are best summarized in short narratives. Further details concerning individual programs on the Roseburg District may be obtained by contacting the Roseburg District Office.

Budget

In fiscal year 2015, Roseburg District had total appropriations of $17,670,000.

- Oregon & California Railroad Lands (O&C) = $11,502,000
- Forest Ecosystems Health & Recovery = $278,000
- Timber Pipeline = $1,087,000
- Recreation Pipeline = $200,000
- Secure Rural Schools, Title II = $541,000
- Challenge Cost Share = $34,000
- Emergency Relief of Federally Owned Roads (ERFO) = 86,000
- Management of Lands & Resources (MLR) = $2,065,000 including:
    - Deferred Maintenance = $1,862,000
- Abandoned Mine Land Mitigation = $1,606,000
- Fire Related Programs = $271,000

The value of District Contracting/Services for fiscal year 2015 was approximately $6,539,000. There was an average of 101 full-time employees during fiscal year 2015. An average of 22 term, temporary, or cooperative student employees were employed at various times throughout the year.

Appropriations for fiscal years 2011 through 2015:

2011	$18,777,000
2012	$17,156,000
2013	$15,461,000
2014	$18,458,000
2015	$17,670,000

Land Use Allocations

There have been no changes to land use allocations during fiscal year 2015.

Aquatic Conservation Strategy Implementation

Riparian Reserves

In-stream restoration projects, density management, culvert replacements and road upgrades are described under the programs of Fisheries, Water and Soil, Forest Management and Timber Resources, and Road Maintenance.

Watershed Analyses

Watershed analyses, required by the Northwest Forest Plan (NFP) Record of Decision (ROD), provide decision makers with information about natural resources and human uses in an area.

This information is utilized in National Environmental Policy Act (NEPA) documentation for specific projects and to facilitate compliance with the Endangered Species Act (ESA) and Clean Water Act (CWA) by providing additional information for consultation with other agencies.

Watershed analyses include:

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

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

Thirty-nine watershed analyses had been completed through at least the first iteration, covering nearly all of the lands of the Roseburg District. The Roseburg District manages small portions of watersheds, such as the East Fork Coquille and South Fork Coos, which are principally managed by adjacent administrative units. In such cases, the Roseburg District utilizes watershed analyses prepared by these adjacent administrative units. The analyses cover over 1,000,000 acres, including 425,000 acres of public land administered by the BLM.

Watershed Restoration Projects

The District completed a variety of restoration projects, on both private and BLM-managed lands, in fiscal year 2015 using County Payments Title II funds, a variety of appropriated funds, and matching funds secured by partners, with the intent of restoring conditions across ownership boundaries. In most cases, projects on private lands were managed by BLM partners, with some or all funding coming from the BLM.

As shown in Table 3, in 2015 the Roseburg District and its partners completed or initiated four projects designed to improve stream habitat and riparian vegetation.

Table 3. Watershed Restoration Projects Accomplished on the Roseburg District in Fiscal Year 2015.

Project Name	Funding Source	Year-End Status
Harrington Creek	Title II[1,3, 4]	Complete
East Fork Jackson Creek habitat enhancement	Title II[1,4]	Complete
Brush Creek habitat enhancement	Title II[1,3]	Complete
Curtis Creek habitat enhancement	Title II[1, 5]	Complete

[1] Title II funds from the Secure Rural Schools and Community Self-Determination Act (Payments to Counties)
[2] Funding for Fish & Wildlife Stewardship on O & C lands (6334)
[3] Funding through North Umpqua Hydropower Mitigation
[4] Project managed by Partnership for the Umpqua Rivers
[5] Project managed by the Elk Creek Watershed Council

Watershed Councils and Soil and Water Conservation Districts

In 2015, the District continued its strong relationship with the Partnership for the Umpqua Rivers, Douglas Soil and Water Conservation District, Elk Creek Watershed Council, and the Smith River Watershed Council. Most of the District's lands are interspersed with privately-owned lands in a checkerboard pattern of alternating square mile sections which provides impetus for the BLM to work with neighbors to accomplish meaningful watershed restoration.

The watershed councils and Soil and Water Conservation District serve as coordinating organizations, bringing other partners together to work jointly on projects. Roseburg District employees attend general watershed council meetings and many committee meetings. The Roseburg District contributes to restoration goals by conducting projects on District lands in areas with multiple land owners, and transferring funds to watershed councils for restoration projects. In return, the Roseburg District not only gains many partners, but is able to leverage money from other sources. The watershed councils and Soil and Water Conservation District have successfully applied for and received support from organizations such as the Oregon Watershed Enhancement Board, Natural Resource Conservation Service, Umpqua Fisherman's Derby, and in-kind donations from private landowners. Monies contributed by the Roseburg District often serve as matching funds needed for these grants.

Late-Successional Reserves and Assessments

Late-Successional Reserve Assessments, many of which were joint efforts between the US Forest Service and other BLM Districts, have been completed and reviewed by the Regional Ecosystem Office for Late-Successional Reserves RO 151, 222, 223, 251, 257, 259, 260, 261, 263, 254, 265, 266 and 268. All mapped 1995 Late-Successional Reserves on the Roseburg District are covered by one of these assessments.

An update of conditions in LSR 259 has been completed to reflect the effects of the Douglas County Complex of fires, specifically the Rabbit Mountain Fire. It has been reviewed by the Regional Ecosystem Office and found in compliance with applicable standards and guidelines.

Fiscal year 2015 management activity within the Late-Successional Reserves included:

- 409 acres of pre-commercial thinning;
- 430 acres of density management;
- 25 acres of salvage (including rights-of-way harvests); and
- 281 acres of brushing

Total commercial density management in Late-Successional Reserves from 1995 through fiscal year 2015 equals 6,598 acres. Total salvage (including rights-of-way harvest) between 1995 and 2015 equals 549 acres.

Little River Adaptive Management Area

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

In January 1997, the Roseburg District BLM and the Umpqua National Forest released a draft of the Little River AMA Plan. A requirement of the Northwest Forest Plan, the AMA document frames a direction for adaptive management on the Federally-managed experimental area. Both Roseburg BLM and the Umpqua National Forest are currently managing the Little River AMA under the draft Adaptive Management Area plan and in accordance with the Northwest Forest Plan.

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

A total of five stream crossing culverts were replaced in 2002. Three of these were accomplished by the BLM and two by Seneca Jones Timber Company.

The BLM completed two projects, implemented one new project, and continued work on three projects within the Little River AMA during fiscal year 2015. Water quality monitoring continues to be a major emphasis. The monitoring program is an interagency effort that includes temperature stations, multi-parameter grab sample measurement by volunteers and the Glide Middle School students, and continuous monitoring. All water quality data will be linked to an interagency geographic information system (GIS).

The Cable Crossing Fire burned approximately 28 acres on BLM-administered land within the Little River AMA in July and August 2015. The BLM prepared an Emergency Stabilization and Burned Area Rehabilitation Plan to address post-fire recovery of the burned area. The plan is to implement post-fire recovery activities in fiscal years 2016 through 2018.

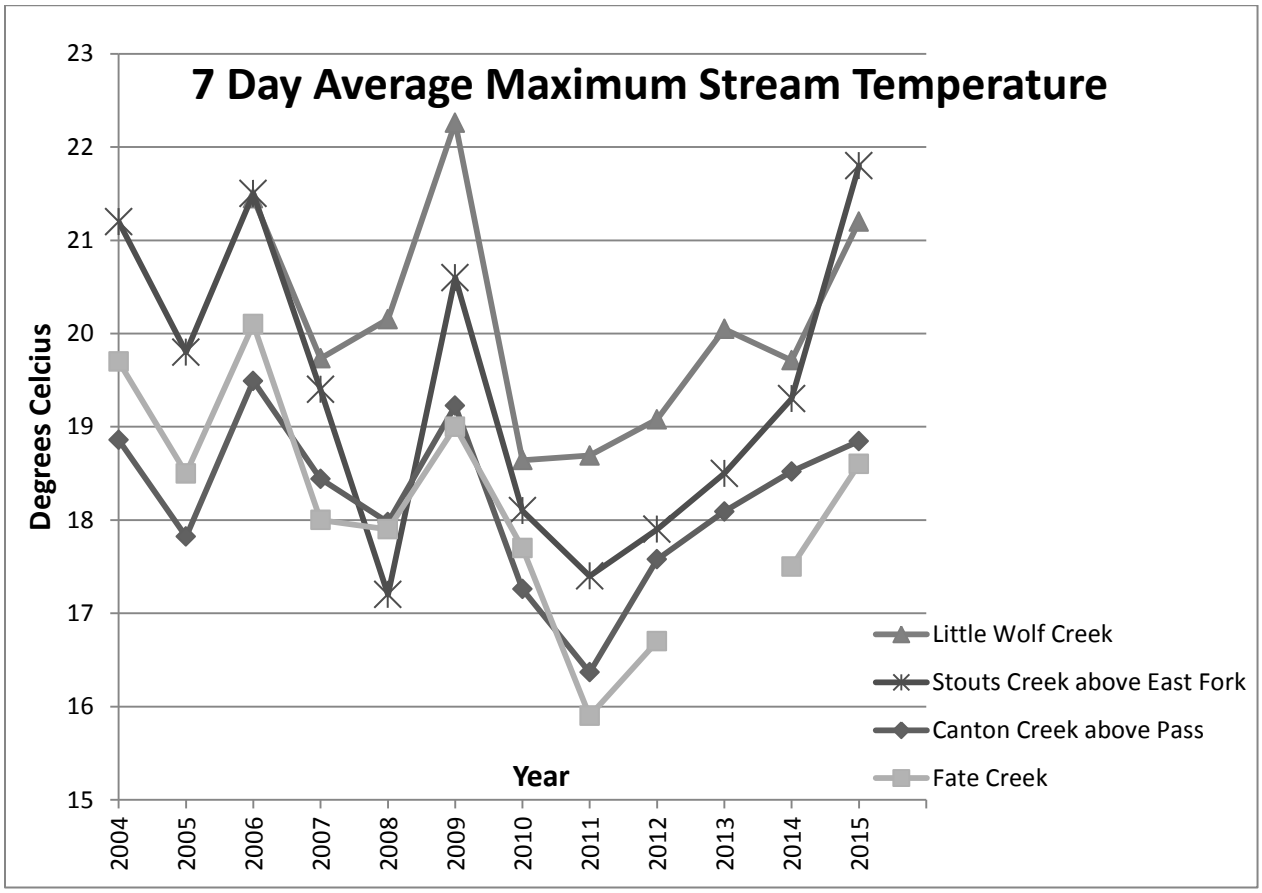
Air Quality

All prescribed fire activities conformed to the Oregon Smoke Management and Visibility Plans. No intrusions occurred into designated areas as a result of prescribed burning on the District. There are no Class I airsheds within the District. Air quality standards for the District prescribed fire and fuels program are monitored and controlled by the Oregon Department of Forestry.

Water and Soils

Water temperature was monitored at 64 sites on 39 streams on the Roseburg District. The data will be used to track trends seen over time, update existing watershed analyses and water quality management plans, and is provided to DEQ for Total Maximum Daily Load (TMDL) development and assessment. The graph below displays a portion of this information for four of these streams on Roseburg District.

Figure 1. Maximum Summer Stream Temperatures in Four Representative Streams on the Roseburg District, 2004 Through 2015.*



*2013 data for Fate Creek not available

Stream water quality was monitored and published for the North Umpqua River Wild and Scenic Section in the U.S. Geological Survey (USGS) water-data report through an ongoing cooperative study with Douglas County Water Resources Survey, USGS, and the Umpqua National Forest.

Annually, stream flow and water temperature are monitored at six sites in cooperation with the Douglas County Water Resources Department, USGS, Coos Bay District BLM, and the Umpqua National Forest. In total the cooperating agencies operate 18 stream gauges.

Watershed activity information for Fiscal Year 1996-2015

- Completed 39 Watershed Analyses covering nearly all of the lands of the Roseburg District.
- Assisted the Partnership for the Umpqua Rivers watershed council (formerly the Umpqua Basin Watershed Council) in completing 4 other Watershed Assessments.
- Operated 9 gauging stations.
- Cooperatively monitored water quality on the North Umpqua Wild and Scenic River;
- Completed several water rights applications with Oregon Water Resources;
- Installed photo plots in McComas Creek prior to and after riparian thinning actions, as part of a Western Oregon shade monitoring study.
- Surveyed geomorphology in South Myrtle Creek, Thompson Creek, Muns Creek, South Fork Smith River, Little Wolf Creek, and Jackson Creek to monitor pre and post-project channel changes associated with in-stream large wood restoration projects. This project is long term.
- Completed stream restoration projects involving over 65 miles of stream.
- Developed 5-year aquatic restoration plan in cooperation with Fisheries staff.

State-listed Clean Water Act 303d streams

Under the Clean Water Act, the Oregon Department of Environmental Quality (ODEQ) develops the 303(d) list which identifies streams where water quality is impaired or threatened, and a Total Maximum Daily Load (TMDL) is needed. Once a TMDL for a listed stream has been approved by the Environmental Protection Agency (EPA), the stream is removed from the 303(d) list. The Oregon Department of Environmental Quality's 2006 Umpqua Basin Total Maximum Daily Load and Water Quality Management Plan, was approved by the U.S. Environmental Protection Agency on April 12, 2007. This TMDL covers streams listed for impairment due to bacteria, stream temperature, algae/aquatic weeds, dissolved oxygen, pH, and biological criteria.

Prior to TMDL approval, the Roseburg District had 75 streams identified by the ODEQ in its 2004/2006 integrated listing. The approved TMDL and Water Quality Management Plan resulted in the delisting of streams previously listed as not attaining certain water quality standards from the Oregon DEQ 303(d) list. The most recently approved 303(d) list from 2010 now shows 17 streams on Roseburg district still needing TMDL coverage. Roseburg District BLM will work with ODEQ's implementation schedule to development TMDL's for these areas.

Municipal Watersheds

Twenty-six community water systems within the Roseburg District encompass BLM-administered lands. The District has entered into memoranda of understanding with the cities of Drain, Riddle, and Canyonville for the purpose of maintaining the best water quality through implementation of Best Management Practices. A Special Land Use Permit has been issued to the City of Myrtle Creek for watershed protection which includes the city intake and an adjoining 190 acres of BLM-administered lands. There have been no reports of contamination or water quality violations from BLM-administered lands.

Best Management Practices

Best Management Practices (BMPs) which are defined as methods, measures, or practices designed to protect water quality or soil properties are identified and required by the Clean Water Act as amended by the Water Quality Act of 1987. BMPs are selected during the NEPA interdisciplinary process on a site-specific basis to meet overall ecosystem management goals.

The Roseburg District ROD/RMP lists BMPs for various projects or activities that may be considered during the design of a project. In an effort to further improve their effectiveness, BMPs for BLM Districts in Western Oregon were updated in 2011 (see 2011 Plan Maintenance). This update was done through a process that included the review and incorporation of recent scientific literature, review and incorporation of protective road practices from other agencies (including EPA, ODEQ, and ODF), and use of the results of past BMP monitoring efforts. Monitoring of the ROD/RMP during 1996-2015 has shown that BMPs have been appropriately implemented with a high degree of success.

Wildlife Habitat

Green Tree Retention

The ROD/RMP management direction is to retain, at the time of regeneration harvest, an average of six to eight green conifers trees per acre in the General Forest Management Area and 12 to 18 green conifer trees per acre in the Connectivity/Diversity Blocks. The retained trees are to be distributed in variable patterns to contribute to stand diversity. The implementation of this management direction has been complex due to the many variables involved including ecological objectives and operational feasibility. Past monitoring has shown no instances in which this ROD/RMP management direction was not implemented successfully.

Snag and Snag Recruitment

On average, two snags per acre are to be left on regeneration harvest units. The BLM attempts to retain as many existing snags as possible that are not safety hazards. In areas where adequate number of snags are not present or are not retained due to operational limitations, additional green trees are reserved during project design and layout. Implementation of this management direction, as is the case with green tree retention, has been complex due to the many variables involved including ecological objectives and operational feasibility. Past monitoring has shown no instances in which this ROD/RMP management direction was not successfully implemented.

Coarse Woody Debris Retention and Recruitment

In regeneration harvest units, ROD/RMP management direction specifies that 120 linear feet of Decay Class 1 and 2 logs per acre greater than or equal to 16 inches in diameter and minimum of 16 feet long will be left post-harvest in the Matrix (pgs. 38-39). Where this management direction cannot be met with existing coarse woody debris, merchantable material or felling breakage is used to make up the deficit (see Plan Maintenance for 1997). Past monitoring has shown no instances in which this ROD/RMP management direction was not successfully implemented.

Connectivity/Diversity Blocks

There were no acres of regeneration harvest sales in Connectivity/Diversity Blocks in fiscal year 2015. There were 235 acres of commercial thinning treatments applied in fiscal year 2015. Cumulative totals for fiscal years 1995-2015 are shown in Table 8.

Special Habitats

Special habitats are forest or non-forest habitat that contributes to overall biological diversity on the District. Special habitats may include: ponds, bogs, springs, seeps, marshes, swamps, dunes, meadows, balds, cliffs, salt licks, and mineral springs. Interdisciplinary teams identify special habitat areas and determine relevant values for protection or management on a case by case basis. Frequently, management action/direction for streams, wetlands, Survey and Manage and Protection Buffer species overlap with special habitats, so separate management is rarely necessary. For example, wetlands are frequently identified and protected as Riparian Reserves during project design and layout, therefore special habitat designation is unnecessary.

Late-Successional Reserve Habitat Improvement

Habitat improvement in Late-Successional Reserves for fiscal year 2015 consisted of 409 acres of density management in pre-commercial stands. Active habitat improvement through commercial density management in stands less than 80 years old consisted of 644 acres in fiscal year 2015. Total commercial density management in Late-Successional Reserves from 1995 through fiscal year 2015 has been 6,232 acres.

Special Status Species, Wildlife

Threatened/Endangered Species

A large portion of the District wildlife program's resources are directed toward gathering and interpreting information to ensure compliance with the Endangered Species Act and the land use plan. Consultation under Section 7 of the Endangered Species Act occurs on all activities proposed within habitat of listed species. Formal consultation was completed with the U.S. Fish and Wildlife Service (USFWS) for the Rabbit Mountain Fire Late Successional Reserve Project (March 11, 2015; Ref. No. 01EOFW00-2015-F0038) and the 2015 Batch of Five Timber Sales (August 5, 2015; Ref. No. 01EOFW00-2015-F-0229). Informal consultation was completed with the USFWS to extend the Letter of Concurrence on Roseburg District Bureau of Land Management's fiscal year 2014-2015 programmatic activities not likely to adversely affect the northern spotted owl and the marbled murrelet and their designated critical habitat (September 16, 2015; Ref. No. 01EOFW00-2014-I-0003).

Northern Spotted Owl

The Roseburg District provides approximately 215,200 acres of suitable nesting, roosting, and foraging of the northern spotted owl *(Strix occidentalis caurina)* habitat. Additionally, approximately 186,700 acres are considered capable of developing into suitable habitat.

Approximately 271,500 acres are designated as critical habitat under the Endangered Species Act (2012 Final Rule; December 4, 2012, 77 FR 71876). Approximately 148,770 acres are considered suitable for nesting, roosting, or foraging and an approximately 111,640 acres are considered capable of developing into suitable habitat.

Retention areas of 100 acres of the best available northern spotted owl habitat were established around all northern spotted owl activity centers that were identified as of January 1, 1994. A total of 126 northern spotted owl activity centers were established on the Roseburg District.

Revised Recovery Plan for the Northern Spotted Owl – On June 28, 2011 the USFWS approved the *Revised Recovery Plan for the Northern Spotted Owl (Strix occidentalis caurina)*, which identifies the primary threats facing the northern spotted owl as current and past habitat loss due to harvest and catastrophic fire, and competition from the barred owl. It describes 34 recovery actions to address these threats. The main elements of the recovery strategy are:

- A network of northern spotted owl conservation areas totaling nearly 6.4 million acres of federal land west of the Cascade Mountain crest in Washington, Oregon and California is identified. The goal of the conservation areas is to support a stable number of breeding pairs of northern spotted owls over time and allow for their movement across this network.
- Development of an inter-organizational work group to oversee recovery plan implementation, including managing subgroups on barred owls and implementation of the eastside landscape management approach.
- Encouraging incentives to non-federal landowners to contribute to northern spotted owl recovery through land management.

The recovery plan envisions recovery will be achieved and the northern spotted owl potentially delisted, when there is a stable or increasing population, well-distributed across the species' range for at least 10 years and barred owl threats are reduced or eliminated.

Recovery plans are not regulatory documents enforceable by law. Rather, they provide guidance to bring about recovery through prescribed management actions and criteria to determine when recovery has been achieved. They are often influential in guiding the land-use decisions of federal and non-federal land managers. The Roseburg District has implemented these recommendations to support the recovery of the spotted owl. The "Revised Recovery Plan for Northern Spotted Owl" states that the network of reserve land use allocations in the Northwest Forest Plan, in addition to habitat conversation Recovery Actions 10, 32, and 6, utilize best available science necessary to recover the spotted owl.

Recovery Action 6 proposes implementing silvicultural techniques in plantations, overstocked stands and modified younger stands to accelerate development of structural complexity and biological diversity that will benefit northern spotted owl recovery. A majority of the District's actions (i.e., thinning, variable retention harvest, timber salvage, activity and hazardous fuels treatments, helipond treatments, and road daylighting) occur in dispersal quality habitat, or younger stands as suggested by Recovery Action 6, which places an emphasis on retaining the oldest and largest trees, or any trees that create diversity in stands. Most forest management activities on District include retention of legacy structures and large trees, or avoidance of structurally complex stands altogether.

Recovery Action 10 is intended to conserve northern spotted owl sites and high value habitat to provide additional demographic support to the northern spotted owl population. The District has largely conserved high value habitat, and with assistance from the USFWS has made reasonable efforts to locate and configure actions to avoid reducing nesting, roosting, and foraging habitat within core areas and home ranges that are above habitat viability thresholds to levels below habitat viability thresholds.

Recovery Action 32 suggests land management agencies work with the USFWS to maintain and restore older and more structurally complex conifer forests characterized by large diameter trees, high levels of canopy cover, and decadence components such as live trees with broken tops, cavities and mistletoe brooms, large snags, and fallen trees. No stands indicative of structurally complex, multi-layered stands were included in timber harvest prescriptions. District actions remain consistent with the intent of Recovery Action 32.

Annual Northern Spotted Owl Monitoring – Annual monitoring of nesting activity is conducted on the District. The information gathered on sites on Federal land, as well as some sites on private land adjacent to Federal land is used to assist in evaluating the success of the Northwest Forest Plan in supporting viable northern spotted owl populations, a part of the larger monitoring plan for the Northwest Forest Plan (Lint, *et al.* 1999). Results of these efforts are reported in Table 4. Data may differ from data reported in previous years due to corrections and updates.

Table 4. Northern Spotted Owl Survey Results for Roseburg District.

Survey Year	Sites Surveyed[1]	Number of Pairs Observed[2]	Proportion of Sites[3]
1996	332	145	59%
1997	303	125	58%
1998	304	131	60%
1999	282	123	63%
2000	257	128	63%
2001	258	139	66%
2002	270	144	64%
2003	270	136	65%
2004	278	145	62%
2005	293	120	54%
2006	310	111	54%
2007	325	113	50%
2008	339	121	48%
2009	340	118	42%
2010	363	120	36%
2011	360	97	40%
2012	373	87	35%
2013	377	89	36%
2014	385	94	29%
2015	384	78	27%

[1] Sites which had one or more visits.
[2] Includes only pairs. Does not include single birds or bird pairs of unknown status.
[3] Proportion of sites surveyed with either a resident pair or resident single.

Marbled Murrelet

Of the 188,847 acres of public land within the zones of potential habitat for marbled murrelets *(Brachyramphus marmoratus),* 133,011 acres have been classified as suitable habitat. Approximately 119,230 acres on the Roseburg District are designated as critical habitat for the marbled murrelet under the Endangered Species Act (2011 Revised Critical Habitat for the Marbled Murrelet; October 5, 2011, 76 FR 61599). Within designated critical habitat, 65,226 acres are considered currently suitable for nesting and an additional 19,886 acres are considered capable of developing into suitable habitat.

Surveys have been conducted for marbled murrelets on the Roseburg District since 1992, resulting in 34 occupied marbled murrelet sites and 30 additional sites with observed marbled murrelet presence. In fiscal year 2015, a total of 306 surveys were conducted accounting for 1,783 acres of suitable habitat**.** Two (2) new occupied marbled murrelet sites were discovered in the Swiftwater Field Office. Monitoring surveys at 10 previously known sites documented continued occupancy by murrelets at two (2) sites. Occupancy status at the remaining eight (8) sites was inconclusive.

Other Species of Concern

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

The BLM Oregon/Washington State Director issued new criteria for designating Special Status Species in August 2007. The State Director's list, last updated on July 29, 2015, includes Sensitive and Strategic species. Designation of species as either sensitive or strategic is based upon species rankings by the State of Oregon and The Nature Conservancy. Species designated as Sensitive are managed as Special Status Species. The Strategic category is used for species for which more information is needed to determine their status. Special protection and management of Strategic species is discretionary. Further information on Special Status Species designation can be found at http://www.fs.fed.us/r6/sfpnw/issssp/agency-policy/.

Bald Eagle

The bald eagle *(Halieaeetus leucocephalus)* was delisted by the USFWS in 2007 (July 9, 2007, 72 FR 37346), and is now considered a *Bureau Sensitive* species. There are 27 known bald eagle nest territories within the extent of BLM-administered lands on the Roseburg District, 25 of the territories are located within the Swiftwater Resource Area and 2 are located within the South River Resource Area. Of the 27 bald eagle nest territories, 16 sites are located on public lands and 11 are located on private lands (three of which are located adjacent to public lands). Seven of the sites on public lands are located within Bald Eagle Management Areas.

Of the 27 nest sites, 21 sites were monitored to protocol, two sites were only partially surveyed, and survey effort was not attempted at one site due to staff and time constraints. Three nest sites are not monitored because the known nests no longer exist (i.e. nest blew out of tree); however, based on past observations, it is suspected that the pairs are nesting in a different stand within their respective territory.

Of the 21 bald eagles sites surveyed to protocol in 2015, 18 sites were occupied with a pair, two sites were occupied by at least one adult, and one site was unoccupied. Reproductive success was assessed at each surveyed site: 12 pairs fledged 20 young, one site had chicks but fledging was unconfirmed, two nest sites failed, one nest site was unoccupied and had no incubation, and five sites had "unknown" outcomes.

Eight additional bald eagle territories are suspected but nest trees/activity centers have not been located. Seasonal restrictions and distance buffers are applied to proposed activities in the vicinity of known bald eagle nest sites. No winter roosts or concentration sites have been located on public lands within the District.

Peregrine Falcon

The peregrine falcon (*Falco peregrinus anatum*) was delisted in 1999 as a Federally-endangered species (August 25, 1999, 64 FR 46542), and is now considered a *Bureau Sensitive* species. In 2003, the USFWS established a nationwide monitoring plan for the peregrine falcon. Monitoring will be conducted five times, at three year intervals (2003, 2006, 2009, 2012, and 2015). In 2009, the Oregon Department of Fish and Wildlife (ODFW) began a monitoring effort coincident with the Federal effort. The Roseburg District has four Federal sample sites and three State sample sites identified for monitoring, pursuant to federal and state delisting. However, in 2014 the USFWS determined that peregrine falcon population trends have met the monitoring requirements (with the exception of the Southwestern states) and therefore, concluded the monitoring effort. The State monitoring effort was also discontinued in 2015. Nonetheless, Districts were encouraged to continue monitoring sites in order to track peregrine falcon population trends and meet management objectives for sites located on or adjacent to BLM-administered lands.

Late in the survey season one new peregrine site was discovered in 2015 in the Swiftwater Resource Area, increasing the total number of known nest sites within the extent of BLM-administered lands on the Roseburg District to 16. Of the 16 sites, five sites are entirely and two sites are partially located on BLM-administered lands. The remaining nine sites occur on private lands adjacent to public lands.

The BLM monitored all 16 sites. Twelve sites were monitored to protocol standards and partial surveys were completed at four sites due to staff and time constraints, safety concerns and disruption due to active logging on private land, and the late season discovery of the new site.

All of the 12 sites monitored to protocol were occupied by adult peregrines. Reproductive success was assessed at each site: six of the 12 occupied sites fledged a total of 12 young; two nests failed; and four sites had "unknown" outcomes. Seasonal restrictions and distance buffers are applied to proposed activities in the vicinity of known peregrine falcon nest sites.

Townsend's Big-eared Bat

The Pacific Townsend's big-eared bat *(Corynorhinus townsendii)* is a former Federal Candidate species. It is listed as a candidate species by the state of Oregon, is on list two of the Oregon Natural Heritage Program and is listed as a BLM Sensitive species for Oregon. A maternity colony was located on the Roseburg District in 1999. Monitoring of this site was last conducted in 2015 and assumed continued occupancy by Townshend's big-eared bats.

North Coast Distinct Population Segment of the Oregon Red Tree Vole

The North Coast Distinct Population Segment of the Oregon red tree vole, more commonly known as the dusky footed vole, became a candidate for listing under the Endangered Species Act on October 13, 2011 (76 FR 63720). The dusky footed vole is documented in the Eugene and Salem Districts (State Director's Special Status Species List, July 29, 2015) and is suspected in the Roseburg District. There are 1,030 acres of BLM-administered lands on the District within the geographic extent of the Distinct Population Segment, located in Sections 5, 7, 17, and 19; T. 21 S., R. 4 W.; Willamette Meridian).

West Coast Distinct Population Segment of the Fisher

On October 7, 2014 the West Coast Distinct Population Segment of fisher (*Pekania pennanti*) was proposed to be listed as a threatened species under the Endangered Species Act (79 FR 60419). The fisher is also listed as a *Bureau Sensitive* species. The Roseburg District contains habitat for fisher (analogous to NRF and dispersal habitat for NSO), and does have a high reliability occurrence on Boomer Hill in 1999. A number of recent observations have been made on U.S. Forest Service managed land to the east along the North Umpqua and in the Medford District to the south. The Pacific Northwest Research Station (PNW) has begun a research project that will monitor the presence of small carnivores, including fisher, on lands managed by the South River Field Office. The project is currently in the development phase and data collection will begin in 2016.

Special Status Species, Botany

Surveys, Monitoring, Consultation, and Restoration

The Roseburg District Special Status Species botanical list (as of July 2015) includes 65 species that are known or suspected to occur within the District. These consist of 11 fungi, 11 bryophytes, 4 lichens, and 39 vascular plants. In addition there are 29 fungi, 5 bryophyte, 8 lichen, and 2 vascular plant Strategic species known or suspected to occur within the District.

Pre-project evaluations for Special Status Species are conducted in compliance with ROD/RMP management direction prior to all habitat disturbing activities. The BLM surveyed approximately 4,820 acres in 2015. Surveyors found a new site of Oregon bensonia (*Bensoniella oregona*), a BLM Sensitive species, and many new sites of the following Survey and Manage species: *Chaenotheca ferruginea*, *Chaenotheca chrysocephala*, *and Chaenotheca subroscida*. Baseline fungi, lichen, and bryophyte inventories have been completed on approximately 2,100 acres of Roseburg District Areas of Critical Environmental Concern (ACECs)/Research Natural Areas (RNAs).

Conservation Strategies with the USFWS for the Umpqua mariposa lily (*Calochortus umpquaensis*), crinite mariposa lily (*Calochortus coxii*), and tall bugbane (*Cimicifuga elata*) have been completed since ROD/RMP implementation. Conservation Agreements were completed in 1996 for Umpqua mariposa lily and in 2004 for crinite mariposa lily.

An updated Conservation Agreement for crinite mariposa lily was initiated in 2014. An interagency Conservation Agreement between the USFWS, U.S. Forest Service, and the

Roseburg, Eugene, and Medford BLM Districts was completed in 2006 for wayside aster (*Eucephalus vialis*).

Monitoring of six populations of Federally-threatened Kincaid's lupine (*Lupinus sulphureus* ssp. *kincaidii*) located on BLM-administered lands in the Roseburg District continues using transects established in 2003, 2004, and 2005. In April 2006, the Roseburg District, USFWS, and Umpqua National Forest completed the "Programmatic Conservation Agreement for Kincaid's Lupine in Douglas County" (BLM, USFWS, and USFS 2006) which formally documents the intent of the parties to protect, conserve, and contribute to the species' recovery by implementing certain management actions for Kincaid's lupine and its habitat on Federal lands within Douglas County. As specified in the agreement, a Management Plan for Kincaid's Lupine in Douglas County, Oregon was completed in 2008, which describes specific management activities within the Federally-managed populations in Douglas County. As a consequence, when critical habitat for was designated on October 31, 2006, none were designated in Douglas County.

The Roseburg District participates in a native plant materials development program to produce native seed mixes and straw for a variety of restoration projects. Native grass seed grown under contract is stored for eventual use by the District. The seed is used for road reclamation and erosion control projects. Seed from two native grass species was distributed over areas that the BLM prescribe burned at the North Bank Habitat Management Area in 2015. Native grass seed was also used to restore fuel breaks associated with the Stouts and Cable Crossing fires.

Fisheries

District Support

During fiscal year 2015, the Roseburg District Fisheries Program continued implementing the Northwest Forest Plan and the associated Aquatic Conservation Strategy. The District Fisheries program was staffed with three full-time fisheries biologists, with major duties divided among: resource management plan revisions, District and Field Office NEPA support, watershed restoration, data collection and monitoring, outreach activities, and Endangered Species Act (ESA)/Magnuson-Stevens Act consultation. The District also provides fisheries expertise to the Partnership for the Umpqua Rivers and its Technical Advisory Committee, and the Elk Creek Watershed Council as part of the BLM support for the State's Plan for Salmon and Watersheds.

Endangered Species Act & Magnuson Stevens Act Consultation

The Roseburg District lies within the Oregon Coast Evolutionarily Significant Unit for coho salmon. Oregon Coast coho salmon were listed under the ESA in February, 2008, requiring the BLM to enter into ESA Section 7 consultation for all discretionary Federal actions that may affect coho salmon and designated critical habitat. ESA Section 7 consultation for aquatic restoration projects, as well as several categories of annual, routine activities, such as road maintenance, campground and trail maintenance, etc. was completed through use of regional programmatic consultation documents.

In fiscal year 2015, the BLM consulted on one timber sale that consisted of Regeneration harvest as described in the Roseburg BLM RMP. The Rice-Olalla timber sale was designed to conform with the Aquatic Conservation Strategy of the NWFP and was analyzed and determined to be a

May Affect, Not Likely to Adversely Affect project. The BLM documented the effects of harvest, yarding and haul of timber in the Rice Olalla Biological Assessment and determined that use of the haul route during winter would affect coho salmon and Critical Habitat in adjacent Rice Creek. The BLM incorporated BMPs and specific project design criteria to minimize, but not eliminate, the transmission of sediment to the stream. The BLM presented this Biological Assessment to the Umpqua Level 1 team in July and initiated informal consultation in November of 2015. The BLM anticipates receiving the Letter of Concurrence in December of 2015.

In addition to ESA consultation, consultation under the Magnuson-Stevens Fishery Management Act (MSA) continued to be required for any project that would adversely affect Essential Fish Habitat for Oregon Coast coho or Chinook salmon. Based upon protections provided in the Northwest Forest Plan and the application of specific BMPs and project design criteria that reduce or eliminate risks of aquatic impacts, the majority of projects analyzed locally on the Roseburg District would not affect Essential Fish Habitat. Consultation on the Rice Olalla timber sale for which National Marine Fisheries Service determined *may affect* Essential Fish Habitat fulfils our requirement to consult under the MSA.

Watershed Restoration

In-stream – The Roseburg District continued its trend of substantial aquatic restoration accomplishments on BLM-managed lands in fiscal year 2015. Five in-stream large wood restoration projects were initiated by BLM staff during the summer of fiscal year 2015. The projects resulted in the placement of approximately 150 logs and the utilization of over 1,000 boulders added to the streams to improve habitat complexity and channel stability in over four miles of Oregon Coast coho salmon bearing streams. Projects were completed in Harrington Creek, Curtis Creek and East Fork Jackson Creek. The Roseburg District also contributed funding through Title II and technical expertise to several other restoration projects led by the Partnership for the Umpqua Rivers. Hydrology and Fisheries biologists have implemented planning and prepared grant applications for large wood restoration projects in several streams planned 2016.

Fish Passage – Three culverts were replaced with stream simulation culverts on Halo Creek and Coles Valley Creek in cooperation with the Elk Creek Watershed Council. This improved access to spawning and rearing habitat for resident and anadromous fish.

Data Collection and Monitoring

Restoration Project Monitoring – Several large in-stream restoration projects were monitored using a variety of methods that included pre-and post-project photo-points, high definition channel surveys using an engineering total station, and evaluation of structure function and stability during high flow events. This monitoring was carried out on more than 20 miles of stream. Data gathered was used to assess effects of stream restoration projects on local habitat conditions, refine future restoration techniques, and better market BLM restoration efforts.

A large-scale restoration effectiveness monitoring project continued in Wolf Creek, a 23,000 acre sub-watershed in which extensive restorative work was carried out in the summers of 2008 and 2009. In 2015, the BLM coordinated with AREMP to resurvey stream habitat at sites sampled in Little Wolf Creek as part of an intensive watershed restoration monitoring project.

Monitoring efforts in 2015 focused on post-restoration data collection for evaluating habitat conditions in restored areas following two or three complete winter/spring (i.e. high flow) seasons. In addition, aquatic habitat was monitored in reaches where no restorative work had been completed. These areas will be used as controls, and serve as a valuable tool when comparing habitat changes over time.

The BLM has continued to work with the EPA to complete monitoring of the Formosa Mine Site. The BLM completed water quality and benthic macroinvertebrate sampling at 15 sites along Middle Creek and South Fork Middle Creek in order to establish reference and baseline conditions for the upcoming reclamation of the mine site. Benthic macroinvertebrates were identified through an agreement with the National Aquatic Monitoring Center at Utah State University.

Fish Distribution Surveys – The BLM completed fish distribution surveys using mask & snorkel, and/or electro-fishing methods to determine the extent of juvenile fish distribution and species presence. These surveys were completed to assess effects of commercial timber sales and road use by logging trucks on listed coho salmon and resident fish species. Surveys were completed for projects in the Myrtle Creek, Middle Fork Coquille, Upper Smith River and Upper Siuslaw watersheds.

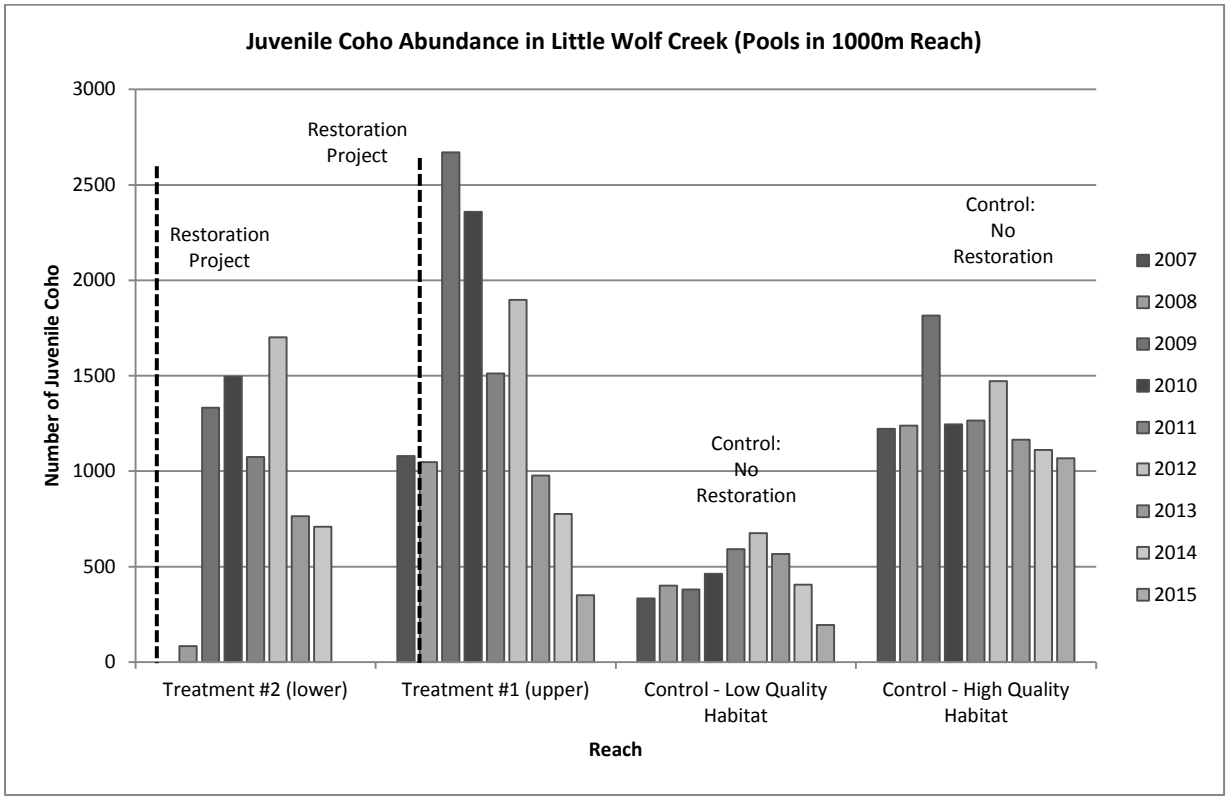
The BLM continues to be an active member of the Umpqua Basin Lamprey Workgroup, an initiative started by the Cow Creek Tribe of the Umpqua Band of Indian that involves multiple State and Federal agencies in an effort to gather data on the distribution and population status of Pacific lamprey.

Fish Abundance Surveys –Snorkel surveys were used to assess fish populations in four separate stream reaches in Little Wolf Creek as part of the ongoing monitoring effort. These surveys are performed annually, to determine general population trends or specific fish responses in association with habitat restoration projects, with the intent of more accurately estimating the number of juvenile fish present in a given stream segment. The surveys will be repeated in future years to help gauge the effectiveness of in-stream restoration treatments, and to refine restoration techniques over time. An example of this information is shown in the graph below.

The BLM partnered with the US Forest Service, Tiller RD and the Oregon Department of Fish and Wildlife to conduct population surveys for Umpqua chub and small mouth bass in the South Umpqua River and Cow Creek. Oregon Department of Fish and Wildlife provided support in developing survey protocol and surveys were conducted with assistance from the USFS crew. Results of these surveys will be presented at the 2016 Oregon Chapter American Fisheries Society meeting.

Spawning Surveys – Four stream reaches in Little Wolf Creek were surveyed each week during the coho spawning season by Roseburg District fisheries personnel. Over time, this information can be used to evaluate population trends of returning adult coho salmon, and will also contribute to overall restoration project planning and effectiveness monitoring.

Figure 2. Juvenile Oregon Coast Coho Salmon Abundance in Little Wolf Creek: Coho Salmon juvenile abundance in two treated reaches and two control reaches that did not receive a restoration treatment. Over time there has been an increase in all reaches, however the greatest change has been in reaches that were treated with large wood to promote the formation of spawning and rearing habitat.



Outreach and Community Activities

District fisheries and hydrology personnel continued participation in several District programs designed to educate local school students on fisheries and watershed issues. Aquatic staff volunteered their time and presented information at the Eastwood Elementary School's Outdoor Days, Camp Myrtlewood, Douglas High School, and Glide Middle School, which is in its 18th year of water quality monitoring. Staff also participated on the National Fishing Week fishing derby steering committee, and in the Free Fishing Day event held at Cooper Creek Reservoir in Sutherlin.

Other community involvement included participation on the steering committee for the Umpqua Fishery Enhancement Derby, and working with the Oregon Youth Conservation Corps (OYCC) and Northwest Youth Conservation Corps (NWYCC) crews to introduce them to the techniques used in aquatic restoration, stream channel monitoring, and biological monitoring activities. The BLM hosted an AmeriCorp VISTA member who worked with Phoenix Charter School to help incorporate job shadow and field learning opportunities into their natural resource curriculum.

Fisheries and hydrology staff also serve as members of the Beaver Advocacy Group that coordinates with federal and private landowners along with Oregon Department of Fish and Wildlife help educate the public on the benefits of beaver and to participate in relocation of nuisance beaver.

Special Areas

The Roseburg District has 10 special areas that total approximately 12,193 acres. In addition there is one proposed Area of Critical Environmental Concern (ACEC) (Callahan Meadows ACEC) which meets the criteria for designation. Since publication of the ROD/RMP in 1995, defensibility monitoring has been conducted annually on all Areas of Critical Environmental Concern/Research Natural Areas (ACEC/RNA) and continued in fiscal year 2015.

The BLM treated noxious weeds on the North Bank Habitat Management Area/ACEC including: Himalayan blackberry, English hawthorn, Scotch broom, and diffuse knapweed.

The BLM has hand pulled false brome, a noxious weed species, along the river bank of the North Umpqua Wild and Scenic River/ACEC annually since 2010. Because access is limited and false brome is difficult to detect, hand pulling has resulted in limited success.

Permanent vegetation monitoring plots have been established and baseline data collected in the North Myrtle, Red Ponds, Beatty Creek, Myrtle Island, Bushnell-Irwin Rocks, and Bear Gulch ACECs/RNAs. The monitoring plots at Beatty Creek RNA were resampled in 2015. This information is used to characterize existing vegetation and to monitor long-term vegetation changes. The data was entered into a regional database for vegetation occurring within Research Natural Areas throughout the Pacific Northwest. This database is maintained by the Pacific Northwest Research Station, USFS, in Corvallis, Oregon.

Port-Orford-Cedar

Port-Orford-cedar trees, especially those growing adjacent to roads and streams, can become infected with a water mold, *Phytophthora lateralis*. Mud carrying this water mold, dropped from vehicles, may disperse into ditches and water courses crossing roads. Port-Orford-cedar growing in the vicinity can be exposed, become infected, and eventually die.

The Roseburg District is working to prevent introduction of the disease into watersheds that presently contain healthy Port-Orford-cedar. A series of efforts, such as seasonal-use restrictions on some roads and prohibiting activities such as bough collecting during the rainy season, are on-going mitigation activities.

North Umpqua Wild and Scenic River

Wild and Scenic River Managed:	North Umpqua Wild & Scenic River
Length:	8.4 miles on BLM lands. (33.8 miles total)
Designation Act/Date:	Omnibus Oregon Wild & Scenic Rivers Act of 1988
Outstandingly Remarkable Values:	Fish, Water, Recreation, Scenery and Cultural Resources

Table 5. Visitor Use for Boating on the North Umpqua River

	2001-2010	2011	2012	2013	2015	2015
Private Boating Visits	36,742	2,395	1,820	2,433	2,656	1,579
Commercial Boating	20,373	1,835	1,688	1,750	1,932	1,467
Boating on BLM Section	3,614	381	292	511	573	184

Cultural Resources

In fiscal year 2015, the cultural resources program accomplished work under the two major directives of the National Historic Preservation Act. Compliance inventory and evaluation work were accomplished in support of the timber, lands, wildlife, and recreation programs under the authority of Section 106. Cultural resource program initiatives, including evaluations and public projects, were accomplished under Section 110. Archaeologists evaluated six archaeological sites, monitored 57 sites, and inventoried 1,400 acres.

The Roseburg District was impacted by two major fires including the Cable Crossing and Stouts Creek fires. Archaeologists provided resource advisor support during these events and conducted damage assessments on 11 National Register eligible sites impacted by the fires. Mitigation work is on-going and being done in consultation with the Oregon State Historic Preservation Office, the Cow Creek Band of Umpqua Tribe of Indians, the Confederated Tribes of Grand Ronde, the Confederated Tribes of Siletz Indians, and local logging companies.

Public outreach projects included participation in the School Forestry Tour, Oregon Archaeology Celebration, an Umpqua National Forest Passport in Time excavation, local school presentations, and the Susan Creek Campfire Chats. These programs drew 810 participants, mostly school-age children. Archaeologists also participated in professional outreach by presenting at the 2015 Northwest Anthropological Conference and co-instructing 30 federal archaeologists and law enforcement officers in Archaeological Resources Protection Act training.

Visual Resources

Visual Resource Management (VRM) analysis occurred in one VRM Class II area in the South River Resource Area. A second visual contrast rating form for one of the units in the Days Creek/South Umpqua timber sale was conducted. Mitigating factors were included in the visual contrast rating to meet VRM Class II objectives. VRM input was also provided into District timber sales; all in VRM Class IV areas.

Rural Interface Areas

The Swiftwater Field Office conducted 168 acres of hazardous fuels reduction, consisting of hand pile and machine pile disposal, within rural interface areas. For information on fuels reduction work within the Wildland Urban Interface (WUI), see Table 1.

Socioeconomic

Payments in Lieu of Taxes were made in fiscal year 2015 as directed in current legislation. O&C Payments and Coos Bay Wagon Road (CBWR) Payments were not made because the program was not funded for fiscal year 2013 (*Secure Rural Schools and Community Self Determination Act of 2000*, as amended by the *Emergency Economic Stabilization Act of 2008, H.R. 1424, Sec. 601)*. At present, continued funding has not been approved moving forward into 2015.

Monetary Payments

The Bureau of Land Management contributes financially to the local economy in a variety of ways. One of these ways is through financial payments that include Payments in Lieu of Taxes, O&C Payments, and Coos Bay Wagon Road Payments. A description of each type of payment program follows.

Payments in Lieu of Taxes

"Payments in Lieu of Taxes" (or PILT) are Federal payments made annually to local governments that help offset losses in property taxes due to nontaxable Federal lands within their boundaries. The key law which implement the payments is Public Law 94-565, dated October 20, 1976. This law was rewritten and amended by Public Law 97-258 on September 13, 1982 and codified as Chapter 69, Title 31 of the United States Code, recognizing that the inability of local governments to collect property taxes on Federal lands can create a financial impact.

PILT payments help local governments carry out such vital services as firefighting and police protection, construction of public schools and roads, and search-and-rescue operations. These payments are one of the ways in which the Federal government can fulfill its role of being a good neighbor to local communities. This is especially important for the BLM, which manages more public land than any other federal agency. Fiscal year 2015 PILT payments to Douglas County were $557,891 based upon 1,682,680 federal acres (including lands managed by the BLM, Forest Service, National Park Service) within Douglas County boundaries (www.doi.gov/pilt).

Payments to Counties

Since 2001 payments have been made to counties under “The Secure Rural Schools and Community Self-Determination Act of 2000.” The purpose of the act was "To restore stability and predictability to the annual payments made to States and counties containing National Forest System lands and public domain lands managed by the BLM for use by the counties for the benefit of public schools, roads and other purposes." The original legislation expired on September 30, 2007, but was reauthorized through 2013. Funding for 2013 was made available for disbursement in 2014. The legislation was not reauthorized until June, 2015, too late in the fiscal year to distribute funds. Therefore, no funding was distributed in 2015.

Titles I, II, and III of the legislation describe how the funds can be used. Counties retain Title I and III payments. Title I payments are split between education and general county expenses such as road maintenance and law enforcement. Title III payments can fund a limited number of activities, including wildfire suppression and prevention, and search and rescue on Federal lands.

Title II payments are reserved by the counties in a special account in the Treasury of the United States for funding projects providing protection, restoration and enhancement of fish and wildlife habitat, and other natural resource objectives as outlined in HR 1424. The BLM is directed to obligate these funds for projects selected by local Resource Advisory Committees (RACs) and approved by the Secretary of Interior or his designee. It is anticipated that the Title II funds that were to be expended in 2015 will be expended in 2016.

Management Actions/Directions

The direction of BLM management is to support and assist the State of Oregon Economic Development Department's efforts to help rural, resource-based communities develop and implement alternative economic strategies as a partial substitute for declining timber-based economies. Aid and support includes:

- Increased coordination with state and local governments and citizens to prioritize BLM management and development activities.
- Recreation development and other activities identified by BLM and the involved communities as benefiting identified economic strategies.
- Improved wildlife and fish habitat to enhance hunting and fishing opportunities and to increase the economic returns generated by these activities.
- Improved or developed recreation sites, areas, trails, and Back Country Byways that can play a role in enhancing tourism activity within the District (see Recreation).

Environmental Justice

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

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

Recreation

Recreation Management Areas (RMAs):

There have been several public land tenure changes by acquisition and by disposal. Small acreage differences exist today from those that are described below. These changes are being addressed in the RMP planning process that is currently nearing completion. The RMA category designations are also being reevaluated as a part of the planning effort.

Swiftwater Resource Area

Swiftwater Extensive RMA - 219,243 acres
North Umpqua River Special RMA - 1,722 acres
Umpqua River Special RMA - 2,240 acres

South River Resource Area

South River Extensive RMA - 200,673 acres
Cow Creek Special RMA - 1,710 acres

Visitor Use

It was estimated that there were 901,726 recreation visits made to Roseburg District BLM lands in fiscal year 2015. This represents a decrease of 9 percent from 2014 figures. The area that saw the largest decrease was in the North Umpqua Wild and Scenic River Corridor and adjacent campgrounds as low river levels, a ban on campfires, the Cable Crossing Fire and associated smokey skies all contributed to decreased use in July, August and September which are typically the busiest months of the year.

Recreation Trails Managed

The Roseburg District manages seven trails totaling roughly 18 miles. When campground spurs are included, the trail system totals 19.5 miles.

Permits Issued/Fees Collected

User fees at seven campgrounds and three pavilions have remained unchanged since 2008 although fee increases have been proposed at several sites, and a new fee is proposed for Scaredman Campground. Due to budget constraints, Scaredman Campground was closed in 2013 and remained closed in 2015. However, the District will be proposing increased fees in the Spring of 2016 to the newly formed Southwest Oregon Resource Advisory Committee.

Recreation Use Permits (RUPs) issued for overnight camping at BLM campgrounds and for pavilion rentals totaled 3,323 in fiscal year 2015 compared to 3,687 in fiscal year 2014. Combined fees collected from all recreation revenues (RUPS & Special Rec. Permits) totaled $110,752 in fiscal year 2015 compared to $95,727 in fiscal year 2014. Even though use was down, revenue was up. This was due to a large transfer of funds from the U.S. Forest Service in early fiscal year 2015 from revenue generated through the reservation program (recreation.gov). Firewood collections brought in an additional $8,442 in fiscal year 2015 compared to $8,736 in fiscal year 2014.

Special Recreation Permits (SRPs) managed:

- Seven commercial rafting outfitter guide SRPs and ten commercial fishing outfitter guide SRPs were managed on the North Umpqua River through a cooperative management agreement with the Umpqua National Forest,
- Three commercial mountain biking outfitter guide permits were managed on the North Umpqua Trail through a cooperative agreement with the Umpqua National Forest,
- Two joint permits with the Umpqua National Forest for 50k and 100k running races on the North Umpqua Trail,
- One joint SRP was issued out of the Roseburg Office for a long distance bicycling tour. Coos Bay and Medford BLM were also involved,
- One big-game and bird outfitter hunting guide SRP was managed by Roseburg BLM.
- One joint group SRP was issued for the Oregon Gran Fondo Bicycle Ride by the Eugene district including Coos Bay and Roseburg,
- Six big-game outfitter hunting guide SRPs were jointly issued with the Medford and Coos Bay Districts of BLM.

Off-highway Vehicle Designations Managed:

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

Over the past several years, the public has expressed a growing concern over the proliferation of new roads on public lands illegally created by unauthorized motorcycle and all-terrain vehicle use. This increase in unauthorized use has been verified by BLM specialists and law enforcement officers. After illegal establishment of a new route, these roads and trails become part of the "existing roads and trails" system, allowing for further unintended route proliferation, the extent of which is unknown. Private landowners and timber companies have approached BLM about gating public access into areas where off-highway vehicle damage and abuse to seedlings, gates and roads has been increasing.

Legitimate off-highway vehicle use is acknowledged as an accepted recreational activity, but controversy and impacts to public and private resources have grown to a point of management concern for action. BLM management is addressing the need for redesignation of lands available for off-highway vehicle use from "limited to existing roads and trails" to "limited to designated roads and trails." This requires a baseline inventory of all roads that are open to motorized use, which would improve law enforcement efforts in citing violators.

At the same time, off-highway vehicle clubs and user groups have partnered with BLM to promote the legal rights of riding and enjoying public lands. In the past, clubs have sponsored organized rides, conducted clean-up activities, and conducted trail inventories on BLM lands, though none of these activities occurred in fiscal year 2015.

In preparation for the Comprehensive Trail and Transportation Management Plan (CTTMP) scheduled to start sometime in fiscal year 2017, partial road and trail inventories were conducted by a contractor in the Hubbard Creek/Callahans area in Swiftwater and the Whiterock area in South River in June 2015. The Hubbard Creek/Callahans area was completed with Whiterock to be finished in spring 2016. Approximately 26 miles of predominately single track trails in the Hubbard Creek/Callahans area were found.

Partnerships and Volunteer Work Managed

The District tallied408 volunteers, which included eight groups of volunteers in various programs. Organizations volunteering their time included Phoenix School students, Northwest Youth Corps, Oregon Youth Conservation Corps, Umpqua Community College students, Riddle High School students, and the AmeriCorps. Additional services were provided by the Douglas County inmate, juvenile and forestry crews, a North Bank Habitat Management Area caretaker and campground hosts. Using current independentsector.org rates the value of the services was calculated at $23.07/hour in 2015. All combined, a total of 25,023 hours of service was provided in fiscal year 2015 with a value over $575,000. This compares to 27,814 hours of service in 2014 with a value of $almost $600,000.

Table 6. All Volunteer Work on the Roseburg District in Fiscal Year 2015

Group	Hours volunteered	Value of work ($)
All groups (excluding hosts)	10,813	$249,456
Campground hosts	14,210	$327,825
All volunteers total:	25,023	$577,281

Projects included: trail and footbridge maintenance and construction, trash collection, back-country byway maintenance, soil surveys, invasive species removal, habitat enhancement work, archeological surveys, wildlife surveys, pruning & limbing for silviculture, information dissemination, campground maintenance, cleanup and rehabilitation; cutting and stacking firewood, wood working projects for developed recreation sites, job shadows, raptor surveys, and program support for Forestry, Information Resource Management, Geographic Information Systems, Contracting, and Archeology.

National Public Lands Day 2015 was the successful Thirteenth Annual Cow Creek Back Country Byway Cleanup. Randall Gunn brought two classes of Riddle High School students who joined an enthusiastic public in litter collection and invasive species removal. Over one ton of trash was removed from along the byway.

Other volunteer program highlights include a series of job shadows for motivated high school students, a summer campfire chat program, and a robust campground host program that contributed over 14,000 hours in 2015. An AmeriCorps member volunteered over 900 hours for the District in 2015 who worked with youth crews and led a National Trails Day, Arbor Day and Leave No Trace events.

Byways Managed

- *North Umpqua Scenic Byway* – (8.4 of 80 miles) Joint coordination with the Umpqua National Forest, Rogue River National Forest and Medford District BLM.
- *Cow Creek Back Country Byway* – (20 of 45 miles) In coordination with Medford District BLM

Recreation Projects

- Developed a booth for the annual Outdoor Recreation Show at the Douglas County Fairgrounds in partnership with the Umpqua National Forest.
- Continued support of Colliding Rivers Information Center, providing recreational information to visitors along the Rogue-Umpqua Scenic Byway. The Memorandum of Understanding with the Chamber of Commerce was terminated and a new agreement was reached with the Douglas County Museum to take over joint management of the center with major changes set to occur in fiscal year 2016.
- Campfire chat program in the Susan Creek Campground during July and August.
- Numerous small construction projects were completed at recreation sites including the rebuilding of the staircases at Tyee Campground that lead to the Umpqua River.
- Made additional changes to recreation site water systems to conserve water.

- Developed an interpretive walk along the Susan Creek Falls trail to help visitors identify the flora and fauna of the area. Also redesigned and replaced interpretive panels in the North Umpqua Wild and Scenic River Corridor.
- Approved design work of a new bridge along the Wolf Creek Falls Trail with construction of the new bridge scheduled for late summer 2016.
- Secured the services of youth crews to complete 15 miles of much needed trail work at District trails.
- Planted well over 100 trees and shrubs to fill in gaps at a handful of recreation sites.

Hazard Tree Assessments Completed

Hazard tree inventories were conducted at Susan Creek Campground, Susan Creek Day-Use Area, Susan Creek Falls Trail, Rock Creek Recreation Site, Millpond Recreation Site, Cavitt Creek Recreation Site, Scaredman Recreation Site, Tyee Recreation Site, Baker Wayside, North Umpqua Trail at Swiftwater, Lone Pine and Eagleview Group Recreation Sites and Island Day-Use area. Trees determined to represent a hazard to users were limbed or felled. Most felled trees were removed for use in in-stream restoration projects and for campground firewood sales.

Public Fatalities or Serious Injuries at BLM Recreation Sites

No fatalities or serious injuries occurred in any recreation site in fiscal year 2015.

Status of Recreation Plans

Plan Name	Year
Roseburg BLM Fee Sites Business Plan	Completed 2007
North Umpqua SRMA Recreation Area Management Plan	Completed 2003
Cow Creek SRMA Recreation Area Management Plan	Completed 2001
Roseburg BLM Off-Highway Vehicle Implementation Plan	Completed 1997
North Umpqua Wild and Scenic River Management Plan	Completed 1992
Umpqua River SRMA Recreation Area Management Plan	Not started.
District Maintenance Operating Plan	Most recently updated in January 2015

Fee Status

The Federal Lands Recreation Enhancement Act (FLREA) was passed in the 2005 Omnibus Appropriations bill signed into law by President Bush on December 8, 2004. It authorizes the Secretaries of the Interior and Agriculture to establish, modify, charge and collect recreation fees at Federal recreation lands and waters for the next 10 years. FLREA expired in fiscal year 2016, and this may affect our ability to change firewood, campground, and pavilion rental fee structures in the future. With the creation of the Southwest Oregon Resource Advisory Committee, the District is in position to propose increasing fees at campgrounds and for pavilion rentals. A new overnight fee will also be sought for Scaredman Campground.

In 2015, the BLM spent $90,000 from campground use fees campgrounds, pavilion rentals, and Special Recreation Permit fees, compared to $105,000in 2014. Expenditures went toward: volunteer host subsidies and purchase of volunteer uniforms, campground water system repairs, purchase of supplies for restrooms, recreation site equipment maintenance and repairs, vehicle costs, labor costs of operating fee sites, including temporary summer recreation technicians.

Recreation Pipeline Funds

Recreation pipeline funds are directed toward backlog recreation projects in six western Oregon BLM Districts. Roseburg spent all of its $200,000 allocation in fiscal year 2015. Expenditures, labor and project supplies for 2015 include:

- Maintenance and upgrades of recreation tools and equipment
- Project supplies for maintenance of developed recreation sites
- Funds for summer recreation and maintenance technicians
- Funded a contractor replace a bridge on the Wolf Creek Falls Trail
- North Bank HMA recreation shop maintenance operations and supplies
- Maintenance supplies to improve and maintain recreation sites: paint, lumber, hardware, soil, and rock
- Maintenance tasks at recreation sites: hazard trees, trail work, stump grinding, and pavement repair
- Site repairs including vegetation replacement; water, sewer, and electrical system repairs; tree and flooding damage fixes, vandalism repairs, and upgrades to host site amenities
- Repair work by youth crews on the North Umpqua Trail
- Numerous signs ordered and repaired for all recreation site.

Implementation Monitoring

Guidelines in the North Umpqua Recreation Area Management Plan (2003) were followed. The District Maintenance Operating Plan was completed in 2010 and is updated annually by the District Recreation Planning and maintenance staff. The Recreation Business Plan for fee sites was initiated in 2007 and has been implemented since then. The Wild & Scenic River Management Plan (1992) was followed, including completion of the end-of-year monitoring report for the North Umpqua Wild and Scenic River. One summer recreation temporary employee was hired to patrol the river corridor and assist in other recreation duties.

Forest Management and Timber Resources

The Roseburg District manages approximately 425,000 acres of land, located mostly in Douglas County and in the Umpqua River Basin. Under the Northwest Forest Plan and the Roseburg District ROD/RMP, approximately 81,800 acres (or 19 percent of the Roseburg District land base) was made available for scheduled timber harvest. The Northwest Forest Plan and the ROD/RMP provide for a sustainable timber harvest, known as the Allowable Sale Quantity (ASQ), from Roseburg District administered public lands of 45 million board feet (MMBF) annually.

To meet the ASQ commitment, the Roseburg District prepares environmental analyses and conducts timber sale preparation which includes sale layout, cruising, appraising and contract preparation. Timber sales are then advertised and offered at oral auctions. When timber sales become active, contract administration is conducted to ensure compliance with contract provisions and stipulations. More importantly, the Roseburg District is investing in the future of the forests through forest development and reforestation activities.

Although included in the Socioeconomics section of the Monitoring Report, the report of the results of the fiscal year 2014 timber sale program was inadvertently overlooked in the Annual Program Summary. A synopsis of the 2014 results is provided below.

Eight advertised timber sales were offered in fiscal year 2014, for a combined volume of approximately 36.1 MMBF. These advertised sales, all initial offerings, were a mix of commercial thinning, density management, regeneration harvest and salvage. Offered ASQ volume from the land use allocations constituting the timber base (Matrix) was approximately 17.8 MMBF. Another 6.7 MMBF of volume was from density management in Riparian Reserves associated with commercial thinning and as such is not ASQ volume.

Three of the advertised timber sales totaling approximately 11.1 MMBF of timber volume were density management treatments in Late-Successional Reserves designed to accelerate the development of late-successional forest characteristics on the lands treated. This volume was not part of the ASQ.

Miscellaneous volume produced from negotiated timber sales which generally consist of salvage, rights-of-way sales, and modifications to operating advertised timber sales totaled approximately 5.3 MMBF of volume. The total volume of all timber offered for sale on the Roseburg District for fiscal year 2014 was approximately 41.5 MMBF.

The value of all timber successfully sold in fiscal year 2014 was approximately $ 9,386,000. The monies associated with offered timber sales are paid as timber is harvested over the life of the contract, which is three years or less. Timber sale receipts from active harvesting in fiscal year 2014 totaled approximately $4,711,000. Approximately 97 percent of the receipts were from Oregon and California Railroad Lands, and 3 percent from Coos Bay Wagon Road Lands.

The Roseburg District offered a total of seven advertised timber sales in fiscal year 2015, for a total volume of approximately 36.0 MMBF. The advertised sales, all initial offerings, were a mix of regeneration harvest, commercial thinning and density management sales.

Offered volume within the land use allocations constituting the timber base (Matrix) contained an ASQ volume of approximately 22.3 MMBF. Another 7.5 MMBF of volume from Riparian Reserve density management associated with the commercial thinning is not ASQ volume.

Three advertised timber sales contained density management treatments in Late-Successional Reserves to accelerate the development of late-successional characteristics in these forest stands. These sales produced approximately 6.2 MMBF of volume, which is not part of the ASQ.

Miscellaneous timber volume was produced from negotiated timber sales, which are generally salvage sales, rights-of-way timber sales, and modifications to operating advertised timber sales. In fiscal year 2015, approximately 6.6 MMBF of volume was produced from miscellaneous sale volume. The total volume of timber offered for sale initially or through modifications and negotiated contracts on the Roseburg District for fiscal year 2015 was approximately 42.6MMBF.

The value of all timber successfully sold in fiscal year 2015 was approximately $ 8,718,159. The monies associated with timber sales are paid as timber is harvested over the life of the contract, which is three years or less. Timber sale receipts collected by the Roseburg District in fiscal year 2015 from active harvesting totaled approximately $8,666,793. Approximately 72 percent of the receipts were from Oregon and California Railroad Lands, and 28 percent from Coos Bay Wagon Road Lands.

Under Section 15 of the Small Business Act (15 U.S.C. 631), the BLM is required to sell a certain percent of advertised timber sale volume to businesses with less than 500 employees. The current share was calculated as 53 percent for the Roseburg District. When the requisite percentage is not achieved through the normal bidding process, a requirement is "triggered" to set aside timber sales for exclusive offering to small businesses. The Roseburg District was required to set aside three sales for small business during fiscal year 2015.

The following tables provide a summary, by land use allocation and harvest type, of timber sale volumes and acres of timber offered **since** the signing of the Northwest Forest Plan.

Table 7. Summary of Advertised Volume Offered in Fiscal Year 2015

Sale Name	Sale Type	Harvest Type[1]	Sale Acres	Sale Volume (MBF)[2]	Sale Value
Conestoga	Advertised	Thinning	253	4,891	$1,287,380
Rolling Thunder	Advertised	Thinning	226	4,630	$967,488
Thundering Herd	Advertised	Thinning	337	5,613	$1,176,662
Camas Blooms	Advertised	Thinning	271	3,823	$714,885
Halfway Decent	Advertised	Thinning	387	7,659	$1,612,399
Green Gas	Advertised	Thinning	305	3,847	$342,834
Wiley Turtle	Advertised	Regeneration/Thinning	291	5,515	$1,241,681
Totals			2,070	35,978	$7,342,879

[1] Thinning category includes "density management"
[2] MBF = thousands of board feet using 16 foot log length rules

Table 8. Roseburg District Timber Sale Volume and Acres

Volume (MBF)	1995-2010 Total	2011	2012	2013	2014	2015	2011-2015 Total	1995-2015 Total	1995-2015 Annual Average	RMP/EIS Assumed Annual Average	Percent of Assumed Annual Average
Total Timber Sale Volume	443,030	27,727	27,914	31,391	41,507	42,575	235,395	614,144	30,707	49,500	62
Matrix Timber Sales	308,454	12,755	13,538	17,329	17,259	24,447	124,567	393,781	19,689	45,000	44
GFMA Regeneration Harvest	116,229	0	5,146	0	4,979	2,402	12,527	128,756	6,438		
GFMA Commercial Thinning	101,345	8,633	3,763	12,244	9,968	15,351	66,571	151,303	7,565		
GFMA Salvage & ROW	15,268	1,296	425	363	988	1,586	5,766	19,926	996		
C/D Block Regeneration Harvest	22,873	0	1,656	0	3	0	1,659	24,532	1,291		
C/D Block Commercial Thinning	46,965	2,729	2,437	4,561	1,257	,746	35,312	61,695	3,085		
C/D Block Salvage & ROW	5,776	97	111	161	64	108	1,479	6,317	316		
RR Density Management	43,439	4,221	3,637	5,234	6,695	7,937	39,595	71,163	3,558		
RR Salvage & ROW	1,061	0	0	0	0	13	35	1,074	54		
LSR Density Management	66,991	10,180	4,546	3,334	11,950	6,776	44,819	103,777	5,189		
LSR Salvage & ROW	6,157	445	545	138	2,081	3,402	6854	12,768	638		
Total All Reserves	117,645	14,846	8,728	8,706	14,031	18,128	91,303	188,779	9,439	4,500	210
Key Watersheds Matrix Timber Sales	54,258	4,782	2,759	5,613	57	3,203	21,581	70,672	3,534	8,700	41
AMA All Harvest Types	15,909	0	5,566	5,078	3,523	1,224	20,088	31,300	1,565	4,600	34
AMA Salvage & ROW	1,023	126	82	278	0	30	692	1,539	77		
Total AMA Timber Sales	16,932	126	5,648	5,356	3,523	1,254	20,118	31,330	1,567		

Table 8 Continued. Roseburg District Timber Sale Volume and Acres

Acres	1995-2010 Total	2011	2012	2013	2015	2015	2011-2015 Total	1995-2015 Total	1995-2015 Annual Average	RMP/EIS Assumed Annual Average	Percent of Assumed Annual Average
Total Regeneration Harvest	3,845	0	246	0	135	108	489	4,334	217	1,190	18
Total Commercial Thinning	10,249	891	616	1,070	702	1146	7,204	14,674	734	84	873
Total Density Management	7,865	958	465	433	996	799	3,996	10,520	526	66	796
GFMA Regeneration Harvest	3,095	0	160	0	135	108	403	3,498	175		
GFMA Commercial Thinning	6,463	690	92	600	501	860	3,841	9,206	460		
GFMA Salvage & ROW	854	9	20	7	40	24	142	954	48		
C/D Block Regeneration Harvest	684	0	61	0	0	0	61	745	38		
C/D Block Commercial Thinning	3,215	201	135	165	51	35	2,102	4,002	200		
C/D Block Salvage & ROW	285	0	36	4	2	2	72	329	16		
RR Density Management	3,332	310	253	258	352	433	2,473	4,918	246		
RR Salvage & ROW	59	0	0	0	0	0	1	59	3		
LSR Density Management	4,553	648	212	175	644	366	2,519	6,598	330		
LSR Salvage & ROW	313	1	11	5	76	143	246	549	27		
Total All Reserves	8,237	959	476	438	1,072	942	5,238	12,124	606		
AMA Regeneration Harvest	161	0	25	0	0	1	26	187	9		
AMA Commercial Thinning	800	0	389	305		51	1,111	1,545	77		
AMA Salvage	86	2	21	9	0	0	41	120	6		

Silviculture Activities

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

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

Site Preparation (FIRE) - The number of acres prepared with prescribed fire, both broadcast treatment and pile treatment is about 16 percent of what was envisioned in the ROD/RMP.

No acres were treated in 2015. An increase in this activity is expected over the next few years as more regeneration harvests are implemented.

Site Preparation (OTHER) - The number of acres prepared with alternative site preparation techniques is about 5 percent of what was envisioned in the ROD/RMP. No treatments have been done since 2002. Factors affecting this activity are the same as for site preparation, fire.

Planting (regular stock) - Total planted acres since 1995 without regard to genetic quality is at 31 percent of ROD/RMP assumed levels due to lack of accomplishment of planned ROD/RMP levels of regeneration harvest. In 2015, a total of 1,146 acres were reforested by planting. One hundred and twenty-four (124) acres of harvested stands and 1,022 acres of wildfire impacted stands were reforested by planting. Overall planting accomplishments are low because the Roseburg District has been unable to complete any substantial acreage in regeneration harvest timber sales since 1997. Regeneration harvests are the planned mechanism by which areas are made available for planting to start new forest stands for subsequent rotations. It is likely that in the short term, planting will remain far below planned levels because of the lack of the regeneration harvest levels which were anticipated in the ROD/RMP. However, in the next few years planting on wildfire disturbed areas is expected to increase.

Planting (improved stock) - In fiscal year 2015, no acres were reforested with genetically improved Douglas-fir in the General Forest Management Area (GFMA). For ASQ and monitoring report purposes, realization of genetic gain is assumed only for regeneration harvest units planted with improved seedlings located within the GFMA and Little River AMA.

Planting with genetically improved trees may occur on other land use allocations, e.g. Connectivity/Diversity Blocks, but any growth gains are highly speculative due to the high residual density harvest prescriptions applied there. In 2015 no acres in Late-successional Reserves were reforested by planting with improved stock.

Maintenance/Protection - acres of maintenance/protection treatments is currently 130 percent of planned levels due in great part to treatment need carryover from the previous land use plan era and unplanned wildfire rehabilitation. In 2015, maintenance/protection measures were applied to 281 acres.

Precommercial Thinning (PCT) - currently PCT is at 82 percent of planned ROD/RMP levels. A total of 1,425 acres were treated in 2015. Potential treatment acres are declining due to declines in regeneration harvest and reforestation over the past 20 years.

Pruning - currently pruning accomplishments are 101 percent of assumed ROD/RMP level. Pruning has not been implemented in recent years due to lack of funds.

Fertilization - Currently fertilization accomplishments are about 19 percent of assumed ROD/RMP levels. No fertilization has been implemented since 1998 due to administrative appeal and lack of funding.

Table 9. Roseburg District Forest Development Activities (acres by fiscal year)*

Development Activity	1996-2010	2011	2012	2013	2014	2015	Total to Date	Average Annual	Planned Annual	Percent of RMP Assumptions
Brushfield Conversion	0	0	0	0	0	0	0	0	15	0
Site Preparation (fire)	2,591	0	0	0	15	0	2,606	130	840	16
Site Preparation (other)	51	0	0	0	0	0	51	3	50	5
Planting (total)	7,562	0	0	0	286	1,146	7,994	450	1,430	31
Planting (improved stock)	1,533	0	0	0	31	0	1,564	85	1,140	7
Maintenance/ Protection	19,918	580	234	164	376	281	21,553	1,078	830	130
Precommercial Thinning	54,230	2,820	1,234	2,428	2,095	1,425	64,232	3,212	3,900	82
Pruning	9,266	0	0	0	0	0	9,266	463	460	101
Fertilization	5,504	0	0	0	0	0	5,504	275	1,440	19

*Data is for contracts awarded after October 1, 1995, and is displayed by fiscal year of contract award, not necessarily year of accomplished. Percent accomplishments are annualized based on seventeen years of implementation and 1st decade planned levels.

Special Forest Products

In addition to the advertised timber sales described above, the District sold a variety of special forest products as shown in Table 10. The sale of special forest products generally follow the guidelines contained in the Oregon/Washington Special Forest Products Procedure Handbook, H-5400-2. In fiscal year 2011, the Roseburg District discontinued the sale of Mosses-Bryophytes due to the inability of the average collector to distinguish common from rare (Special Status) species. There are no estimates or projections in the ROD/RMP or PRMP/EIS that need to be compared to the sold quantities shown.

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

Table 10. Special Forest Products by Fiscal Year

No. of Contracts	1996-2010	2011	2012	2013	2014	2015
Boughs-Coniferous	1,090	30	40	33	14	11
Burls & misc.	78	0	0	1	1	0
Christmas trees	3,121	146	180	196	211	255
Edibles & Medicinals	22	1	0	0	1	0
Floral & Greenery	3,099	554	624	828	389	455
Mosses - Bryophytes	24	n/a	n/a	n/a	n/a	n/a
Mushrooms - Fungi	3,012	385	493	474	333	418
Seeds & Cones	1	0	0	0	0	0
Transplants	63	3	0	0	0	0
Wood Products/Firewood	3,957	542	260	273	410	342
Totals	**14,667**	**1,661**	**1,597**	**1,805**	**1,359**	**1,418**
Quantity Sold	**1996-20100**	**2011**	**2012**	**2013**	**2014**	**2015**
Boughs-Coniferous (lbs)	1,350,492	92,500	65,500	72,500	22,500	10,500
Burls & misc.(lbs)	145,966	0	0	335	2,000	0
Christmas trees (ea)	3,321	146	180	196	211	255
Edibles & Medicinals (lbs)	49,020	500	0	0	500	0
Floral & Greenery (lbs)	1,464,740	262,800	306,000	411,050	196,640	155,865
Mosses – Bryophytes (lbs)	40,974	n/a	n/a	n/a	n/a	n/a
Mushrooms – Fungi (lbs)	194,415	29,528	34,960	32,829	32,852	29,190
Seeds & Cones (bushels)	74	0	0	0	0	0
Transplants	1,340	76	0	0	0	0
Wood Products/Firewood (Reported as cu ft 1999-2003)	2,310,371 bf 386,014 cu ft	missing	35,487	24,339	15,235	25,983
Value (dollars)	**1996-20100**	**2011**	**2012**	**2013**	**2014**	**2015**
Boughs-Coniferous	38,261	2,775	1,965	2,175	675	315
Burls & misc.	5,503	0	0	10	60	0
Christmas trees	16,645	730	900	980	1,055	1,275
Edibles & Medicinals	1,798	25	0	0	25	0
Floral & Greenery	129,159	24,772	29,342	39,925	20,200	16,895
Mosses - Bryophytes	1,447	n/a	n/a	n/a	n/a	n/a
Mushrooms - Fungi	47,774	7,337	8,598	8,054	7,936	7,140
Seeds & Cones	19	0	0	0	0	0
Transplants	1,161	30	0	0	0	0
Wood Products/Firewood	524,315	39,412	23,436	23,289	25,853	31,653
Totals	**766,082**	**75,081**	**64,241**	**74,433**	**55,804**	**57,277**

Noxious Weeds

The Roseburg District surveys BLM lands for noxious weeds, completing approximately 5,000 acres in fiscal year 2015. Infestations of high priority noxious weeds are reported to the Oregon Department of Agriculture (ODA). The District works with ODA, Douglas County, and Douglas Soil and Water Conservation District (DSWCD) to control those infestations.

The ROD/RMP identified two objectives for noxious weeds; contain or reduce infestations, and prevent introduction and spread of weeds. In working towards the first objective, approximately 2,500 acres of BLM lands were treated in cooperation with Douglas County and DSWCD and with contract crews using manual, mechanical, and chemical control methods. Noxious weeds treated include Portuguese broom, Scotch broom, Himalayan blackberry, false brome, English hawthorn, and yellow starthistle.

No additional biological control agents were released within the Roseburg District. They are widely established, however, on 14 noxious weed species throughout the Roseburg District that include: bull thistle, Canada thistle, gorse, Italian thistle, meadow knapweed, milk thistle, poison hemlock, purple loosestrife, rush skeletonweed, Scotch broom, slender-flowered thistle, St. John's wort, tansy ragwort and yellow starthistle. Once released, biological control agents reproduce and spread. Although monitoring has been done to determine the survival and establishment of biological control agents, no efforts have been made to quantify the extent or level of control achieved by these agents.

In working towards the second objective of preventing the introduction and spread of weeds, BLM incorporates weed inventory, treatment and monitoring into other projects on the District and develops partnerships. The results of these efforts are included in the figures above. BLM conducts education and outreach programs for children and adults to improve their understanding of noxious weeds and means to prevent the spread and reduce introduction of such weeds.

Table 11. Noxious Weeds Control Summary by Fiscal Year (accomplishments in acres)

Treatment	Species	1996-2010	2011	2012	2013	2014	2015
Manual/Mech.	Black locust	3	0	0	0	0	0
	Diffuse knapweed	4	1	1	0	1	0
	English hawthorn	130	140	130	12	0	50
	English ivy	61	4	2	0	0	1
	False brome	20	10	10	1	0	0
	French broom	25	0	0	0	0	0
	Gorse	8	0	0	0	0	0
	Herb Robert				1	0	0
	Himalayan blackberry	1423	100	100	7	0	3
	Japanese knotweed	7	0	0	0	0	0
	Malta starthistle	61	0	0	0	0	0
	Parrot feather	1	0	0	0	0	0
	Periwinkle	1	0	0	0	0	0
	Portuguese broom	11	0	0	0	0	0
	Purple loosestrife	10	1	0	0	0	0
	Reed canary grass	1	1	0	2	0	0
	Rush skeletonweed	179	0	0	0	0	0
	Scotch broom	2487	100	100	37	27	56
	Spanish broom	15	0	0	0	0	0
	Shiny leaf geranium	1	1	0	.08	0	0
	Spotted knapweed	4	1	0	0	0	0
	Spurgelaurel				1	0	0
	Sulfur cinquefoil	4	0	0	0	0	0
	Tansy ragwort	11	0	0	0	0	0
	Thistles (Italian, Bull, Milk)	276	10	2	0	0	3
	Yellow starthistle	375	10	2	0	0	0
	Woolly distaff thistle	5	1	1	0	0	1
Chemical	Canada thistle	15	10	0	0	0	0
	Diffuse knapweed	28	0	0	0	0	0
	English ivy	2	0	0	0	0	2
	English hawthorn	71	50	130	371	255	124
	False brome				.1	.4	1
	French broom	190	0	0	0	0	2
	Gorse	5	0	0	0	.1	0
	Himalayan blackberry	2175	594	480	129	86	269
	Japanese knotweed	0	0	2	.1	.6	1
	Portuguese broom	1938	106	106	0	730	700
	Rush skeletonweed	2	0	0	0	0	0
	Scotch broom	6256	850	854	730	1,588	495
	Spotted knapweed	14	0	0	0	0	2
	Thistles (Italian, Bull, Milk)	0	35	2	0	5	2
	Woolly distaff thistle	7	0	0	0	0	0
	Yellow starthistle	15	0	11	0	0	3
Fire	Medusahead wildrye	0	98	0	167	0	0

Fire and Fuels Management

Table 12. Fire & Fuels Management Activity

Summary of Activity						
Fiscal Year	Prescribed Fire* (acres)	Mechanical Treatment (acres)	On District Wildfires			Off District Wildfires & Incidents
			Total Fires (acres)	Lightning Caused (acres)	Human Caused (acres)	
1995-2005*	6,026	764	119 (397)	84	33	739 district personnel and 36 Administratively Determined (AD) or annuitants dispatched, 69 engines, 27 Probeye/Palm IR, assorted fire and road construction equipment, tenders, and mechanic services on 333 wildfires, and hurricanes Katrina and Rita..
2006-2010	2,191	2,360	46 (165)	32 (28)	14 (135)	**(2006)** Ninety-eight assignments to 49 incidents, including hurricanes Katrina and Rita: (**2007)** 23 personnel and 9Ads took 77 assignments to 33 incidents. (**2008**) 46 district personnel, 5 ADs, and 1 rehired Annuitant accepted 133 assignments to 47 incidents (**2009**) 29 personnel, including 5 Ads, took 76 assignments to 18 incidents and 2 severity assignments. (**2010**) 57 personnel, including 12 Ads, took 59 assignments to 13 incidents and 1 severity assignment. One district employee was assigned for the season to the Redmond IHC, and two Incident Medical Teams were assigned to four incidents.
2011	410	356	8 (1)	6 (0.85)	2 (2)	There were 38 red-carded district personnel and 8 red-carded ADs for the FY 2011 season. Of these 25 red carded employees and 5 red carded ADs accepted 77 fire assignments to 28 incidents, incident support and 1 severity assignment. Two Incident Medical teams were dispatch to 6 fire assignments.
2012	75	356	9 (2)	1 (0.10)	9 (2)	There were 39 red-carded district personnel and 7 red-carded ADs for the FY 2012 season. Of these 24 red carded employees and 7 red carded ADs accepted 119 fire assignments to 47 incidents, incident support and 4 severity assignment. Two Incident Medical teams were dispatch to 6 fire assignments.
2013	290	160	43 (6,500)	40 (6,304)	3 (196)	There were 35 red-carded district personnel and 12 red-carded ADs for the FY 2013 season. Of these 30 red carded employees and 10 red carded ADs accepted 114 fire assignments to 37 incidents, incident support and 6 severity assignments. Two Incident Medical teams were dispatch to 4 fire assignments.
2014	483	150	14 (5)	13 (3)c	1 (2)	There were 45 red-carded district personnel and 11 red-carded ADs for the season. 21 employees and 10 red ADs accepted 83 fire assignments to 37 incidents.
2015			22 (6,523)	13 (1)	9 (6522)	There were 45 red-carded personnel and 9 red-carded AD's for the FY 2015 season. Of these 41 red carded employees and 8 red-carded AD's accepted 150 incident assignments to 57 incidents in Oregon, Washington, California, Montana and Alaska. There were 8 engine and 2 Palm IR assignments to Oregon and Washington. There were also 2 Incident Medical Team dispatches.

*The cause of two fires was not determined.

Table 13. Dispatched Personnel and Equipment in Fiscal Year 2015

State	Redcarded Personnel	Redcarded ADs/ Incident Medical Teams	Engines
Alaska	1	1	
California	2		
Montana		4	
Oregon	70	24	1
Washington	30	18	7

Access and Rights-of-Way

Because public and private lands are intermingled within the District boundary, parties must cross the lands of the others to access lands and resources, such as timber. Throughout most of the District, this is accomplished by O&C Logging Road Rights-of-Way Permits and O&C Reciprocal Logging Road Rights-of-Way Agreements with neighboring landowners. Individual agreements and associated permits, totaling approximately 140 on the Roseburg District, are subject to the O&C regulations in effect at the time of execution. Current regulations are found at 43 CFR 2812. Additional rights-of-way have been granted or renewed under Title V of the Federal Land Policy and Management Act for energy and non-energy utility lines, domestic and irrigation water pipelines, legal ingress and egress, and communication sites.

Table 14. Access and ROW Summary.

Fiscal Year	New O&C Permits Issued	New FLPMA ROW Grants Issued	Amendments to O&C Permits Approved	Assignments to O&C Permits Approved	Easements Acquired
2001	3	0	0	5	0
2002	7	6	27	4	0
2003	4	1	13	6	0
2004	10	6	8	3	1
2005	7	4	4	2	0
2006	4	18	13	4	2
2007	3	6	29	6	0
2008	2	2	4	1	0
2009	2	2	6	1	1
2010	2	2	9	3	0
2011	8	5	4	1	1
2012	13	6	2	7	0
2013	8	6	6	3	0
2014	9	5	6	2	
2015	18	5	7	4	
Totals	91	69	132	50	5

Roads

The Roseburg District has approximately 2,800 miles of roads which are controlled by or were improved by the BLM. The district road maintenance crews maintain roads in accordance to the maintenance operation plan, on a regular basis. Maintenance crews maintained 567 miles of roads during fiscal year 2015.

One large deferred maintenance project was completed. For the Rock Creek Chip Seal Project crews expended an effort equivalent to one work month in the application of 4,136 tons of chip rock and 497 tons of emulsified liquid asphalt to the main Rock Creek Road. The crew also installed a 60- inch pipe on the Middle Creek Access Road. Other work included 2 ERFO projects, removing a 3,000 cubic yard slide on the Cow Creek Back Country Byway and a 400 cubic yard slide in the vicinity of Trapper Creek in the Canton Creek watershed. Crews also removed 1,650 cubic yards of slide material associated with the Douglas Complex Bar Project.

Additionally, the crews completed 163 miles of roadside brushing, placed 1,630 tons of hot mix on various asphalt-surfaced roads, replaced 805 linear feet of culverts, placed 17,288 cubic yards of rock on aggregate road surfaces, graded 230 miles of aggregate-surfaced roads, removed 10,330 cubic yards of slide/slough material, cleaned 302 culverts, maintained 90 miles of ditches, maintained 10 bridges, power swept 86 miles of asphalt roads, and removed 72 windfall trees from the roadway.

Energy and Minerals

The Formosa Abandoned Mine Land (AML) site, an abandoned copper and zinc mine located at Silver Butte, encompasses approximately 76 acres of privately owned property and 2 acres of BLM managed lands in steep mountainous terrain. The mine originally operated in the early 1900s, with the majority of production occurring between 1927 and 1933. The Formosa mine was reopened by Formosa Explorations, Inc. in 1990 and produced copper and zinc ore at a rate of 350-400 tons per day between 1990 and 1993. The Oregon Department of Geology and Minerals Industries (DOGAMI) issued a permit for the mining activities and required Formosa Explorations, Inc. to establish a reclamation bond prior to beginning operations. The mine closed in 1994 and Formosa Explorations, Inc. conducted reclamation activities using a bond of one million dollars. Formosa Explorations, Inc. spent most of the bond money, satisfied most of DOGAMI's reclamation requirements, and declared bankruptcy. In the winter of 1995-1996, the drainfield from the adits failed and began releasing acid mine drainage (AMD) to Middle Creek and South Fork Middle Creek.

Post reclamation monitoring of South Fork Middle Creek and Middle Creek indicated that 18 stream miles have been impacted from metals contamination, primarily cadmium, copper, lead and zinc, associated with acid mine drainage from the Formosa mine site. Based on this situation, the Oregon DEQ and BLM have determined that this project is a high priority for further action.

Results from investigations completed from 1994 to 2000 indicated that the concentrations of dissolved metals found in Middle Creek and South Fork Middle Creek pose an imminent threat to aquatic life including anadromous fish.

In fiscal year 2000, the Roseburg District issued an action memorandum to approve Removal Actions by the Department of Environmental Quality under the authority of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). At the time, surface adit effluents were thought to be the primary pathway of contaminants to adjacent streams. The Oregon DEQ Removal Action consisted of diversion of surface adit waters away from the headwaters of Middle Creek.

The Oregon DEQ, the lead agency in the clean-up of the Formosa AML site, initiated further investigation in November 2001 to supplement the Remedial Investigation performed by the BLM in 2000. The field investigation portion of the supplemental Remedial Investigation, completed in June 2002, included extensive monitoring by BLM and DEQ. The Oregon DEQ, its contractor Hart Crowser, and the BLM have analyzed the data and Hart Crowser has prepared a Supplemental Remedial Investigation Report. Results of the data analysis indicate that groundwater from the mine workings, not surface adit effluents, is the primary contributor of metals to both Middle Creek and the South Fork of Middle Creek.

During fiscal year 2004, Oregon DEQ and BLM completed the Formosa *Human Health and Ecological Baseline Risk Assessment.* The report concluded that metals contamination poses the highest risk to aquatic organisms and exceeds Oregon DEQ acceptable human health criteria for campers. In December 2004 the Oregon DEQ published the Formosa *Feasibility Study.* The study notes the complex nature of the site makes identification of an up-front solution problematic. Instead a number of possible remedial technologies are identified. The recommended remedy is a phased approach. Lower cost elements would be implemented and monitored for effectiveness prior to implementing more costly elements.

Throughout fiscal year 2005, the BLM continued to assist in monitoring the Oregon DEQ Removal Action, as well as water quality in the Middle Creek subwatershed and Cow Creek watershed. Results indicate that water quality remains unchanged relative to previously published Removal Investigations. Also in 2005, the U.S. Environmental Protection Agency (EPA) Region 10 responded to a citizen petition and issued a CERCLIS number for the Formosa Mine Site. The action requires EPA to review available information and conduct site investigations, as necessary, to determine if further action is necessary.

During fiscal year 2006, Region 10, in cooperation with Oregon DEQ and BLM, conducted several investigative visits to the site. In May of 2006, Oregon DEQ, citing the high cost of mine clean-up and lack of agency funds, officially requested that EPA assume the role of lead agency. EPA concurred, and with the Governor's Office support, Region 10 recommended the site to Washington Headquarters for inclusion on the National Priorities List. On September 19, 2007, the Formosa mine site was added to the EPA's National Priorities List, also known as the Superfund list. In 2009 the EPA identified the need for, and conducted, further site sampling. The EPA is continuing its evaluation and determining future clean up actions at the site and plans to conduct additional sampling in the coming years.

In fiscal year 2011, the BLM and the EPA continued the Remedial Investigation (RI) activities at the Formosa AML site. Activities included installation of several monitoring wells, waste rock characterization analysis, continued surface water monitoring and analysis, completion of a three dimensional modal of the mine workings and topographic features, and core drilling investigations.

The final draft of the RI, which focused on all surface mine materials deposited outside of the underground mine workings, was completed in early 2012.

Other materials on the surface, including contaminated soils, were also studied. This part of the study is called "Operable Unit 1 (OU1)". The results of this study are entitled "Final Formosa Mine Superfund Site OU1 Remedial Investigative Report" which was released in February 2012 and is available on the EPA Region 10 website and at both the Riddle and Roseburg libraries.

Information gathered during the RI helped determine the best and most efficient methods of addressing the surface mine materials. Several cleanup options were evaluated which are detailed in a document entitled "Final OU1 Feasibility Study, Formosa Superfund Site, Douglas County, Oregon". This document was published and made available to the public on January 31, 2013.

During fiscal year 2014, BLM undertook an Engineer Estimate, Cost Analysis (EE/CA) of a non-time critical removal action to address OU2, specifically the discharge from the Formosa 1 Adit. A 30-day public comment period was held in the summer of 2014. Following the comment period, the alternative selected was to open and rehabilitate the Formosa 1 Adit and install a valved bulkhead to control the acid mine drainage. The BLM contracted this work through the Army Corp of Engineers.

In fiscal year 2015, the Army Corp of Engineers (ACoE) issued a Request for Qualification and a contractor was selected to begin negotiations for a construction contract to conduct the remedial actions. The remedial actions are expected to begin during the summer of 2016. The effectiveness of the action will be monitored and included in the RI/FS for OU2. This action is expected to be consistent with the remediation actions for OU2.

Sampling of seeps, springs, surface water and groundwater continued in 2015 and will continue in 2016 and beyond as part of "Operable Unit 2" (OU2).

The EPA released a proposed alternative in FY2015 and had a 30 day public comment period regarding the clean-up alternatives. The EPA expects to issue the selected remedy in a Record of Decision in summer 2016.

BLM strongly endorses site clean-up and the cessation of pollution emanating from the Formosa mine. BLM will continue to work collaboratively with all partners in finding solutions to the problems generated by the site.

Table 15. Roseburg District Mining Related Activities (by fiscal year)

	1996-2010	2011	2012	2013	2014	2015
Plan of Operation	1	0	0	0	0	0
Mining notices received & reviewed	29	0	0	0	0	0
Mining claim compliance inspections	523	10	10	11	10	10
Notices of non-compliance issued	10	0	0	0	0	0
Community pit inspections	548	21	46	36	36	38
Mineral Material Disposals*	64	16	18	16	22	15

* Mineral Material Disposals have not been reported until fiscal year 2006.

Land Tenure Adjustments

There were no acquisitions, donations, or exchanges completed during fiscal year 2015.

Unauthorized Use

The public lands continue to see a large number of unauthorized uses. These unauthorized uses include dumping, individuals attempting to live on public lands, land owners denying access on BLM rights-of-way to BLM employees, individuals building permanent hunting camps, individuals taking Special Forest Products without authorization, and individuals using closed roads or trails or creating new off-highway trails.

Of these actions, dumping of household trash, commercial dumping of tires and building materials and the dumping of abandoned vehicles is by far the biggest detriment to public land, because it is so widespread and because the impact of dumping can be so long term.

Hazardous Materials

In FY 2015, the Roseburg District Office Hazardous Materials program consisted of a number of actions, including investigations, removals, clean-ups, and coordination, as summarized below:

- Filed the 2015 Annual Hazardous Waste Report with the Oregon Department of Environmental Quality.
- Filed the 2015 Hazardous Information Survey for all facilities with the Oregon Office of State Fire Marshal.
- District hazardous materials coordinator and alternate coordinator made two Hazardous Materials First Responder – Awareness Level training presentations to the Roseburg District resource area.
- Coordinated operations under a Zone Agreement with Eugene District for Hazardous Materials support.
- Updated District Environmental Contingency Plan for Emergency Preparedness and Response.
- Coordinated cleanup of three hazardous materials dump site with the state IDIQ contractor.
- Inspected six sites to determine level of hazardous materials concern and plan for cleanup.

Table 16. Hazardous Material Incidents Requiring Response

Fiscal Year	Incidents Requiring Response
1999 - 2009	21
2010	1
2011	1
2012	0
2013	0
2014	1
2015	3

Coordination and Consultation

Federal Agencies

Significant cooperation and coordination between Federal agencies has taken place since June 1995. There is ongoing participation in the Southwest Oregon Provincial Executive Committee and Southwest Oregon Provincial Advisory Committee. There have been many interagency efforts that have included the Roseburg District BLM, USFWS, USFS, NMFS, EPA, USGS, National Resource Conservation Service, Federal Energy Regulatory Commission, and the Bonneville Power Administration on projects such as watershed analysis, late-successional reserve assessments, the Little River Adaptive Management Area, water quality projects, transmission lines, etc. In addition, personnel from several of these agencies have been involved in project-level planning, conflict resolution and Section 7 consultation under the Endangered Species Act. Federal agency coordination and cooperation has occurred through the Regional Interagency Executive Committee and the Regional Ecosystem Office established under the Northwest Forest Plan.

State of Oregon

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

Counties

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

Cities

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

Tribes

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

Watershed Councils

The Roseburg District supports and cooperates with all the watershed councils in the Umpqua Basin—the Partnership for the Umpqua Rivers, Elk Creek Watershed Council, and the Smith River Watershed Council. These councils work toward the restoration and enhancement of water quality and fish populations. See Table 3 for a list of projects completed in cooperation with watershed councils and other organizations.

Other Local Coordination and Cooperation

The District maintains an information line (541-440-4932) with menus relating to fire levels and closures, road information, and recreation opportunities. Roseburg BLM sponsors more than 15 different public service events annually, to recognize special occasions such as Earth Day and National Public Lands Day. Additionally, Roseburg BLM staff frequently present natural resources information and host field trips for local schools and community groups. The District has ongoing opportunities for volunteer work, and in fiscal year 2014, volunteers and hosted workers accomplished extensive work, some of which is highlighted in the recreation and noxious weed treatment portions of this Annual Program Summary. Hosted workers include the Phoenix School's Oregon Youth Conservation Corps, Northwest Youth Corps, Student Conservation Corps and an AmeriCorps Vista program member. New Memorandums of Understanding and Assistance Agreements were made with the Wolf Creek Job Corps, Umpqua National Forest, and Student Conservation Association (see the Recreation section).

Research

A long-term (15-plus years) density management study in western Oregon was initiated in 1997 by the Roseburg District in cooperation with the USGS Forest and Rangeland Ecosystem Science Center. The study examines vegetation response, and effects of treatments on micro-climate and micro-habitat, aquatic vertebrates, lichens and bryophytes. These sites also serve as demonstration areas for educational purposes. Three study sites were identified for the Roseburg District, with one subsequently dropped due to litigation. The study was established to explore techniques to accelerate development of young stands into late-successional forest structures through active management. Initial treatments were implemented in 1997-1998, with a second series of done in 2009-2011. Monitoring for various sub-components of the study is ongoing.

An unnamed tributary to McComas Creek in the Rock Creek watershed was selected as a study site in the Western Oregon BLM Effective Shade and Water Temperature Monitoring Project. The study site is located in Section 35, T. 25 S., R. 3 W., within the Corvid Commercial Thinning project. The objective of the study is to provide a coordinated monitoring effort to evaluate BLM Riparian Reserve management in protecting stream temperature and in meeting

TMDL shade targets across the five western Oregon BLM Districts. Annual summer stream temperature monitoring has been conducted at six sites along this stream since 2010. Pre-project hemispherical photos were collected at 20 sites along this stream in 2010, before thinning, and in 2013, post-thinning, to calculate effective shade before and after thinning. Pre-thinning effective shade averaged 97 percent, while post-thinning, effective shade averaged 94 percent. Effective shade greater than 70 to 80 percent is considered ideal to protect riparian conditions. Annual summer stream temperature monitoring at this site also found no detectable change in stream temperature from 2010 to 2015.

Information Resource Management

The ability to accomplish complex management of diverse resources over 425,000 acres requires enormous amounts of information. In order to accomplish this management in an efficient manner, the Roseburg District employs the most up to date electronic office and GIS hardware and software. Recently there have been several major accomplishments concerning information resource management.

Enterprise-wide group policies are set at the Department of Interior level and are implemented automatically on all computer and user accounts. Security remains a top priority while keeping user needs in balance. All District personnel have access to agency email, the Internet and office software.

The BLM has seen consolidation of servers and system administration to the Department of the Interior. This move will leverage DOI's ability to manage Information Technology assets and personnel more efficiently. The Roseburg District's goal is to continue to place appropriate technology and training in the hands of employees and decision makers to increase efficiency and effectiveness.

Most significant to District resource management professionals is the integrated use of the Geographic Information System. This electronic mapping and analysis tool provides a means for District specialists to complete complex analyses of spatial and relational data.

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

Cadastral

Cadastral Survey crews perform an essential function in the accomplishment of resource management objectives. Cadastral Survey traditionally works to perform legal boundary surveys; establish, or reestablish, mark and maintain Federal boundaries. In addition to the normal work, Cadastral Survey provided technical assistance for legal and spatial land information products and other related services that enhance the management of the natural and cultural resources. One full-time Cadastral crew operated on Roseburg District--their Fiscal year 2015 accomplishments include 6 projects completed, 27 miles of line surveyed/resurveyed, and 23 miles of boundary line posted and blazed. An Oregon State Office Cadastral crew was enlisted to complete an additional project consisting of 5 miles of line surveyed/resurveyed, and 3 miles of boundary line posted and blazed. In all, 9 Public Land Survey System (PLSS) corners were established or reestablished, 8 existing PLSS corners were remonumented, and 17 existing PLSS corners were rehabilitated.

Table 17. Roseburg District Cadastral Survey Activity (by fiscal year)

	1998-2010	2011	2012	2013	2014	2015
Projects Completed	187	10	12	8	7	7
Miles of Survey Line Run	698	23	22	28	36	32

Law Enforcement

In fiscal year 2015, Roseburg District law enforcement staff consisted of two full time BLM law enforcement rangers. The Roseburg District also has a long running service contract with the Douglas County Sheriff's Office to provide a Sheriff's Deputy assigned to patrol lands administered by the Roseburg BLM. From October until June one full time deputy was contracted for, from July until September the BLM contracted for one half-time deputy position. The law enforcement program strives to be a dynamic program and is constantly adjusting to meet the District's law enforcement needs.

During the fiscal year, various detail assignments and training resulted in the loss of five work months between the two ranger positions. The district was able to recruit rangers from Arizona and California on detail during the busy summer recreation season to fill this void and provide approximately 85 percent of normal staffing.

Two significant events during the fiscal year, Cable Crossing and Stouts Creek wildland fires, consumed a substantial amount of the limited law enforcement resources.

Law enforcement continues to emphasize employee and public safety along with the protection of natural resources. To accomplish this, rangers emphasize patrols in developed recreation areas during summer months, monitor special forest products harvest during fall, winter and spring and patrol year-round areas where employees are working.

The District's law enforcement program continued to emphasize employee and public safety along with the protection of natural resources. To accomplish these goals Rangers and Deputies emphasize patrols in the developed recreation areas during the summer months, monitoring of special forest product harvesting during the fall, winter and spring and year round patrols in areas where employees are working. The law enforcement program strives to be a dynamic program and is constantly adjusting to meet the District's law enforcement needs.

Table 18. Summary of Criminal Activity on District for Fiscal Years 2014 and 2015

Activity	2014	2015
Special Forest Products theft	31	25
Theft	20	23
Vehicle Violations	87	42
Vandalism	14	23
Liquor Laws	0	1
Assist Other Agencies	52	34
Assist all others	No report	1
Driving Under the Influence	1	0
Drug/Narcotics	15	25
Violate Closure\Restriction	152	53
Abandoned Property/vehicles	11	4
Littering/Dumping	180	92
Accident Investigation	7	0
Camping Violations	83	42
Warrant Arrest	20	10
Search & Rescue	24	3
Disorderly Conduct/Hazard /Nuisance	54	24
Forgery/Counterfeiting	0	3
Game Animal/Hunting Violations	1	1
Investigation for Human Remains	1	0
Patrol Checks	No report	416
Totals	753	868

National Environmental Policy Act Analysis and Documentation

NEPA documentation

BLM reviews the environmental effects of a proposed management action and complies with NEPA in four ways: categorical exclusions (CX), administrative determinations, environmental assessments (EA), or environmental impact statements (EIS).

BLM may categorically exclude categories of actions determined not to have significant environmental effects, either individually or cumulatively. Actions that are categorically excluded do not require further analysis under NEPA. These categories of actions are published in the Departmental Manual and in regulation, and CXs are addressed specifically by Department of the Interior and BLM guidelines.

BLM may make an administrative determination that existing NEPA documentation adequately analyzes the effects of a proposed action. This determination of NEPA adequacy (DNA) confirms that an action has been adequately analyzed in existing NEPA document(s) and conforms to the land use plan, thus, no additional analysis is needed.

BLM prepares an EA to analyze the effects of actions that are not exempt from NEPA, are not categorically excluded, and are not covered by an existing environmental document. An EA is prepared to determine if a proposed action or alternative(s) would significantly affect the quality of the human environment. If the action would not have a significant impact to the human environment, this conclusion is documented in a "finding of no significant impact" (FONSI). If the action is found to have a significant impact on the human environment, an environmental impact statement is prepared. Environmental assessments vary in complexity, detail and length depending upon the proposal under consideration.

BLM prepares an EIS for major Federal actions when there may be significant impacts to the human environment that have not been previously in an EIS.

Table 19. Summary of NEPA Documentation in fiscal year 2015 and 1996-2015

NEPA Documentation	2015	1996-2015 Totals
Environmental Impact Statements	0	1
Environmental Assessments	3	159
Determinations of NEPA Adequacy or Plan Conformance Determinations	2	100
Categorical Exclusions	12	816

Protest and Appeals

The Roseburg District received the following protests and appeals on management actions in fiscal year 2015.

Table 20. Summary of Protests, Appeals, and Litigation in Fiscal Year 2015

Project Name	Project Type	Decision Date	Protested by	Appealed by	Status
White Castle Variable Retention Harvest	Timber Sale	July 24 2012			Suit filed by Oregon Wild and Cascadia Wildlands. Motion for Summary Judgment filed with U.S. District Court for the District of Oregon June 20, 2015. BLM responded to Plaintiffs' Motion for Summary Judgment and Plaintiffs countered. Oral arguments held before Judge Anne Aiken on January 22, 2015. Judge Aiken issued an Opinion and Order on March 14, 2015, finding for the appellants, ruling that the BLM had violated NEPA by failing to: (1) prepare an EIS given the significant impacts of the project; (2) consider reasonable alternatives to the proposed action; and (3) describe impacts to red tree voles identified by third party surveyors.
Rabbit Mountain Fire Safe Cow	Hazard Tree Felling and Removal	Mar. 24 2015	April 10, 2015 by Roseburg Resources Co. and the American Forest Resources Council		The protest contended that the BLM had (1) failed to take a hard look at reasonable alternatives, (2) failed to consider modifications to snag and down wood retention guidelines, and (failed to prepare an environmental impact statement. The BLM responded to and denied the protest in a letter dated April 27, 2015.
Rabbit Mountain Fire Safe Cow	Hazard Tree Felling and Removal	Mar. 24 2015		May 27, 2015 by Roseburg Resources Co. and the American Forest Resources Council	The Notice of Appeal did not include a Petition for Stay. A Statement of Reasons which largely reprised the points made on protest was filed by the Appellants on July 10, 2015, to which the BLM responded on September 10, 2015. The BLM Decision was upheld by the Interior Board of Land Appeals.
Wiley Turtle Timber Sale	Timber Harvest	Sept. 3, 2015	Elizabeth Gwynn and Lynda Blumenthal, adjacent landowners		The protest is largely a revisitation of concerns that the landowners have expressed for the integrity of a domestic waterline within a right-of-way in one sale unit, construction of a road that they believe will promote unregulated off-highway vehicle use, and what they perceive to be an increased risk of wildfire.
Wiley Turtle Timber Sale	Timber Harvest	Sept. 3, 2015	Cascadia Wildlands		The primary issues of the protest are a challenge of the need to create early successional forest in the General Forest Management Area to diversify age-class distribution on the landscape, and concerns about potential effects to the landowners adjacent to one of the timber sale units.

Resource Management Plans for Western Oregon: 2015 Summary of External Activity

The BLM is continuing to make progress on plan revisions for the Resource Management Plans (RMPs) for Western Oregon. The planning team held 16 public meetings in May and June of 2015, which included six open houses to discuss, and receive feedback on the alternatives and other aspects of the analysis; and nine issue-specific workshops for recreation, socio-economics, riparian management, and forest management. Reports on these meetings are posted on the RMPs website at:
http://www.blm.gov/or/plans/rmpswesternoregon/files/Public_Outreach_Report_Aug2015.pdf.

In April, 2015 the BLM released the Draft RMP/EIS for the RMPs for Western Oregon for public comment, receiving approximately 4,500 comments during the comment period from April 24 to August 21, 2015. All comments received during this comment period are available on the RMP website at: http://www.blm.gov/or/plans/rmpswesternoregon/comments.php. The Draft RMP/EIS contained the analysis for resource programs within western Oregon for a No Action alternative, four action alternatives, and two sub-alternatives. The Draft RMP/Draft EIS is available on the RMPs website at: http://www.blm.gov/or/plans/rmpswesternoregon/deis.php.

The RMP revision is on a timeline for release of the Proposed RMP/FEIS in the Spring of 2016, which will have a 30-day public protest period. The Proposed RMP/FEIS will also be subject to a 60-day Governor's Consistency Review. The Approved RMP/Record of Decision is scheduled to be released in the Summer of 2016. The RMPs timeline is updated as needed, and can be found on the RMPs website at: http://www.blm.gov/or/plans/rmpswesternoregon/index.php. More information on plan revision progress, videos created for the Draft RMP/Draft EIS, an Interactive Map of the planning area, and additional documents created during the plan revisions are all available on this same website.

Resource Management Plan Evaluations

National BLM policy and federal regulations (43 Code of Federal Regulations (CFR), §1610.4-9) require that resource management plans be evaluated every five years. Plan evaluation is the process of determining if land use plan decisions and NEPA analysis are still valid and whether the plan is being implemented. The Roseburg District last evaluated its RMP in 2011 in conjunction with evaluations on the Resource Management Plans for the other Western Oregon BLM Districts. The Resource Management Plan Evaluation Report for Western Oregon Districts was finalized in August of 2012. The report can be found on the Oregon BLM's planning website: www.blm.gov/or/plans/files/RMPEvaluation.pdf .

The plan evaluations showed that timber sales associated with the lands allocated to sustained yield timber production have continued to depart substantially from the assumptions of the 1995 RMP determination of the Allowable Sale Quantity (ASQ). The reduced levels of regeneration harvest sales and acceleration of thinning from the harvest land base has been a long-term trend since 1999. Accelerated rates of thinning without replenishment of younger forest stands through regeneration harvest means that opportunities for thinning will eventually be exhausted. The current approach to a forest management regime that deviates so considerably from the RMP assumptions used in determination of the ASQ is not sustainable at the declared ASQ level. New

information and changed circumstances have arisen relevant to management direction and land use allocations for the northern spotted owls.

The new Recovery Plan for the northern spotted owl was completed in 2011 and includes recovery actions not addressed in the 1995 RMPs.

Current and proposed northern spotted owl critical habitat does not align with land use allocations in the 1995 RMPs. There are new listings, recovery plans (or draft recovery plans), and designations of critical habitat for many other fish, plant, and terrestrial species.

The evaluations concluded that most decisions in the current RMPs are still valid and that BLM can continue to implement them, however, based on the above information the evaluation report found a need for changes to the timber and wildlife programs and minor changes to most other programs. A plan revision is warranted. This is the appropriate mechanism for the BLM to comprehensively review the mix of resource uses and protections and adjust RMP objectives and associated land use allocations and management direction as needed.

This evaluation is on file at the Roseburg District Office, 777 NW Garden Valley Blvd., Roseburg, Oregon.

Plan Maintenance

The Roseburg ROD/RMP was approved in June 1995. Since that time, the Roseburg District has implemented the plan across the entire spectrum of resources and land use allocations. As the plan is implemented, it sometimes becomes necessary to make minor changes, refinements, or clarifications of the plan which may take the form of maintenance actions. Maintenance actions respond to minor data changes and incorporation of activity plans and are limited to further refining or documenting a previously approved decision incorporated in the plan. Plan maintenance will not result in expansion of the scope of resource uses or restrictions or change the terms, conditions and decisions of the approved resource management plan. Maintenance actions are not considered a plan amendment and do not require the formal public involvement and interagency coordination process undertaken for plan amendments.

Important plan maintenance will be documented in the Roseburg District Planning Update and Roseburg District APS. Two examples of possible plan maintenance issues that would involve clarification may include the level of accuracy of measurements needed to establish Riparian Reserve widths and measurement of coarse woody debris. Much of this type of clarification or refinement involves issues that have been examined by the Regional Ecosystem Office and contained in subsequent instruction memos from the BLM Oregon State Office. Depending on the issue, not all plan maintenance issues will necessarily be reviewed and coordinated with the Regional Ecosystem Office or Provincial Advisory Committee. Plan maintenance is also described in the Roseburg District Resource Management Plan Record of Decision, page 79.

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

that do not result in the expansion of the scope of resource uses or restrictions or change the terms, conditions and decisions of the approved resource management plan.

Plan Maintenance for Fiscal Year 1996

1. Refinement of management direction pertaining to Riparian Reserves.

   Standard of accuracy for measuring Riparian Reserve widths. (NFP Record of Decision page B-13, Roseburg ROD/RMP page 23)

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

2. Refinement of management direction pertaining to Riparian Reserves.

   Determining site-potential tree height for Riparian Reserve widths. NFP Record of Decision page C-31, Roseburg ROD/RMP page 24)

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

   - Determine the naturally adapted tree species which is capable of achieving the greatest height within the fifth field watershed and/or stream reach in question;
   - Determine the height and age of dominant trees through on-site measurement or from inventory data (Continuous Forest Inventory Plots)

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

Select the appropriate site index curve;

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

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

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

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

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

- In determining compliance with the linear feet requirements for coarse woody debris, the Roseburg District will use the measurement of the average per acre over the entire cutting unit, or total across the unit.
- Log diameter requirements for coarse woody debris will be met by measuring logs at the large end.
- Interdisciplinary teams will establish minimum coarse woody debris requirements on each acre to reflect availability of coarse woody debris and site conditions.
- During partial harvests early in rotational cycle, it is not necessary to fall the larger dominant or codominant trees to provide coarse woody debris logs.
- Count decay class 1 and 2 tree sections greater than or equal to 30 inches in diameter on the large end that are between 6 feet and 16 feet in length toward the 120 linear feet requirement

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

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

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

4. Minor change in management direction pertaining to lynx.

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

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

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

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

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

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

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

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

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

6. Minor change/correction concerning mountain hemlock dwarf mistletoe

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

Plan Maintenance for Fiscal Year 1997

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

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

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

   The S&G on page C-5 of the NFP ROD states "implemented in 1997 or later", the NFP ROD, page 36 states "implemented in fiscal year 1997 or later". In this case where there is a conflict between specified fiscal year (ROD page 36) and calendar year (S&G page C-5) the more specific fiscal year date will be used over the non-specific S&G language. Using fiscal year is the more conservative approach and corresponds to the fiscal year cycle used in project planning and, also, to the subsequent reference to surveys to be implemented prior to fiscal year 1999. Information from Oregon State Office Instruction Memorandum OR-97-007.

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

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

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

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

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

5. Conversion to Cubic Measurement System.

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

6. Clarification of retention of coarse woody debris.

   The NFP ROD S&G, page C-40 concerning retention of existing coarse woody debris states: "Coarse Woody Debris already on the ground should be retained and protected to the greatest extent possible…"

   The phrase "to the greatest extent possible" recognizes felling, yarding, slash treatments, and forest canopy openings will disturb coarse woody debris substrate and their dependent organisms. These disturbances should not cause substrates to be removed from the logging area nor should they curtail treatments. Reservation of existing decay class 1 and 2 logs, in these instances, is at the discretion of the District. Removal of excess decay class 1and 2 logs is contingent upon evidence of appropriately retained or provided amounts of decay class 1 and 2 logs.

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

   Scenario 1. Blowdown commonly occurs and wind normally fells retention trees, providing both snags and coarse woody debris immediately following regeneration harvest. After two winter seasons, wind firm trees may still be standing; top snap occurs providing both snags and coarse woody debris; and blowdowns include total tree length, often with the root wad attached. A third year assessment would monitor for coarse woody debris and determine if the need exists to fell trees to meet the required linear feet.

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

   Scenario 3. The strategy is to meet the decay class 1 and 2 log level required post-harvest immediately following logging or the site preparation treatment period. This strategy assumes that an adequate number of reserve trees are retained to meet the requirement. Upon completion of harvest, the existing linear feet of decay class 1 and 2 logs for each sale unit are tallied; and then the reserve trees are felled to meet the 120 feet linear foot requirement.

Knockdowns, trees felled to alleviate a logging concern, and blowdowns are counted toward the total linear feet so long as they meet the decay class, diameter, and length requirements. The minimum amount of coarse woody debris linear feet are ensured, and excess trees continue to grow.

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

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

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

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

7. Clarification of insignificant growth loss effect on soils.

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

Plan Maintenance for Fiscal Year 1998

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

Guidance on implementation of the 15 percent retention management action/direction which provides for retention of late-successional forests in watersheds where little remains. A joint BLM-USFS guidance which incorporated the Federal executives' agreement was issued on September 14, 1998, as BLM Instruction Memorandum No. OR-98-100. This memo clarifies and refines the standard and guideline contained in the Northwest Forest Plan and ROD/RMP that directs that in fifth field watersheds in which Federal forest lands are currently comprised of 15 percent or less late-successional forest should be managed to retain late-successional patches.

The memo emphasizes terminology and intent related to the standard and guideline, provides methods for completing the assessment for each fifth field watershed, dictates certain minimum documentation requirements and establishes effective dates for implementation. Instruction Memo OR-98-100 is adopted in its entirety as ROD/RMP clarification and refinement.

2. Clarification of Visual Resource Management Action/Direction.

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

Plan Maintenance for Fiscal Year 1999

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

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

Plan Maintenance for Fiscal Year 2000

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

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

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

   Bushnell-Irwin Rocks ACEC/RNA was inadvertently omitted from the list of ACEC/RNAs that are closed to motorized use on page 59 of the ROD/RMP. ACEC/RNAs are closed to motorized use on page 51 of the ROD/RMP and Bushnell-Irwin Rocks ACEC/RNA is listed as closed to motorized use in the Roseburg District Off-Highway Vehicle Implementation Plan. This plan maintenance eliminates this inconsistency and clarifies that Bushnell-Irwin Rocks ACEC/RNA is closed to motorized use.

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

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

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

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

B. Site Preparation Using Prescribed Burning

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

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

b. Hand pile and burn, swamper burning:

1. Pile small materials (predominately 1 - 6 inches in diameter).
2. Burn when soil and duff moisture between piles is high.
3. Only pile areas where loading (depth and continuity) require treatment to meet management objectives.
4. On highly sensitive (category 1) soils, hand pile and burn (and swamper burn) treatments considered to be essential to meet resource management objectives will be designed to minimize consumption of litter, duff, and large woody debris. Mineral soil exposed by the burn will be less than 15 percent of unit surface area.

c. Broadcast burning:

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

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

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

   Severely burned: Top layer of mineral soil significantly changed in color, usually to reddish color, next one-half inch blackened from organic matter charring by heat conducted through top layer.
2. When feasible, pull slash and woody debris adjacent to landing onto landing before burning.
3. On highly sensitive (category 1) soils, broadcast burning treatments considered essential to meet resource management objectives will be designed to minimize consumption of litter, duff, and large woody debris. Mineral soil exposed by the burn will be less than 15 percent of the unit surface area.

d. Clarification of what roads shall be included as a starting point to monitor the reduction of road mileage within key watersheds.

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

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

Plan Maintenance for Fiscal Year 2001

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

   As a result of the modifications to the Survey and Manage management action/direction (standards and guidelines) through the Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines in January 2001, it is necessary to refine the implementation monitoring questions associated with this standard and guideline.

   Implementation monitoring question number one for All Land Use Allocations has been modified to read: "Is the management action for the Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines being implemented as required?"

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

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

   The management action/direction for the Soils Resource is different than that for any other resource in that it combines ROD/RMP objectives with management action/direction. Experience in ROD/RMP monitoring has disclosed difficulty in effectively measuring the accomplishment of Soils Resource management action/direction.

   The District Soil Scientist and Geotechnical Engineer have examined this issue from a technical perspective in the field and recently published literature has been reviewed. The technical review and recent literature indicates that operational monitoring which would produce meaningful and reliable results of the current soils management action/direction as currently written is not practical.

The ROD/RMP is clarified and refined in the following manner:

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

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

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

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

a) the cumulative (created or used since the adoption of the ROD/RMP) main skid trails, landings and large pile areas will affect less than approximately 10 percent, of the ground based harvest unit
b) a main skid trail is defined as a trail in which the duff is displaced such that approximately 50 percent or more of the surface area of the trail is exposed to mineral soil
c) skid trails which were created prior to the adoption of the ROD/RMP should be re-used to the extent practical, such skid trails that are re-used will be included in the 10 percent limit of affected area within the ground based harvest unit
d) limit skid trails to slopes generally less than approximately 35 percent. Examples of exceptions to the 35 percent slope limit would include situations such as small inclusions of steeper slopes, connecting trails to isolated ground based harvest areas, or the use of existing trails that can be used without causing undue effects to soils
e) in partial cut areas, locate main skid trails so that they may be used for final harvest
f) conduct ground based operations only when soil moisture conditions limit effects to soil productivity (these conditions generally can be expected to be found between May 15 and the onset of regular fall rains or may be determined by on-site examination)
g) on intermediate harvest entries, ameliorate main skid trails and areas of non-main skid trails warranting amelioration, or document a plan (e.g. such as adding a map to watershed analysis) so that amelioration may be accomplished at the time of final harvest
h) potential harvest units will be examined during the project planning process to determine if skid trails created prior to the adoption of the ROD/RMP have resulted in extensive enough compaction to warrant amelioration
i) upon final harvest ameliorate all main skid trails, those portions of non-main skid trails warranting amelioration, skid trails documented and carried over from intermediate harvests, and skid trails created prior to the adoption of the ROD/RMP which were identified in the planning process as warranting amelioration
j) amelioration of skid trails will generally consist of tilling with equipment designed to reduce the effects to soil productivity from compaction and changes in soil structure.

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

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

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

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

5. Refinement of Resource Management Plan evaluation interval.

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

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

2001 Amendment to the Northwest Forest Plan

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

The ROD reduced the number of species requiring the Survey and Manage mitigation, dropping 72 species in all or part of their range. The remaining species were then placed into 6 different management categories, based on their relative rarity, whether surveys can be easily conducted, and whether there is uncertainty as to their need to be included in this mitigation. Table 21 shows a breakdown of the placement of these species, and a brief description of management actions required for each. However, in 2011 the Settlement Agreement in *Conservation Northwest et al. v. Sherman et al.* (Case No. 08-CV-1067-JCC [W.D. Wash.]) updated the 2001 Survey and Manage species list.

Table 21. Categories Based on Species Characteristics

Relative Rarity	Pre-disturbance Surveys Practical	Pre-disturbance Surveys not Practical	Status Undetermined Pre-disturbance Surveys Not Practical
Rare	**Category A - 57 species**	**Category B – 222 species**	**Category E – 22 species**
Manage all known sites	Yes	Yes	Yes
Pre-disturbance surveys	Yes	N/A	N/A
Strategic surveys	Yes	Yes	Yes
Uncommon	**Category C – 10 species**	**Category D – 14 species**	**Category F – 21 species**
Manage high priority sites	Yes	Yes	N/A
Pre-disturbance surveys	Yes	N/A	N/A
Strategic surveys	Yes	Yes	Yes

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

Approval of the Record of Decision and Standards and Guidelines for Amendment to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standard and Guidelines amended the Standards and Guidelines contained in the Northwest Forest Plan Record of Decision related to Survey and Manage, Protection Buffers, Protect Sites from Grazing, Manage Recreation Areas to Minimize Disturbance to Species, and Provide

Additional Protection for Caves, Mines, and Abandoned Wooden Bridges and Building That are Used as Roost Sites for Bats. These standards and guidelines were removed and replaced by the contents of the Record of Decision and Standards and Guidelines for Amendment to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standard and Guidelines.

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

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

Plan Maintenance for Fiscal Year 2002

1. This plan maintenance revises the formal evaluation cycle for the ROD/RMP from a three year cycle to a five year cycle.

   The ROD/RMP, in the Use of the Completed Plan section, established a three year interval for conducting plan evaluations. The purpose of a plan evaluation is to determine if there is significant new information and/or changed circumstances to warrant amendment or revision of the plan. The ecosystem approach of the ROD/RMP is based on long term management actions to achieve multiple resource objectives including habitat development, species protection and commodity outputs. The relatively short three year cycle has been found to be inappropriate for determining if long term goals and objectives will be met. A five year interval is more appropriate given the resource management actions and decisions identified in the ROD/RMP. The Annual Program Summaries and Monitoring Reports continue to provide the cumulative ROD/RMP accomplishments. Changes to the ROD/RMP will continue through appropriate plan amendments and plan maintenance actions. A five year interval for conducting evaluations is consistent with the BLM Land Use Planning Handbook.

   The State Directors decision to change the evaluation interval from three years to five years was made on March 8, 2002. The next evaluation for the Roseburg District ROD/RMP will address implementation through September 2003.

2. For Survey and Manage standards and guidelines, Survey Protocols, Management Recommendations, changes in species categories or removal of species from Survey and Manage are issued and conducted in accordance with the Amendment to Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines Record of Decision of January 2002.

   These changes are transmitted through Instruction Memoranda from the Oregon State Office. These Instruction Memoranda are numerous and complex and would be unwieldy to list individually. All such Instruction Memoranda regarding the Survey and Manage Survey Protocols, Management Recommendations or changes in species status are incorporated as ongoing plan maintenance.

3. The management action/direction for Wild Turkey Habitat contained on page 39 of the ROD/RMP is removed. This refinement in the ROD/RMP recognizes that the Rio Grande wild turkey is an introduced species that is not only thriving but in many areas the large numbers of wild turkeys have become a nuisance and have required relocation by the Oregon Department of Fish and Wildlife. This management action/direction is, therefore, removed because it is not needed for this species.

4. The management action/direction for Roosevelt elk contained on page 39 of the ROD/RMP is removed. This refinement in the ROD/RMP recognizes that a combination of other management action/direction and land ownership patterns has resulted in achieving a thriving population of Roosevelt elk. Road closures for the benefit of elk populations have been found to be either unnecessary or accomplished through decommissioning or closure of roads for the purposes of watershed health. Limitation of the size of harvest units, distance to cover and minimum width of cover are being accomplished through the need to meet other aspects of the ROD/RMP including Riparian Reserves, survey and manage species requirements, Special Status Species requirements, threatened or endangered species requirements and watershed considerations. Because of the thriving Roosevelt elk population it has not been found necessary to establish forage plots.

   Transplants of elk have not been found necessary to supplement existing numbers or to establish new local populations.

5. It is necessary to clarify the definition of an existing road for the purposes of road maintenance. Five road maintenance levels are assigned to roads. Roads which are assigned road maintenance Level I or Level 2 may, on occasion, have trees or other vegetation encroach on or become established within the road prism or on the road surface because of low traffic levels and an extended period between road maintenance. In such instances, road maintenance may be used to re-establish the utility of the road. It would not fit the definition of road maintenance to re-establish the utility of a road that has been closed through full decommissioning or obliteration and that has been removed from Roseburg District road records with approval from parties to existing road use agreements.

Plan Maintenance for Fiscal Year 2003

1. The ROD/RMP is maintained to correct an inconsistency between management action/direction and Federal Land Policy and Management Act (FLPMA) Section 203(a). All Westside ROD/RMPs were intended to be consistent with FLPMA Section 203(a); however, the Roseburg District ROD/RMP through an editing oversight is different in this respect. FLPMA Section 203(a) allows for disposal of lands through sales if they meet one of three criteria. The Roseburg ROD/RMP inadvertently added a requirement that land sales would, under certain circumstances, need to meet two of the three criteria (ROD/RMP page. 68).

   The penultimate full paragraph on page 68 of the ROD/RMP is replaced as follows:

   Sell BLM-administered lands under the authority of FLPMA Section 203(a) which requires that at least one of the following conditions exists before land is offered for sale:

a) The tract because if its location or other characteristics is difficult or uneconomical to manage as part of BLM-administered lands and is not suitable for management by another Federal department or agency.

b) The tract was acquired for a specific purpose and is no longer required for any Federal purpose. Disposal of the tract would serve important BLM objectives. These include but are not limited to:

- Expansion of communities and economic development which cannot be achieved prudently or feasibly on lands other than BLM-administered lands and which outweigh other public objectives.

- Values including but not limited to recreation and scenic values which would be served by maintaining such tract in Federal ownership.

Transfer land to other public agencies where consistent with public land management policy and where improved management efficiency would result.

Minor adjustments involving sales or exchanges may be made based on site-specific application of the land ownership adjustment criteria.

2. The actions that were intended for salvage under the Resource Management Plan are clarified as follows:

The Roseburg District ROD/RMP sets forth the Timber Objective of "Provide for salvage harvest of timber killed or damaged by events such as wildfire, windstorms, insects or disease, consistent with management objectives for other resources." (ROD/RMP page 60).

For the General Forest Management Area and Connectivity/Diversity Blocks the ROD/RMP provides that "Silvicultural practices include the full range of practices consistent with the Land Use Allocations." (ROD/RMP pages 150 and 151).

Additional direction is provided for salvage within Late-Successional Reserves and Riparian Reserves in the Resource Management Plan (ROD/RMP pages 153 and 154).

The full range of silvicultural practices, including those pertaining to salvage which were intended to be used in the Resource Management Plan are set forth in Appendix E of the ROD/RMP and are also found in Smith, David M. 1962 The Practice of Silviculture which was incorporated by reference. (ROD/RMP page 154).

Salvage cuttings are made for the primary purpose of removing trees that have been or are in imminent danger of being killed or damaged by injurious agencies other than competition between trees. (Smith 1962, page 210).

Sometimes the mortality caused by the attack of a damaging agency does not take place immediately. This is particularly true where surface fires have occurred because the main cause of mortality is the girdling that results from killing the cambial tissues. As with other kinds of girdling, the top of the tree may remain alive until the stored materials in the roots are exhausted. It is usually a year or more before the majority of the mortality has occurred. It is, therefore, advantageous to have some means of anticipating mortality before it has occurred. The predictions must be based on outward evidence of injury to the crown, roots or stem. (Smith 1962, page 212)

In salvage operations, in addition to dead trees, trees that are dying or at a high risk of mortality may also be harvested. Outward evidence of injury that may cause mortality includes, but is not limited to scorched crown, fire damage that girdles any part of the bole, substantial fire damage at or near the root collar, damage to roots, and indicators of insect attack.

Salvage harvest should include all trees that present a safety hazard to life or property.

All salvage harvest that occurs within an existing road rights-of-way will be conducted for the proper function, purpose and objectives of the rights-of-way. Salvage harvest outside of a rights-of-way will follow management action/direction for the appropriate land use allocation.

There is no requirement to meet green tree retention requirements for the matrix where the extent of dead and dying trees has made this impracticable. Green tree retention requirements in the Matrix will be met in salvage operations to the extent that healthy trees are available for retention.

3. The Beatty Creek Area of Critical Environmental Concern and Research Natural Area (ACEC/RNA) has been increased in size though acquisition of lands through a land exchange for the purpose of blocking up ownership and improving management opportunities. This action was anticipated in the Roseburg District Proposed Resource Management Plan Final Environmental Impact Statement (PRMP/EIS page 2-36) and is in accordance with management direction for the Beatty Creek ACEC/RNA set forth in the Roseburg District Record of Decision and Resource Management Plan (ROD/RMP page 50).

   The Island Creek recreation site has been increased in size through acquisition of lands through a land exchange for the purpose of developing further recreational opportunities. This action was anticipated in the PRMP/EIS (page 2-43) and is in accordance with management direction for the Island Creek recreation site set forth in the Roseburg District Record of Decision and Resource Management Plan (ROD/RMP page 57).

   The details regarding these actions are contained in the Beatty Creek/Island Creek Land Exchange environmental assessment (EA OR105-01-06, March 6, 2003) and associated decision record of March 17, 2003. This plan maintenance is effective as of the March 17 Decision Record.

4. From 1996 through 2003, the Roseburg District Monitoring Plan which is contained in Appendix I of the ROD/RMP has undergone a number of refinements and clarifications. These clarifications and refinements to the monitoring plan are part of adaptive management in which the monitoring questions that are no longer relevant are eliminated, needed questions are added or existing questions modified. These refinements all have the purpose to make monitoring as effective and relevant as possible.

   The most recent refinement of the monitoring questions, in fiscal year 2003, has been to eliminate pre-implementation monitoring and to rely solely on post-implementation monitoring. This change has resulted from the adaptive management experience in which most projects that received pre-implementation monitoring were still not able to receive post-implementation monitoring as much as five years later because of protests and litigation. As a result, the monitoring information was no longer timely enough to be useful to management.

   The current applicable monitoring questions are found in the most recent Annual Program Summary and Monitoring Report.

Ongoing District data base updates are incorporated as plan maintenance.

Plan Maintenance for Fiscal Year 2004

Refinement and clarification of requirements for marbled murrelet surveys.

This plan maintenance pertains only to the management of potential marbled murrelet nesting structure within younger stands and only to situations where thinning prescriptions are proposed.

This plan maintenance clarifies and refines ROD/RMP requirements that were intended to protect marbled murrelet nesting habitat from habitat modifications but were not intended to prohibit or discourage habitat modifications that would benefit murrelet conservation. Logic presented by the Level 1 Team clearly indicates that this plan maintenance would have a negligible effect on murrelets. This action encourages the enhancement of habitat immediately surrounding potential nesting structure.

Management direction for marbled murrelet is found on page 48 of the Roseburg District Record of Decision and Resource Management Plan. Plan maintenance is appropriate for this action because the action clarifies the intention of current ROD/RMP requirements for the murrelets and the biological information provided by the Level 1 Team indicates that this refinement of requirements will not result in an expansion of the scope of resource uses or restrictions.

Management direction found on page 48 of the Roseburg District ROD/RMP is refined through the addition of the following language:

If the following criteria are met, then the action is not considered a habitat disturbing activity and no surveys for marbled murrelet are required.

I. Characteristics of Potential nesting Structure

A tree with potential structure has the following characteristics:

- It occurs within 50 miles (81 km) of the coast (U.S. Fish & Wildlife Service 1997:32) and below 2,925 ft. (900 m) in elevation (Burger 2002);
- It is one of four species: Western hemlock, Douglas-fir, Sitka spruce or western red cedar (Nelson & Wilson 2002:24, 44);
- It is ≥ 19.1 in. (49 cm) (dbh) in diameter, > 107 ft. (33 m) in height, has at least one platform ≥ 5.9 in. (15 cm) in diameter, nesting substrate (e.g., moss, epiphytes, duff) on that platform, and an access route through the canopy that a murrelet could use to approach and land on the platform (Burger 2002, Nelson & Wilson 2002:24, 27, 42, 97, 100);
- And it has a tree branch or foliage, either on the tree with potential structure or on a surrounding tree, that provides protective cover over the platform (Nelson & Wilson 2002:98 & 99);

Any tree that does not meet all of these characteristics would be unlikely to support nesting murrelets.

Because murrelets respond to the landscape-level availability of nesting habitat (Burger 1997, Burger 2002, Cooper *et al.* 2001 and Raphael *et al*. 2002), a tree with potential structure might provide murrelet nesting habitat depending on where it occurs on the landscape. Increasing distance from the ocean becomes a negative factor in murrelet inland site selection after 12-20 miles (19.5 – 32.5 km) (Anderson 2003, Burger 2002, Humes 2003, U.S. BLM 2003, Willamette Industries 2003 and Wilson 2002).

Habitat with < 6 trees with potential structure within a 5-acre area, and located > 20 miles (32.5 km) inland, has a negligible likelihood of use by nesting murrelets (Anderson 2003, Humes 2003, U.S. BLM 2003, Willamette Industries 2003 and Wilson 2002).

Exclude potential nesting structure within the project area and apply protection measures to ensure that the proposed action would not adversely affect murrelets.

Design the unit prescription, for units with potential structure, in accordance with LSR management standards.

Exclude from projects the removal or damage of potential nesting structure.

Design habitat modifications that occur within a distance equal to one site-potential tree height of potential structure to protect and improve future habitat conditions.

Examples include protecting the roots of trees with potential structure, and removing suppressed trees, trees that might damage potential structure during wind storms, and trees that compete with key adjacent trees that are, or will be, providing cover to potential nest platforms. Apply management actions that aid limb development and the development of adjacent cover.

Do not create any opening *(i.e.*, a gap ≥ 0.25 acre [0.10 ha] in size) within a distance equal to one site-potential tree height of potential structure.

2004 Amendments to the Northwest Forest Plan including the Roseburg District ROD/RMP

Two amendments to the Northwest Forest Plan were made in 2004. These amendments were accomplished through separate environmental impact statements and records of decision.

Survey and Manage

The Survey and Manage standards and guidelines were removed from the plan through a Record of Decision of March 2004. The species that were included in the Survey and Manage standards and guidelines were referred to in the Roseburg ROD/RMP as "SEIS Special Attention Species". This decision will:

Continue to provide for diversity of plant and animal communities in accordance with the National Forest Management Act and conserve rare and little known species that may be at risk of becoming listed under the Endangered Species Act.

Reduce the Agencies' cost, time, and effort associated with rare and little known species conservation.

Restore the Agencies ability to achieve Northwest Forest Plan resource management goals and predicted timber outputs.

Aquatic Conservation Strategy

The provisions relating to the Aquatic Conservation Strategy (ACS) were clarified through a Record of Decision of March 2004. The Aquatic Conservation Strategy provisions had been interpreted to mean that decision makers must evaluate proposed site-specific projects for consistency with all nine ACS objectives, and that a project could not be approved if it has adverse short-term effects, even if the ACS objectives can be met at the fifth-field for larger scale over the long term. However, the ACS objectives were never intended to be applied or achieved at the site-specific (project) scale or in the short-term; rather they were intended to be applied and achieved at the fifth-field watershed and larger scales, and over a period of decades or longer rather than in the short-term. Indeed, failing to implement projects due to short-term adverse effects may frustrate the achievement of the goals of the ACS.

The decision clarifies the proper spatial and temporal scale for evaluating progress towards attainment of ACS objectives and clarifies that no-project-level finding of consistency with ACS objectives is required. The decision specifically reinforces the principle that projects must be considered in a long-term, fifth field watershed or larger scale to determine the context for project planning and National Environmental Policy Act (NEPA) effects analysis.

The decision will increase the ability of the Forest Service and the BLM to successfully plan and implement projects that follow Northwest Forest Plan principles and achieve all of the

goals of the Northwest Forest Plan while retaining the original intent of the Aquatic Conservation Strategy.

Port-Orford-cedar

In February 2003, the U.S. District Court for the District of Oregon ruled that EIS for the Coos Bay District Resource Management Plan did not contain an adequate analysis of the effects of timber sales on the direct, indirect and cumulative impacts on Port-Orford-cedar and its root disease, *P. lateralis*. In order to correct this analysis deficiency and to ensure maintenance of Port-Orford-cedar as an ecologically and economically significant species on Federal lands, BLM and its co-lead and cooperating agencies prepared the January 2004 Final Supplemental Environmental Impact Statement (FSEIS). The Record of Decision for this FSEIS was issued in May 2004. The Record of Decision replaced existing management direction for Port-Orford-cedar with management direction that addresses research, monitoring, education, cooperation, resistance breeding and disease controlling management practices to reduce the spread of the root disease.

Plan Maintenance for Fiscal Year 2005

The Roseburg District and other Districts in western Oregon began a revision to the existing resource management plan and record of decision (ROD/RMP). This multi-year effort will develop potentially significant changes to the ROD/RMP guidelines. Details regarding the ROD/RMP revision can be seen at www.blm.gov/or/plans/rmpswesternoregon/

Refinement and clarification of the Roseburg District's ROD/RMP, Objectives, Habitat Criteria, and Management Practices Design for the Land Use Allocations, Connectivity/Diversity Blocks:

The term 'area control rotation' is used twice in the ROD/RMP on pages 34 and 153. In both instances it is used to describe the management within the Connectivity/Diversity Block land use allocation. Area control rotation is not defined in the ROD/RMP glossary. However area regulation is defined as, "A method of scheduling timber harvest based on dividing the total acres by an assumed rotation." (ROD/RMP, page 101). The definition for 'area control rotation' would essentially be the same.

Minor changes, refinement and clarification of pages 151 – 153 as follows:

A.1. The first sentence should read: "Connectivity and Diversity: Manage to provide ecotypic richness and diversity and to provide for habitat connectivity for old-growth dependent and associated species within the Connectivity/Diversity Block portion of the Matrix land-use allocation."

C.2. As described in this section, "Manage so that best ecologically functioning stands will be seldom entered in the short term." Best ecologically functioning stands is not a well-defined term and does not help with implementation of Connectivity/Diversity Block management. Under area control rotation for the Connectivity/Diversity Block land use allocation, approximately 1,790 acres would be harvested per decade. For the first decade of

implementation of the ROD/RMP, only about 490 acres of the Connectivity/Diversity Block land use allocation have been authorized for harvest. Since this meets the 'seldom entered in the short term' portion of this management direction, there is no need to further interpret the 'best ecologically functioning stands.' Thus, this sentence is removed.

C.3. Remove the Species Composition paragraph. This paragraph describes a percent species mix that does not always represent what would be the expected in natural stands on the Roseburg District. The previous paragraph describes, "Large conifers reserved will proportionally represent the total range of tree size classes greater than 20 inches in diameter and will represent all conifer species present." The conifer species present will be represented with conifers retained in harvest of Connectivity/Diversity Block lands.

C.5. As described in this section, Connectivity/Diversity Block area would be managed using a 150 year area control rotation. Regeneration harvest will be at the rate of 1/15 of the available acres in the entire Connectivity/Diversity block land use allocation per decade. This direction does not set a minimum harvest age for regeneration harvest. Harvest would be planned to occur on an area 1/15th of the Connectivity/Diversity Block land use allocation every decade.

Additionally, it states that "because of the limited size of operable areas within any given block, multiple decades of harvest could be removed at any one time from a single block in order to make viable harvest units." Applying this direction to individual Connectivity/Diversity Blocks on the Roseburg District, regeneration harvest need not be uniformly applied across the entire land use allocation; rather, regeneration harvest may take place within an individual block as long as the 25-30 percent late-successional forests are maintained, as described on pages 34, 38, and 65 of the ROD/RMP. Late-successional forests are defined as being at least 80 years old. A description of whether regeneration harvests would occur in the oldest or youngest late-successional forests within the block is not required.

This paragraph further states that "the future desired condition across the entire Connectivity/Diversity block will have up to 15-16 different ten year age classes represented." The intent of this direction is that as regeneration harvesting takes place, up to 15 to 16 different age classes will develop over a period of 150 years.

Plan Maintenance for Fiscal Year 2006

The Roseburg District and other Districts in western Oregon are engaged in revising the existing ROD/RMPs. This multi-year effort will develop potentially significant changes to the ROD/RMP guidelines. Details regarding the ROD/RMP revision can be seen at http://www.blm.gov/or/plans/wopr/index.php.

Issues arose during fiscal year 2006 on the following subject areas that warrant additional clarification and/or correction through plan maintenance:

Other Raptors Habitat

The Roseburg District ROD/RMP (page 39) states that "[k]nown and future raptor nest sites not protected by other management recommendations will be protected by providing suitable habitat buffers and seasonal disturbance restrictions".

On occasion, this guidance has been incorrectly construed to mean that currently known nest sites or nest sites that have yet to be discovered belonging to <u>any</u> and <u>all</u> raptor species receive a suitable habitat buffer and a seasonal disturbance restriction. This is an incorrect interpretation. The ROD/RMP guidance (page 39) for "Other Raptors Habitat" makes an important distinction that <u>only</u> those raptor nest sites "…not protected by other management recommendations…" will receive suitable habitat buffers and seasonal disturbance restrictions.

For example, the Roseburg District ROD/RMP provides separate guidance for: great grey owl nest sites (page 44), Northern spotted owl nest sites (page 48), bald eagle nest sites (page 49), peregrine falcon nest sites (page 49), and Northern goshawk nest sites (page 49). Therefore, since these five species already have other, separate management recommendations as put forth in the ROD/RMP, the guidance from page 39 for "Other Raptor Habitat" does not apply to these species.

Timber Sale Units of Measure (Cubic Foot Measure vs. Scribner Rules)

The Roseburg District ROD/RMP (page 61) directs that "[t]imber sales under the plan will be sold according to cubic foot measure."

The policy to measure and sell all timber sales following the National Cubic Rules was rescinded in Instructional Memorandum (IM) No. 2004-154, dated April 6, 2004 from the Washington Office. This IM (page 1) specified that "Each State Director has the authority to determine the form of timber measurement to be used for timber sales..." Subsequently, the Oregon/Washington State Office issued guidance in IM No. OR-2004-073, dated April 30, 2004 (page 1), to Oregon/Washington BLM Districts that "[f]or the purposes of lump sum and scale disposal of timber, such as negotiated and advertised timber sales… the timber will usually be measured based upon board feet [i.e. Scribner rules]."

The method of timber volume measurement (National Cubic Rules versus board feet) is solely an administrative process and does not contribute to environmental effects. Furthermore, timber sale prospectuses issued in the Roseburg District typically include volumes in both cubic measurement and in board feet.

Therefore, the aforementioned language on page 61 of the Roseburg District ROD/RMP is replaced with the following: "Timber sales sold under the plan will usually be measured based upon board feet (i.e. Scribner Rules)."

Connectivity/Diversity Block Landscape Design Elements

The Roseburg District ROD/RMP provides guidance (page 152) to "[s]ituate harvest units to meet general landscape objectives on three levels of scale: physiographic province, landscape block or watershed and the stand".

To clarify, the ROD/RMP itself considered the larger physiographic province scale in its strategy to manage ecosystems when land use allocations were designated and distributed across the landscape. Management direction provided in the ROD/RMP for Connectivity/Diversity Blocks (pages 151-153) represent decisions made during the analytical process that culminated in the ROD/RMP and incorporate landscape planning at the physiographic province scale. Landscape block or watershed scale considerations are reflected in completed Watershed Analysis documents and ten year sale plans; consideration at the stand scale is typically done within individual project EAs.

Miscellaneous Corrections

Page 8 of the ROD/RMP contains Table R-1, which cites commercial thinning/density management harvest to occur on 84 and 66 acres, respectively. The total of these acres is 150, which is incorrect. The ROD/RMP called for an annual average of 80 acres to be commercially thinned, with another 170 acres harvested to achieve density management. The correct total acreage is 250, which is reflected in Annual Program Summaries beginning in 2002.

Plan Maintenance for Fiscal Year 2007

2007 Amendment to the Northwest Forest Plan including the Roseburg District ROD/RMP

The NWFP was amended once in fiscal year 2007. The Survey and Manage standards and guidelines were removed in July 2007 through the signing of the Record of Decision (ROD) for the "*Final Supplement to the 2004 Supplemental Environmental Impact Statement To Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines.*" This Decision discontinues the Survey and Manage program and transfers selected Survey and Manage taxa to Agency Special Status Species Programs (SSSP). This supplemental EIS was written in response to a U.S. District Court ruling that deemed the 2004 Supplemental EIS pertaining to survey and manage inadequate.

Copies of the ROD and Final SEIS may be obtained by writing the Bureau of Land Management at PO Box 2965, Portland, Oregon 97208, or they can be accessed at http://www.reo.gov/

Plan Maintenance for Fiscal Year 2008

There was no Plan Maintenance conducted on the Roseburg District ROD/RMP in fiscal year 2008.

Plan Maintenance for Fiscal Year 2009

As part of the 2008 plan revision, the BLM brought Callahan Meadows, China Ditch, and Stouts Creek forward as potential Areas of Critical Environmental Concern (ACECs). While the 2008 ROD/RMPs were withdrawn, BLM Manual 1613 – Areas of Critical Environmental Concern states that potential ACECs should be provided temporary management until they can be further evaluated during the land use planning process. Management direction contained in Appendix N of the 2008 Final Environmental Impact Statement (2008 FEIS) may be used for this purpose.

Plan Maintenance for Fiscal Year 2010

Bald Eagle

Comply with the National Bald Eagle Management Guidelines (as a minimum).

Manage 4,658 acres along the major river corridors to develop or maintain forest structure needed to support nesting and foraging activities. These acres are withdrawn from the timber base.

Manage existing and future occupied bald eagle nest territories under the following management guidelines:

1. Maintain or attain the following stand characteristics on all lands managed for bald eagles:
    a. Large conifer trees that are greater than 50 inches dbh and occur at a density of five to seven trees per acre.
    b. Multi-storied canopy with at least 60 percent crown closure.
    c. Remainder of the stand with conifer trees with an average dbh of 24 inches and an average density of 50 to 70 trees per acre.
2. Avoid disturbance, including logging, mining, and mineral leasing (except existing recreational use), within 0.25-mile of active nest sites (0.5-mile, when in line of sight) between the dates of January 1 and August 31.
3. Provide an appropriate level of fire protection on lands managed for bald eagles and restrict the use of insecticides within 1/2-mile of bald eagle sites.

Retain ownership of all BLM designated bald eagle habitat and pursue conservation easements or acquisition of other lands occurring within known active or future nesting territories. Priority is placed on acquiring 261 acres within Cougar Creek and Woodruff Mountain nesting territories.

Implementation of the Umpqua Corridor Habitat Management Plan will continue. Habitat plans will be developed for all active nesting territories.

Vehicle use on 1.5 miles of road at the head of Huntley Creek will be restricted from January 1 to August 31.

Peregrine Falcon

Known and potential (sites rated 7 or above) nesting cliffs will be managed to maintain site integrity.

Peregrine nesting sites on, and adjacent to, BLM-administered lands, sites occupied in the future, will have seasonal disturbance restrictions of 0.25-mile or greater around them; until site-specific management zones are identified. Actual area restricted will depend on the activity, topography, and the likely disturbance to the nest cliff. Seasonal restrictions on habitat disturbing activities and other disturbance events will extend from January 1 until August 15 (inclusive). Pesticides that have a negative effect on prey species or their habitat will not be applied within two miles of active sites. Habitat management plans will be written for all active peregrine falcon nest sites on BLM-administered lands. High potential sites will periodically be surveyed for occupancy and all future occupied sites will be monitored annual to determine occupancy, nesting, and production. Acquisition will be pursued for occupied nest sites occurring on adjacent private lands.

Plan Maintenance for Fiscal Year 2011

Land use allocation for hiatus in Section 30, T. 28 S., R. 7½ W.

In designation of land use allocations in the 2008 ROD/RMP, a mapping error failed to identify and assign a land use allocation to a 4.5-acre parcel of BLM-administered land. Based on operational inventory, stand characteristics, and neighboring allocations, the parcel has been allocated as Timber Management Area.

2007 Amendment to the Northwest Forest Plan including the Roseburg District ROD/RMP To Remove the Survey and Manage Mitigation Measure Standards and Guidelines

In litigation over the 2007 ROD, removing the Survey and Manage Mitigation Measure Standards and Guidelines (*Conservation Northwest et al. v. Sherman et al.*, Case No. 08-1067-JCC (W.D. Wash.) the Court found for the plaintiffs and set aside the 2007 RODs and reinstated the 2001 ROD for amendments to Survey and Manage Mitigation Measure Standards and Guidelines on December 17, 2009.

The plaintiffs and Federal Agencies entered into settlement negotiations in April 2010, and the Court filed approval of the resulting Settlement Agreement on July 6, 2011. The 2011 Settlement Agreement makes four modifications to the 2001 ROD: (A) acknowledges existing exemption categories (2006 Pechman Exemptions); (B) updates the 2001 Survey and Manage species list; (C) establishes a transition period for application of the species list; and (D) establishes new exemption categories (2011 Exemptions).

Table 21 shows a breakdown of the placement of these species, and a brief description of management actions required for each. However, in 2011 the Settlement Agreement in

Conservation Northwest et al. v. Sherman et al. (Case No. 08-CV-1067-JCC [W.D. Wash.]) updated the 2001 Survey and Manage species list. The 2011 updates to the Survey and Manage species list and the categorization of species are reflected in Table 22 and not the species categorization as it was in 2001.

Table 22. Redefined Categories Based on Species Characteristics*

Relative Rarity	Pre-disturbance Surveys Practical	Pre-disturbance Surveys not Practical	Status Undetermined Pre-disturbance Surveys Not Practical
Rare	**Category A - 57 species**	**Category B – 185 species**	**Category E – 31 species**
Manage all known sites	Yes	Yes	Yes
Pre-disturbance surveys	Yes	N/A	N/A
Strategic surveys	Yes	Yes	Yes
Uncommon	**Category C – 9 species**	**Category D – 18 species**	**Category F – 13 species**
Manage high priority sites	Yes	Yes	N/A
Pre-disturbance surveys	Yes	N/A	N/A
Strategic surveys	Yes	Yes	Yes

*Table reflects the Survey and Manage species list categorizations following the update in 2011 from the Settlement Agreement in *Conservation Northwest et al. v. Sherman et al.* (Case No. 08-CV-1067-JCC [W.D. Wash.]).

Incorporating Road and Sediment Delivery Best Management Practices into Resource Management Plans

Instruction Memorandum No. OR-2011-18 directed the districts to assist in the update of Best Management Practices (BMPs) that would disconnect road surfaces from drainage ditches. The BLM designed the BMPs to minimize or reduce the conveyance and delivery of sediment to the waters of the United States. All districts participated in the development of this updated set of BMPs that serve to disconnect the conveyance method to the extent practicable. Selection of BMPs is made by decision-makers using input from soil, water, fisheries, geology, and other professionals during project-level analyses. It is not intended that all of the BMPs listed will be selected for any specific management action. Each activity is unique, based on site-specific conditions and the selection of an individual BMP or a combination of BMPs and measures to become the BMP design.

Instruction Memorandum No. OR-2011-074 directed the districts incorporate the updated BMPs as plan maintenance. These BMPs provide direction regarding road maintenance practices and road-related actions with the intention to minimize or prevent sediment delivery to waters of the United States in compliance with the Clean Water Act of 1972 and its revisions.

Table 23. Road Design, Construction, Use and Decommissioning Best Management Practices

Road BMP Number	Text	Source	Oregon Dept. of Forestry/Oregon Administrative Rules Forest Roads - Division 625
R 001	Locate temporary and permanent roads and landings on stable locations, e.g., ridge tops, stable benches or flats, and gentle-to-moderate side slopes. Minimize construction on steep slopes, slide areas and high landslide hazard locations.	ODF (OAR) 629-625-0200 (3)	ODF (OAR) 629-625-0200, Road Location
R 002	Locate temporary and permanent road construction or improvement to minimize the number of stream crossings.	ODF (OAR) 629-625-0200 (3-4)	ODF (OAR) 629-625-0200, Road Location
R 003	Avoid locating roads and landings in wetlands, riparian management areas, floodplains and waters of the state. Avoid locating landings in areas that can contribute runoff to dry draws and swales.	ODF (OAR) 629-625-0200 (2)	ODF (OAR) 629-625-0200, Road Location
R 004	Locate roads and landings to minimize total transportation system mileage. Renovate or improve existing roads or landings when it would cause less adverse environmental impact. Where roads traverse land in another ownership, investigate options for using those roads before constructing new roads.	EPA (2005)Page 3-12 Bullet 1; ODF (OAR) 629-625-0200 (5); EPA (2005)Page 3-10 Bullet 1	ODF (OAR) 629-625-0200, Road Location
R 005	Design and construct sub-surface drainage in landslide prone areas and saturated soils (e.g., trench drains using geo-textile fabrics and drain pipe).	ODEQ 2005, RC-1, RC-6 (pages 4-5, 4-6)	ODF (OAR) 629-625-0300, Road Design
R 006	Design road cut and fill slopes with stable angles, to minimize erosion and prevent slope failure.	EPA 2005 mod 3-13	ODF (OAR) 629-625-0310, Road Prism
R 007	Design roads to the minimum width needed for the intended use as referenced in BLM Manual 9113.	ODF 629-625-0310 (3)	ODF (OAR) 629-625-0310, Road Prism
R 008	End-haul material excavated during construction, renovation, and/or maintenance where side slopes generally exceed 60 percent, and regardless of slope where side-cast material may enter wetlands, floodplains and waters of the state.	FEIS 2008 with modification using EPA 2005 page 3-12 5th bullet	ODF (OAR) 629-625-0310, Road Prism
R 009	Construct road fills to prevent fill failure using inorganic material, compaction, buttressing, sub-surface drainage, rock facing or other effective means.	OAR 629-625-0310-5	ODF (OAR) 629-625-0310, Road Prism
R 010	Avoid use of road fills for water impoundment dams unless specifically designed for that purpose. Impoundments over 9.2 acre feet or 10 feet in depth will require a dam safety assessment by a registered engineer. Upgrade existing road fill impoundments to pass 100-year flood events.	OAR 629-625-0310-5	ODF (OAR) 629-625-0310, Road Prism

Road BMP Number	Text	Source	Oregon Dept. of Forestry/Oregon Administrative Rules Forest Roads - Division 625
R 011	Design roads crossing low-lying areas so that water does not pond on the upslope side of the road. Provide cross drains at short intervals to ensure free drainage.	FEIS 2008	ODF (OAR) 629-625-0320, Stream Crossing Structures
R 012	Minimize fill volumes at permanent and temporary stream crossings by restricting width and height of fill to amounts needed for safe travel and adequate cover for culverts. For deep fills (generally greater than 15 feet deep) incorporate additional design criteria (e.g., rock blankets, buttressing, bioengineering techniques) to reduce the susceptibility of fill failures.	ODF OAR 629-625 -0320 (1b)	ODF (OAR) 629-625-0320, Stream Crossing Structures
R 013	Locate stream crossing culverts on well defined, unobstructed, and straight reaches of stream. Locate these crossings as close to perpendicular to the streamflow as stream allows. When structure cannot be aligned perpendicular, provide inlet and outlet structures that protect fill and minimize bank erosion. Choose crossings that have well defined stream channels with erosion resistant bed and banks.	EPA 2005, 3-14 G&A 2006, p5-30	ODF (OAR) 629-625-0320, Stream Crossing Structures
R 014	On new construction, install culverts at the natural stream grade.	FEIS 2008	ODF (OAR) 629-625-0320, Stream Crossing Structures
R 015	Use stream crossing protection techniques to allow flood water and debris to flow over the top of the road prism without the loss of the fill or diversion of streamflow. This protection could include hardening crossings, armoring fills, dipping grades, oversizing culverts, hardening inlets and outlets, and lowering the. fill height.	FEIS 2008	ODF (OAR) 629-625-0320, Stream Crossing Structures
R 016	Place in-stream grade control structures above or below the crossing structure, if necessary, to prevent stream headcutting, culvert undermining and downstream sedimentation. Employ bioengineering measures (e.g., large wood for gradient control) to protect the stability of the streambed and banks.	ODEQ 2005 , RC - 2 , Gesford & Anderson 2006, pp 5 -31, USDA RMRS GTR 102 - #20	ODF (OAR) 629-625-0320, Stream Crossing Structures
R 017	Prevent culvert plugging and failure in areas of active debris movement with measures such as beveled culvert inlets, flared inlets, wingwalls, over-sized culverts, trash racks or slotted risers.	FEIS 2008	ODF (OAR) 629-625-0320, Stream Crossing Structures
R 018	When installing temporary culverts, use washed rock as a backfill material. Use geotextile fabric as necessary where washed rock will spread with traffic and cannot be practicably retrieved.	ODEQ 2005 NS-3	ODF (OAR) 629-625-0320, Stream Crossing Structures

Road BMP Number	Text	Source	Oregon Dept. of Forestry/Oregon Administrative Rules Forest Roads - Division 625
R 019	Use permanent low water fords in debris-flow susceptible streams (e.g., concrete, well anchored concrete mats, etc.).	EPA 2005 p3-50	ODF (OAR) 629-625-0320, Stream Crossing Structures
R 020	Design roads crossing low-lying areas so that water does not pond on the upslope side of the road. Provide cross drains at short intervals to ensure free drainage.	EPA (2005) Page 3-14 Bullet 1	ODF (OAR) 629-625-0320, Stream Crossing Structures
R 021	Use no-fill structures (e.g., portable mats, temporary bridges, or improved hardened crossings) for temporary stream crossings. When not practicable, design temporary stream crossings with the least amount of fill and construct with coarse material to facilitate removal upon completion.	ODF 629-625-0320 (2)	ODF (OAR) 629-625-0320, Stream Crossing Structures
R 022	Install underdrain structures when roads cross or expose springs, seeps, or wet areas rather than allowing intercepted water to flow downgradient in ditchlines.	ODF (OAR) 629-625-0330 (5)	ODF (OAR) 629-625-0330, Drainage
R 023	Effectively drain the road surface by using crowning, insloping or outsloping, grade reversals (rolling dips) and waterbars or a combination of these methods. Avoid concentrated discharge onto fill slopes unless the fill slopes are stable and erosion proofed.	EPA 2005, 3-41	ODF (OAR) 629-625-0330, Drainage
R 024	Outslope temporary and permanent low volume roads to provide surface drainage on road gradients up to 6% unless there is a traffic hazard from the road shape.	EPA 2005 page 3-42 & USDA RMRS GTR 102-#13	ODF (OAR) 629-625-0330, Drainage
R 029	Design landings to disperse surface water to vegetated stable areas.	FEIS 2008	ODF (OAR) 629-625-0330, Drainage
R 030	Design stream crossings to prevent diversion of water from streams into downgrade road ditches or down road surfaces.	ODF OAR 629-625 -0330 (3)	ODF (OAR) 629-625-0330, Drainage
R 031	Disconnect the road runoff to the stream channel by outsloping the road approach. If outsloping is not possible, use runoff control, erosion control and sediment containment measures. These may include using additional cross drain culverts, ditch lining, and catchment basins. Minimize ditch flow conveyance to stream through cross drain placement above stream crossing.	Gesford & Anderson 2006 pp 5-22, OAR 629-625-0330 (4)	ODF (OAR) 629-625-0330, Drainage
R 032	Locate cross drains to prevent or minimize runoff and sediment conveyance to wetlands, riparian management areas, floodplains and waters of the state. Implement sediment reduction techniques such as settling basins, brush filters, sediment fences and check dams to prevent or minimize sediment conveyance.	ODF OAR 629-625 -0330 (4)	ODF (OAR) 629-625-0330, Drainage

Road BMP Number	Text	Source	Oregon Dept. of Forestry/Oregon Administrative Rules Forest Roads - Division 625
R 033	Space cross drain culverts at intervals sufficient to prevent water volume concentration and accelerated ditch erosion. At a minimum, space cross drains at intervals referred to in the BLM Road Design Handbook 9113-1, Illustration 11 -"Spacing for Drainage Laterals". Increase cross drain frequency through erodible soils, steep grades, and unstable areas.	FEIS 2008	ODF (OAR) 629-625-0330, Drainage
R 034	Choose cross drain culvert diameter and type according to predicted ditch flow, debris and bedload passage expected from the ditch. Minimum diameter is 18 inches.	USDA 1997-9777 1812-SDTDC, p 3	ODF (OAR) 629-625-0330, Drainage
R 035	Locate surface water drainage measures (e.g., cross drain culverts, rolling dips, water bars) where water flow will be released on convex slopes or other stable and non-erosive areas that will absorb road drainage and prevent sediment flows from reaching wetlands, floodplains and waters of the state. Where possible locate surface water drainage structures above road segments with steeper downhill grade.	USDA 1997-9777 1812-SDTDC, p 3	ODF (OAR) 629-625-0330, Drainage
R 036	Armor surface drainage structures (e.g., broad based dips, leadoff ditches) to maintain functionality in areas of erosive and low strength soils.	FEIS 2008	ODF (OAR) 629-625-0330, Drainage
R 037	Discharge cross drain culverts at ground level on non-erodible material. Install downspout structures and/or energy dissipaters at cross drain outlets or drivable dips where water is discharged onto loose material, erodible soils, fills, or steep slopes.	ODEQ 2005 RC-2, Gesford and Anderson 2006, pp 5-31	ODF (OAR) 629-625-0330, Drainage
R 038	Cut protruding "shotgun" culverts at the fill surface or existing ground. Install downspout and/or energy dissipaters to prevent erosion.	FEIS 2008	ODF (OAR) 629-625-0330, Drainage
R 039	Skew cross drain culverts 45 to 60 degrees from the ditchline as referenced in BLM Road Design Handbook 9113-1 and provide pipe gradient slightly greater than ditch gradient to reduce erosion at cross drain inlet.	BLM road design handbook H9113-1, revised 2009	ODF (OAR) 629-625-0330, Drainage
R 040	Use slotted risers, over-sized culverts or build catch basins where floatable debris or sediments may plug cross drain culverts.	EPA 2005 pp 3-43	ODF (OAR) 629-625-0330, Drainage
R 041	Locate waste disposal areas outside wetlands, riparian management areas, floodplains and unstable areas to minimize risk of sediment delivery to waters of the state. Apply surface erosion control prior to the wet season. Prevent overloading areas which may become unstable.	ODF (OAR) 629-625-0340 FEIS 2008	ODF (OAR) 629-625-0340, Waste Disposal Areas

Road BMP Number	Text	Source	Oregon Dept. of Forestry/Oregon Administrative Rules Forest Roads - Division 625
R 042	Confine pioneer roads to the construction limits of the permanent roadway to reduce the amount of area disturbed and avoid deposition in wetlands, riparian management areas, floodplains and waters of the state. Install temporary drainage, erosion, and sediment control structures. Storm proof or close pioneer roads prior to the onset of the wet season.	EPA (2005) Page 3-41 Bullet 2	ODF (OAR) 629-625-0410, Disposal of Waste Materials
R 043	Use controlled blasting techniques to minimize loss of material on steep slopes or into wetlands, riparian management areas, floodplains and waters of the state.	FEIS 2008	ODF (OAR) 629-625-0410, Disposal of Waste Materials
R 044	Provide for unobstructed flow at culvert inlets and within ditch lines during and upon completion of road construction prior to the wet season.	FEIS 2008	ODF (OAR) 629-625-0420, Drainage
R 045	Use temporary sediment control measures (e.g., check dams, silt fencing, bark bags, filter strips and mulch) to slow runoff and contain sediment from road construction areas. Remove any accumulated sediment and the control measures when work or haul is complete. When long term structural sediment control measures are incorporated into the final erosion control plan, remove any accumulated sediment to retain capacity of the control measure.	FEIS 2008 with modification using ODEQ 2005 RC-11	ODF (OAR) 629-625-0430, Stream Protection
R 046	Conduct all nonemergency in-water work during the ODFW in-stream work window.	Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources – June, 2008 ODF OAR 629-625-0430 (2)	ODF (OAR) 629-625-0430, Stream Protection
R 047	Utilize stream diversion and isolation techniques when installing stream crossings. Evaluate the physical characteristics of the site, volume of water flowing through the project area and the risk of erosion and sedimentation when selecting the proper techniques.	ODEQ 2006, RC-9 and 10	ODF (OAR) 629-625-0430, Stream Protection
R 048	Limit activities and access points of mechanized equipment to streambank areas or temporary platforms when installing or removing structures. Keep equipment activity in the stream channel to an absolute minimum.	OAR 629-625-0430 (2)	ODF (OAR) 629-625-0430, Stream Protection
R 049	Install stream crossing structures before heavy equipment moves beyond the crossing area.	FEIS 2008	ODF (OAR) 629-625-0430, Stream Protection

Road BMP Number	Text	Source	Oregon Dept. of Forestry/Oregon Administrative Rules Forest Roads - Division 625
R 050	Remove temporary crossing structures promptly after use. Follow practices under the Closure/Decommissioning section for removing stream crossing drainage structures and reestablishing the natural drainage.	ODF (OAR) 629-625-0430 (5)	ODF (OAR) 629-625-0430, Stream Protection
R 051	Harden low water ford approaches with durable materials. Provide cross drainage on approaches.	EPA 2005 p3-50	ODF (OAR) 629-625-0430, Stream Protection
R 052	Restrict access to unimproved low water stream crossings.	ODR (OAR) 629-625-0430 (5)	ODF (OAR) 629-625-0430, Stream Protection
R 053	Locate equipment washing sites in areas with no potential for runoff into wetlands, riparian management areas, floodplains and waters of the state. Do not use solvents or detergents to clean equipment on site.	ODEQ 2005 , NS-5	ODF (OAR) 629-625-0430, Stream Protection
R 054	Limit disturbance to vegetation and modification of streambanks when locating road approaches to in-stream water source developments. Surface these approaches with durable material. Employ erosion and runoff control measures.	FEIS 2008	ODF (OAR) 629-625-0430, Stream Protection
R 055	Direct pass-through flow and/or overflow from in-channel and any connected off-channel water developments back into the stream.	FEIS 2008	ODF (OAR) 629-625-0430, Stream Protection
R 056	Overflow from water harvesting ponds should be directed to a safe non-eroding dissipation area, and not into a stream channel.	Unknown	Does not fit any ODF category
R 057	Limit the construction of temporary in-channel water drafting sites. Develop permanent water sources outside of stream channels and wetlands.	FEIS 2008 & ODEQ 2005, NS-1	ODF (OAR) 629-625-0430, Stream Protection
R 058	Do not place pump intakes on the substrate or edges of the stream channel. When placing intakes in-stream, place on hard surfaces (e.g., shovel, rocks) to minimize turbidity. Use a temporary liner to create intake site. After completion of use, remove liner and restore channel to natural condition.	FEIS 2008 & ODEQ 2005, NS-1	ODF (OAR) 629-625-0430, Stream Protection
R 059	Do not place pump intakes on the substrate or edges of the stream channel. When placing intakes in-stream, place on hard surfaces (e.g., shovel, rocks) to minimize turbidity. Use a temporary liner to create intake site. After completion of use, remove liner and restore channel to natural condition.	(404(f) exemption criteria xi)	ODF (OAR) 629-625-0430, Stream Protection

Road BMP Number	Text	Source	Oregon Dept. of Forestry/Oregon Administrative Rules Forest Roads - Division 625
R 060	During roadside brushing remove vegetation by cutting rather than uprooting.	ODF (OAR) 629-625-0430 (4)	ODF (OAR) 629-625-0430, Stream Protection
R 061	Limit road and landing construction, reconstruction, or renovation activities to the dry season. Keep erosion control measures concurrent with ground disturbance to allow immediate stormproofing.	FEIS 2008	ODF (OAR) 629-625-0440, Stabilization
R 062	Apply native seed and certified weed free mulch to cut and fill slopes, ditchlines, and waste disposal sites with the potential for sediment delivery to wetlands, riparian management areas, floodplains and waters of the state. Apply upon completion of construction and as early as possible to increase germination and growth. Reseed if necessary to accomplish erosion control. Select seed species that are fast growing, have adequate germination and provide ample ground cover and soil-binding properties. Apply mulch that will stay in place and at site specific rates to prevent erosion.	FEIS 2008	ODF (OAR) 629-625-0440, Stabilization
R 063	Place sediment-trapping materials or structures such as straw bales, jute netting, or sediment basins at the base of newly constructed fill or side slopes where sediment could be transported to waters of the state. Keep materials away from culvert outlets.	USDS RMRS GTR 102-#18	ODF (OAR) 629-625-0440, Stabilization
R 064	Use biotechnical stabilization and soil bioengineering techniques to control bank erosion (e.g., commercially produced matting and blankets, live plants or cuttings, dead plant material, rock or other inert structure).	USDS RMRS GTR 102-#18 & 20	ODF (OAR) 629-625-0440, Stabilization
R 065	Suspend ground-disturbing activity if projected forecasted rain will saturate soils to the extent that there is potential for movement of sediment from the road to wetlands, floodplains and waters of the state. Cover or temporarily stabilize exposed soils during work suspension. Upon completion of ground disturbing activities, immediately stabilize fill material over stream crossing structures. Measures could include but not limited to erosion control blankets and mats, soil binders, soil tackifiers, slash placement.	ODEQ 2010 1200-c permit 7 a I & ii.	ODF (OAR) 629-625-0440, Stabilization
R 066	When conducting erosion control measures, apply fertilizer in a manner to prevent direct fertilizer entry to wetlands, riparian management areas, floodplains and waters of the state.	May find in BO for fish protection	ODF (OAR) 629-625-0440, Stabilization

Road BMP Number	Text	Source	Oregon Dept. of Forestry/Oregon Administrative Rules Forest Roads - Division 625
R 067	Stabilize cutbanks, headwalls and other surfaces and prevent overburden, solid wastes, drainage water or petroleum products from entering wetlands, riparian management areas, floodplains and waters of the state during the development and use of rock pits or quarries.	ODF OAR 629-625-0500 1-5 next 5 new BMPs	ODF (OAR) 629-625-0500, Rock Pits and Quarries
R 068	Do not locate new or expand existing quarry sites or stockpile sites in wetlands, riparian management areas, and floodplains or waters of the state. Control runoff from quarries to prevent sediment delivery to waters of the state.	FEIS 2008 Minerals BMP OAR 340-041-0036	ODF (OAR) 629-625-0500, Rock Pits and Quarries
R 069	When a quarry or rock pit is inactive or vacated, stabilize cutbanks, headwalls, and other surfaces to prevent surface erosion and landslides. Remove all potential pollutants to prevent their entry into wetlands, riparian management areas, floodplains and waters of the state.	FEIS 2008 Minerals BMP mod & ODEQ 2005 NS - 6	ODF (OAR) 629-625-0500, Rock Pits and Quarries
R 070	Apply water or approved road surface stabilizers/dust control additives to reduce surfacing material loss and buildup of fine sediment that can enter into wetlands, floodplains and waters of the state. Prevent entry of road surface stabilizers/dust control additives into waters of the state during application.	ODEQ 2005, EP-13	ODF (OAR) 629-625-0600, Road Maintenance
R 071	Prior to the wet season, provide effective road surface drainage through practices such as machine cleaning of ditches, surface blading including berm removal, constructing sediment barriers, cleaning inlets and outlets.	ODF OAR 629-625 0600 (2-4) EPA 2005 pp361-362	ODF (OAR) 629-625-0600, Road Maintenance
R 072	Avoid undercutting of cut-slopes when cleaning ditchlines. Seed with native species and use weed free mulch on bare soils including cleaned ditchlines that drain directly to wetlands, floodplains and waters of the state.	EPA 2005 pp362	ODF (OAR) 629-625-0600, Road Maintenance
R 073	Remove and dispose of slide material when it is obstructing road surface and ditchline drainage. Place material on stable ground outside of wetlands, riparian management areas, floodplains and waters of the state.	ODF OAR 629-625-0600 (6)	ODF (OAR) 629-625-0600, Road Maintenance
R 074	Do not sidecast loose ditch or surface material where it can enter wetlands, riparian management areas, floodplains and waters of the state.	FEIS 2008 & ODF OAR 629-625-0600 (7)	ODF (OAR) 629-625-0600, Road Maintenance
R 075	Inspect and maintain culvert inlets and outlets, drainage structures and ditches before and during the wet season to diminish the likelihood of plugged culverts and the possibility of washouts.	FEIS 2008 & ODF OAR 629-625 - 0600 (3)	ODF (OAR) 629-625-0600, Road Maintenance
R 076	Repair damaged culvert inlets and downspouts to maintain drainage design capacity.	FEIS 2008 & ODF OAR 629-625 - 0600 (3)	ODF (OAR) 629-625-0600, Road Maintenance

Road BMP Number	Text	Source	Oregon Dept. of Forestry/Oregon Administrative Rules Forest Roads - Division 625
R 077	Blade and shape roads to conserve existing aggregate surface material, retain or restore the original cross section, remove berms and other irregularities that impede effective runoff or cause erosion, and ensure that surface runoff is directed into vegetated, stable areas.	FEIS 2008 & ODF OAR 629-625 - 0600 (4)	ODF (OAR) 629-625-0600, Road Maintenance
R 078	Retain ground cover in ditchlines, except where sediment deposition or obstructions require maintenance.	FEIS 2008	ODF (OAR) 629-625-0600, Road Maintenance
R 079	Retain low-growing vegetation on cut-and-fill slopes.	FEIS 2008 &EPA 2005 ; EP-6	ODF (OAR) 629-625-0600, Road Maintenance
R080	Stormproof open resource roads receiving infrequent maintenance to reduce road erosion and reduce the risk of washouts by concentrated water flows. Stormproof temporary roads if retained over-winter.	ODF OAR 629-625-0600 (2)	ODF (OAR) 629-625-0600, Road Maintenance
R 081	Suspend stormproofing/decommissioning operations and cover or otherwise temporarily stabilize all exposed soil if conditions develop that cause a potential for sediment laden runoff to enter a wetland, floodplain or waters of the state. Resume operations when conditions allow turbidity standards to be met.	FEIS 2008	ODF (OAR) 629-625-0600, Road Maintenance
R 082	Inspect closed roads to ensure that vegetation stabilization measures are operating as planned, drainage structures are operational, and noxious weeds are not providing erosion control. Conduct vegetation treatments and drainage structure maintenance as needed.	FEIS 2008 & ODF OAR 629-625 - 0650 (2)	ODF (OAR) 629-625-0650, Vacating Forest Roads
R 083	Fully decommission or obliterate temporary roads upon completion of use.	FEIS 2008	ODF (OAR) 629-625-0650, Vacating Forest Roads
R 084	Consider decommissioning or fully decommissioning low volume permanent roads not needed for future resource management located in, or draining into wetlands, riparian management areas, floodplains or waters of the state.	EPA 2005 3-64	ODF (OAR) 629-625-0650, Vacating Forest Roads
R 085	Prevent use of vehicular traffic using methods such as gates, guard rails, earth/log barricades, to reduce or eliminate erosion and sedimentation due to traffic on roads.	ODF OAR 629-625 -0650 (2)	ODF (OAR) 629-625-0650, Vacating Forest Roads
R 086	Convert existing drainage structures such as ditches and cross drain culverts to a long-term maintenance free drainage configuration such as outsloped road surface and waterbars.	FEIS 2008 & ODF OAR 629-625 - 0650 (3)	ODF (OAR) 629-625-0650, Vacating Forest Roads

Road BMP Number	Text	Source	Oregon Dept. of Forestry/Oregon Administrative Rules Forest Roads - Division 625
R 087	Remove stream crossing culverts and entire in-channel fill material during ODFW in-stream work period.	FEIS 2008	ODF (OAR) 629-625-0650, Vacating Forest Roads
R 088	Place excavated material from removed stream crossings on stable ground outside of wetlands, riparian management areas, floodplains and waters of the state. In some cases material could be used for recontouring old road cuts or be spread across roadbed and treated to prevent erosion.	FEIS 2008	ODF (OAR) 629-625-0650, Vacating Forest Roads
R 089	Reestablish stream crossings to the natural stream gradient. Excavate sideslopes back to the natural bank profile. Reestablish natural channel width and floodplain.	FEIS 2008	ODF (OAR) 629-625-0650, Vacating Forest Roads
R 090	On each side of a stream crossing, construct waterbars or cross ditches that will remain maintenance free.	FEIS 2008 & ODF OAR 629-625 - 0650 (3)	ODF (OAR) 629-625-0650, Vacating Forest Roads
R 091	Following culvert removal and prior to the wet season, apply erosion control and sediment trapping measures (e.g., seeding, mulching, straw bales, jute netting, and native vegetative cuttings) where sediment can be delivered into wetlands, riparian management areas, floodplains and waters of the state.	FEIS 2008 & ODF OAR 629-625 - 0650 (3)	ODF (OAR) 629-625-0650, Vacating Forest Roads
R 092	Implement decompaction measures, including ripping or subsoiling to an effective depth. Treat compacted areas including the roadbed, landings, construction areas, and spoils sites.	FEIS 2008	ODF (OAR) 629-625-0650, Vacating Forest Roads
R 093	After decompacting the road surface, pull back unstable road fill and either end-haul or recontour to the natural slopes.	FEIS 2008	ODF (OAR) 629-625-0650, Vacating Forest Roads
R 094	On active haul roads, during the wet season, use durable rock surfacing and sufficient surface depth to resist rutting or development of sediment on road surfaces that drain directly to wetlands, floodplains and waters of the state.	ODF (OAR) 629-625-0700 (2)	ODF (OAR) 629-625-0700, Wet Weather Road Use
R 095	Prior to winter hauling activities, implement structural road treatments such as: increasing the frequency of cross drains, installing sediment barriers or catch basins, applying gravel lifts or asphalt road surfacing at stream crossing approaches, and cleaning and armoring ditchlines.	ODF (OAR) 629-625-0700 (2)	ODF (OAR) 629-625-0700, Wet Weather Road Use
R 096	Suspend commercial use where the road surface is deeply rutted or covered by a layer of mud or when runoff from the road surface is causing a visible increase in stream turbidity in the receiving stream.	ODF OAR 629-625-0700 - 3 modified with add from FEIS 2008	ODF (OAR) 629-625-0700, Wet Weather Road Use

Road BMP Number	Text	Source	Oregon Dept. of Forestry/Oregon Administrative Rules Forest Roads - Division 625
R 097	Remove snow on haul roads in a manner that will protect roads and adjacent resources. Retain a minimum layer (2-4 inches) of compacted snow on the road surface. Provide drainage through the snow bank at periodic intervals to allow for snow melt to drain off the road surface.	BLM Snow removal letter. Issued annually in the fall to ROW permittees.	ODF (OAR) 629-625-0700, Wet Weather Road Use
R 098	Do not allow wet season haul on natural surface roads or high sediment producing surfaced roads without practicable and effective mitigation.	ODF OAR 629-625-0700 (1)	ODF (OAR) 629-625-0700, Wet Weather Road Use
R 099	Maintain road surface by applying appropriate gradation of aggregate and suitable particle hardness to protect road surfaces from rutting and erosion under active haul where runoff drains to wetlands, riparian management areas, floodplains and waters of the state.	ODF OAR 629-625-0700 (2)	ODF (OAR) 629-625-0700, Wet Weather Road Use
R 100	To reduce sediment tracking from natural surface roads during active haul provide gravel approach before entrance onto surfaced roads.	ODEQ 2010-1200c-7 diii	ODF (OAR) 629-625-0700, Wet Weather Road Use
R 101	Install temporary culverts and washed rock on top of low water ford to reduce vehicle contact with water during active haul. Remove culverts promptly after use.	BLM – WOTT - 2011	ODF (OAR) 629-625-0700, Wet Weather Road Use

Bureau of Land Management Road Best Management Practices Glossary

Note: These terms are defined in relation to their use in the Bureau of Land Management (BLM) Road Best Management Practices (BMP).

Bed Load: Coarse sediment particles with a relatively fast settling rate that move by sliding, rolling or bouncing along the streambed in response to higher stream flows.

Bioengineering: Techniques combining the biological elements of live plants with engineering design concepts for slope protection and erosion reduction.

Broad Based Dip: Shallow gradual dips in the constructed road grade with a higher-than-road surface embankment angled across the road in the direction of water flow. The dip portion is used to drain ditch flows to the other side of the road where drainage can dissipate at ground level or exit upon an erosion resistant surface, if needed, to prevent erosion.

Commercial Use: The primary purpose for development and use of the BLM road system is access for forest management activities and the transportation of forest products. Commercial use of BLM's road system typically includes log hauling and aggregate hauling and is authorized by either 1) perpetual reciprocal right-of-way agreements between the United States and private timberland owners, or 2) BLM timber sale contracts.

Cross Drain Culvert: Culverts strategically installed to pass ditch runoff or drain seeps and springs, safely under the road prism. (Often referred to as relief culverts).

Crown: The center of the road being higher than the outer edges, creating a nearly flat A-shape

with a normal cross slope of ½" to ¾" per foot.

Culvert: Enclosed channels of various materials and shapes designed to convey stream or ditch water under and away from the roadway.

Cutbank Gouging: A problematic practice during grading and ditch cleaning operations where the road maintenance equipment cuts into the toe of a stable bank and creates a vertical surface thereby destabilizing the bank .

Durable Rock Surfacing: Durability is an indicator of the relative quality or competence of an aggregate to resist abrasion, impact or grinding to produce clay-like fines when subjected to commercial hauling. Durable rock surfacing will support commercial timber or rock haul in the winter with a minimal level of fines produced due to wear.

Dry Season: An annually variable period of time, starting after spring rains cease and when hillslope subsurface flow declines; drying intermittent streams and roadside ditches. Generally June through October, but may start or end earlier depending on seasonal precipitation influences.

Effective Depth of Decompaction: The depth to which the soil is tilled or loosened to provide infiltration capacity that is near to the adjacent undisturbed forest floor. Measured depth is from road surface to bottom of evidence of platey soil or increased bulk density that impedes water transmission.

Energy Dissipater: Any device or installation of material used to reduce the energy of flowing water.

Geotextile: A geosynthetic fabric or textile manufactured from synthetic plastic polymers, not biodegradable, in woven or non-woven types, and used for various purposes ranging from reinforcement and separation to drainage filtration and sediment control.

Grade Break: A long, gradual break in grade on a road with a relatively gradual downhill slope that improves drainage. Grade breaks limit water flow by decreasing concentration and velocity from a reduced area of road section.

High Sediment Producing Roads: Roads whose physical characteristics and rights of way vegetation, in combination with precipitation in the watershed and traffic result in high erosion rates.

Insloping: Constructing and maintaining the entire surface of the road toward the cutslope side of the road.

Lead-off Ditch: A formed channel that diverts ditch water away from the road, usually angled in the direction of water flow and placed at locations to empty into vegetative filtering areas.

Low Volume Road: A road that is functionally classified as a resource road and has a design average daily traffic volume of 20 vehicles per day or less.

Mitigation: The act of reducing or eliminating an adverse environmental impact.

ODFW in stream work period: Oregon Department of Fish and Wildlife designated guidelines that identify periods of time for in-water work that would have the least impact on important fish, wildlife and habitat resources. Work periods are established to avoid the vulnerable life stages of fish including migration, spawning and rearing. Work periods are established for the named stream, all upstream tributaries, and associated lakes within a watershed. (Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources – June, 2008)

Outsloping: Constructing and maintaining the entire surface of the road toward the fillslope side of the road.

Pioneer Road: Temporary access ways, within the path of the permanent road, used to facilitate construction and equipment access. When building permanent roads, pioneer roads exist within the template of the finished road.

Renovation: Consists of work done to an existing road, restoring it to its original design standard.

Resource Road: Roads that provide a point of access to public lands and connect with local or collector roads.

Riparian Management Area: The areas along watercourses, lakes and wetlands which are primarily managed specifically for protection of aquatic and riparian dependent beneficial uses under Resource Management Plans.

Road Closures Categories:

> **a. Temporary/Seasonal/Limited Access** – These are typically resource roads, closed with a gate or barrier. The road will be closed to public vehicular traffic but may be open for BLM/Permittee commercial activities. The road may or may not be closed to BLM administrative uses on a seasonal basis depending upon impacts to the resources. Drainage structures will be left in place.
>
> **b. Decommission (long-term)** –The road segment will be closed to vehicles on a long-term basis, but may be used again in the future. Prior to closure the road will be left in an erosion-resistant condition by establishing cross drains, eliminating diversion potential at stream channels, and stabilizing or removing fills on unstable areas. Exposed soils will be treated to reduce sediment delivery to streams. The road will be closed with an earthen barrier or its equivalent. This category can include roads that have been or will be closed due to a natural process (abandonment) and may be opened and maintained for future use.
>
> **c. Full Decommission (permanent)** – Roads determined to have no future need may be subsoiled (or tilled), seeded, mulched, and planted to reestablish vegetation. Cross drains, fills in stream channels, and unstable areas will be removed, if necessary, to restore natural hydrologic flow. The road will be closed with an earthen barrier or its equivalent. The road will not require future maintenance. This category includes roads that have been closed due to a natural process (abandonment) and where hydrologic flow has been naturally restored.
>
> **d. Obliteration (full site restoration/permanent)** – Roads receiving this level of treatment have no future need. All drainage structures will be removed. Fill material used in the original road construction will be excavated and placed on the subgrade in an attempt to reestablish the original ground line. Exposed soil will be vegetated with native trees or other native vegetation. Road closure by obliteration is rarely used.

Sediment: Fine particles of inorganic and /or organic matter carried by water.

Shotgun Culverts: Ditch relief or stream culverts where the outlet extends beyond the natural ground line.

Storm-proof: Roads having a self-maintaining condition, allowing unimpeded flows at channel crossings and surface conditions that reduce chronic sediment input to stream channels.

Temporary Road: A short-term use road authorized for the development of a project that has a finite lifespan, e.g., a timber sale spur road. Temporary roads are not part of the permanent

designated transportation network and must be reclaimed when their intended purpose has been fulfilled.

Turbidity: The cloudiness exhibited by water carrying sediment. The degree to which suspended sediment interferes with light passage through water.

Underdrain: Culverts installed to convey water from springs, and seeps encountered during road construction, under the road.

Water drafting site: Site to provide a short duration, small pump operation that withdraws water from streams or impoundments to fill conventional tank trucks or trailers.

Water Harvesting Pond: Ponds constructed to capture and store rainwater or snowmelt.

Waters of the State: Includes lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private which are wholly or partially within or bordering the State or within its jurisdiction. ORS § 468B.005(10).

Wetland: Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, as defined by the 1972 Federal Clean Water Act. These wetlands generally meet the jurisdictional wetland criteria.

Wet Season: An annually variable period of time, starting after precipitation amounts saturate soils. This occurs after the onset of fairly continuous fall rains which result in seasonal runoff in ephemeral and intermittent stream channels and from the road surface and ditches. Generally November through May, but could start or end earlier depending on seasonal precipitation influences.

Plan Maintenance for Fiscal Year 2012

Rural Interface Areas

It is necessary to clarify a discrepancy in the definition of rural urban interface lands. The **Glossary** (pg. 111) of the ROD/RMP defined rural interface areas as privately owned lands zoned for 1 to 20-acre lots or that already have residential development. This is inconsistent with the definition provided in management direction from the ROD/RMP (pg. 54) which is predominant and specifies special management of BLM-administered lands within ¼-mile of private lands zoned for 1-5 acre lots. The glossary definition is therefore changed to reflect the definition contained in management direction.

Regeneration Harvest

It is necessary to clarify the difference between regeneration, and regeneration harvest, a silvicultural prescription in which a single residual density is created post-harvest.

Regeneration is the renewal of tree cover by the establishment of young trees naturally or artificially. This may occur in the form of an even-aged stand or as an understory cohort through the application of silvicultural treatments that include variable density thinning, shelterwood harvest, group selection and clearcutting.

Regeneration harvest, as defined by management direction in the Roseburg District *Record of Decision and Resource Management Plan* (ROD/RMP) is a silvicultural prescription that applies a single residual tree density across all harvest unit acres. Its application is limited to the matrix allocations and the Little River Adaptive Management Area. In the General Forest Management Area the residual tree density at the time of regeneration harvest is defined as six to eight large conifers per acre (ROD/RMP pg. 64). In Connectivity/Diversity Blocks the residual tree density at the time of regeneration harvest is defined as 12 to 18 large conifers per acre (ROD/RMP pg. 65). In the Little River Adaptive Management Area management direction for regeneration harvest will apply the standards and guidelines for matrix management (ROD/RMP pg. 154).

Revised Policy for the Management of Marbled Murrelet Nesting Structure within Younger Stands

The existing policy regarding "*Management of Potential Marbled Murrelet Nesting Structure in Thinning Stands*" (dated August 4, 2004) which was included in plan maintenance fiscal year 2004 was revised and updated by the Roseburg District and Coos Bay District Level 2 Teams in July 2012.

The prospect of updating and revising the existing 2004 policy was initially raised to the Roseburg Level 1 Team on December 12, 2011. The Roseburg Level 1 Team discussed the proposed update at its scheduled meetings during Winter/Spring 2012 (i.e. January 13, 2012; February 27, 2012; March 26, 2012; and April 30, 2012).

In April 2012, the Roseburg Level 1 Team and the Coos Bay Level 1 Team discussed jointly updating the existing policy. The collaboration between the Roseburg and Coos Bay Level 1 Teams resulted in the updated 2012 "*Revised Policy for the Management of Marbled Murrelet Nesting Structure within Younger Stands - Roseburg and Coos Bay BLM Districts*".

Updates to the policy for the *Management of Marbled Murrelet Nesting Structure within Younger Stands on the Roseburg and Coos Bay BLM Districts* focus on the characteristics that define potential nesting structure for marbled murrelets; specifically: elevation, species of nest tree, platform size, and platform height. These updates are summarized below.

I. Characteristics of Potential Structure

Any tree that does not meet all of the following characteristics is unlikely to support nesting marbled murrelets. However, not all of these characteristics are visible from the ground in all situations. Therefore, the unit wildlife biologist shall make site-specific determinations on the presence of potential structure based upon professional judgment.

A tree with potential structure has all of the following characteristics:

- It occurs within 50 miles (81 km) of the coast (USFWS, 1997; pg. 32);
- It is a conifer tree (USFWS, 1997; pg. 18);
- It is ≥ 19.1 inches (49 centimeters) (dbh) in diameter, > 107 feet (33 meters) in height, has at least one **platform** ≥ 4 inches (10 centimeters) in diameter, nesting substrate (e.g. moss, epiphytes, duff) on that platform, and an access route through the canopy that a marbled murrelet could use to approach and land on the platform (Burger 2002, Nelson & Wilson 2002:24, 27, 42, 97, 100);
- It has potential structure ≥ 32.5 feet (9.9 meters) above the ground; and
- It has a tree branch or foliage, either on the tree with potential structure or on a surrounding tree that provides protective cover over the platform (Nelson & Wilson 2002:98 & 99).

Because marbled murrelets respond to the landscape-level availability of nesting habitat (Burger 1997, Burger 2002, Cooper *et al.* 2001 and Raphael *et al*. 2002), a tree with potential structure might provide marbled murrelet nesting habitat depending on where it occurs on the landscape.

Increasing distance from the ocean becomes a negative factor in marbled murrelet inland site selection after 12-20 miles (19.5 – 32.5 km) (Anderson 2003, Burger 2002, Humes 2003, U.S. BLM 2003, Willamette Industries 2003 and Wilson 2002).

Habitat with < 6 trees with potential structure within a 5-acre area, and located > 20 miles (32.5 km) inland, has a decreased likelihood of use by nesting marbled murrelets (Anderson 2003, Humes 2003, U.S. BLM 2003, Willamette Industries 2003 and Wilson 2002).

This policy/plan maintenance allows thinning operations without protocol surveys when effects from proposed actions are discountable, insignificant or entirely beneficial so they would not adversely affect marbled murrelets.

This plan maintenance clarifies and refines ROD/RMP requirements that were intended to protect marbled murrelet nesting habitat from habitat modifications but were not intended to prohibit or discourage habitat modifications that would benefit marbled murrelet conservation. Logic presented by the Level 1 Teams clearly indicates that this plan maintenance would have a discountable, insignificant, or entirely beneficial effect on marbled murrelets. This action encourages the enhancement of habitat immediately surrounding potential nesting structure.

Management direction for marbled murrelet is found on page 48 of the Roseburg District Record of Decision and Resource Management Plan. Plan maintenance is appropriate for this action because it clarifies the intention of current ROD/RMP requirements for the marbled murrelet and the biological information provided by the Level 1 Team indicates that this refinement of requirements will not result in an expansion of the scope of resource uses or restrictions.

Plan Maintenance for Fiscal Year 2013

On December 17, 2009, the U.S. District Court for the Western District of Washington issued an order in *Conservation Northwest, et al. v. Rey, et al.*, No. 08-1067 (W.D. Wash.) (Coughenour, J.) granting Plaintiffs' motion for partial summary judgment and finding a variety of National Environmental Policy Act (NEPA) violations in the BLM and USFS 2007 Record of Decision eliminating the Survey and Manage mitigation measure.

Judge Coughenour deferred issuing a remedy in his December 17, 2009 order until further proceedings, and did not enjoin the BLM from proceeding with projects. Plaintiffs and Defendants entered into settlement negotiations that resulted in the 2011 Survey and Manage Settlement Agreement, adopted by the district court on July 6, 2011.

The Ninth Circuit Court of Appeals issued an opinion on April 25, 2013, that reversed the District Court for the Western District of Washington's approval of the 2011 Survey and Manage Settlement Agreement. The case is now remanded back to the District Court for further proceedings. This means that the December 17, 2009, District Court order which found NEPA inadequacies in the 2007 analysis and records of decision removing Survey and Manage is still valid. At this time, BLM direction is that projects that are within the range of the northern spotted owl are subject to the 2001 Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer and other Mitigation Measures Standards and Guidelines, as incorporated into the Roseburg District Resource Management Plan.

Table 21 shows a breakdown of the placement of these species, and a brief description of management actions required for each, in 2001.

Plan Maintenance for Fiscal Year 2014

2007 Amendment to the Northwest Forest Plan including the Roseburg District ROD/RMP To Remove the Survey and Manage Mitigation Measure Standards and Guidelines

On February 18, 2014, the District Court for the Western District of Washington issued a remedy order in the case of *Conservation Northwest et al. v. Bonnie et al.*, No. 08-1067- JCC (W.D. Wash.)/No.11-35729 (9th Cir.). This was the latest step in the ongoing litigation challenging the 2007 Record of Decision (ROD) to modify the Survey and Manage (S&M) Standards and Guidelines.

The remedy order contained two components. The order:

1) Vacates the 2007 ROD to Remove or Modify the Survey and Manage S&M Mitigation Measure Standards and Guidelines, and
2) Allows for continued project planning and implementation for projects that relied on the 2011 Consent Decree and were being developed or implemented on or before April 25, 2013 (date of the Ninth Circuit Court ruling invalidating the 2011 Consent Decree).

In summary, the current status of Survey and Manage is:

1) Follow the 2001 S&M ROD and Standards and Guidelines (S&G);
2) Apply the "Pechman exemptions;" and
3) Implement the 2001, 2002, and 2003 ASR modifications to the S&M species list, except for the changes made for the red tree vole.

Plan Maintenance for Fiscal Year 2015

There was no needed plan maintenance identified for fiscal year 2015.

Resource Management Plan Monitoring Report for Fiscal Year 2015

Executive Summary

Introduction

This document represents the eighteenth monitoring report of the Roseburg District ROD/RMP which was signed in June 1995. This monitoring report compiles the results and findings of implementation monitoring of the ROD/RMP for fiscal year 2015. This report does not include the monitoring conducted by the Roseburg District identified in activity or project plans. Monitoring at multiple levels and scales along with coordination with other BLM and Forest Service units has been initiated through the Regional Interagency Executive Committee (RIEC).

The ROD/RMP monitoring effort for fiscal year 2015 addressed 25 implementation questions relating to the land use allocations and resource programs contained in the Monitoring Plan. There are 51 effectiveness and validation questions included in the Monitoring Plan. The effectiveness and validation questions were not required to be addressed because some time is required to elapse after management actions are implemented in order to evaluate results that would provide answers. There is effectiveness and validation monitoring applicable to the ROD/RMP which is being developed and conducted through the Regional Ecosystem Office.

Findings

Monitoring results indicate almost full compliance with management action/direction in the twenty land use allocations and resource programs identified for monitoring in the plan.

The Roseburg District was unable to offer the full ASQ level of timber required under the ROD/RMP in fiscal year 2015. Predictably, subsequent silvicultural treatments such as site preparation, planting, and fertilization were also less than projected. Other silvicultural treatments such as maintenance/protection, precommercial thinning, and pruning were more than anticipated.

The Little River Adaptive Management Area has not met certain requirements of the ROD/RMP. It does not have a functioning advisory committee, does not have an approved plan, and has not tested the innovative practices that are the emphasis for the Little River Adaptive Management Area.

Recommendations

The circumstances that have frustrated the District's ability to implement the underlying assumptions that form the basis of the Allowable Sale Quantity remain unresolved.

There is currently no strategy to resolve the discrepancies associated with the Little River Adaptive Management Area.

A Resource Management Plan revision addressing these issues concluded in 2008. However, on July 16, 2009 the U.S. Department of the Interior, withdrew the 2008 Records of Decision and directed the BLM to implement actions in conformance with the resource management plans for western Oregon that were in place prior to December 30, 2008.

The 2008 ROD/RMPs for the western Oregon BLM districts were reinstated on March 31, 2011 in Douglas Timber Operators et al. v. Salazar-DOI, but were subsequently vacated by the U.S. District Court for the District of Oregon on May 15, 2012, in *Pacific Rivers Council et al. v. Shepard-BLM/DOI*. They are still the subject of a lawsuit in *AFRC et al. v. Salazar-DOI/Locke-DOC*, in the U.S. District Court, District of Columbia. Consequently, the projects being monitored were designed under the management direction, land use allocations and objectives of the 1995 ROD/RMP.

As a result of the court vacatur of the 2008 Records of Decision, the Roseburg District has resumed operating under the 1995 Records of Decision and Resource Management Plans (1995 ROD/RMPs) as amended and maintained.

Conclusions

Analysis of the fiscal year 2015 monitoring results concludes that the Roseburg District has complied with all Resource Management Plan management action/direction with the exceptions discussed above.

Monitoring Report Fiscal Year 2015

All Land Use Allocations

Expected Future Conditions and Outputs

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

Implementation Monitoring

Due to ongoing litigation, current BLM guidance is for all projects to comply with either the *2001 Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage Protection Buffer, and other Mitigation Measures Standards and Guidelines* (without Annual Species Reviews) or one of the four exemptions in the October 11, 2006, Court stipulation in **Northwest Ecosystem Alliance v. Rey).** Note: The stipulation outlines exemptions to survey and management requirements, also known as the "Pechman exemptions", outlined as follows:

> a) Thinning projects in stands younger than 80 years old;
>
> b) Replacing culverts on roads that are in use and part of the road system, and removing culverts if the road is temporary or to be decommissioned;
>
> c) Riparian and stream improvement projects where the riparian work is riparian planting, obtaining material for placing in-stream, and road or trail decommissioning; and where the stream improvement work is the placement large [*sic*] wood, channel and floodplain reconstruction, or removal of channel diversions; and
>
> d) The portions of projects involving hazardous fuel treatments where prescribed fire is applied. Any portions of a hazardous fuel treatment project involving commercial logging will remain subject to the survey and manage requirements except for thinning of stands younger than 80 years old under subparagraph (a) of this paragraph.

BLM issued a record of decision in July, 2007 to amend the plans within the Northwest Forest Plan area to remove the survey and manage mitigation measures. In January, 2008 a lawsuit was filed, and in December, 2009 the presiding judge issued an Order granting Plaintiffs motion for partial summary judgment.

As described under Plan Maintenance for 2013, The Ninth Circuit Court of Appeals issued an opinion on April 25, 2013, that reversed the District Court for the Western District of Washington's approval of the 2011 Survey and Manage Settlement Agreement. The case is now remanded back to the District Court for further proceedings.

On February 18, 2014, the District Court for the Western District of Washington issued a remedy order in the case of *Conservation Northwest et al. v. Bonnie et al.*, No. 08-1067- JCC (W.D.

Wash.)/No.11-35729 (9th Cir.). This was the latest step in the ongoing litigation challenging the 2007 Record of Decision (ROD) to modify the Survey and Manage (S&M) Standards and Guidelines.

The remedy order contained two components. The order:

1) Vacates the 2007 ROD to Remove or Modify the Survey and Manage S&M Mitigation Measure Standards and Guidelines, and
2) Allows for continued project planning and implementation for projects that relied on the 2011 Consent Decree and were being developed or implemented on or before April 25, 2013 (date of the Ninth Circuit Court ruling invalidating the 2011 Consent Decree).

In summary, the current status of Survey and Manage is:

1) Follow the 2001 S&M ROD and Standards and Guidelines (S&G);
2) Apply the "Pechman exemptions;" and
3) Implement the 2001, 2002, and 2003 ASR modifications to the S&M species list, except for the changes made for the red tree vole.

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

Monitoring Requirements

1. At least 20 percent of all management actions will be examined prior to project initiation and re-examined following project completion, to determine if: surveys are conducted for species listed in Appendix H, protection buffers are provided for specific rare and locally endemic species and other species in the upland forest matrix, and sites of species listed in Appendix H of the ROD/RMP, as modified by the 2001 *Record of Decision and Standards and Guidelines for the Amendments to the Survey and Manage, Protection Buffer, and Other Mitigation Measures Standards and Guidelines*, and the results of the 2003 Annual Species Review (excluding the red tree vole) are protected.

Monitoring Performed

Swiftwater Resource Area – Clever Beaver Density Management

South River Resource Area – Buck Rising Variable Retention Harvest and Eager Weaver Density Management

Findings

Swiftwater Resource Area - Clever Beaver Density Management

The Clever Beaver Density Management project was thinning in stands less than 80 years of age and exempt from Survey and Manage standards and guidelines under Pechman exemption "a"

South River Resource Area – Buck Rising Variable Retention Harvest

The Buck Rising Variable Retention Harvest project area was evaluated for the need to conduct clearances for Survey and Manage species.

Although suitable habitat for Survey and Manage mollusk species was present in Units 28-3-17A and B, surveys were not required as the units were previously cleared by protocol surveys in 2006. The presence of suitable habitat in Unit 28-3-17C triggered protocol surveys which were completed in the fall of 2011 with negative results.

The three factors characterizing suitable habitat for red tree voles were not present and the requirement for red tree vole surveys was not triggered.

Pre-disturbance botanical surveys were conducted, where indicated but no Survey and Manage species were identified.

South River Resource Area -Eager Weaver Density Management

The Eager Weaver Density Management project was thinning in stands less than 80 years of age and exempt from Survey and Manage standards and guidelines under Pechman exemption "a".

Conclusions

ROD/RMP requirements were met.

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

Monitoring Performed

Swiftwater Resource Area - Clever Beaver Density Management

South River Resource Area – Buck Rising Variable Retention Harvest and Eager Weaver Density Management

Findings

Swiftwater Resource Area - Clever Beaver Density Management

The Clever Beaver Density Management project was thinning in stands less than 80 years of age and exempt from Survey and Manage standards and guidelines under Pechman exemption "a"

South River Resource Area – Buck Rising Variable Retention Harvest

There were no sites found that required protection buffers.

South River Resource Area –Eager Weaver Density Management

The Eager Weaver Density Management project was thinning in stands less than 80 years of age and exempt from Survey and Manage standards and guidelines under Pechman exemption "a"

Conclusions

ROD/RMP requirements were met.

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

Monitoring Performed

Swiftwater Resource Area - Clever Beaver Density Management

South River Resource Area – Buck Rising Variable Retention Harvest and Eager Weaver Density Management

Findings

Swiftwater Resource Area - Clever Beaver Density Management

The Clever Beaver Density Management project was thinning in stands less than 80 years of age and exempt from Survey and Manage standards and guidelines under Pechman exemption "a"

South River Resource Area – Buck Rising Variable Retention Harvest

No sites were found in the Buck Rising Variable Retention Harvest project area that required protection.

South River Resource Area – Eager Weaver Density Management

The Eager Weaver Density Management project was thinning in stands less than 80 years of age and exempt from Survey and Manage standards and guidelines under Pechman exemption "a"

Conclusions

ROD/RMP requirements were met.

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

Monitoring Performed

Swiftwater Resource Area - Clever Beaver Density Management

South River Resource Area – Buck Rising Variable Retention Harvest and Eager Weaver Density Management

Findings

Swiftwater Resource Area - Clever Beaver Density Management

The Clever Beaver Density Management project was thinning in stands less than 80 years of age and exempt from Survey and Manage standards and guidelines under Pechman exemption "a"

South River Resource Area – Buck Rising Variable Retention Harvest

No sites were found in the Buck Rising Variable Retention Harvest project area that required protection.

South River Resource Area – Eager Weaver Density Management

The Eager Weaver Density Management project was thinning in stands less than 80 years of age and exempt from Survey and Manage standards and guidelines under Pechman exemption "a"

Conclusions

ROD/RMP requirements were met.

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

Monitoring Performed

Swiftwater Resource Area – Clever Beaver Density Management

South River Resource Area – Buck Rising Variable Retention Harvest and Eager Weaver Density Management

Findings

Swiftwater Resource Area – Clever Beaver Density Management

Not applicable

South River Resource Area – Buck Rising Variable Retention Harvest

Not applicable

South River Resource Area – Eager Weaver Density Management

Not applicable

Conclusions

ROD/RMP requirements were met.

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

Monitoring Performed

General regional surveys are normally coordinated and funded through the BLM Oregon State Office. The Roseburg District did not assist with any regional surveys in FY 2015.

Conclusion

ROD/RMP requirements have been met.

Riparian Reserves

Expected Future Conditions and Outputs

See Aquatic Conservation Strategy Objectives.

Provision of habitat for Special Status and SEIS special attention species.

Implementation Monitoring

Monitoring Question 1: Is the width of the Riparian Reserves established according to ROD/RMP management direction?

Monitoring Requirement

At least 20 percent of regeneration harvest activities within each resource area completed in fiscal year 2015 will be examined to determine whether the widths of the Riparian Reserves were maintained.

Monitoring Performed

Swiftwater Resource Area – N/A

South River Resource Area – Buck Rising Variable Retention Harvest

Findings

Swiftwater Resource Area – N/A

South River Resource Area – Buck Rising Variable Retention Harvest

Based on a 160-foot site-potential tree height for the Myrtle Creek watershed, Riparian Reserves 160-feet in width were established on the non-fish bearing streams and 320-feet in width on fish-bearing streams located within or adjacent to the harvest units. For Units 1 (28-3-17A) and 2 (28-3-17B) with intermittent streams within unit boundaries, measured widths averaged 160 and 174 feet, respectively. On Unit 3 (28-3-17C), on which a 70-100 foot wide no-treatment area was established on a fish-bearing stream along the southwest side of the unit, measured widths of the thinned portions of the Riparian Reserve averaged in excess of 260 feet, indicating a minimum Riparian Reserve width of 330 feet which exceeds the required width of 320 feet.

Conclusion

ROD/RMP requirements were met.

Monitoring Question 2: Are management activities in Riparian Reserves consistent with SEIS Record of Decision Standards and Guidelines, and ROD/RMP management direction?

Monitoring Requirement

At least 20 percent of management activities within Riparian Reserves completed in fiscal year 2015 will be examined, to determine whether the actions were consistent with the SEIS Record of Decision Standards and Guidelines and ROD/RMP management direction. In addition to reporting the results of this monitoring, the Annual Program Summary will also summarize the types of activities that were conducted or authorized within Riparian Reserves.

Monitoring Performed

Swiftwater Resource Area –Clever Beaver Density Management

South River Resource Area – Buck Rising Variable Retention Harvest and Eager Weaver Density Management

Findings

Swiftwater Resource Area – Clever Beaver Density Management

The Clever Beaver Density Management project was in the Late-Successional Reserve Land Use Allocation. This land use allocation supersedes Riparian Reserves in the land use allocation hierarchy. The Clever Beaver Density Management EA (pp. 5-11) prescribed 35 foot minimum "no harvest" buffers for intermittent, non-fish-bearing streams and 60 foot minimum "no harvest" buffers on perennial and fish bearing streams adjacent to and within thinning units to protect stream bank integrity, maintain streamside shade, and provide a filtering strip for

overland run-off. The final unit configuration included eleven streams adjacent to or within the unit boundaries. Eighty percent of these streams are classified as intermittent non-fish-bearing streams and 20 percent are perennial. The average width of "no harvest" buffers ranged from 33 feet to 122 feet across all sale units. The average buffer distance for all sale units was 63 feet.

The objective of the density management outside of this buffer area was to develop late-seral forest structure and enhance existing diversity by accelerating tree growth to promote larger trees and canopies, and provide a future source of large woody debris for stream structure, and to attain forest conditions that contribute to the Aquatic Conservation Strategy (1995 ROD/RMP, pp. 153-154).

For specific BMPs implemented within the project, see Table 24.

South River Resource Area – Buck Rising Variable Retention Harvest

The 1995 ROD/RMP (p. 24) specifies Riparian Reserve widths equal to the height of two site potential trees on each side of fish-bearing streams and one site-potential tree on each side of perennial or intermittent non-fish bearing streams. For the Myrtle Creek watershed, these distances would be 320 and 160 feet respectively.

As specified in the Roseburg District Secretarial Demonstration Pilot Project Environmental Assessment, "no-treatment" areas an average of 70 to 100 feet were established on either side of intermittent and perennial-fish bearing streams within the Riparian Reserves. . These "no treatment" areas would provide sufficient filtering capacity to prevent any sediment from reaching the stream channels, as at this distance adequate vegetation and undisturbed ground would retain and store any small amount of fine sediment that might be transported by overland flow from disturbed thinned areas.

A variable density thinning of approximately 19 acres of Riparian Reserves was proposed in conjunction with prescribed burning to accelerate the development of late-seral characteristics, maintain biological diversity, and promote the resilience and productivity of aquatic populations and communities. "No treatment" areas on intermittent and perennial-fish bearing streams were observed to meet or exceed the 70-foot minimum widths specified for the project.

In Unit 2, a slope slump associated with an existing road occurred during the winter of 2014. The collective influence of downed woody debris in the harvest unit, the Riparian Reserve, and the "no treatment" area within the Riparian Reserve effectively filtered out any sediment associated with the slump before it reached the nearby stream channel. A small amount of sediment deposition in the intermittent stream channel was noted in proximity to the slump, but no indication of sediment delivery or deposition beyond this area was observed.

Current stand diversity in the Riparian Reserves is relatively low, but this is not unexpected and not associated with the silvicultural prescription. The stand is a managed plantation dominated by Douglas-fir, as indicated by the prevalence of Douglas-fir stumps in the harvest unit. The marking prescription favored the retention of minor conifer species and deciduous trees in the Riparian Reserve. Over time, the mix of retention tree species and the establishment of a shrub and herbaceous understory will increase the diversity of the riparian plant communities.

South River Resource Area – Eager Weaver Density Management

The Eager Weaver Density Management project occurred in part, within Riparian Reserves. The South River FY 2009 Commercial Thinning Environmental Assessment prescribed 35-foot "no treatment" areas a minimum of 35-feet in width for intermittent, non-fish-bearing streams adjacent to and within thinning units to protect stream bank integrity, maintain streamside shade, and provide a filtering strip for overland run-off. All of the streams in the Eager Weaver thinning units were intermittent. The observed "no treatment" areas ranged from 37 feet to 52 feet across the harvest units.

The buffering capacity of the "no-treatment" areas effectively filtered out any sediment that may have been mobilized during storm events following logging operations. No sediment deposition was observed in stream channels within or adjacent to units.

The objective of the density management outside of this buffer area was to develop late-seral forest structure and enhance existing diversity by accelerating tree growth to promote larger trees with fuller canopies, and provide a future source of large woody debris for stream structure, and to attain forest conditions that contribute to the Aquatic Conservation Strategy (1995 ROD/RMP, pp. 153-154). Current stand diversity in the Riparian Reserves is relatively low, but this is not unexpected and not associated with the silvicultural prescription. The stand is a managed plantation dominated by Douglas-fir, as indicated by the prevalence of Douglas-fir stumps in the harvest unit. The marking prescription favored the retention of minor conifer species and deciduous trees in the Riparian Reserve. Over time, the mix of retention tree species and the establishment of a shrub and herbaceous understory will greatly increase the diversity of the riparian plant communities.

Conclusion

ROD/RMP requirements were met.

Late-Successional Reserves

Implementation Monitoring

Monitoring Question 1: Were activities conducted within Late-Successional Reserves consistent with SEIS Record of Decision Standards and Guidelines, ROD/RMP management direction and Regional Ecosystem Office review requirements?

Monitoring Requirements

At least 20 percent of the activities that were completed in fiscal year 2015 within Late-Successional Reserves will be reviewed in order to determine whether the actions were consistent with SEIS Record of Decision Standards and Guidelines, ROD/RMP management direction and Regional Ecosystem Office review requirements.

Monitoring Performed

Swiftwater Resource Area – Review of Swiftwater Late-Successional Reserve activities.

South River Resource Area – Review of South River Late-Successional Reserve activities

Findings

Swiftwater Resource Area LSR Program Review- Management activities conducted in the LSRs consisted of 204 acres of pre-commercial thinning. There was no reforestation or manual maintenance (brushing) of seedlings conducted. These activities meet the criteria for exemption from Regional Ecosystem Office review or are consistent with the LSR Assessment and are also consistent with the SEIS ROD and ROD/RMP.

South River Resource Area LSR Program Review – Management activities conducted in the LSRs consisted of 956 acres of reforestation, 50 acres of manual maintenance (brushing) of seedlings, and 205 acres of pre-commercial thinning. These activities meet the criteria for exemption from Regional Ecosystem Office review or are consistent with the LSR Assessment and are also consistent with the SEIS ROD and ROD/RMP.

Conclusion

ROD/RMP objectives were met.

Little River Adaptive Management Area

Implementation Monitoring

Monitoring Question 1: What is the status of the development of the Little River Adaptive Management Area plan, and does it follow management action/direction in the ROD/RMP (pages 83 and 84).

Monitoring Requirement

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

Monitoring Performed

None.

Findings

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

Conclusion

ROD/RMP requirements have not been met

Matrix

Implementation Monitoring

Monitoring Question 1: Is 25-30 percent of each Connectivity/Diversity Block maintained in late-successional forest condition as directed by ROD/RMP management action/direction for regeneration harvest?

Monitoring Requirements

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

Monitoring Performed

Swiftwater Resource Area – N/A

South River Resource Area – Buck Rising Variable Retention Harvest

Findings

South River Resource Area – Buck Rising Variable Retention Harvest

The Buck Rising Variable Retention Harvest project is located in Section 17, T. 28 S., R. 3 W. on lands allocated to a 627-acre Connectivity/Diversity Block (Block 19). Prior to implementation of the Buck Rising Variable Retention Harvest, the Block contained 204 acres of late-successional forest over 100 years of age, representing 32 percent of the area contained within Block 19. The stands harvested were 50 to 60 years of age, and as such had no effect on the abundance of late-successional forest within Block 19.

Conclusion

ROD/RMP requirements have been met.

Air Quality

Expected Future Conditions and Outputs

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

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

Implementation Monitoring

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

Monitoring Requirements

At least twenty percent of prescribed burn projects carried out in fiscal year 2015 will be monitored to assess what efforts were made to minimize particulate emissions.

Monitoring Performed

Swiftwater Resource Area – North Bank Habitat Management Area and Program Review

South River Resource Area - Program Review

Findings

Swiftwater Resource Area – North Bank Habitat Management Area and Program Review

Prescribed burning was conducted for two days in the North Bank Habitat Management Area during the fall of 2015 and was planned specifically for days with unstable weather predicted to increase dispersion of particulate matter. Approval for burning was obtained from ODF and ODEQ. Smoke was monitored during the burn to evaluate predominant direction of spread and average density. Ignition patterns and techniques were tailored to and modified as needed to minimize production of particulates. No smoke intrusion occurred within any of the "Designated Areas" managed by the State.

Burning of landing piles, containing well-cured materials, occurred on commercial thinning units during the wet season when weather conditions favored good smoke dispersion. No mop-up was planned or needed for pile burns as seasonal rains extinguished the small amount of slash not consumed by fire. No smoke intrusion occurred within any of the "Designated Areas" managed by the State.

South River Resource Area - Program Review

Burning of landing piles, containing well-cured materials, occurred on commercial thinning units during the wet season when weather conditions favored good smoke dispersion. No mop-up was planned or needed for pile burns as seasonal rains extinguished the small amount of slash not consumed by fire. No smoke intrusion occurred within any of the "Designated Areas" managed by the State.

Conclusion

ROD/RMP requirements were met.

Water and Soils

Expected Future Conditions and Outputs

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

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

Improvement and/or maintenance of soil productivity.

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

Implementation Monitoring

Monitoring Question 1: Are site specific Best Management Practices (BMP), identified as applicable during interdisciplinary review, carried forward into project design and execution?

Monitoring Requirement

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

Monitoring Performed

Swiftwater Resource Area – Clever Beaver Density Management

South River Resource Area – Buck Rising Variable Retention Harvest and Eager Weaver Density Management

Findings

Swiftwater Resource Area – Clever Beaver Density Management

Project design features to minimize soil erosion, sedimentation and soil compaction were prescribed in the Clever Beaver Density Management Environmental Assessment and carried forward into contract stipulations for the Clever Beaver Density Management Sale. The Resource Area soil scientist and hydrologist conducted site visits in the units with the timber sale administrator. Implemented project design features and Best Management Practices in Table 24 summarize the review.

No-harvest stream buffers of 35 feet for intermittent streams and 60 feet for perennial or fish-bearing streams were implemented and effective in protecting bank stability, riparian vegetation, and providing a filter strip for overland run-off from harvest units. Ground-based yarding operations did not occur within the “no-harvest” stream buffers and equipment did not cross streams channels within the units.

Post-harvest analysis using GPS stand boundaries and GIS data indicated one intermittent stream received a no harvest buffer less than 35 feet, averaging 33 feet, along this 146 foot stream reach. Additionally, one perennial stream received a no harvest buffer of less than 60 feet, averaging 57 feet, along a 334 foot stream reach. Although these were less than the minimum buffer distances specified in the project design criteria, no evidence of channel disturbance or sediment movement resulting from logging operations was observed. All other stream buffer areas within the sale exceeded the minimum buffer distances specified within the project design criteria.

Table 24: Clever Beaver Density Management Implemented Project Design Features or Best Management Practices.

Implemented Project Design Feature or Best Management Practice	Comments
Stream Buffers	
Perennial or Fish-bearing Streams: A "no-harvest" stream buffer extending 60 feet (slope distance) on either side of the edge of streams.	One perennial buffer was 57 feet. No channel disturbance or sediment movement was observed.
Intermittent Streams: A "no-harvest" stream buffer extending 35 feet (slope distance) on either side of the edge of streams.	One intermittent buffer was 33 feet. No channel disturbance or sediment movement was observed.
Cable Yarding	
Cable logging systems obtain partial or full suspension.	Little to no soil disturbance along cable corridors
Where excessive soil furrowing occurs, it would be hand waterbarred and filled with limbs or other organic debris.	Excessive furrows did not occur
Cable yarding would not be permitted on very steep slopes (i.e. 70 percent and greater) when soil moisture levels are high enough to squeeze water from soil samples by hand.	Steeper slopes were yarded in the spring during periods of dry weather
Where practical, require full suspension over streams.	All stream had full suspension
Ground-based Yarding	
Ground-based logging would be limited to the dry season (normally May 15th to October 15th.	All ground-based logging occurred after May 15th
If soil moisture levels would cause the amount of compaction to exceed 10 percent or more of the ground-based area (including landings, log decks, and trails), operations would be suspended during unseasonably wet weather in the dry season.	Never needed to suspend operations due to wet weather
The soil scientist and the contract administrator would monitor soil moisture and compaction to determine when operations may need to be suspended	The soil scientist and sale admin tested soil moisture levels in the spring before starting operations
Ground-based yarding equipment would be limited to slopes generally less than 35 percent.	Slopes generally 20% or less in ground-based units
Ground-based equipment would be confined to designated skid and forwarder trails and would re-use existing skid trails as much as practical.	Monitoring showed that equipment stayed on designated skid trails
Skid trails would have an average spacing of at least 150 feet apart and harvester/forwarder trails would be spaced at least 50 feet apart where topography allows.	Monitoring showed that skid trail spacing was appropriate
In addition, machines used for ground-based logging would be limited to a track width no greater than 10.5 feet.	Monitoring showed that equipment track width was appropriate

Implemented Project Design Feature or Best Management Practice	Comments
Harvesters would also place tree limbs in the trails in front of the equipment to minimize compaction.	Harvesters not used
In harvester trail segments that are within five feet of reserved trees, slash would be placed to protect the large roots at or near the surface.	Harvesters not used
Fuels	
Slash would be burned during the late-fall to mid-spring season when the soil, duff layer (soil surface layer consisting of fine organic material), and large down log moisture levels are high.	Landing piles were burned in the late fall
The fine fuels generated during the thinning process would remain scattered throughout the treatment units.	Slash well distributed throughout the unit
Hauling	
Prior to any wet season haul on natural surfaced roads, sediment reducing measures (e.g., placement of straw bales and/or silt fences and sediment filters) would be placed near stream crossings, if necessary, to prevent sediment from reaching the streams.	Erosion control measure were not needed
Timber hauling would be suspended during wet weather if road run-off would deliver sediment at higher concentrations than existing conditions to the receiving stream.	Haul suspended on road 20-6-35 due to wet conditions
Roads	
Roads and landings would be located on geologically stable locations; e.g., ridge tops, stable benches or flats, and gentle-to-moderate side-slopes.	All new roads in stable locations
Roads and spurs would be designed no wider than needed for the specific use (i.e. 14 foot running surface) to minimize soil disturbance.	New road widths were appropriate
Road construction, renovation, maintenance, overwintering, and decommissioning would be restricted to the dry season (normally May 15th to October 15th). The operating season could be adjusted if unseasonable conditions occur (e.g. an extended dry season beyond October 15th or wet season beyond May 15th).	No wet season road work occurred
New cut and fill slopes would be mulched with weed-free straw, or equivalent, and seeded with a native or sterile hybrid mix.	Cut and fill slopes were built so that soil erosion was not a concern, therefore mulching was not needed
Temporary spurs would be decommissioned after harvest.	All decommissioning including subsoiling occurred as described in the EA

South River Resource Area – Buck Rising Variable Retention Harvest

The Buck Rising Variable Retention Harvest project was a component of the proposed action described and analyzed in Roseburg Secretarial Demonstration Pilot Project Environmental Assessment. The analysis specified that cable yarding would be accomplished with equipment capable of maintaining a minimum of one-end log suspension to minimize surface and soil disturbance where deemed necessary. The Buck Rising Variable Retention Harvest project consisted of three cable yarded units, with whole tree yarding required in Unit 1 to minimize the amount of activity fuel within the unit and reduce the need for broadcast burning in highly sensitive soils within the unit.

It was further specified that a cable yarding system equipped with a slack-pulling carriage having a minimum of one hundred feet of lateral yarding capability would be utilized, and that whole tree yarding would be required on all three units to minimize the amount of activity fuel generated.

During felling and yarding, limb breakage created a covering of logging slash within the units. As a consequence, little or no (less than one percent) surface disturbance and soil displacement occurred during yarding operations. When landing and large fuel piles are included, surface disturbance and soil displacement affected less than two percent of the combined acreage of all three units.

Road improvements designed to reduce sediment, consisting of surfacing and installation of relief culverts, was implemented as planned on County Road 15 and BLM Road Nos. 28-3-17.0 and Road 28-3-8.1. Planned Spur 1 in Unit 1, and an Optional Operator Spur in Unit 2 were not constructed. Spur 2 and the extension of Road 28-3-16.0 in Unit 3 were constructed and rocked, as planned, but were not blocked and slashed in order to maintain access for the planned fuels treatment which was later dropped.

Following a four-day storm event in February of 2014 in which four inches of rain fell, a small slope failure, approximately one-eighth of an acre in area occurred in Unit 2. Material from the slump traveled downslope onto Road No. 28-3-17.0, with a portion of the material running across the road into a swale below it.

No signs of potential slope failure were observed in the area in which the slump occurred during project reconnaissance and analysis. The area had been cable-yarded in 2013 with little surface disturbance observed. The area had been previously clearcut in the early-1960s but examination of historical aerial photos detected no slope stability issues arising from the storm and flood events of 1964-65. Further investigation of the slump revealed three to four deep-seated springs 8 to 10 feet below the surface of the slump scarp as the probable cause.

The Roseburg Secretarial Demonstration Pilot Project EA (p. 120) acknowledged a potential risk of peak flow enhancement but no exceedance was identified in any of the stream segments associated with the harvest units.

In summary, the following objectives of the Aquatic Conservation Strategy were found to have been maintained at the project scale:

- Maintaining and restoring the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations, and communities are uniquely adapted;
- Maintaining and restoring the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations;
- Maintaining and restoring in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing;
- Maintaining and restoring the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability; and
- Maintaining and restoring habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.

South River Resource Area – Eager Weaver Density Management

The South River 2009 Commercial Thinning Environmental Assessment, of which Eager Weaver Density Management was a component, specified that cable yarding would be accomplished with equipment capable of maintaining a minimum of one-end log suspension in order to reduce soil compaction and displacement. Landings would be spaced at 200-foot intervals where practicable, to minimize the number of landings required, and to reduce the area subjected to soil disturbance and displacement. Yarding corridors would be pre-designated prior to cutting of the timber.

The sale consisted of six units; Units 1, 2 and 3 to be yarded with a combination of cable and ground-based systems, and Units 4, 5 and 6 to be cable-yarded exclusively. In implementation, Unit 3 was exclusively harvested with cable systems. In all instances, cable yarding resulted in little to no soil displacement and compaction, and where it did occur it was generally limited to displacement of the top two to four inches within yarding corridors. In some instances short sections of corridors exhibited soil displacement to six inches in depth, typically where there was either a slope break (convex surface) or side-hill yarding. Including landing and slash piles, the percent of unit area subject to detrimental soil displacement and compaction was one to one-and-a-half percent.

The EA and Eager Weaver Decision Document specified that ground base operations would be restricted to the dry season, typically mid-May to mid-October, when soils are at their driest and least susceptible to compaction. Operations would generally be restricted to slopes of 35 percent or less, on pre-designated trails, using existing trails to the greatest degree practicable, with steeper pitches allowed between gentler benches where appropriate.

While the EA specified the use of harvester/forwarder equipment, the effects of other types of ground-based equipment were also described. The Eager Weaver Decision Document allowed for the use of other conventional ground equipment, including rubber tired skidders and tractors, as approved by the sale administrator, while adhering to the operational restrictions stated above.

Soils disturbance from ground-based skid trails and landings was found to affect nine percent of the area in Unit 1 and eight percent in Unit 2. These values are within ROD/RMP and Plan Maintenance guidelines of no more than 10 percent soil displacement and compaction from ground base operations. Main skid trails, landings free of slash and equipment staging areas were subsoiled and slash mulched.

An extension of Road No. 28-8-12.1 was to be constructed then decommissioned. A contract modification allowed for surfacing of the extension to facilitate winter operations. Post-thinning, the road segment was water barred and a log barrier was put in place.

Spurs 1 and 3 were to be constructed as native-surface spurs and decommissioned after completion of thinning operations, while Spurs 2, 4 and 5 were surfaced and decommissioned after use. In implementation, Spur 1 and the first 300 feet of Spur 3 were surfaced with rock. Spur 1 was water barred and blocked after completion of thinning. The first 300 feet of Spur 3 was not subsoiled because of the surfacing, while the next 300 feet were not subsoiled because of the presence of large gravels and cobbles below the surface. These segments were not slash mulched as no material was available for that purpose. The remainder of the spur was partially subsoiled and slash mulched. Spurs 2, 4 and 5 were waterbarred, as planned, and blocked with stumps and logs.

No effects to water quality or stream functions have been identified. Field reviews at the watershed scale have not indicated any effects on water quality or watershed function.

Conclusion

ROD/RMP requirements were met.

Monitoring Question 2: Have forest management activities implemented the management direction for ground-based systems and mechanical site preparation as listed in the fiscal year 2001 Plan Maintenance?

Monitoring Requirement

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

Monitoring Performed:

Swiftwater Resource Area – N/A

South River Resource Area – Buck Rising Variable Retention Harvest and Eager Weaver Density Management

Findings

Swiftwater Resource Area – Clever Beaver Density Management

No prescribed burning for site preparation occurred on highly sensitive soils in fiscal year 2015.

South River Resource Area – Buck Rising Variable Retention Harvest

All harvest was conducted with cable-yarding equipment, and no slash piling was conducted with ground-based equipment.

South River Resource Area – Eager Weaver Density Management

As discussed above, the project utilized a combination of cable and ground-based harvest systems.

For ground-based yarding operations were to the dry season when soils are at their driest and least susceptible to compaction. Operations were restricted to slopes of 35 percent or less, on pre-designated trails, using existing trails to the greatest degree practicable, with steeper pitches allowed between gentler benches where appropriate.

While the EA specified the use of harvester/forwarder equipment, the effects of other types of ground-based equipment were also described. The Eager Weaver Decision Document allowed for the use of other conventional ground equipment, including rubber tired skidders and tractors, as approved by the sale administrator, while adhering to the operational restrictions stated above.

Soils disturbance from ground-based skid trails and landings was found to affect nine percent of the area in Unit 1 and eight percent in Unit 2. These values are within ROD/RMP and Plan Maintenance guidelines of no more than 10 percent soil displacement and compaction from ground base operations. Main skid trails, landings free of slash and equipment staging areas were subsoiled and slashed.

The higher levels of soil disturbance in Units 1 and 2 were likely attributable to a combination of factors. The ground-based portion of Unit 1 was less than two acres in area, and smaller areas can trend toward higher levels of impact. In both units there was already an existing network of older and wider skid roads and trails that were reused by a variety of ground-based equipment in a concentrated and short period of time. Even though the degree of soil disturbance was high in comparison to other units it was still within the desired thresholds, and subsoiling of the areas afterwards appears to have been highly effective.

Conclusion

ROD/RMP requirements were met.

Monitoring Question 3: Have the Best Management Practices related to site preparation using prescribed burning, as listed in the fiscal year 2001 Plan Maintenance, been implemented on prescribed burns conducted during fiscal year 2015? If prescribed burning took place on highly sensitive soils, was the prescription to minimize impacts on soil properties implemented successfully?

Monitoring Requirement

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

Monitoring Performed

Swiftwater Resource Area –N/A

South River Resource Area – N/A

Findings

Program review showed that no prescribed burning for site preparation occurred on highly sensitive soils in fiscal year 2015.

Conclusion

ROD/RMP requirements were met.

Monitoring Question 4: What is the status of closure, elimination or improvement of roads and is the overall road mileage within Key Watersheds being reduced?

Monitoring Requirement

The Annual Program Summary will address Implementation Question 4.

Monitoring Performed

Program review

Findings

The following road definitions apply to Tables 25 and 26.

Definitions

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

Decommission - Existing road segment will be closed to vehicles on a long-term basis, but may be used again in the future. Prior to closure, the road will be prepared to avoid future maintenance needs; the road will be left in an "erosion-resistant" condition which may include establishing cross drains, and removing fills in stream channels and potentially unstable fill areas. Exposed soils will be treated to reduce sedimentation. The road will be closed with a device similar to an earthen barrier (tank trap) or equivalent.

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

Table 25. Swiftwater Key Watershed Road Projects through Fiscal Year 2015

RMP Name[7]	Current Watershed Name	Permanent New Discretionary[8] Road Construction (miles)	Road Decommissioning[9] (miles)	Balance
Canton Creek[10]	Canton Creek	0	13.31	***13.31***
Upper Smith River	Upper Smith River	0	9.14	***9.14***

[7] Since the publication of the NWFP and the subsequent RMP for the Roseburg District, watershed boundaries and naming conventions have changed. Tier 1 Key Watershed boundaries have been preserved as originally delineated. However, the hydrologic units (i.e. watersheds, subwatersheds, and drainages) contained within and their names have changed.

[8] Whereas previous Annual Program Summaries included non-discretionary road construction, they have been eliminated here as per the direction of the RMP (p. 20, 74) which specifies that only discretionary road construction must be mitigated with an equal amount of decommissioning.

[9] Whereas previous Annual Program Summaries separated "partial" and "full" road decommissioning, all forms of road decommissioning (BLM definition) are included here.

[10] Whereas previous Annual Program Summaries included USFS completed projects within the watershed, they have been eliminated and only discretionary BLM road construction or decommissioning are included here.

Cumulative data reported for fiscal years 1996-2011 has been modified to exclude non-discretionary road construction and temporary road construction/decommissioning that was not the intent of management direction specific to Tier 1 Key Watersheds. Based on these figures and calculations, the Canton Creek Tier 1 Key Watershed, has a road construction/decommission budget with 13.31 miles banked for potential future management. The Upper Smith River Tier 1 Key Watershed has a balance of 9.14 miles.

Table 26. South River Key Watershed Completed Road Projects through Fiscal Year 2015

RMP Name[11]	Current Name	Permanent New Discretionary[12] Road Construction (miles)	Decommissioning[13] of Roads (miles)	Balance
Middle Creek	**Middle Creek** *Subwatershed*	0	0	***0***
South Umpqua River	**Dumont Creek–South Umpqua River** *Watershed*	0	0.44 ('03[14])	***-5.49***
South Umpqua River	**Coffee Creek–South Umpqua River** *Subwatershed*	0	0.08 ('03[14]) 0.13 ('04[15]) 0.42 ('10[16])	
South Umpqua River	**Corn Creek–South Umpqua River** *Subwatershed*	0		
South Umpqua River	**Days Creek** *Subwatershed*	1.41 '(96-'01[17])	4.42 ('96-'01[18])	
South Umpqua River	**Saint John Creek–South Umpqua River** *Subwatershed*	0.71 ('10[19])	0.15 ('02[20])	
South Umpqua River	**Stouts Creek** *Subwatershed*	0		
South Umpqua River	**Shively Creek–South Umpqua River** *Subwatershed*	0	1.73 ('02[21]) 0.24 ('09[22])	

Cumulative data reported for fiscal years 1996-2011 has been modified to exclude non-discretionary road construction and temporary road construction/decommissioning which was not the intent of management direction specific to Tier 1 Key Watersheds. Based on these figures and calculations, the Middle Creek Tier 1 Key "Watershed," has a balanced road construction/decommission budget with zero miles banked for potential future management. The South Umpqua Tier 1 Key "Watershed" has a negative balance of 5.49 miles.

[11] Since the publication of the NWFP and the subsequent RMP for the Roseburg District, watershed boundaries and naming conventions have changed. Tier 1 Key Watershed boundaries have been preserved as originally delineated. However, the hydrologic units (i.e. watersheds, subwatersheds and drainages) contained within and their names have changed.
[12] Whereas previous Annual Program Summaries included non-discretionary road construction, they have been eliminated here as per the direction of the RMP (p. 20, 74) which specifies that only discretionary road construction must be mitigated with an equal amount of decommissioning.
[13] Whereas previous Annual Program Summaries separated "partial" and "full" road decommissioning, all forms of road decommissioning (BLM definition) are included here.
[14] Big Foot Density Management
[15] Wasted Days Commercial Thinning
[16] Tin Horn Commercial Thinning
[17] High Noon Timber Sale
[18] High Noon, Red Top I Salvage and Jobs in the Woods
[19] Treetop Flyer Commercial Thinning
[20] Bland Days Commercial Thinning
[21] Slimewater Creek Density Management
[22] Shively Whiplash Density Management

Conclusion

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

Wildlife Habitat

Expected Future Conditions and Outputs

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

Implementation Monitoring

Monitoring Question 1: Are suitable (diameter and length) numbers of snags, coarse woody debris, and green trees being left, in a manner as called for in the SEIS Record of Decision Standards and Guidelines and ROD/RMP management direction?

Monitoring Requirement

At least 20 percent of regeneration harvest timber sales completed in the fiscal year will be examined to determine snag and green tree numbers, heights, diameters, and distribution within harvest units. Snags and green trees left following timber harvest activities (including site preparation for reforestation) will be compared to those that were marked prior to harvest.

The same timber sales will also be examined to determine down log retention direction has been followed.

Monitoring Performed

Swiftwater Resource Areas – N/A

South River Resource Area – Buck Rising Variable Retention Harvest

Findings

South River Resource Area – Buck Rising Variable Retention Harvest

Management direction from the ROD/ RMP provides for:

- Retention of 12-18 large green conifer trees greater than 20 inches diameter breast height per acre in the Connectivity/Diversity Blocks, or the largest available trees where trees greater than 20 inches diameter breast height are not available. Two large hardwoods per acre were also to be left where available.
- Retention of a minimum of 120 linear feet of Decay Class 1 and 2 logs per acre greater than or equal to 16 inches in diameter and a minimum of 16 feet in length. Where this standard cannot be cannot be met, merchantable material or felling breakage may be substituted (see 1997 Plan Maintenance)
- An average of 1.2 snags per acre will be provided. Where existing snags are insufficient, an additional retention tree per acre may be designated for snag recruitment.

Based on stand exam data, a target diameter class of 12 inches was identified for Unit 2, and 14 inches for Units 1 and 3. Similar diameter classes were identified for hardwood trees.

In Unit 1, a range of between 156 and 234 conifer retention trees were needed to meet retention requirements. Post-harvest surveys identified 400 total conifers retained, 271 of which were 16 inches or greater diameter breast height. On average, about one large hardwood per acre greater than 14 inches diameter breast height was retained.

In Unit 2, a range of between 276 and 414 234 conifer retention trees were needed to meet retention requirements. Post-harvest surveys identified 400 total conifers retained, 271 of which were 16 inches or greater diameter breast height. On average, about one large hardwood per acre greater than 12 inches diameter breast height was retained.

In Unit 3, a range of between 276 and 414 conifer retention trees were needed to meet retention requirements. Post-harvest surveys identified 477 total conifers retained, 369 of which were 16 inches or greater diameter breast height. On average, about 7 large hardwoods per acre greater than 14 inches diameter breast height were retained.

All snags measuring at least 6'high in height with a minimum 10 inch diameter breast height were tallied. In the upland areas with dispersed retention random transects were conducted to sample Class 1 and 2 down wood meeting minimum specifications of 12 inches in diameter and 2 feet in length for Unit 2, and 14 inches in diameter and 2 feet in length in Units 1 and 3.

In Unit 2, snag frequency was 2 per acre, with approximately 79 lineal feet of large down wood per acre. In Units 1 and 3, snag densities were approximately ½ and 1.8 per acre, respectively. Lineal feet of large down wood was estimated at 2.5 feet and 7.6 feet, respectively.

Conclusion

The ROD/RMP objective for green conifer retention was met in all units, but hardwood retention objectives were only met in Unit 3. Snag requirements were generally met in Units 2 and 3. Large down wood objectives were not met in any of the units.

It appears that the inability to achieve all of these objectives is related to the character of the stands which were conifer plantations in which hardwoods were not typically abundant, and in which the young stand age (~ 50 years) would not have initiated suppression mortality which would have otherwise produced snags and large down wood in greater abundance.

Monitoring Question 2: Are special habitats being identified and protected?

Monitoring Requirement

At least 20 percent of BLM actions, within each resource area, on lands including or near special habitats will be examined to determine whether special habitats were protected. Special habitats, as defined in the ROD/RMP, would include: ponds, bogs, springs, sups, marshes, swamps, dunes, meadows, balds, cliffs, salt licks, and mineral springs.

Monitoring Performed

Swiftwater Resource Area – Clever Beaver Density Management

South River Resource Area – Buck Rising Variable Retention Harvest and Eager Weaver Density Management

Findings

Swiftwater Resource Area – Clever Beaver Density Management

Field review and target wildlife species surveys did not identify any special habitats requiring protection.

South River Resource Area – Buck Rising Variable Retention Harvest

Field review and target wildlife species surveys did not identify any special habitats requiring protection.

South River Resource Area - Eager Weaver Density Management

Field review and target wildlife species surveys did not identify any special habitats requiring protection.

Conclusions

ROD/RMP requirements were met.

Fish Habitat

Expected Future Conditions and Outputs

See Aquatic Conservation Strategy Objectives.

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

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

Implementation Monitoring

Monitoring Question 1: Have the project design criteria to reduce the adverse impacts to fish been implemented?

Monitoring Requirements

At least 20 percent of the timber sales completed in fiscal year 2015 will be reviewed to ascertain whether the design criteria were carried out as planned.

Monitoring Performed

Swiftwater Resource Area – Clever Beaver Density Management

South River Resource Area – Buck Rising Variable Retention Harvest and Eager Weaver Density Management

Findings

Swiftwater Resource Area – Clever Beaver Density Management

Fisheries-related best management practices and project design features identified as applicable in the Clever Beaver Density Management Environmental Assessment carried forward into the Clever Beaver Density Management project design and contract stipulations.

No-harvest stream buffers of 35 feet for intermittent streams and 60 feet for perennial or fish-bearing streams were implemented and effective in protecting bank stability, riparian vegetation, and providing a filter strip for overland run-off from harvest units. Ground-based yarding operations did not occur within the "no-harvest" stream buffers and equipment did not cross streams channels within the units. Clever Beaver units 27A, 27B, and 35A were the only density management units adjacent to a fish bearing streams (Beaver and Summit Creeks).

Trees reserved in the implemented "no harvest" buffers, as well as in the Riparian Reserves, are sufficient to provide streamside shade and are a source of short- and long-term in-stream functional wood to the stream channels. Stream bank stability has been maintained and there is an adequate filter strip present in the "no harvest" buffers that prevents overland transport of sediment from the harvest units.

South River Resource Area – Buck Rising Variable Retention Harvest

Best management practices and project design features identified as applicable during the interdisciplinary review and the EA process were carried forward into the project design and contract implementation in order to maintain existing quality and quantity of fish habitat in the project area. Ditch lines along haul routes in the area were left vegetated where possible and sediment controls were constructed along Buck Fork and Stacey Gulch. Four cross drains and two "ditch-outs" were constructed to reduce flow along haul route ditchlines and to allow road derived sediment to be effectively filtered by well vegetated riparian terraces rather than flowing directly into streams inhabited by Oregon Coast coho salmon, as was previously the case. These

project design features and Best Management Practices not only effectively eliminated stream sedimentation produced from harvest and log hauling, but also that of private industrial timber harvests/haul and other road uses in the area. There was no sign of stream sedimentation from timber harvest and no indication of bank instability or hillslope failure in the areas allocated to Riparian Reserves.

"No treatment" areas were established along intermittent and perennial-fish bearing streams, 70 to 100 feet in width on either side of the streams. These "no treatment" areas were intended to provide sufficient filtering capacity to prevent any sediment from reaching the stream channels, as at this distance adequate vegetation and undisturbed ground would retain and store any small amount of fine sediment that might be transported by overland flow from disturbed soils in the harvest areas. "No treatment" areas were observed to meet or exceed the 70-foot minimum width.

All streams had an abundance of small functional wood but were generally lacking in larger pieces. Over time, in channel large wood will be recruited from trees within the "no-treatment areas." Current stand diversity in the Riparian Reserves was relatively low. This did not appear to be the result of the silvicultural prescription, but more the previous nature of the stand as indicated by the prevalence of Douglas-fir stumps in the thinned areas.

There was sufficient canopy retained to provide shade for streams and the "no-treatment" areas along with patches of abundant ground covering vegetation provided adequate filtering capacity for fine sediment, which may be transported during high flows. There were no visible signs of transport of sediment by overland flow to adjacent stream channels.

South River Resource Area – Eager Weaver Density Management

The South River FY 2009 Commercial Thinning Environmental Assessment prescribed 35 foot minimum "no treatment" areas for intermittent, non-fish-bearing streams adjacent to and within thinning units to protect stream bank integrity, maintain streamside shade, and provide a filtering strip for overland run-off. None of the Eager Weaver thinning units were adjacent to fish-bearing streams and all of the streams within the unit boundaries were intermittent. The final unit configuration included seven stream reaches adjacent to, or within unit boundaries. The observed "no treatment" areas ranged from 37 feet to 52 feet across the harvest units.

The "no-treatment" areas were designed and shown to prevent delivery of sediment to streams, help maintain stream bank and channel integrity, provide sources for recruitment of functional small wood and large wood, and maintain streamside shade. The buffering capacity of the "no-treatment" areas effectively filtered out any sediment that had been mobilized during storm events following logging operations. No sediment deposition was observed in stream channels within or adjacent to units.

Based on site visits, "no-treatment" areas accomplished all of the stated objectives. Streams adjacent to units were unaffected by timber harvest operations. There was sufficient canopy retained to provide shade for streams and the "no-treatment" areas along with patches of abundant ground covering vegetation provided adequate filtering capacity for sediment. Tree retention along stream banks was enough to provide bank stability and prevent erosion and sediment transmission in to stream channels. There were no visible signs of transport of sediment by overland flow to adjacent stream channels.

Conclusions

ROD/RMP requirements were met

Special Status Species Habitat

Expected Future Conditions and Outputs

Protection, management, and conservation of Federally-listed and proposed species and their habitats, to achieve their recovery in compliance with the Endangered Species Act and Bureau Special Status Species policies.

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

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

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

Protection of Bureau Strategic Species and SEIS Special Attention Species so as not to elevate their status to any higher level of concern.

Implementation Monitoring

Monitoring Question 1: Do management actions comply with ROD/RMP management direction regarding Special Status Species?

Monitoring Requirement

At least 20 percent of timber sales which were completed in fiscal year 2015 and other relevant actions will be reviewed on the ground after completion to ascertain whether the required mitigation was carried out as planned.

Monitoring Performed

Swiftwater Resource Area – Clever Beaver Density Management

South River Resource Area – Buck Rising Variable Retention Harvest and Eager Weaver Density Management

Findings

Swiftwater Resource Area – Clever Beaver Density Management

Wildlife

Northern Spotted Owl

All of the units comprising the Cleaver Beaver Density Management project consisted exclusively of dispersal-only habitat. It was the opinion of the U.S. Fish and Wildlife Service that the thinning of dispersal habitat is likely to adversely affect spotted owls by negatively affecting forage species (e.g. flying squirrels) that the owls may feed upon. However, the U.S. Fish and Wildlife Service concluded that the Clever Beaver Density Management project is *not likely to jeopardize the continued existence* of the northern spotted owl because thinning is not likely to completely eliminate mammalian prey species and the network of reserved land use allocations would maintain a sufficient amount of dispersal habitat (Cleaver Beaver Density Management Decision Record, p. 4).

The ten Clever Beaver Density Management units affected ten northern spotted owl provincial home ranges modifying dispersal-only habitat ranging from 0.08 – 4 percent (4 - 195 acres) of individual home ranges. Of the ten home ranges, three core areas were affected treating 5-11 percent (26-53 acres) of dispersal-only habitat within the three individual core areas. And a total of 16 acres of dispersal-only habitat were affected within two nest patches. However, the U.S. Fish and Wildlife Service concluded that treatment within either nest patch was not expected to adversely affect spotted owls because *"the activity center is likely to be unoccupied and that the incidental take of this activity center due to harvest activities within the nest patch is not anticipated"* (USFWS/BLM Level 1 Team Meeting Notes, February 7, 2011). This determination is based upon surveys indicating the lack of a resident pair of spotted owls for more than 20 years (since the establishment of the activity center) and the lack of any resident spotted owl detections (USFWS/BLM Level 1 Team Meeting Notes, February 7, 2011).

The Clever Beaver Density Management project area is located within the Tyee Demography Study Area for the northern spotted owl and stands of suitable habitat within the proposed project area have had annual surveys since the early 1990s. Surveys are conducted in accordance with the established Demography Protocol (Lint *et al.* 1999) in suitable habitat throughout and adjacent to the study area. Because spotted owl activity centers were not located within 440 yards of units, seasonal restrictions for disruption of the northern spotted owl were not required.

Treatment of 36 acres occurred within 2008 designated critical habitat for the northern spotted owl (OR-13). The U.S. Fish and Wildlife Service found the project to be consistent with recovery actions from the Northern Spotted Owl Recovery Plan, concluding that *"these effects are not considered likely to affect the ability of habitat to continue to fulfill its role at the stand scale in the survival and recovery"* of the spotted owl, and *"that no destruction or adverse modification of currently designated critical habitat will occur"* (2011-2013 Biological Opinion, reference number 13420-2011-F-0012, p. 83).

Marbled Murrelet

All of the units comprising the Cleaver Beaver Density Management project consisted exclusively of recruitment habitat (habitat that may become suitable within 25 years). It was the opinion of the U.S. Fish and Wildlife Service that the thinning and associated activities is *not likely to jeopardize the continued existence* of the marbled murrelet because the thinning project is not likely to adversely affet the ability of Late-Successional Reserve or designated ctitical habitat units in or near the Action Area to provide for nesting areas for marbled murrelets (2011-2013 Biological Opinion, reference number 13420-2011-F-0012, p. 82).

The proposed Clever Beaver project is located between 37 to 40 miles from the coast within Marbled Murrelet Inland Management Zone 2 (within 36-50 miles of the coast). Surveys for potential marbled murrelet nesting trees were completed within all the Clever Beaver units following the Residual Habitat Guidelines (USDI USFWS & BLM, 2004). Potential nest trees were located within the proposed boundaries of six of the ten units. All potential murrelet nest trees, and trees adjacent to them, within unit boundaries were marked and tagged for retention.

To avoid disruption to nesting marbled murrelets, suitable habitat adjacent to three units and scattered, suitable habitat trees within the proposed units were surveyed in 2009 following the Pacific Seabird Group two-year protocol (Mack *et al.*, 2003). During surveys in 2009, an occupied marbled murrelet site was discovered along Summit Creek within a 32-acre stand southwest of a Clever Beaver unit. Surveys in 2009 also detected marbled murrelet presence, but not occupancy within the most eastern unit. Seasonal restrictions were implemented within the east unit in 2010 and 2011 and two additional years of surveys were conducted in 2010 and 2011 within the unit and suitable habitat to the north of the murrelet detection in an attempt to determine occupancy. Additional presence was determined during surveys both within the unit and in the suitable habitat north of the unit. However, occupancy was not documented during the three contiguous years of survey effort and therefore, additional seasonal restrictions were not required in subsequent years during implementation of the project.

All but two units were located within 1996 designated Critical Habitat Unit OR-04-*i* for the marbled murrelet. The Clever Beaver Density Management project treated a total of 231 acres of recruitment habitat within murrelet Critical Habitat. The U.S. Fish and Wildlife Service concluded that *"these effects are not considered likely to affect the ability of habitat to continue to fulfill its role at the stand scale in the survival and recovery"* of the marbled murrelet, and *"that no destruction or adverse modification of currently designated critical habitat will occur"* (2011-2013 Biological Opinion, reference number 13420-2011-F-0012, p. 83).

<u>*Fisheries*</u>

The Cleaver Beaver Density Management project was analyzed for potential impacts to Oregon Coast coho salmon (*Federally-listed Threatened*) and Oregon Coast steelhead (*Bureau Sensitive Species*) at the time the Cleaver Beaver Environmental Assessment was completed in 2010. This project was found to have no impact on either of those fish species due to the high volume of wood already in Beaver and Summit Creek and "no-harvest" buffers on all streams in the units.

Botany

The Clever Beaver Density Management project was analyzed for potential impact on Federally-listed Threatened and Endangered, and Bureau Sensitive botanical species at the time of the Clever Beaver Environmental Assessment was completed in 2011. No Special Status plants were observed in the project area during field surveys.

South River Resource Area – Buck Rising Regeneration Harvest

The project consisted of 59 acres of variable retention harvest in upland stands and 19 acres of variable density thinning in Riparian Reserves comprised of 50-year-old stands located within Connectivity/Diversity Block 19 in Section 17 of T. 28S., R., 3 W., Willamette Meridian.

Wildlife

Northern Spotted Owl

All of the units comprising the Buck Rising Variable Retention Harvest project consisted exclusively of dispersal-only habitat. It was the opinion of the U.S. Fish and Wildlife Service that dispersal connectivity across the landscape post-treatment would be sufficient to facilitate spotted owl landscape-scale movements and not adversely affect spotted owls (Buck Rising Decision Document, p. 16).

All three units were located in the High Riser northern spotted owl provincial home range, and Unit 1 also overlapped by the Lucky Buck provincial home range. Northern spotted owl surveys were conducted in accordance with the established U.S. Fish and Wildlife protocol in suitable habitat within a quarter mile radius of the units. Seasonal restrictions for disruption of the northern spotted owl were not required but spot checks were concurrent with the sale due to barred owl detections within the survey area.

All of the harvest units were located within 2012 designated critical habitat for the northern spotted owl (Klamath East unit). The U.S. Fish and Wildlife Service found the project to be consistent with recovery actions from the Northern Spotted Owl Recovery Plan, concluding that the project will not result in destruction or adverse modification of critical habitat (Buck Rising Decision Document, p. 16).

Marbled Murrelet

The location of the timber sale area is at least 25 miles east of the accepted range of the marbled murrelet, and no effects on the species or its habitat were expected.

Fisheries

The project was analyzed for potential impacts to Oregon Coast coho salmon, and designated Critical Habitat and corresponding Essential Fish Habitat. With establishment of “no-treatment areas” within Riparian reserves located adjacent to or in unit interiors the project was determined to have no impacts. Further protection of aquatic habitat was provided by implementation of Best Management Practices related to control of sediment generated on haul routes in proximity to streams occupied by Oregon Coast coho salmon.

Botany

There were no Special Status botanical species detected in surveys, and no required protection or special management consideration was necessary.

South River Resource Area -- Eager Weaver Density Management

The Eager Weaver Density Management project consisted of the treatment of 121 acres of forest stands under 80 years old, in Sections 21 and 33 of T. 28S., R., 8 W., Willamette Meridian, within the General Forest Management Area, Late-Successional Reserve (Sec. 33) and Marbled Murrelet Reserve (Sec. 21).

Wildlife

Northern Spotted Owl

All units consisted exclusively of dispersal habitat for the northern spotted owl and were located within a quarter mile of unsurveyed suitable nesting, roosting and foraging habitat. Northern spotted owl surveys were conducted in accordance with the established U.S. Fish and Wildlife protocol. Spot checks were conducted concurrent with the sale and no seasonal restrictions were required. No units were located within northern spotted owl critical habitat at the time of the decision.

Marbled Murrelet

The entire Eager Weaver Density Management project area is located within Marbled Murrelet Management Zone 2. Units 4, 5 and 6 are located in a Zone 2 Restriction Corridor and designated 2011 marbled murrelet critical habitat. In 2006 a confirmed occupied marbled murrelet site was located in Sec. 21, T. 28 S., R. 8 W., W.M., the majority of the section was reallocated from General Management Area to unmapped Late-Successional Reserve following the site designation. Units 1, 2 and 3 were all located within the unmapped Late-Successional Reserve and a variable density thinning prescription was applied to foster the development of multi-layered canopies and trees with larger and fuller crowns that would provide future nesting opportunities, consistent with management direction to manage species listed under the Endangered Species Act and consistent with the recovery plan and designated critical habitat for the marbled murrelet (Eager Weaver Decision Document, p. 2).

To avoid possible disruption during to nesting marbled murrelets all road construction, timber harvest activities on Units 1, 2 and 3, extension of Road No. 28-8-21.0, and decommissioning of Spur 1 were restricted from April 1st to August 5th, and daily operating restrictions consisting of a restriction of the start of operations until two hours after sunrise and cessation two hours before sunset were imposed from August 6th to September 15th.

The U.S. Fish and Wildlife Service found the project as likely to adversely affect the marbled murrelet (Biological Opinion Reference Number 13420-2011-f-0012, dated December 28, 2010) but was not likely to jeopardize the continued existence of the marbled murrelet (Eager Weaver Decision Document, p. 6 dated June 27, 2011).

Fisheries

The Eager Weaver Density Management project area is located entirely above the limits of anadromy, including Oregon Coast coho salmon, its designated critical habitat and corresponding Essential Fish Habitat. As such, the project was found to have no impact to Oregon coast coho salmon, critical habitat or Essential Fish Habitat.

Botany

There were no Special Status botanical species detected that required protection or special management consideration.

Conclusions

ROD/RMP requirements were met.

Cultural Resources

Expected Future Conditions and Outputs

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

Conservation and protection of cultural resource values for future generations.

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

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

Implementation Monitoring

Monitoring Question 1: During forest management and other actions that may disturb cultural resources, are steps taken to adequately mitigate disturbances?

Monitoring Requirements

At least 20 percent of the timber sales and other relevant actions (e.g., rights-of-way, in-stream structures) completed in fiscal year 2015 will be reviewed to evaluate documentation regarding cultural resources and American Indian values and decisions in light of requirements, policy and SEIS Record of Decision Standards and Guidelines and ROD/RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.

Monitoring Performed

Swiftwater Resource Area – Clever Beaver Density Management

South River Resource Area – Buck Rising Variable Retention Harvest and Eager Weaver Density Management

Findings

Swiftwater Resource Area – Clever Beaver Density Management

Project Tracking Form CRS# SW0912 dated November 2, 2009 was completed under the guidance of the Oregon BLM/SHPO Protocol. The form documents that field exams, site file reviews and inventory record reviews were conducted and approved by the District Cultural Resource Specialist and Field Manager. No cultural resources were identified during pedestrian inventory and no known historic properties are located in the project area. As a result, the project will have "no effect" on cultural resources. As per the BLM/SHPO Protocol, a copy of the resulting report was forwarded to SHPO on February 12, 2010. The BLM approved the project to proceed with no follow-up monitoring required.

South River Resource Area – Buck Rising Variable Retention Harvest

Project Tracking Form CRS# SR1109, dated February 13, 2013 was completed under the guidance of the Oregon BLM/SHPO Protocol. The form documents that field exams, site file reviews and inventory record reviews were conducted and approved by the District Cultural Resource Specialist and Field Manager. No cultural resources requiring conservation management were identified during pedestrian inventory and no known historic properties are located in the project area. As a result, the project will have "no effect" on cultural resources. As per the BLM/SHPO Protocol, a copy of the resulting report was forwarded to SHPO on August 21, 2014. The BLM approved the project to proceed with no follow-up monitoring required.

South River Resource Area – Eager Weaver Density Management

Project Tracking Form CRS# SR0808, dated October 9, 2008 was completed under the guidance of the Oregon BLM/SHPO Protocol. The form documents that field exams, site file reviews and inventory record reviews were conducted and approved by the District Cultural Resource Specialist and Field Manager. No cultural resources were identified during pedestrian inventory and no known historic properties are located in the project area. As a result, the project will have "no effect" on cultural resources. As per the BLM/SHPO Protocol, a copy of the resulting report was forwarded to SHPO on December 23, 2008. The BLM approved the project to proceed with no follow-up monitoring required.

Conclusion

ROD/RMP requirements were met.

Visual Resources

Implementation Monitoring

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

Monitoring Requirements

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

Monitoring Performed

Program review of all fiscal year 2015 actions on the Roseburg District accounted for 100 percent analysis.

Findings

In the Swiftwater Resource Area, one timber sale was completed in fiscal year 2015 that occurred within a VRM Class II area. The Root Canal timber sale, part of the Little River MMX EA, had roughly four acres located on lands designated as VRM Class II. Subsequent visits confirmed the analysis in the EA that harvest activities would not be visible from the Wolf Creek Falls Trail. There were no completed timber sales or other actions in fiscal year 2015 in the South River Resource Area within VRM Class II or III areas.

Conclusion

ROD/RMP requirements were met.

Rural Interface Areas

Expected Future Conditions and Outputs

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

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

Implementation Monitoring

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

Monitoring Requirements

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

Monitoring Performed

All fiscal year 2015 projects

Findings

Swiftwater Resource Area – The Swiftwater Field Office conducted 168 acres of hazardous fuels reduction, consisting of hand pile and machine pile disposal, within rural interface areas. For information on fuels reduction work within the Wildland Urban Interface (WUI), Table 1.

South River Resource Area – No special actions were identified for implementation in the rural interface area in association with any timber sales terminated in FY 2015.

Conclusions

ROD/RMP objectives were met.

Recreation

Implementation Monitoring

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

Monitoring Requirements

The Annual Program Summary will address implementation question 1.

Monitoring Performed

Program review of all established recreation sites

Findings

Business plans for fee sites (completed in 2007) were followed, as were guidelines described in the North Umpqua Recreation Area Management Plan (2003). The District Maintenance Operating Plan was updated. One summer seasonal was hired to patrol the Wild and Scenic River corridor and assist in other recreation duties, including host coordination, small projects, and supervision of youth who worked in maintaining and upgrading recreation sites. All developed recreation sites were evaluated for safety and customer use. Trees were evaluated and mitigated against for hazards, potable water systems were tested frequently per state requirements, pedestrian bridges were inspected, and other numerous improvements for safety were conducted at all developed recreation sites. The host program continued to provide customer service and minor site maintenance at seven campgrounds. The Recreation Maintenance staff completed work outlined in the Maintenance Operation Plan (MOP). Youth groups and additional summer temporary staff helped complete actions in the MOP and most items were accomplished. Additionally cooperative efforts continued with the public and with local county, state and Federal agencies.

Conclusion

ROD/RMP requirements were met in all categories of Recreation, with the exception of OHV designations and OHV management planning. A change is needed within the limited class designation to avoid future trail and road proliferation and to protect natural resources.

Comment/Discussion

Recreation statistics (visitation) are contained within the Recreation Management Information System (RMIS) database and revenue within the Federal Business Management Systems (FBMS).

Special Areas

Expected Future Conditions and Outputs

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

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

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

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

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

Implementation Monitoring

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

Monitoring Requirements

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

Findings

The Roseburg District has 10 special areas that total approximately 12,193 acres. In addition there is one proposed Area of Critical Environmental Concern (ACEC) (Callahan Meadows ACEC) which meets the criteria for designation. Since publication of the ROD/RMP in 1995, defensibility monitoring has been conducted annually on all Areas of Critical Environmental Concern/Research Natural Areas (ACEC/RNA) and continued in fiscal year 2015.

The BLM treated noxious weeds on the North Bank Habitat Management Area/ACEC including: Himalayan blackberry, English hawthorn, Scotch broom, wooly distaff thistle, milk thistle, and diffuse knapweed.

Permanent vegetation monitoring plots have been established and baseline data collected in the North Myrtle, Red Ponds, Beatty Creek, Myrtle Island, Bushnell-Irwin Rocks, and Bear Gulch ACECs/RNAs. The monitoring plots at Beatty Creek RNA were resampled in 2015. This information is used to characterize existing vegetation and to monitor long-term vegetation changes. The data was entered into a regional database for vegetation occurring within Research Natural Areas throughout the Pacific Northwest. This database is maintained by the Pacific Northwest Research Station, USFS, in Corvallis, Oregon.

Conclusion

ROD/RMP requirements were met

North Umpqua Wild and Scenic River

Implementation Monitoring

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

Monitoring Requirements

Annually, files on all actions and research proposals within and adjacent to Wild and Scenic River corridors will be reviewed to determine whether the possibility of impacts on the Outstandingly Remarkable Values was considered, and whether any mitigation identified as important for maintenance of the values was required. If mitigation was required, the relevant actions will be reviewed on the ground, after completion, to ascertain whether it was actually implemented.

Monitoring Performed

Monitoring of recreational use in the North Umpqua River was conducted between May 20 and September 15 through a Cooperative Management Agreement between the Roseburg District BLM and the Umpqua National Forest, North Umpqua Ranger District. BLM had the lead on monitoring and production of the monitoring report for the entire river corridor. The USFS had the lead on issuing Special Recreation Permits to commercial boating outfitters, fly-fishing guides, and mountain biking tours. Employees engaged in monitoring included one full-time BLM Outdoor Recreation Planner, one seasonal BLM Recreation Technician and one seasonal USFS Recreation Technician. For the second year in a row, two time-lapse monitoring cameras were installed on USFS and BLM sections of the river. The cameras allow more accurate counting of boaters when river monitoring staff is not present.

Objectives of the river monitoring program are to:

- Monitor the five Outstanding Remarkable Values; Fisheries, Water Quality and Quantity, Cultural, Scenic, and Recreation on the North Umpqua Wild and Scenic River.
- Provide a BLM/USFS presence on the river to contact, inform and educate users.
- Document and monitor visitor use including commercial and public use.
- Coordinate management of the river between the BLM and Umpqua National Forest.
- Identify, minimize, and manage safety hazards and user conflicts on the North Umpqua River and North Umpqua Trail.

Findings

There were 1,467 visits reported by commercial boating guides, which accounted for 48 percent of the total use. Non-commercial boater visits totaled 1,579 accounting for 52 percent of the total use. There were 3,046 total boater visits, a decrease of 33% from 2014. An estimated 184 floaters visited the BLM Wild and Scenic section.

Fishing Use

For the fifth year in a row, an effort was made to count the number of individuals angling on the river. This was principally done through drive-by observations, with little contact being made. It was difficult to get an accurate count of the numbers and types of people. It was also difficult to spot people fishing on the river from the highway due to vegetative screening. The times of day that monitors were present were not the peak hours for when anglers were typically on the river. Determining if the activity was commercial or non-commercial was also challenging. It is required that guides display a tag or sticker in their vehicles identifying themselves as guides. Very few commercial vehicles were seen by river monitors. The recorded results for the BLM managed sections of the river for all anglers: 148 anglers on Segment 4 (BLM/USFS boundary - Susan Creek) and 81 anglers on Segment 5 (Susan Creek to Rock Creek), although the numbers are surely much higher.

Conflicts between users: during the daily monitoring patrols of the 2015 season, no major incidents were reported on the BLM segment of the Wild and Scenic River corridor. Groups monitored included fishermen, boaters and campers.

Conclusion

ROD/RMP requirements were met.

Socioeconomic Conditions

Implementation Monitoring

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

Monitoring Requirements

Program Review

Findings

Offering the allowable sale quantity is the predominant means through which the Roseburg District contributes to the local economy.

Conclusion

The Roseburg District was unable to offer the full allowable sale quantity in fiscal year 2015.

Monitoring Question 2: Are ROD/RMP implementation strategies being identified that support local economies?

Monitoring Requirements

Program Review

Findings

The value of all timber successfully sold in fiscal year 2015 was approximately $ 8,718,159. The monies associated with timber sales are paid as timber is harvested over the life of the contract, which is three years or less. Timber sale receipts collected by the Roseburg District in fiscal year 2015 from active harvesting totaled approximately $8,666,793. Approximately 72 percent of the receipts were from Oregon and California Railroad Lands, and 28 percent from Coos Bay Wagon Road Lands.

In fiscal year 2015, Roseburg District had total appropriations of $17,670,000.

- Oregon & California Railroad Lands (O&C) = $11,502,000
- Forest Ecosystems Health & Recovery = $278,000
- Timber Pipeline = $1,087,000
- Recreation Pipeline = $200,000
- Secure Rural Schools, Title II = $541,000
- Challenge Cost Share = $34,000
- Emergency Relief of Federally Owned Roads (ERFO) = 86,000
- Management of Lands & Resources (MLR) = $2,065,000 including:
    - Deferred Maintenance = $1,862,000
- Abandoned Mine Land Mitigation = $1,606,000
- Fire Related Programs = $271,000

The value of District Contracting/Services for fiscal year 2015 was approximately $6,539,000. There was an average of 101 full-time employees during fiscal year 2015. An average of 22 term, temporary, or cooperative student employees were employed at various times throughout the year.

Appropriations for the five fiscal years 2011 through 2015:

2011	$18,777,000
2012	$17,156,000
2013	$15,461,000
2014	$18,458,000
2015	$17,670,000

Conclusion

Except for the deficiency of volume sold, ROD/RMP requirements were met.

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

Monitoring Requirements

Program Review

Findings

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

Conclusion

ROD/RMP requirements were met.

Timber Resources

Implementation Monitoring

Monitoring Question 1: By land-use allocation, how do timber sale volumes, harvested acres, and the age and type of harvest compare to the projections in the ROD/RMP?

Monitoring Requirements

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

Monitoring Performed

Program and data base were reviewed and summary prepared.

Finding

The comparison of timber sale volumes and acres reveal substantive differences compared to ROD/RMP management action/direction ASQ of 1.0 million cubic feet (45 million board feet) and ROD/RMP assumptions regarding mix of harvest types and number of regeneration and thinning acres. These differences are displayed in Table 9 of the Annual Program Summary.

Comment/Discussions

To meet the ASQ commitment, the Roseburg District prepares environmental analyses, and conducts timber sale preparation including sale layout, cruising, and appraisal contract preparation. Timber sales are then advertised and auctioned at oral auctions. When sales become active, contract administration ensures contract compliance. Importantly, the Roseburg District is investing in the future of the forests through forest development and reforestation activities.

The Roseburg District offered a total of seven advertised timber sales in fiscal year 2015, for a total volume of approximately 36.0 MMBF. The advertised sales, all initial offerings, were a mix of regeneration harvest, commercial thinning and density management sales. Offered volume within the land use allocations constituting the timber base (Matrix) contained an ASQ volume of approximately 22.3 MMBF. Another 7.5 MMBF of volume from Riparian Reserve density management associated with the commercial thinning is not ASQ volume.

Three advertised timber sales contained density management treatments in Late-Successional Reserves to accelerate the development of late-successional characteristics in these forest stands. These sales produced approximately 6.2 MMBF of volume, which is not part of the ASQ.

Miscellaneous timber volume was produced from negotiated timber sales, which are generally salvage sales, rights-of-way timber sales, and modifications to operating advertised timber sales. In fiscal year 2015, approximately 6.6 MMBF of volume was produced from miscellaneous sale volume. Total volume of timber offered for sale initially or through modifications and negotiated contracts for fiscal year 2015 was approximately 42.6 MMBF.

The value of all timber successfully sold in fiscal year 2015 was approximately $ 8,718,159. The monies associated with timber sales are paid as timber is harvested over the life of the contract, which is three years or less. Timber sale receipts collected by the Roseburg District in fiscal year 2015 from active harvesting totaled approximately $8,666,793. Approximately 72 percent of the receipts were from Oregon and California Railroad Lands, and 28 percent from Coos Bay Wagon Road Lands.

Under Section 15 of the Small Business Act (15 U.S.C. 631), the BLM is required to sell a certain percent of advertised timber sale volume to businesses with less than 500 employees. The current share was calculated as 53 percent for the Roseburg District. When the requisite percentage is not achieved through the normal bidding process, a requirement is “triggered” to set aside timber sales for exclusive offering to small businesses. The Roseburg District was required to set aside three sales for small business during fiscal year 2015.

Conclusion

As found in plan evaluations (such as the August 2012 Year Evaluation Report for the Roseburg District Record of Decision/Resource Management Plan) and the 2005 Analysis of the Management Situation, the Roseburg Timber Management Program is not currently meeting the ASQ projections of the ROD/RMP.

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

Monitoring Requirement

Program and data base review. An annual District wide report will be prepared to determining if the silvicultural and forest health practices identified and used in the calculation of the Allowable Sale Quantity were implemented. This report will be summarized in the Annual Program Summary.

Monitoring Performed

Program and data base were reviewed and summary prepared.

Finding

Examination of fiscal year 2015 data indicates differences between implementation and ROD/RMP assumed levels of activity. These differences are shown in Table 10 of the Annual Program Summary.

Comment/Discussion

See the Annual Program Summary discussion of silvicultural activities for explanations and discussion.

Conclusion

As noted in the APS, silvicultural treatments were conducted on District, but these treatments vary from the assumed ROD/RMP levels. In the case of maintenance and pruning, the District exceeds the ROD/RMP levels, at 130 percent and 101 percent of assumed levels, respectively. The District has not achieved the assumed ROD/RMP levels of site preparation, planting, or fertilization, due to low levels of regeneration harvest and administrative appeals. See Table 10 in the Annual Program Summary for total achievements related to silvicultural activities.

Special Forest Products

Implementation Monitoring

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

Monitoring Requirements

Program review.

Monitoring Performed

Program was reviewed.

Findings

The Roseburg District restricts the amount of plant material or contract area to be harvested through special provisions on permits. The permits also prohibit collection practices that may degrade the resources. Areas subject to heavy harvest may be rotated or rested as appropriate for at least two years. No permits are sold if Special Status Species cannot be clearly identified to the permittee.

Conclusion

ROD/RMP requirements were met.

Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

District Designated Reserves (DDR) - Areas designated for the protection of specific resources, flora and fauna, and other values. These areas are not included in other land use allocations or in the calculation of the ASQ.

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

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

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

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

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

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

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

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

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

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

MMBF - abbreviation for million board feet of timber

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

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

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

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

> Open: Designated areas and trails where Off Highway Vehicles may be operated subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343.
>
> Limited: Designated areas and trails where Off Highway Vehicles are subject to restrictions limiting the number or types of vehicles, date, and time of use; limited to existing or designated roads and trails.
>
> Closed: Areas and trails where the use of Off Highway Vehicles is permanently or temporarily prohibited. Emergency use is allowed.

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

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

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

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

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

Regeneration - Renewal of tree cover by the establishment of young trees naturally or artificially. This may occur in the form of an even-aged stand or as an understory cohort through the application of silvicultural treatments that include variable density thinning, shelterwood harvest, group selection and clearcutting.

Regeneration harvest - Defined by management direction in the Roseburg District *Record of Decision and Resource Management Plan* (ROD/RMP) is a silvicultural prescription that applies a single residual tree density across all harvest unit acres. Its application is limited to the matrix allocations and the Little River Adaptive Management Area. In the General Forest Management Area the residual tree density at the time of regeneration harvest is defined as six to eight large conifers per acre (ROD/RMP pg. 64). In Connectivity/Diversity Blocks the residual tree density at the time of regeneration harvest is defined as 12 to 18 large conifers per acre (ROD/RMP pg. 65). In the Little River Adaptive Management Area management direction for regeneration harvest will apply the standards and guidelines for matrix management (ROD/RMP pg. 154).

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

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

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

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

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

Rural Interface Area - BLM-administered within ¼-mile of private lands zoned for 1-5 acre lots located throughout the district.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Acronyms/Abbreviations

ACEC - Area of Critical Environmental Concern
ACS - Aquatic Conservation Strategy
AD - Administratively Determined
APS - Annual Program Summary
ASQ - Allowable Sale Quantity
BA(s) - Biological Assessments
BLM - Bureau of Land Management
BMP(s) - Best Management Practices
CBWR- Coos Bay Wagon Road
CFER - Cooperative Forest Ecosystem Research
CT - Commercial Thinning
CX - Categorical Exclusions
CWA - Clean Water Act
DEQ - Oregon Department of Environmental Quality
DM - Density Management
EA - Environmental Analysis
EIS - Environmental Impact Statement
EPA - U.S. Environmental Protection Agency
ERFO - Emergency Relief Federally Owned
ERMA- Extensive Recreation Management Area
ESA - Endangered Species Act
ESU - Evolutionarily Significant Unit
FEIS - Final Environmental Impact Statement
FLPMA Federal Land Policy and Management Act
FONSI- Finding of No Significant Impacts
FY - Fiscal Year
GFMA- General Forest Management Area
GIS - Geographic Information System
GTR - Green Tree Retention
IDT - Interdisciplinary Teams
LSR - Late-Successional Reserve
LUA - Land Use Allocation
LWD - Large Woody Debris
MMBF Million board feet
MOA - Memorandum of Agreement
MOU - Memorandum of Understanding
MSA - Magnuson-Stevens Act
NEPA - National Environmental Policy Act
NFP - Northwest Forest Plan
NMFS - National Marine Fisheries Service
O&C - Oregon and California Revested Lands
ODF - Oregon Department of Forestry
ODFW- Oregon Department of Fish and Wildlife
OSU - Oregon State University
PACs - Province Advisory Councils
PD - Public Domain

PILT	-	Payment in lieu of taxes
PL	-	Public Law
PSQ	-	Probable Sale Quantity
RA	-	Resource Area
REO	-	Regional Ecosystem Office
RIEC	-	Regional Interagency Executive Committee
RMP	-	Resource Management Plan
ROD/RMP		The Roseburg District Resource Management Plan/ Record of Decision
RO	-	Forest Service Regional Office
ROD	-	Record of Decision
RR	-	Riparian Reserve
ROW	-	Rights-of-Way
SEIS	-	Supplemental Environmental Impact Statement
S&G	-	Standard and Guideline
S&M	-	Survey and Manage
SRMA	-	Special Recreation Management Area
SRP	-	Special Recreation Permit
TMP	-	Transportation Management Plan
USDA	-	U.S. Department of Agriculture
USFS	-	U.S. Forest Service
USFWS	-	U.S. Fish and Wildlife Service

United States Department of the Interior
Bureau of Land Management - Oregon
Roseburg District
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