Annual Program Summary and Monitoring Report

for Fiscal Year 2010

BLM

Klamath Falls Resource Area

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

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

BLM/OR/WA/PL-11/030+1792

Cover photograph: Bald eagle adult and juvenile, Klamath Falls Resource Area file photo

U.S. Department of Interior
Bureau of Land Management

Klamath Falls Resource Area

ANNUAL PROGRAM SUMMARY

and

MONITORING REPORT FISCAL YEAR 2010

Public Input to this Document

Although the Annual Program Summary gives only a very basic and brief description of the programs, resources and activities in which the Klamath Falls Resource Area (KFRA) is involved, the report does give the reader a sense of the enormous scope, complexity and diversity involved in management of the Klamath Falls Resource Area public lands and resources. The managers and employees of the Klamath Falls Resource Area take pride in the accomplishments described in this report. Public input on this Annual Program Summary and Monitoring Report will assist us in making this document more understandable and easy to read for the public in future years.

You may provide comments via email at: Klamath_Falls_Mail@blm.gov or send written comments to the following address:

Bureau of Land Management
Klamath Falls Resource Area
c/o Planner
2795 Anderson Avenue, Building #25
Klamath Falls, OR 97603

Comments, including names and street addresses of respondents, will be available for public review at the above address during regular business hours (8:00 a.m. to 5:00 p.m.), Monday through Friday, except holidays, and may be published as part of the document on which you are commenting. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Thank you for taking the time to review this document.

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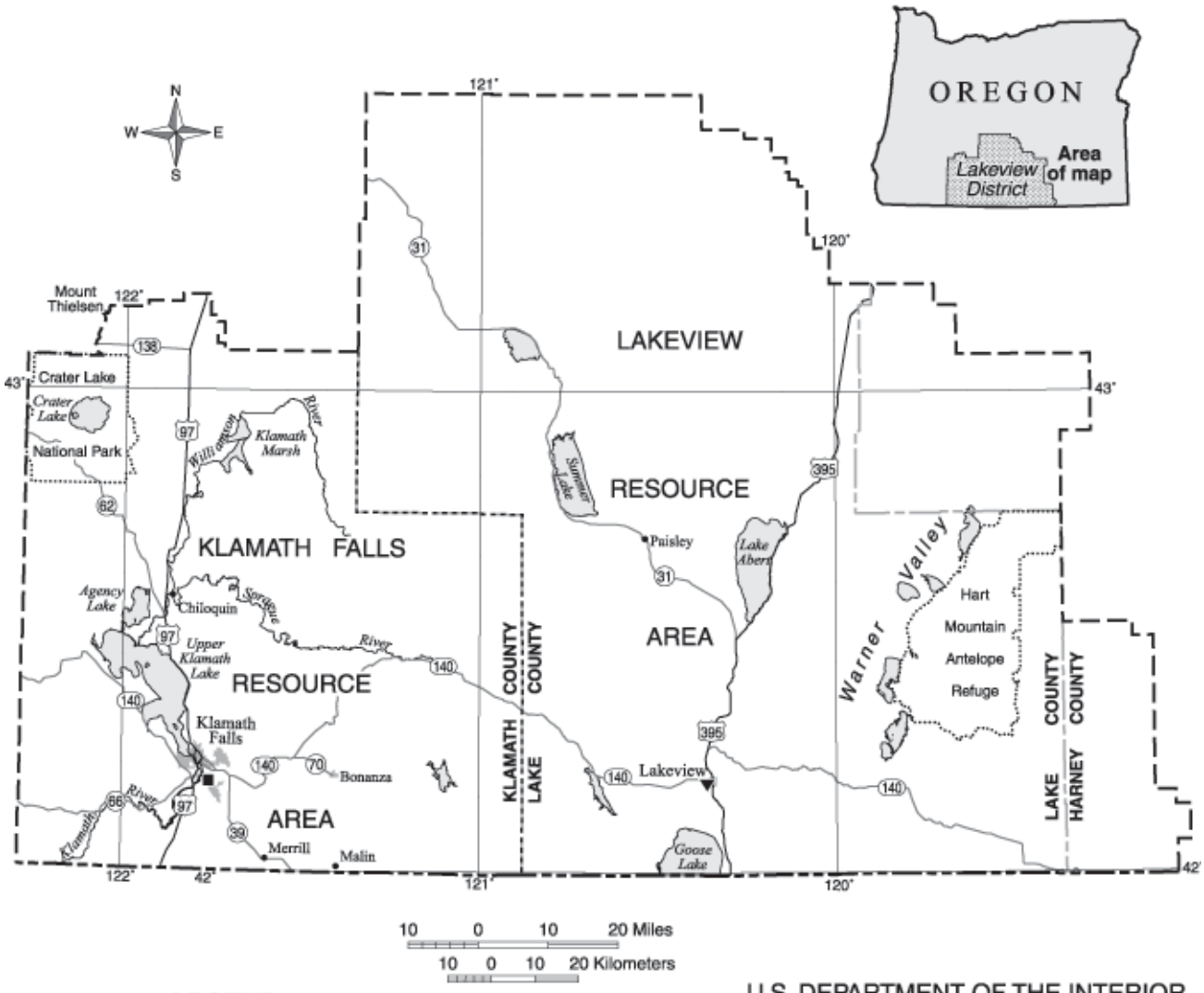
KLAMATH FALLS RESOURCE AREA

ANNUAL PROGRAM SUMMARY

Fiscal Year 2010

FIGURE 1 - GENERAL LOCATION MAP



10 0 10 20 Miles

10 0 10 20 Kilometers

LEGEND

- ▼ BLM DISTRICT OFFICE
- ■ BLM RESOURCE AREA OFFICE
- BLM DISTRICT BOUNDARY
- BLM RESOURCE AREA BOUNDARY
- STATE BOUNDARY
- 97 U. S. HIGHWAY
- 38 STATE HIGHWAY

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Lakeview District
2005

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M03-11-05

KLAMATH FALLS RESOURCE AREA ANNUAL PROGRAM SUMMARY

Fiscal Year 2010

1.0 Introduction

The Annual Program Summary is a review of the programs on the Klamath Falls Resource Area, Bureau of Land Management for the period of October 1, 2008 through September 30, 2010. The Klamath Falls Resource Area encompasses the southwestern portion of the Lakeview District, in southern Oregon (see Figure 1). The Annual Program Summary addresses the accomplishments of the Klamath Falls Resource Area and provides information concerning the Klamath Falls Resource Area budget, timber receipt collections, and payments to Klamath County. Included with this Annual Program Summary is the Monitoring Report for the Klamath Falls Resource Area in FY 2010. The Monitoring Report compiles the results and findings of implementation monitoring for fiscal year 2010, the fifteenth full fiscal year of implementation of the Klamath Falls Resource Area Resource Management Plan (RMP). These reports are a requirement of the Klamath Falls Resource Area Record of Decision and Resource Management Plan, designed to report to the public and local, state and federal agencies a broad overview of activities and accomplishments for fiscal year 2010 (FY 2010).

The Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl - referred to as the Northwest Forest Plan (NFP) - was signed in April 1994. With the signing of this document began the implementation of the Northwest Forest Plan. Subsequently in June 1995, the Klamath Falls Resource Area began implementation of the Resource Management Plan, which incorporates all aspects of the Northwest Forest Plan, with the signing of the RMP Record of Decision (ROD). The ROD established a new allowable harvest level effective October 1, 1994, which is the beginning of fiscal year 1995, so related activities during the entire fiscal year 1995 are included in the accomplishments reported for fiscal year 1995.

2.0 Summary of Accomplishments

The manner of reporting accomplishments differs between the various programs. Some resource programs lend themselves well to a statistical summary of activities while others are best summarized in short narratives. Table 2.1 provides a summary of the accomplishments for some resource activities for fiscal year 2010. These accomplishments are compared against cumulative accomplishments for 1995-2010. Further details concerning individual programs on the Klamath Falls Resource Area may be obtained by contacting the Klamath Falls Resource Area Office.

Table 2.1 – Klamath Falls Resource Area, Fiscal Year 2010 Summary of Resource Management Actions, Directions, and Accomplishments

RMP Resource Allocation/ Management Practice/Activity	Activity Units	FY 2010 Accomplishments	FY 95-10 Cumulative	Projected Practices SixteenYears
Forest and Timber Resources				
Regeneration harvest	Acres	0	259	2,624
CT/Density Management (HLB)	Acres	910	19,161	17,552
CT/Density Management (Reserves)	Acres	30	378	0
Mortality Salvage	Acres	0	8,592	0
Timber volume sold (HLB) - Board Feet	MMBF	5.30	94.24	100.96
Timber volume sold (HLB) - Cubic feet	MCBF	0.72	13.83	17.76
Timber volume sold (reserves) - Board feet	MMBF	0.11	0.97	0
Timber volume sold (reserves) - Cubic feet	MCBF	0.02	0.28	0
Pre-commercial thinning (HLB)	Acres	0	3,388	1,120
Pre-commercial thinning (Reserves)	Acres	0	1,017	0
Restoration Thinning (Understory)	Acres	387	11,108	7,040
Brushfield/hardwood conversion	Acres	108	108	0
Site preparation	Acres	0	465	4,000
Site preparation - other (specify)	Acres	0	0	0
Planting - regular stock	Acres	35	2,247	5,760
Planting - genetically selected	Acres	0	0	1,840
Vegetation control, mechanical/hand	Acres	0	2,918	3,600
Fertilization	Acres	0	0	512
Pruning	Acres	0	700	464
Juniper Woodland Harvest Information				
Juniper Sawlog Volume	MBF	0.23	2,179	N/A
Juniper Stewardship Chip Volume	Tons	2,114	10,008.14	N/A
Juniper Sawlog Acres Yarded	Acres	0	1,768	up to 13,000
Juniper Stewardship Chips Acres Yarded	Acres	627	1,702	up to 13,000
Prescribed Fire/Fuels Treatment Accomplished				
Prescribed Fire (hazard reduction)	Acres	762	17,534	3,600
Prescribed Fire (wildlife habitat/forage)	Acres	3,289	12,196	10,852
Natural/artificial ignition prescribed Fire for ecosystem enhancement	Acres	0	76,033	100,998
Vegetation control, mechanical/hand	Acres	1,060	13,242	3,385
Juniper Removal	Acres	671	23,317	N/A
Noxious Weeds				
Noxious weeds chemical control	Sites/acres	380/648	280/2,500*	275/1,200
Noxious weeds other control methods	Sites/acres	3/6	25/395*	100/430
Wildlife Habitat				
Bitterbrush and Mt. Mahogany Planting	Plants/Acres	32,000/350	602,305/3,661	N/A

CT = Commercial Thinning, HLB = Harvest Land Base
*Totals include repeat treatments on most areas.

Table 2.1 - RMP Planning Area, Summary of Resource Management Actions, Directions, and Accomplishments (Continued)

RMP Resource Allocation/ Management Practice/Activity	Activity Units	FY 2010 Accomplishments	FY 95-10 Cumulative	Projected Practices Fifteen Years
Rangeland Resources				
Livestock grazing permits or leases	Permits/AUMs	11/1,298	173/32,007	150/25,000*
Animal Unit Months (actual)	AUMs	~9,500	11,000 (average)	NA
Livestock fences constructed	Miles	0.5	16	
Water developments	Actions	0	3	
Realty Actions				
Realty, land sales	Actions/Acres	3/124.6	3,056.75	NA
Realty, land purchase	Acres	0	0	NA
Realty, land exchanges	Actions	0	0	NA
	Acres acquired	0	0	NA
	Acres disposed	0	680	NA
Realty, R&PP leases/patents	Actions/Acres	0	0	NA
Realty, road rights-of-way acquired for public/agency use	Actions/miles	0	2/0.5	NA
Realty, road rights-of-way granted	Actions/miles	2/17	72/404	NA
Realty, utility rights-of-way granted	Actions/miles	0	14/29.2	NA
Realty, utility rights-of-way granted (communication sites)	Actions/acres	2/9.22	13/117.92	NA
Realty, wind energy facilities (test site)	Actions/acres	0/0	1/4,400	NA
Realty, withdrawals completed	Actions/acres	0/0	1/1	NA
Realty, withdrawals revoked	Actions/acres	0/0	11/11,281	NA
Energy and Minerals Actions				
Mineral/energy, oil and gas leases	Actions/acres	0/0	0/0	NA
Mineral/energy, total other leases	Actions/acres	0/0	49	NA
Mining plans approved	Actions/acres	0/0	0/0	NA
Mining claims patented	Actions/acres	0/0	0/0	NA
Mineral materials sites opened	Actions/acres	1/40	1/40	NA
Mineral material sites closed	Actions/acres	0/0	0/0	NA
Recreation and Off-highway Vehicles				
Maintained off-highway vehicle trails	Miles	0	0	NA
Constructed/Maintained hiking trails	Miles	2	9	NA
Recreation sites maintained	Number	18	24 (average)	NA
Special Use Permits	Actions	18	385	NA
Cultural Resources				
Cultural resource inventories	Sites/acres	49/1,850	898/128,542	NA
Cultural/historic sites nominated	Sites/acres	0/0	0/0	NA
Hazardous Materials				
Hazardous material sites identified	Sites	2	7	NA
Hazardous material sites remediated	Sites	0	5	NA

3.0 Budget and Employment

In fiscal year 2010, the Klamath Falls Resource Area had a total appropriation of approximately $5.8 million. This included $709,445 for Management of Lands and Resources (MLR); $2,446,000 for Oregon and California Railroad Lands (O&C); $540,000 for Forest Ecosystem Health and Recovery; $1,165,776 for prescribed fire/fuels treatment; $500,000 for Pipeline Recreation; and $471,000 for Pipeline Timber. See Table 3.1.

In fiscal year 2010, there were 32 permanent employees on the resource area. The number of temporary (30) and term (1) employees varied throughout the year with a total peak employment of 63 people.

Table 3.1 - Resource Area Budget Fiscal Year 2010

Budget Source	FY 2010 Dollars
Management Land and Resource	$709,445
O&C Lands	$2,446,000
Forest Ecosystem Health and Recovery	$540,000
Recreation Pipeline	$500,000
Timber Sale Pipeline	$471,000
Fire (Hazardous Fuels Reduction Program)	
Non-WUI fuels	$374,527
WUI fuels	$791,249
Total Resource Area Budget	**$5,832,221**

4.0 Land Use Allocations within the Klamath Falls Resource Area

There are approximately 224,900 acres of public land administered by the BLM within the Klamath Falls Resource Area. The Klamath Falls Resource Area is divided into “Westside” and “Eastside” lands. The Westside lands are further separated into key and non-key watersheds as stipulated in the Northwest Forest Plan. The Resource Management Plan approved in June of 1995 specified different land management allocations on different portions of the resource area. These allocations provide the emphasis for which activities may occur on each land area. Not all land use allocations and resource programs are discussed individually in a detailed manner in this Annual Program Summary because of the overlap of programs and projects. A detailed discussion of the various land use allocations or resource programs is not given in this Annual Program Summary, but can be found in the Resource Management Plan Record of Decision and supporting Environmental Impact Statement. For a listing of specific projects on the Klamath Falls Resource Area, see the Planning Updates that are generally published quarterly. These documents are available at the Klamath Falls Resource Area Office.

Late-Successional Reserves and Assessments

The Klamath Falls Resource Area does not contain any mapped Late Successional Reserves (LSRs). The closest mapped Late Successional Reserve is to the north on the adjoining Winema National Forest. The Klamath Falls Resource Area contains fifteen unmapped Late Successional Reserves (UMLSRs), three District Designated Reserves (DDRs), and one Special Area (an Environmental Education Area), all designated for old-growth values. Each reserve is approximately 100 acres in size for a total of approximately 1,900 acres in reserves designated

for late-successional values. Unmapped LSRs function as habitat patches that provide connectivity between larger areas of old-growth habitat within mapped LSRs.

In FY 1997, vascular plant and non-vascular cryptogam (moss, liverworts, lichens, and fungi) inventories were conducted using a combination of cursory and intuitive survey methods to assess the biodiversity of each reserve. The inventory included collection, identification, photographing, and curing of selected specimens. In FY 1997, forest stand conditions in all 19 reserves were sampled using an adaptation of the procedures on the "Forest Survey Handbook, BLM Manual Supplement, Handbook 5250-1". Along with historical descriptions and past harvest data, this information served as a basis for written assessments of stand conditions in each reserve. A Late Successional Reserve Assessment (LSRA) was prepared in FY 2003 to assess all 19 of the reserves in the resource area. The LSRA was submitted to the Regional Ecosystem Office (REO) for review and approval in March of 2003. In a memorandum dated September 27, 2004, the Regional Ecosystem Office, based upon the final review of the LSR Assessment by the LSR Work Group, concurred with the Klamath Falls Resource Area in its findings and consistency with the Standards and Guidelines (S&Gs) under the Northwest Forest Plan (NWFP).

Matrix

The NFP/ROD (page C-44) and Klamath Falls Resource Area RMP ROD (page 56) require that the BLM and USFS provide for the retention of late-successional/old-growth fragments in the matrix, where little remains. The standards and guidelines are to be applied to any fifth field watershed in which federal forest lands are currently comprised of 15 percent or less late-successional forest, considering all land allocations. In preparing watershed analysis documents, the Resource Area completed an initial screening of watersheds including lands managed by the BLM-Redding Field Office, BLM-Alturas Field Office, BLM-Medford District Office, Klamath National Forest, Modoc National Forest, Rogue River National Forest, Winema National Forest, and the Fish and Wildlife Service, for compliance with the 15 percent retention standards and guidelines. Results from this analysis were reported in watershed analysis documents. Klamath Falls Resource Area FY 1995 to FY 2009 sales sold under the NFP have complied with the 15 percent rule using the analysis.

A joint BLM/FS Instruction Memorandum was issued on September 14, 1998. This provided the final guidance for implementing the 15 percent standards and guidelines throughout the area covered by the NFP. Implementation of this guidance is required for all actions with decisions beginning October 1, 1999. A final 15 percent analysis was completed in 1999. The Lower Klamath Lake and Butte Creek fifth field watersheds have less than 15 percent late-successional forest. Regeneration harvest in these two watersheds will be deferred until the 15 percent standard is met.

5.0 Aquatic Conservation Strategy

The Aquatic Conservation Strategy (ACS) was developed to restore and maintain the ecological health of watersheds and aquatic ecosystems. A set of Aquatic Conservation Strategy objectives was developed in the Northwest Forest Plan, to guide the review and implementation of management activities. The four components of the strategy - Riparian Reserves, Key Watersheds, Watershed Analysis, and Watershed Restoration - are designed to work together to maintain and restore the productivity and resiliency of riparian and aquatic ecosystems.

Riparian Reserves

Riparian Reserves are areas where riparian-dependent resources receive primary emphasis and where special standards and guidelines from the Northwest Forest Plan (NFP) Record of Decision (ROD) apply. Riparian Reserves are established adjacent to perennial and intermittent streams, springs, lakeshores, wetlands, and reservoirs.

Watershed Analysis and Key Watersheds

Watershed analysis is required (NFP ROD) prior to implementing activities in Key watersheds. Watershed analyses should also be conducted in other watersheds as a basis for ecosystem planning and management. The primary purpose is to provide decision makers with an understanding of the ecological structure, functions, processes, and interactions occurring in a watershed along with the wide spectrum of human uses.

This information is obtained from a variety of sources including field inventory and observation, agency records, old maps and photos, and survey records and will be utilized in *National Environmental Policy Act* (NEPA) documentation for specific projects and to facilitate compliance with the *Endangered Species Act* (ESA) and *Clean Water Act* (CWA) by providing additional information for consultation with other agencies.

Watershed analyses include:

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

To date, watershed analyses have been completed for almost eighty percent of the resource area including all lands covered by the NFP. The remaining lands within the resource area are scattered parcels where resource management issues will be addressed on a case-by-case basis.

Watershed Restoration

Roads

Watershed restoration through road treatments ranges from obliteration to upgrading. Road treatments are identified during restoration planning or as part of other projects. When road-related resource concerns (such as habitat connectivity, water quality, diversion of flow paths, etc.) are identified, road treatments are developed to ensure that concerns are addressed in a way that accounts for current and future transportation needs while striving to meet ACS objectives

With the large amount of mixed ownership in the forested lands, coordination with private landowners and other land management agencies is crucial to the success of any proposed road projects. Watershed analyses, road inventory data, and coordinated planning efforts like the Spencer Creek Coordinated Resource Management Plan (CRMP) provide a framework for road treatment decisions.

During FY 2010, watershed restoration road treatments included approximately five miles of road improvement. Objectives included reduced erosion and sediment delivery to streams and improved vehicle access. For a complete summary of road treatments, refer to Section 24.0 - Transportation and Roads and Table 24.1 and Aquatic Species and Habitat Table 9.1.

Riparian Habitat Enhancement

Treatments that help maintain large conifers in Riparian Reserves are an important component of watershed restoration. Silvicultural practices have been implemented within riparian reserves to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain aquatic conservation strategy objectives. Silvicultural prescriptions are written to maintain uneven aged stands and to maintain and improve the health and resiliency of the shade intolerant species (ponderosa pine, sugar pine, and Douglas fir). Understory reduction prescriptions are used to reduce the density of shade-tolerant species under the tree canopy for the purpose of reducing fire risk and enhancing the health of desired overstory trees. The thinning of densely stocked young stands and the reforestation of shrub-dominated stands with conifers are also used to enhance riparian habitat.

In upland areas, approximately 900 acres of juniper woodlands were cut under a stewardship program in the area of the Gerber Reservoir and 115 of mixed juniper woodland were thinned on the west side of the Resource Area. These treatments may improve watershed health in the long-term by restoring grass/shrub communities and increasing soil cover and infiltration capacity. Juniper thinning treatments within Riparian Reserve treatments occurred as components of upland treatments in the Bly Mountain and the South Gerber areas. Approximately fifteen acres of riparian reserves in the Gerber Reservior watershed were treated by removing trees that were encroaching on the riparian vegetation and natural floodplains to reduce completion for desirable riparian plant communities and reduce water demand from encroaching vegetation.

Stream Restoration

Instream restoration projects are necessary when passive restoration will not meet resource goals in the short-term. Such projects are designed to restore instream habitat complexity, and can include bank stabilization, channel realignment, or addition of boulders and large woody debris.

Spencer Creek is a tributary to the Klamath River located northwest of Keno, Oregon. The treated reach contains a suite of native fish and other aquatic species including Klamath River redband trout, Klamath small-scale sucker and Pacific giant salamander. This log placement project was a coordinated effort and partnership between Bureau of Land Management, US Fish and Wildlife Service and JWTR (a private land management company). The intent of the treatments is to improve instream aquatic habitat and subsequently increase populations and distribution of aquatic species. Placement of large wood structures in the 3.1 mile reach of Spencer Creek was completed in early FY 2010 to restore natural sinuosity, increase channel complexity, and create hydraulics favorable to the formation of spawning gravel accumulations. On October 17, 2009 approximately 220 logs were placed at 54 specific log structure placement sites by Columbia Helicopters, Inc. using a Boeing Chinook 234 helicopter. The logs ranged from 10-51 inches in diameter, 10-53 feet in length and weighed up to approximately 14,000 pounds each. Each interlocking log structure was constructed with one key log and three to four non-key logs. Post-treatment monitoring was completed by BLM and USFWS personnel in FY 2010 and will continue in FY 2011. Post-treatment photo and visual monitoring was completed by BLM and USFWS personnel in FY 2010 and will continue in FY 2011. This monitoring showed channel scour, gravel/debris accumulation and very little log movement.

The BLM in cooperation the Freshwater Trust, an Oregon based conservation group, implemented the final phase of the Wood River Delta channel restoration project. The project involved reestablishing connectivity in the Wood River delta, where the river enters Agency Lake. An excavator was used to restore 600 feet of former river channel by excavating approximately 3,500 cubic yards of silt and sand that had filled in the channel after the natural channel was cut off for navigation purposes around the turn of the century. This phase of the project restored natural connectivity to Agency Lake and restored wetland floodplain and deltaic river functions.as well as sediment transport processes. This project is expected to result in improved water quality, fish habitat, and recreational boating access. An additional

component of the project involved bank stabilization and construction of a recreational access trail within the Wood River Wetland day use and picnic area near the Wood River Bridge. Boulders were used to stabilize a severely eroding bank and provide a stair-step trail from the picnic area to the water's edge in an area of heavy foot traffic. Work on this project will continue into FY 2011 and will include revegetation of areas disturbed by construction and monitoring and maintenance of erosion control measures.

6.0 Air Quality

The air quality program is mostly related to smoke impacts from natural and prescribed fires. The resource area has adopted the concept that the prescribed fire program is an integral part of ecosystem management under the RMP. Special care is taken to ensure that all prescribed fire projects are implemented in compliance with the Oregon Smoke Management Plan. Air quality considerations for the prescribed fire program include: burning when good smoke dispersal conditions exist, burning when fuels are dry, covering piles when appropriate, piling woody debris for more efficient combustion, and prompt mop-up of burned units to reduce residual smoke. There are three Class 1 airsheds in Klamath County (Crater Lake National Park, Mountain Lakes Wilderness Area, and Gearheart Wilderness Area), but none are managed by BLM. Prescribed burning accomplished in 2010 by the Klamath Falls Resource Area did not exceed the National Ambient Air Quality Standards (NAAQS).

7.0 Water and Soils

Water - Project Implementation

As discussed in the Watershed Restoration and Roads sections, numerous projects that will benefit water resources were completed in FY 2010. Approximately 1-2 miles of riparian related fencing within the resource area received significant maintenance and repair during FY 2010. Various portions of the riparian fencing around the Antelope Riparian Pasture and the north boundary fence of the Northeast pasture of the Pitchlog Allotment received significant additional rebuilding or rehabilitation during FY 2010. A new livestock exclosure fence was also constructed around a small spring and associated wetland above the Surveyor pump chance development. (Refer to the discussion of fences in the Rangeland Resources/Grazing Management section.)"

Prior to the BLM acquisition of the Wood River Wetland (WRW) in 1994, the property was in private ownership and was used for cattle grazing. During this period of ownership, five artesian wells were developed on the property for livestock use. These were low flow wells which together discharged approximately 70 acre feet of water annually. The USGS has monitored these wells for several years and measured high concentrations of nitrogen, phosphorus and ammonia flowing to the surface of the wetland. The project was supported by USGS, the State Water Master and most water user groups that are concerned about surface water quality in the Upper Klamath Basin. In October, FY2009 of 2008, three wells were fully decommissioned and two were retrofitted with a valve and pressure gauge. The two valved wells will continue to be accessible to the USGS for periodic ground water monitoring. These two wells have specialized above ground plumbing and are susceptible to extremely low winter temperatures. In FY 2010, the BLM designed, constructed and installed protective structures on both wells. The BLM will perform effectiveness monitoring during winter FY 2011.

A new well was drilled in the Gerber area (T41S, R14.5E, Section 14) to provide water for road maintenance and fire suppression. Phase 2 of the project will include the addition of a new water tank and a pump house for water storage.

Soils – Project Implementation

Topsy Road adjacent to Kerwin Ranch received maintenance. A slump in the road had made travel impossible causing the public to use the wet meadow for travel. After the maintenance was completed, the meadow road was ripped and blocked. Several other road projects were completed (see Section 24.0 - Transportation and Roads).

State-listed Clean Water Act 303d Streams

Section 303(d) of the *Clean Water Act* (CWA) requires states to submit to the Environmental Protection Agency (EPA) a list of those waters which do not meet water quality standards as a result of either point or non-point sources, and which are in need of a total maximum daily load (TMDL) calculation. The TMDL is a target for water quality standards. The Oregon 303(d) list was updated for 2004-2006. Table 7.1 lists nine streams in the KFRA identified as water-quality limited streams by the Oregon Department of Environmental Quality (ODEQ).

Table 7.1 - KFRA Clean Water Act 303(d) Water Bodies

Stream Name	Basin/Sub-basin	Criteria for listing	TMDL completed(?)
Barnes Valley Creek	Klamath/Lost River	Temperature - Year round	No
Long Branch Creek	Klamath/Lost River	Temperature - Year round	No
Miller Creek	Klamath/Lost River	Temperature - Summer	No
Antelope Creek	Klamath/Lost River	Temperature - Summer	No
Rock Creek	Klamath/Lost River	Temperature - Summer	No
Ben Hall Creek	Klamath/Lost River	Temperature - Year round	No
Clover Creek	Klamath/Upper Klamath	Sedimentation	No
Johnson Creek	Klamath/Upper Klamath	Temperature - Summer	No
Miners Creek	Klamath/Upper Klamath	Sedimentation	No
		Temperature - Year round	No
Spencer Creek	Klamath/Upper Klamath	Temperature - Year round	No
		Sedimentation	No
		Biological (macroinvertibrate indices)	No

Water - Inventory and Monitoring

Discharge of springs in the Gerber and Willow Valley watersheds were measured monthly at ten sites during FY 2010 (Table 7.2). This was the ninth year of a long-term monitoring effort. The primary objective of this study is to assess the effects of vegetation treatments on spring discharge. Several of these springs have been treated by removing juniper trees in the intervening years since monitoring began; however, due to climatic variability, several more years of data are needed before effects of these treatments can analyzed with respect to treatment effects.

In FY 2010, water temperature was monitored at 28 sites in 13 streams to monitor progress in meeting TMDL temperature standards and to determine effectiveness of management actions and Best Management Practices on BLM water resources.

The Wood River Wetland was the focus of monitoring and research efforts by the USGS between 2003-2005 to investigate water and nutrient budgets and nutrient dynamics in the wetland. This study provides a basis for adaptive management to reduce nutrient exports to environmentally sensitive Agency and Upper Klamath Lakes. A final report was published

in early 2009 and can be viewed at http://pubs.usgs.gov/sir/2009/5004/pdf/sir20095004.pdf. To compliment this research and provide data collection continuity, BLM initiated a water quality (nutrient) monitoring program in 2007 to determine the effects of water and vegetation management on trends in nutrient discharge loads from the Wood River Wetland. This, in combination with the USGS study, has allowed for fine tuning of water management strategies to meet water quality and wetland habitat objectives. Six monitoring sites were monitored on a bi-monthly basis in fy 10 between March and November, Water quality parameters monitored included dissolved carbon, several nitrogen and phosphorus constituents, and a suite of physical water quality parameters. The primary objective of the monitoring program is to apply adaptive management principals to optimize wetland habitat functions, water quality loading (nutrients exported from wetland to Agency Lake), and seasonal water storage and discharge (contributions to Klamath Basin water supplies).

An additional project initiated in 2010 includes the establishment of randomly placed plots that are designed to make careful and accurate measures of annual soil rate accumulation or loss in the Wood River Wetland. The purpose of these elevation benchmarks and sediment accumulation markers is to proactively manage water and vegetation to optimize and increase the rate of soil and organic matter. The long-term goal would be to remove the levees surrounding the subsided wetlands and allow Upper Klamath Lake to be hydrologically reconnected to the wetlands. Currently, the land subsidence caused by draining and farming the wetlands in the past has resulted in wetland surface elevations that are too low to support wetland vegetation if they were allowed to be flooded by Upper Klamath and Agency Lakes. A total of twenty marker horizons were established throughout the wetlands in 2010.

Table 7.2 - Watershed Activity Fiscal Year 2010

Monitoring	FY2010	FY95-10
Streams measured for Proper Functioning Condition (miles)	0	87.6
Riparian Classification and Mapping (miles)	0	16.4 (FY03-05)
Streams monitored for water temperature	13	41*
Springs monitored for water temperature	10	34*
Streams measured for streamflow	1	3*
Springs measured for flow (Gerber Block)	10	24*
Sites measured for water chemistry	6	39*
Sediment sampling stations (monitoring of road sediment)	0	30*
Completed water rights applications with Oregon Water Resources	1	1*
Streams monitored for physical reference conditions (permanent reference pts)	0	6*
Sites measured for bank erosion	0	10*
Streams monitored for riparian vegetation and soils in juniper treatment areas	0	2*
Springs monitored for riparian vegetation and soils in juniper treatment areas	0	1*

*Figure represents maximum number of sites monitored and does not reflect cumulative totals for repeated data collection.

Soils – Inventory and Monitoring

In FY 2010, no soil compaction/disturbance monitoring was completed in the KFRA.

Klamath River Hydroelectric Facility Relicensing

In FY 2010, hydrology and fisheries resource staff coordinated with state and federal agencies, non-governmental organizations, and American Indian tribes on implementation of the Klamath Hydroelectric Settlement Agreement (KHSA). The KHSA was signed by the parties, including the Secretary of Interior on February 18, 2010. Resource area staff participated in various aspects of the environmental review process such as potential dam removal impacts to fisheries,

water quality, and riparian processes. Other implementation activates included road and recreation facilities maintenance, weed control, and planning for gravel enhancement projects in the Project reach of the Klamath River. The KHSA established an environmental review process that will result in a Secretarial Determination on March 31, 2012 regarding whether removal of the dams will advance restoration of salmonid fisheries of the Klamath Basin and is in the best interest of the public. The Klamath hydroelectric relicensing processes will resume if the Secretarial Determination is negative.

RMP Best Management Practices

Best Management Practices are identified and required by the CWA as amended by the *Water Quality Act* of 1987. Best Management Practices are defined as methods, measures, or practices to protect water quality or soil properties. Best Management Practices are selected during the interdisciplinary environmental review process on a site specific basis to meet overall ecosystem management goals. The Klamath Falls Resource Area Record of Decision and Resource Management Plan lists Best Management Practices for various projects or activities that may be considered during the design of a project. During FY 2009, Best Management Practices were implemented on a number of different projects, ranging from thinnings to fuels reduction projects.

8.0 Terrestrial Species and Habitat Management

Threatened/Endangered Species

Northern Spotted Owl

The Klamath Falls Resource Area currently contains 16,092 acres of suitable northern spotted owl habitat. Of this, 6,676 acres are reserved or maintained as owl habitat. The reserves include 100-acre core areas near and/or surrounding nesting owls plus other district-designated reserves (DDRs). Riparian areas and preferred habitat areas are also managed to maintain owl habitat.

In 2010, the Bureau of Land Management worked cooperatively with JELD-WEN Timber and Ranch (JWTR), U.S Forest Service (USFS) and Oregon State University (OSU) to continue the northern spotted owl monitoring program. Territories monitored are located on BLM, USFS and private lands but monitored cooperatively due to the overlap of land ownership within the owl's home range.

General surveys of suitable northern spotted owl habitat were conducted by the BLM for the Spencer Creek proposed timber sale as well as monitoring of ten historic territories. Of the ten sites surveyed/monitored, five were occupied with northern spotted owl pairs. Barred owls were documented in five locations and are known to occupy four northern spotted owl nest territories.

Special Status Species-Animals

Bald Eagle (Bureau Sensitve - De-listed in 2007 from ESA List)

In 2007, the bald eagle was removed from the Endangered Species list. The bald eagle is now classified as a BLM sensitive species and will be managed accordingly. Bald eagle nest territories and winter roost areas are known to occur on BLM lands within the Klamath Falls

Resource Area (KFRA). In 2010, 21 of the 23 nest territories were occupied with at least one adult eagle. One new territory was located on BLM land. Nest sites were monitored cooperatively with BLM, Oregon Department of Fish and Wildlife (ODFW), and JWTR.

Midwinter surveys for bald eagles were again conducted this year. The counts are conducted annually in the month of January to monitor trends of wintering populations of bald eagles.

Peregrine Falcon (Bureau Sensitive)

In 1999, the peregrine falcon was de-listed from the Endangered Species list according to the Endangered Species Act (ESA). A peregrine falcon specialist was contracted to analyze potential peregrine falcon habitat for the Lakeview District. The KFRA has four areas rated as high for nesting potential. All of these areas were surveyed in 2006. No sites were surveyed in 2010. Future surveys and monitoring will continue at these sites to help ascertain the presence/absence of peregrine falcons within the resource area.

Yellow Rails (Bureau Sensitive)

BLM policy directs that our actions should avoid contributing to the need to list these species as threatened or endangered. The yellow rail was thought to be extirpated from the western U.S., until it was rediscovered in the Wood River Valley in 1982. The BLM's Fourmile Creek wetland harbors one of the largest breeding populations in Oregon. The resource area participated in a cooperative agreement between The Nature Conservancy (TNC), Fremont-Winema National Forest (WNF), and the Oregon Department of Fish and Wildlife (ODFW) to conduct a study of breeding yellow rails on the Fourmile area and Wood River Wetland from 1996-2002. No further surveys were conducted in FY 2010, but are planned for 2011.

Bats (Three Species - Bureau Sensitive)

In 2010, three locations in the Willow Valley watershed were surveyed for bats in coordination with the Oregon Bat Grid project. Survey support was provided by personnel from the Lakeview Resource Area BLM. The pallid bat (*Antrozous pallidus*) was documented at one site, however the Townsend's big-eared bat (*Corynorhinus townsendii*) and fringed myotis (*Myotis thysanodes*) were not documented during the 2009 survey effort.

Under the RMP, the resource area is to minimize human disturbance to the maternity colony of Townsend's big-eared bats (*Corynorhinus townsendii*) at Salt Caves on the Klamath River. A seasonal closure is in place from May 1 through September 15 at this site. In 2003, a Decision Record for the Cave Management Plan EA was prepared which included recommendations for long-term adaptive management and monitoring.

Northern Goshawk

In 2010, eight historic goshawk nest sites were monitored. Three of those sites were occupied and produced young.

Sage Grouse (Bureau Sensitive)

This species is ranked as a Bureau Sensitive species and was considered for listing under the Endangered Species Act. No lek sites were monitored in FY 2010. Habitat improvement projects around these historic lek sites continue. An environmental assessment of projects proposed to improve habitat adjacent to historic lek sites and improve mule deer winter range habitat was initiated in FY 2010.

Mollusks (Survey and Manage)

Surveys have been conducted since 1999 for terrestrial and aquatic mollusks on the KFRA under the Survey and Manage (S&M) program. Six species of S&M mollusks are suspected or documented on the KFRA. Four species that have been documented within KFRA are:

evening field slug (*Deroceras hesparium*), Klamath sideband (*Monadenia chaceana*), Klamath pebblesnail (*Fluminicola* sp. nov. 1), and diminutive pebblesnail (*Fluminicola* sp. nov. 3). Evening field slugs are found in wet meadows and streamside riparian areas. Pebblesnails are aquatic mollusks found in streams and springs. Two species suspected, but not documented, on the resource area are: Crater Lake tightcoil (*Pristiloma arcticum crateris*) and *Flumincola* sp. nov. 16.

In 2010, surveys were conducted for terrestrial and aquatic mollusk species. Several sites of *Monadenia chaceana*, the chace sideband snail, were recorded within the Wildgal project area. No other survey and manage mollusks were located.

Great Gray Owl (Survey and Manage)

The great gray owl (GGO) was formerly listed as a Survey and Manage species. Since 1996, the KFRA has conducted surveys for great gray owls in areas where ground-disturbing events are planned. In 2010, great gray owl surveys were initiated in the Wildgal and LOST proposed project areas. One known nest site was monitored in 2010. The site was occupied with at least one adult but no nest was located.

Special Status Species - Plants

No systematic inventory for botanical resources were conducted on the resource area during FY 2009. However, two special status plant species previously unknown/undocumented on the KFRA were identified in the proposed Tunnel Creek ACEC: *Tomentypmnum nitens* (tomentypnum moss) and *Carex capitata* (capitates sedge).

Other Species of Concern

Neotropical Migratory Landbirds

Baseline surveys and monitoring for landbirds is a requirement under the Upper Klamath Basin and Wood River RMP/EIS. Other sampling on the resource area is being conducted to collect baseline data on presence/absence and trends of bird species in grazing allotments, within habitats where there are management concerns or threats, or for projects such as the relicensing of the hydropower operations on the Klamath River.

Other umbrella documents that recommend landbird surveys within certain priority habitats are published by Partners in Flight, and include *"Management, Research and Monitoring Priorities for the Conservation of Neotropical Migratory Landbirds that Breed in Oregon"*, and *"Birds in a Sagebrush Sea: Managing Sagebrush Habitats for Bird Communities"*.

Project work continued under cooperative agreement with the Klamath Bird Observatory and the Pacific Southwest Research Station of the U.S. Forest Service. Partners in this project included the World Wildlife Fund, Winema National Forest, Klamath Basin National Wildlife Refuge, and Point Reyes Bird Observatory. Three M.A.P.S (Monitoring Avian Productivity and Survivorship) stations are located on or adjacent to the KFRA in the Klamath River Canyon and the Wood River Wetland. Surveys to detect presence for white-headed woodpeckers were conducted in the Spencer Creek watershed. Three routes were surveyed in 2010. Only one of the routes detected white-headed woodpeckers. Surveys are planned for the KFRA portion of the Jenny Creek watershed in 2011.

Terrestrial Habitat Management

For a narrative discussion of specific habitat elements (such as Green Tree Retention, Snag Recruitment, and Coarse Woody Debris) refer to the Monitoring Report portion of this document, specifically the Matrix Implementation Monitoring section.

Nest Sites, Activity Centers, and Rookeries

For information on Nest Sites, Activity Centers, and Rookeries see Table 8.1.

Table 8.1 - Monitoring for Nest Sites, Activity Centers, Rookeries, and Special Habitats (FY 2010)

Name of species	Unit monitored	Number units monitored	Result	Number new units built
Western Sage Grouse	Historic Leks	0	N/A	N/A
Northern Goshawk	Historic Nests	8	3 occupied	0
Osprey	Historic Nests	9	8 occupied	0
Bald Eagle	Historic Nests	23	21 occupied	0
Golden Eagle	Historic Nests	6	4 occupied	0
Great Grey Owl	Nest Structures	1	1 occupied	0
Northern Spotted Owl	Nest Territories	12	5 occupied	0
Peregrine Falcon	High Potential Nest Sites	0	N/A	0

Big Game Habitat

Cooperative road closures continue to be maintained for deer, elk and other big game management both on the Eastside and the Westside of the resource area. Gates and other closures continue to be maintained and improved. Four new gates were installed and three gates were replaced on existing closures to improve effectiveness of the closure. Additional road closures are planned in future years to reduce open road density closer to the management goal described in the RMP of 1.5 miles per section. Thermal clumps were designed into timber sales (see Timber Management section) during the preparation phase in 2010 to provide adequate escape and thermal cover within the timber harvest units. This is especially important in the winter range areas.

Continued habitat improvement for big game was coordinated with the fuels reduction programs. Biologists prioritized selected fuels units and helped set objectives where the treatments could enhance big game habitat. Several juniper thinning projects were completed in winter range areas (Gerber and Willow Valley watersheds) including a 680-acre meadow restoration project. Approximately 25,000 bitterbrush and mountain mahogany seedlings were planted to improve forage conditions within winter range.

9.0 Aquatic Species and Habitat Management

Planning and consultation of projects in the resource area included Wood River and Wood River Wetland restoration and maintenance, (see Wood River section) and Spencer Creek channel treatments (Refer to Table 9.1 for information on aquatic habitat and fish passage). Fisheries resources, including Federally endangered suckers were monitored at Wood River Wetland ACEC and Gerber area grazing allotments.

Table 9.1 - Aquatic Habitat / Fish Passage Management

Management Activity	FY2010	FY95-10
Instream Fish Habitat Improvement (miles of stream treated)	3.1	11.6
Fish Passage protected/improved - total miles of stream benefited	0	6
Irrigation diversions	0	2
Culverts inventoried	5	48
Culverts removed	0	4
Flumes created	0	0
Road crossings removed	0	1
Road crossings improved	0	13
Riparian Fish Habitat Improvement (acres treated/stream miles affected)	3.1	10.1
Roads improved - drainages, upgrades, stabilization, resurfacing (miles)	5	34.6
Roads relocated (miles)	0	8.3
Roads decommissioned and/or closed (miles)	0	31.6
Roads obliterated (miles)	0	5.4
Freshwater wetlands created (acres)	0	400*
Freshwater wetlands maintained (acres)	3,400	3,400*
Freshwater wetlands restored (acres)	0	3,000*

*There is a total of 3,400 acres of wetland in the Resource Area, most or all of which aremaintained through water management each year.

Threatened/Endangered Species

Lost River and Shortnose Suckers

Lost River suckers (*Deltistes luxatus*) and Shortnose suckers (*Chasmistes brevirostris*) occupy lakes as adults and spawn in streams during the spring and early summer. Both species spawn in the Wood River and are thought to spawn in the Wild & Scenic section of the Klamath River in the resource area. The Wood River and Fourmile Creek are designated as proposed critical habitat for both species even though suckers are not currently found in Fourmile Creek. Fourmile Creek is historic habitat and the BLM portion of the stream is in properly functioning condition. Fish cannot enter the stream because of downstream barriers. The tributaries to Gerber Reservoir are proposed critical habitat for and contain only shortnose suckers.

Construction of the Wood River Wetland fish screen was completed in FY 2003. Screening the diversion water prevents entrainment of listed suckers to the inner wetland cells of the project. The Wood River Wetland fish screen was operated for three and one half months, between July and October of 2010. The fish screen allowed the BLM to divert approximately 1,200 acre feet of water from the Sevenmile Canal to the wetland without entraining listed suckers.

The BLM continues to work with ODFW, Klamath Tribe biologists, fishing guides, and other resource management organizations to coordinate a fish-monitoring program in Upper Agency Lake that would meet fisheries monitoring objectives.

During FY 2010, BLM personnel inventoried perennial pools in several tributaries of Gerber reservoir. These included Ben Hall Creek, Long Branch Creek, Barnes Valley Creek and Pitchlog Creek. In addition, the BLM and USFWS also sampled a subset of the pools to collect fish assemblage data. The information collected will be used to better manage these tributaries as shortnose sucker habitat.

Bull Trout

The resource area does not currently administer lands known to contain bull trout (*Salvelinus confluentus*) populations. In early FY 2003, the USFWS proposed critical habitat for bull trout (50 CFR 17) including the Klamath Basin (Unit i). In FY 2004, USFWS designated critical

habitat for bull trout in the Klamath Basin (69 FR 59995-60076, October 6, 2004). No critical habitat was specifically designated on BLM lands administered by the KFRA. No surveys were conducted by BLM staff for bull trout in FY 2010.

Special Status Species

Oregon Spotted Frog (Candidate Species)

In FY 2010, the BLM continued to contribute samples to a US Geological Survey study on occurrence and effects of a skin disease that affects Oregon spotted frogs (OSF's) and American bullfrog. Samples have been examined from several study sites including the Wood River Wetland, Buck Lake, and Fourmile Wetland. Chytridiomcosis is a fairly recently described disease that affects the skin of amphibians, and may partially explain some of the observed amphibian population declines. The suspected infecting agents are chytrids (water molds), which are primitive fungi. Chytridiomycosis induces behavioral and morphological changes that put the individual at greater risk to environmental stresses and to predators. Also, in FY 2010, the BLM continued to contribute genetic samples collected during spring egg mass surveys to USGS and Colorado State University. These samples will be analyzed and the information will help managers better understand population isolation, isolation duration and genetic interaction between populations.

Aquatic Mollusks (Survey and Manage)

Surveys have been conducted since 1993 for aquatic mollusks on the KFRA under the Survey and Manage (S&M) program, Frest and Johannes (1993, 1995, 1998 and 2000) and by PacifiCorp (2004). Two species that have been documented within KFRA are, Klamath pebblesnail (Fluminicola sp. nov. 1), and diminutive pebblesnail (Fluminicola sp. nov. 3). Pebblesnails are aquatic mollusks found in streams and springs. One species suspected, but not documented, on the resource area is the Flumincola sp. nov. 16.

In 2010, surveys were conducted for aquatic mollusk species. Several sites of terrestrial mollusks were recorded within the Wildgal project area. No survey and manage aquatic mollusks were located.

Endangered Species Act Consultation

Section 7 Endangered Species Act Consultations are being continued on individual projects that have the potential to affect endangered suckers. The proposed critical habitat units administered by the BLM for the listed sucker species is predominantly on the eastside of the resource area and the Wood River. There is also limited critical habitat administered by the BLM for endangered sucker species on the westside of the resource area in the mainstem of the Klamath River.

Aquatic Habitat Restoration

Roads

Road activities to improve water quality continue to be a focus for reducing sediment impacts to aquatic habitat. (Refer to section 24.0 Transportation and Roads.)

Fish Habitat

As part of ongoing improvements to the Wood River channel near the confluence of agency Lake, one side channel was maintained to provide increased flow for improved fish passage and fish passage for a greater range of flow conditions. It is expected that this work will provide for increased cold water refugial habitat during the warm summer months and provide a secondary passage from Agency Lake into the Wood River.

Fisheries Management

In cooperation with Oregon Department of Fish and Wildlife (ODFW), a harmful population of yellow perch was removed from Upper Midway Reservoir in preparation for re-stocking with largemouth bass and crappie. The reservoir was stocked with catchable and fingerling bass in the summer of 2006 and large (broodstock) bass were stocked in spring of 2007. It is expected that it may take one to two years for this population to mature into a quality bass fishery. Before yellow perch were illegally introduced, this reservoir provided an outstanding bass and crappie fishery. In 2007, ODFW supplemented the largemouth bass population in Willow Valley Reservoir by stocking 63 broodstock bass collected in Davis Lake (Oregon). Due to low water conditions, no warmwater fishery management occurred in FY 2010.

Klamath River Hydroelectric Facility Relicensing

In FY 2010, hydrology and fisheries resource staff continued to coordinate with state and federal agencies non-governmental organizations, and tribes on the proposed Klamath Basin Restoration Agreement (KBRA) and the Klamath Hydro Settlement Agreement (KHSA).

10.0 Pathogen, Disease, and Pest Management

At present there are no serious, large-scale pest problems like Sudden Oak Death or Swiss Needle Cast on the Resource Area. However, this situation can change with environmental conditions, especially with forest insects. Endemic levels of insects such as fir engraver, western pine beetle, and mountain pine beetle that exist on the resource area can explode to epidemic levels during prolonged droughts when host trees are stressed and vulnerable.

11.0 Weed Management

The objective of the noxious weed management program in the Klamath Falls Resource Area is to contain or reduce noxious weed infestations using an integrated pest management approach. Integrated pest management includes manual, mechanical, chemical, and biological control methods which are used in accordance with the Klamath Falls Resource Area Integrated Weed Control Plan (IWCP) and Environmental Assessment (EA)(OR-014-93-09), which is tiered to the Northwest Area Noxious Weed Control Program Environmental Impact Statement (EIS) (December 1985) and Supplement (March 1987). A statewide document - Vegetation Treatments Using Herbicides on BLM Lands in Oregon draft EIS - is being prepared. The final EIS is anticipated for completion in early 2010. The Lakeview District, including Klamath Falls Resource Area, will then complete a more local Vegetation Treatment EA with the help of contractors. The anticipated completion date for this EA is not yet known.

Inventories

The Klamath Falls Resource Area continues to survey BLM-administered land for noxious weeds by including noxious weeds in project clearance surveys, and through systematic inventories conducted through contracts. During FY 2010, approximately 800 acres of systematic inventory for noxious weeds was conducted on the resource area. Inventory was accomplished through in-house surveys and by a contracted crew, focusing on stewardship projects in juniper and sagebrush areas. Additional surveys of noxious weed treatments were conducted by staff in the Surveyor Mountain, Hamaker Mountain, Klamath River Canyon, Gerber Block, Bryant Mountain, Bly, and Campbell Reservoir areas.

Control

Approximately sixteen acres of noxious weed infestations spread over approximately 648 acres of BLM lands were chemically and manually treated by the Oregon Department of Agriculture (ODA) noxious weed treatment crew supervised by the ODA weed management specialist according to the annual operations plan and resource area priorities.

Table 11.1 - Managed Weed Species

Species Name	Common name
Acroptilon repens	Russian knapweed
Cardaria draba	hoary cress
Carduus nutans	musk thistle
Centaurea diffusa	diffuse knapweed
Centaurea maculosa	spotted knapweed
Centaurea soltitialis	yellow starthistle
Cirsium arvense	Canada thistle
Cytisus scoparius	Scotch broom
Euphorbia esula	leafy spurge
Euphorbia myrsinites	myrtle spurge
Hypericum perforatum	St. John's wort
Isatis tinctoria	dyer's woad
Lepidium latifolium	perennial pepperweed
Linaria genistifolia spp. *dalmatica*	Dalmatian toadflax
Onopordum acanthium	Scotch thistle
Salvia aethiopsis	Mediterranean sage
Senecio jacobaea	tansy ragwort
Taeniatherum caput-medusae	Medusahead rye
Xanthium spinosum	spiny clotbur

12.0 Special Areas/Management

Wild and Scenic Rivers

The upper Klamath River is designated as a Wild and Scenic River in the national Wild and Scenic river system. The designated river in the resource area is an 11-mile segment, extending from just below the J.C. Boyle powerhouse to the Oregon-California state line. This same portion of the river is designated as an Area of Critical Environmental Concern (ACEC). Wild and Scenic rivers are to be managed to protect their outstandingly remarkable values (ORVs) and to maintain and enhance the natural integrity of river related values. All proposed management actions, or commercial activities, in the Wild and Scenic river corridor, are evaluated by Resource Area specialists to ensure that the ORVs are not degraded. If there are impacts associated with a project, adequate mitigation must be included to maintain or enhance resource values.

The upper Klamath River is quite popular for summer recreation, particularly whitewater rafting, camping, and fishing. In FY 2010, approximately 2,500 people floated the upper Klamath in rafts and kayaks, the majority of them traveled with one of the 17 commercial guides and outfitters permitted by the BLM. BLM recreation staff provided visitor assistance at the Spring Island launch site on every weekend from late May through the end of September. River rangers conducted eight river patrols by raft to provide visitor assistance, monitor resource conditions, and maintain remote recreation sites along the river.

A draft Upper Klamath River Management Plan/EIS, released for public comment in April 2003, addressed options for managing the outstandingly remarkable values of this Wild and

Scenic River. The preparation of the final Upper Klamath River Management Plan/EIS is on hold pending completion of the proposed relicensing effort for the PacifiCorp Klamath River Project (FERC License 2082).

Wilderness

There is one Wilderness Study Area (WSA) in the Klamath Falls Resource Area, the Mountain Lakes WSA. There are 334 acres within the WSA boundary. The WSA borders the eastside of the Mountain Lakes Wilderness Area. The WSA is managed under the interim wilderness management policy to protect its wilderness values. Interim protection measures include routine patrols, monitoring and restriction of vehicles to existing roadways.

Areas of Critical Environmental Concern

The Klamath Falls Resource Area has five Areas of Critical Environmental Concern (ACEC) and Research Natural Areas (RNA) totaling approximately 12,140 acres; three Special Botanical/Habitat Areas totaling 570 acres; and two Environmental Education Areas totaling 180 acres. One additional area has been proposed as an ACEC, which is 1,196 acres in size. Table 12.1 lists all Special Areas in the resource area. Only those special areas that received some specific management activities in FY 2010 are discussed below.

Upper Klamath River ACEC

A draft Upper Klamath River Management Plan/EIS, released for public comment in April 2003, evaluated the expansion of the existing ACEC (from J.C. Boyle Powerhouse to J.C. Boyle Dam). The preparation of the final Upper Klamath River Management Plan/EIS is on hold pending completion of the proposed relicensing effort for the PacifiCorp Klamath River Project (FERC License 2082). Additional oak-thinning and fuels reduction projects were implemented along the Upper Klamath River in 2010.

Fourmile Creek Wetland Potential ACEC

A meeting on August 21, 2007 with Mike Barnes, National Withdrawal Coordinator from the OSO, discussed the status of the Bureau of Reclamation (BOR) withdrawal on the Fourmile Wetland Potential ACEC. The KFRA is still awaiting an official response to the Oregon State Office from the BOR. In FY 2010, the Oregon spotted frog site along Fourmile Creek was monitored by USGS, USFS and BLM personnel. Spotted frog egg masses were documented in breeding areas similar to FY 2009.

Tunnel Creek Wetland Potential ACEC

A public wildflower identification walk occurred in early August at the Tunnel Creek Wetland Potential ACEC area. BLM and USFS botanists conducted the walk together, and greatly expanded the list of known species is the wetland to over 200 vascular plants. Also identified during the walk were two Special Status Plant Species there were previously unknown in the wetland. Unknown on the Lakeview District but found in the wetland was the BLM Sensitive *Tomentypmnum nitens* (tomentypnum moss). Another BLM Sensitive plant found, *Carex capitata* (capitates sedge), was suspected but not documented on the Klamath Falls Resource area.

Buck Lake is a moderately high elevation, ephemeral lake that encompasses the upper reaches of Spencer and Tunnel Creeks providing unique spring-dominated wetland habitat and a designated 255-acre Oregon Spotted Frog (OSF) site. The northern part of the OSF site is managed by the USFS, Fremont-Winema National Forest, the central part by a private land owner and the southern part by the Klamath Falls Resource Area (BLM). The Buck Lake area is currently proposed for a cooperative restoration effort by the USFWS, USFS, BLM

and the private land owner. In FY2009, the USFWS, USFS and BLM all coordinated and contributed to get a LiDAR (light detection and ranging) flight done for the Buck Lake project area. Approximately 4,500 acres of LiDAR data was collected by Watershed Sciences, Inc. and submitted in a GIS compatible format to all three agencies. This detailed elevational mapping data will be extremely valuable for wetland, hydrological, vegetative and fish/wildlife habitat management and during the proposed restoration efforts.

Wood River Wetland ACEC

Activities occurring on the 3,200 acre Wood River Wetland located in the Klamath Falls Resource Area are guided by a separate management plan entitled the Upper Klamath Basin and Wood River Wetland RMP/EIS, completed in July of 1995. Restoration work at the wetland is coordinated with several partners, including the Klamath Tribes, Oregon Trout, and Ducks Unlimited. A monitoring report, specific to the Wood River Wetland, is prepared and distributed separately. Copies of this report are available on request.

FY 2010 Wood River Wetland Accomplishments

Planning

- Collected monitoring data.
- Continued partnership projects with Klamath Bird Observatory, Oregon Department of Fish and Wildlife, and U.S. Geological Survey.

Funding

- Klamath Tribes and the Klamath Basin Rangeland Trust monitored water quality and contributed to cultural resource survey.
- USGS continued groundwater and wetland water quality monitoring and is completing a preliminary water and nutrient budget for the wetland.
- Funding was secured from the USFWS for future water control structure maintenance and staff plate installation.

Tours/Presentations

- Sage Elementary School
- OIT (Oregon Institute of Technology) applied environmental sciences class
- Special Interest Groups
- Klamath Outdoor Science School (KOSS)
- Klamath Tribes
- Oregon Trout
- Mountain Warrior Karate School

Project Implementation

- Completed sixteenth year of monitoring.
- Continued Oregon spotted frog population monitoring.
- Surface rock on dike road from Wood River Bridge to the fish screen.
- Installation of freeze protection structures for the artesian wells with valves.
- Willow thinning and transplanting.
- Continued Oregon spotted frog genetics study with USGS.
- Wetland vegetation monitoring and mapping.
- Continued bullfrog trapping and removal
- Levee and road maintenance
- Regular maintenance of parking area, vault toilets, trail and access routes, and picnic areas.
- Discharge pump and fish screen operation and maintenance
- Removal of beaver resistant culvert cages.
- Oregon spotted frog site vegetation enhancement
- Cottonwood protection and treatment
- Began implementation of the final phase of the Wood River Channel project.

FY 2011 Planned Projects

- Complete planning and design for replacement interpretive panels for the entrance area.
- Continue water quality and nutrient study in cooperation with USGS.
- OIT cooperative biomass, soil accumulation, and elevation studies
- OIT cooperative study of songbird use of nest boxes
- OIT cooperative study of Canada goose production
- Oregon spotted frog population monitoring study with USGS
- Continue vegetation monitoring and mapping
- Monitoring of artesian wells.
- Replace/maintain Wood River canal water control structure.
- Continue implementation of the final phase of the Wood River Channel project

Environmental Education Areas

The Klamath Falls Resource Area contains two Environmental Education Areas that total approximately 180 acres. Interpretive education uses at the Clover Creek and Surveyor Forest Environmental Education Areas receive substantial numbers of local visitors each year.

Table 12.1 - Special Management Areas

Name of Area	Designation	Status	Acres	Management Plan
Upper Klamath River	ACEC	Designated	5,700	In progress
Wood River Wetland	ACEC	Designated	3,200	Yes
Miller Canyon	ACEC	Designated	2,000	No
Yainax Butte	ACEC	Designated	720	No
Fourmile Creek	ACEC	Potential	1,196	No
Old Baldy	ACEC/RNA	Designated	520	No
Bumpheads	Special Botanical Area	Designated	50	No
Tunnel Creek	Special Botanical Area	Designated	280	No
Alkali Lake	Special Habitat Area	Designated	240	No
Clover Creek	Environmental Education Area	Designated	30	No
Surveyor Forest	Environmental Education Area	Designated	150	No
TOTAL			**14,086**	

13.0 Cultural Resources

The cultural resource program identifies and manages cultural resources on BLM administered lands. This program ensures that the BLM complies with federal laws governing cultural resources preservation and works with the State Historic Preservation Officer to enhance the management of cultural resources under the BLM's jurisdiction. Primary responsibilities include performing archaeological inventories prior to implementing projects with the potential to impact cultural resources, and consulting with Tribes as per Sections 106 and 110 of the National Historic Preservation Act (NHPA).

Surface inventories were conducted to BLM Class III standards. Class III inventory is a continuous, intensive survey of an entire target area by walking close interval transects (30 meters or less) until the area has been thoroughly examined, aimed at locating and recording all archaeological properties that have surface indication. In FY 2010, most projects were located in areas of previous Class III inventory, therefore only 1,850 acres of new inventory occurred.

An IDIQ contract was awarded and implemented in 2010. A total of 49 newly discovered sites were documented, 80 sites were monitored and found to be in stable condition, and no sites were put forth for concurrence on their eligibility to the National Register of Historic Places by the Oregon State Historic Preservation Office. The history of inventory activities on the Resource Area is displayed in Table 13.1.

Table 13.1 - Cultural Resources Management - FY 2010

	FY 10	FY95-10
Number of sites evaluated	1	8
Acres inventoried	1,850	128,542
Number of archaeological sites discovered	49	898
Sites nominated to National Registry of Historic Places	0	0
Sites monitored (since FY 06)	80	498

14.0 Visual Resources

Project proposals within the Klamath Falls Resource Area were reviewed to assure that proposed activities would meet designated visual resource management (VRM) classes.

15.0 Wildland Urban Interface Areas

The BLM began implementing the Bly Mountain Wildland Urban Interface (WUI) project that consists of treating approximately 4,000 acres adjacent to Klamath Falls Forest Estates. Implementation of this project will take from four to ten years to complete. Treatments include thinning, piling and burning, utilization (chipping) of cut material and underburning. In 2010, the first 1,000 acres were treating with thinning and piling that will be yarded to a landing for utilization or burned in place over the next couple years. Pile burning of hazardous fuels slash in WUI areas totaled 1,279 in five different areas throughout the Resource Area. All WUI projects are identified as priority areas in Community Wildfire Protection Plans.

16.0 Socioeconomic Conditions

The Klamath Falls Resource Area contributes to local, state, national and international economies through monetary payments, sustainable use of BLM-managed lands/resources, use of innovative contracting/implementation strategies, and providing amenities such as recreational facilities/opportunities and fish/wildlife habitat to enhance the local community as a place to live, work, and visit. The direction of BLM district 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.

Monetary Payments

One of the ways the Bureau of Land Management contributes directly to local economies is through monetary payments including: Payments in Lieu of Taxes, O&C Payments, and Coos Bay Wagon Road (CBWR) Payments. Payments of each type, described below, were made in FY 2010 as directed in current legislation.

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 that implements 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. The Law recognizes

that the inability of local governments to collect property taxes on Federally-owned land 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 that the Federal government can fulfill its role of being a good neighbor to local communities. This is an especially important role for the BLM, which manages more public land than any other Federal agency. The specific amounts of PILT payments to counties in FY 2010 are displayed in Table 16.1.

Payments to Counties

Payments to counties are currently made under "*The Secure Rural Schools and Community Self-Determination Act of 2000*." The purpose of the act is "*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*." For the purpose of this act, the public domain lands managed by the BLM refers to Oregon and California Revested Grantlands (O&C) and Coos Bay Wagon Road Lands (CBWR). The O&C lands include approximately 2.5 million acres of federally-owned forest lands in 18 western Oregon counties and 74,500 acres of Coos Bay Wagon Road Lands in the Coos Bay and Roseburg BLM Districts.

Fiscal Year 2010 was the tenth year that payments were made to western Oregon counties under the Secure Rural Schools and Community Self-Determination Act of 2000 (P.L. 106-393). Counties made elections to receive the standard O&C and CBWR payment as calculated under the Act of August 28, 1937 or the Act of May 24, 1939, or the calculated full payment amount as determined under P.L. 106-393. Klamath County elected to receive payments under the new legislation. Beginning in Fiscal Year 2001 and continuing through 2010 payments were made based on historic O&C payments to the counties. Table 16.2 displays the statewide payments made under each Title of P.L. 106-393 as well as the grand total.

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

Title II payments are reserved for 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 P.L. 106-393. BLM is directed to obligate these funds for projects selected by a local Resource Advisory Committee and approved by the Secretary of Interior or her designee.

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

Table 16.1 - Total Payments in Lieu of Taxes and Acres by County for FY 2010

County	Payment	Total Acres	BLM Acres
Baker County	$700,035	1,020,858	367,086
Benton County	$24,218	73,460	56,573
Clackamas County	$204,123	619,157	78,749
Clatsop County	$16,062	1,397	42
Columbia County	$26,280	10,961	10,961
Coos County	$82,526	249,153	168,475
Crook County	$309,613	939,136	496,009
Curry County	$207,155	628,355	67,975
Deschutes County	$471,913	1,431,432	457,872
Douglas County	$552,605	1,676,193	667,379
Gilliam County	$76,872	34,616	28,793
Grant County	$577,613	1,752,049	171,211
Harney County	$995,130	4,461,083	3,880,030
Hood River County	$67,883	205,905	180
Jackson County	$294,238	892,501	432,584
Jefferson County	$143,459	297,088	27,268
Josephine County	$231,418	701,953	312,228
Klamath County	**$733,229**	**2,224,072**	**283,699**
Lake County	$995,130	3,696,077	2,483,695
Lane County	$575,146	1,744,566	291,734
Lincoln County	$69,218	209,954	19,946
Linn County	$185,215	561,806	87,655
Malheur County	$2,314,624	4,299,134	4,260,283
Marion County	$74,206	225,085	20,904
Morrow County	$103,479	149,695	1,609
Multnomah County	$26,488	80,345	4,208
Polk County	$94,273	42,087	40,608
Sherman County	$126,264	53,672	51,438
Tillamook County	$43,219	131,093	48,312
Umatilla County	$897,004	419,459	7,345
Union County	$822,228	624,349	6,452
Wallowa County	$385,129	1,168,195	18,207
Wasco County	$73,085	221,684	45,824
Washington County	$33,529	13,984	11,386
Wheeler County	$99,539	301,927	131,498
Yamhill County	$19,383	58,793	33,370
Total	**$12,651,531**	**31,221,274**	**15,071,585**

Table 16.2 - O&C Payments To Counties - FY 2010

County	Title I Paid	Title II	Title III Paid	Grand Total
Benton	$581,791.81	$54,756.88	$47,912.27	$684,460.95
Clackamas	$945,077.64	$88,948.48	$77,829.92	$1,111,856.05
Columbia	$620,942.21	$58,441.62	$51,136.42	$730,520.25
Coos	$2,123,821.03	$199,889.04	$174,902.91	$2,498,612.98
Curry	$1,361,104.67	$128,103.97	$112,090.97	$1,601,299.61
Douglas	$9,271,057.18	$872,570.09	$763,498.83	$10,907,126.10
Jackson	$4,673,492.09	$439,858.08	$384,875.82	$5,498,225.99
Josephine	$5,329,679.39	$501,616.88	$438,914.77	$6,270,211.05
Klamath	**$904,420.92**	**$85,121.97**	**$74,481.72**	**$1,064,024.61**
Lane	$4,729,755.96	$445,153.50	$389,509.31	$5,564,418.78
Lincoln	$114,564.67	$10,782.56	$9,434.74	$134,781.96
Linn	$1,035,205.63	$97,431.12	$85,252.23	$1,217,888.97
Marion	$469,996.75	$44,234.99	$38,705.62	$552,937.36
Multnomah	$193,220.05	$18,185.42	$15,912.24	$227,317.70
Polk	$726,987.14	$68,422.32	$59,869.53	$855,278.99
Tillamook	$203,538.81	$19,156.59	$16,762.02	$239,457.42
Washington	$135,424.55	$12,745.84	$11,152.61	$159,323.00
Yamhill	$250,610.80	$23,586.90	$20,638.54	$294,836.23
TOTALS	**$33,670,691.30**	**$3,169,006.24**	**$2,772,880.46**	**$39,612,578.00**

17.0 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.

18.0 Recreation

Outdoor enthusiasts find a wide variety of recreation opportunities on the public lands managed by the Klamath Falls Field Office. Some of the more popular activities are camping, fishing, sightseeing, whitewater rafting, and birding. The resource area manages five campgrounds, a 3,200-acre wetland restoration project, river access points in the upper Klamath River canyon, and a number of dispersed, semi-developed camps.

The resource area issues and administers a number of Special Recreation Permits for activities such as guided whitewater rafting, guided hunting and fishing, and special events (Table 18.1).

Table 18.1 - Recreation Statistics Fiscal Year 2010

	FY 2010	FY95-10 (Total)	FY95-10 (Average)
Number of Recreation Visits	117,100	2,413,800	150,900
Campground Permits Issued	1,258	23,147	1,447
Campground Fees Collected	$9,400	$152,828	$9,552
Pavilion Use Permits Issued		Not Applicable	
Pavilion Use Fees Collected		Not Applicable	
Number of Special Recreation Permits	18	385	24
Special Recreation Permits Fees Collected	$11,100	$217,000	$13,563
Total hours volunteered	8,600	115,034	7,189
Total value volunteer work	$179,310*	$1,743,373	$108,961

*Value of volunteer hours are based on an hourly pay rate of $20.85/hr.

Recreation Pipeline Restoration Funds

This Congressional funding was appropriated for the completion of backlogged recreation projects in western Oregon, including BLM managed lands in Klamath County. The intent of this funding is to do facility or site backlog maintenance at existing recreation sites. New construction of recreation projects that address critical visitor safety or recreation management needs are also prioritized. During FY 2009, the eleventh year of this funding, the Klamath Falls Resource Area received $500,000. Projects included the awarding of the construction contract for the boat ramp and dock extension at Gerber South Recreation Site, replacement of buck and pole fencing at Gerber and Surveyor campgrounds, replacement of the fishing dock at Topsy Campground, and initial construction for the Gerber Horse Camp.

Recreation Projects

Gerber Recreation Site

FY 2010 Projects Completed

1. Completed 1.0 miles of construction and maintenance of Gerber-Potholes trail and Potholes-Stan H. Springs trail.
2. Repaired vandalized fish cleaning station.
3. Converted one drinking water fountain to frost free operation.
4. Installed picnic tables, manure bins, and fire grates for Horse Camp.
5. Completed contract for Phase 2 of South Gerber Boat ramp and boat dock improvements.
6. Completed chip sealing of South Gerber Boat ramp road and parking area.

FY 2011 Projects Planned

1. Water system and fish cleaning station maintenance/repairs.
2. Continue construction of the Potholes-Stan H. Springs trail (1 mile) using Integral Youth Services.
3. Complete Phase 3 of South Gerber Boat ramp extension.
4. Complete chip sealing of Gerber horse camp road.

Wood River Wetland

FY 2010 Projects completed

1. Maintained existing trails and levee crossings.
2. Maintained and enhanced parking lot landscaping.
3. Installed additional park bench.
4. Installed mile markers along access roads.

FY 2011 Projects Planned

1. Site maintenance.
2. Design and replace three-panel interpretive display at entrance area.
3. Install shoreline stabilization at the bridge picnic area.

Upper Klamath River

FY 2010 Projects Completed

1. Maintained existing facilities.
2. Reconstructed Topsy road in the Kerwin Ranch area to eliminate mud hole.
3. Provided one mile of additional rock surfacing to the road leading to Spring Island boat launch.

FY 2011 Projects Planned

1. Continue to maintain existing facilities.
2. Continue to provide road maintenance to river access points.

Topsy and Surveyor Recreation Sites

FY 2010 Projects Completed

1. Maintained existing facilities.
2. Leveled campsites and replaced culvert at Surveyor Campground.

FY 2011 Projects Planned

1. Continue to maintain facilities.
2. Replace picnic tables.

Swan Lake Rim Trail

FY 2010 Projects Completed

1. Completed trail layout and design.
2. Completed necessary survey work.
3. Begin NEPA process.

FY 2011 Projects Planned

1. Complete NEPA process and public comment
2. Begin trail construction and install gate at trail entrance.

Recreation Fee Program

Prior to 1998, all recreation fees were combined with other revenue sources from public domain and O&C lands and allocated between the U.S. Department of the Interior and the O&C counties. Recreation facilities were wholly dependent on the funding provided through the Congressional appropriations process for operations and maintenance funding.

In March of 1998, The Klamath Falls Resource Area was added to the BLM-wide Recreation Fee Demonstration pilot program. This program allows the resource area to retain collected recreation fees to be used for maintenance of recreation sites and areas from which they were collected. A special account has been established for each recreation site and program.

The Association of O&C Counties supported the retention of all recreation fee revenues under the Fee Demonstration Pilot authority to help operate the BLM's recreation facilities and programs.

In FY 2010, a total of $20,500 in fees were collected at the three participating recreation sites. The revenue from the Recreation Fee Program is used to fund visitor services and a number of minor maintenance projects associated with the recreation program. Fees generated from these

recreation sites and applied to the program are shown in Table 18.2. Revenues collected each fiscal year are used to pay for projects in future years.

Table 18.2 - Recreation Fee Program for Fiscal Year 2010

Recreation Fee Program	FY10 Revenue	FY10 Amount Invested Back Into Sites	Cumulative Revenue*
Klamath River OR-14	$11,100	$2,000	$162,700
Klamath Falls Resource Area OR-15 (Topsy and Gerber Campgrounds)	$9,400	$16,200	$119,800
Total Recreation Fee Demo Funds	**$20,500**	**$18,200**	**$282,600**

* Since Year of Initiation (1998)

Status of Recreation Plans

Pacific Crest National Scenic Trail Special Recreation Management Area (SRMA) - Recreation Area Management Plan to be coordinated by Medford District. Completed August of 1998.
Klamath River SRMA Plan to be evaluated, updated and incorporated into the Klamath River Management Plan - A draft river plan/environmental impact statement was released in April 2003. The final KRMP/EIS is on hold.
Klamath River Scenic Waterway Plan - The BLM and the State of Oregon signed a memorandum of understanding (12/31/97) for joint management of the Wild and Scenic River/State Scenic Waterway. A separate chapter of the Klamath River Management Plan/Environmental Impact Statement will address State Scenic Waterway issues. The administrative rules (management plan) for the Klamath River Scenic Waterway were adopted by the Oregon Parks and Recreation Department Commission on September 25, 2002 and became effective on October 3, 2002.
Hamaker Mountain SRMA - An analysis of recreation issues and projects were completed during the Topsy/Pokegema Landscape Analysis, July 1996 (OR #014-98-01). Further project planning is ongoing for future recreation project developments. Project implementation is contingent upon adequate funding.
Stukel Mountain SRMA - No recreation planning or watershed analysis has occurred. However, a local county advisory group (Stukel Road Task Force) completed a preliminary assessment of recreation issues in FY99. This information will be incorporated into future planning and project implementation. Project implementation is contingent upon adequate funding.

Site-specific planning for recreation pipeline restoration funding projects is ongoing at several facilities, including Gerber Recreation Site, Topsy Recreation Site, Swan Lake Rim Trail, and Wood River Wetland. The KFRA completed the joint planning effort with the Fremont-Winema National Forests to inventory all existing Off-Highway Vehicle trails and routes. This information will be used by the KFRA in future travel management planning efforts.

Volunteer Activities

In FY 2010, volunteers contributed approximately 8,600 total hours of time and labor to nearly every resource program in the Klamath Falls Resource Area. Volunteers continue to provide substantial assistance to the recreation, wildlife, and cultural resources programs, as well as several of the resource area's community outreach events. Volunteer positions vary widely, ranging from summer campground hosting and park maintenance, to promoting International

Migratory Bird Day, to monitoring wildlife in the winter. Approximately 75 individuals, including seven campground hosts, volunteered their efforts and services to the Klamath Falls Resource Area.

In September 2010, the Klamath Falls Resource Area held its tenth annual National Public Lands Day event. This nationally sponsored event was held at the Gerber Potholes campground this year. Fourteen community volunteers and eleven agency volunteers loaded firewood for the Klamath Basin Senior Citizens Council, mulched repaired and cleaned wood duck boxes, and planted small willow cuttings. Volunteers from a local 4-wheel drive club prepared lunch for all of the participants.

Tourism

The BLM is a member of the *Klamath/Lake/Modoc/Siskiyou Outdoor Recreation Working Group*, a consortium of government and private recreation and tourism entities from several counties within Oregon and California. The working group continues an active role in promoting tourism by providing pamphlets and brochures that show scenic byway travel routes, towns and cities, and areas of interest to visitors. The BLM participates in *The Answer People Group*, an informal informational sharing group for front line public contact representatives from public service and private tourism related businesses.

19.0 Forest Management and Timber Resources

The Klamath Falls Resource Area manages approximately 224,900 acres of land located in Klamath County. Approximately 51,230 acres of commercial forest land is located west of Klamath Falls and within the Northwest Forest Plan area. Approximately 23,550 acres (50%) of the commercial forest land on the Westside are available for timber harvest. On the Eastside, there are approximately 16,200 acres of commercial forest land of which approximately 8,800 acres (50%) are available for harvest. The Resource Management Plan provides for a sustainable timber harvest, known as the Allowable Sale Quantity (ASQ), from the Klamath Falls Resource Area. On the Westside, the ASQ is 5.91 MMBF (million board feet). On the Eastside, the ASQ is 0.40 MMBF.

Silvicultural Prescriptions

To meet the ASQ commitment, the Klamath Falls Resource Area to date has primarily used two types of silvicultural treatments or prescriptions: Density Management and Mortality Salvage.

Density Management

Density Management treatments are designed to improve or maintain forest health and are proactive efforts to improve stand resiliency by reducing stand densities and fuel loads. Density Management prescriptions generally involve thinning throughout all diameter classes to promote forest health, uneven aged management and fire resiliency. Density management may also include thinning from below to reduce competition to under-represented species as well as to improve the resiliency of the large-tree component. Approximately 20-30 percent of the trees are generally removed under a Density Management prescription. Small (five acres or less) patch cuts may be included as part of the Density Management treatment. These are used in select areas to regenerate the less shade-tolerant and under-represented species (pines and Douglas-fir). Excess trees of sub-merchantable size are sometimes cut and removed concurrently, and logging slash is treated or removed, which significantly reduces wildfire hazard and prepares the site for prescribed burning.

Regeneration Harvests

Per KFRA RMP guidelines, an average of 16-25 large green trees per acre are required to be left in Regeneration Harvest units. This prescription is primarily used in older stands, in decadent stands, and in stands where there is a need to initiate and/or enhance the development of seedlings and saplings in the understory while still maintaining an overstory component. In FY 2010, no acres of Regeneration Harvest were sold. Since the signing of the RMP, the KFRA has implemented approximately 259 acres of Regeneration Harvest.

Mortality Salvage

The other primary type of harvest prescription, Mortality Salvage, is used to remove scattered dead and dying trees. As a result of continuing local insect infestations and high winds in localized areas, the Klamath Falls Resource Area is able to meet part of its ASQ by offering and negotiating salvage sales to capture the scattered mortality as needed. In FY 2010, the Klamath Falls Resource Area sold no mortality salvage.

Timber Sale Planning

The timber sale process, including the planning, watershed analysis, environmental analysis, consultation, and the biological and cultural surveys, is a two to four year process. The public is given the opportunity to comment on proposals during the planning and scoping phase. Notices are printed in the local newspaper requesting comments during the environmental analysis period. In addition, when public tours are given, they are announced ahead of time. Once the layout, cruising, and appraisal is completed and the contract is prepared, the timber sale is ready to be offered and a final decision appears in the local newspaper stating when the sale will be auctioned. Below is a list of the tables that relate to the timber sale program:

Table 19.1	Timber Sale Volume and Timber Sale Acres - FY 2010
Table 19.2	Timber Volume Sold in fiscal year 2010
Table 19.3	Harvest Activity in FY 2010
Table 19.4	Timber Sales planned for fiscal year 2011 & 2012
Table 19.5	Status of all sold and awarded sales since signing of the RMP
Table 19.6	Summary of Volume Sold

Cumulative Status of Timber Sale Volume and Acres

Refer to Table 19.1 for a summary, by land use allocation, of timber volume and acreage that has been harvested in the KFRA since October 1, 1994 (FY 1995). A similar table (M-7) in the Monitoring Report also compares the volume and acres with RMP/EIS assumed average and percent of assumed average. Discrepancies between actual treatments and assumed averages are discussed in the monitoring section. All KFRA Westside lands are in the Southern General Forest Management Area (SGFMA), described in the Northwest Forest Plan.

FY 2010 Timber Sale Accomplishments

Timber Sold in FY 2010

The Klamath Falls Resource Area offered three sales in 2010; Cold Creek Timber Sale and Onion Springs Timber Sale (both Westside). A number of timber sale modifications to existing contracts were also executed. Approximately 230 MBF of the sawlog volume in 2010 came from the Gerber Stew Stewardship Contract. Including modifications to existing timber sales, approximately 5.5 MMBF of timber from about 940 acres were sold (Table 19.2). The total price of these sales plus modifications to existing sales in FY 2010 was valued at $458,895.10.

Further, the PVJ Timber sale, a cancelled sale under IM-2010-003, was re-offered in 2010 but the sale went no bid and the volume was not counted toward 2010 volume and acres. Lastly, one non-BLM sale, the Bear Valley III Timber Sale (USFWS-Bear Valley Wildlife Refuge), was offered & sold through the KFRA in 2010, with a volume of 1.372 MMBF on 400 acres. (Note-This volume does not count towards KFRA's Allowable Sale Quantity).

Harvest Activity in FY 2010

During FY 2010, harvest activity occurred on four sales (Table 19.3). Approximately 5.5 MMBF of timber from approximately 831 acres valued at $573,156.50 was removed from these sales. In FY 2010, approximately 230 MBF of western juniper were harvested for sawlogs and approximately 9,101 tons of hog fuel and clean chips were removed under the Gerber Stew Stewardship Contract (Table 19.2).

FY 2011 Timber Sales Planned

The annual timber sale plan (Table 19.4) may be changed, altered, or amended by the authorized officer. One timber sale is planned on the Westside and one sale is planned on the Eastside in FY 2011 (Table 19.4).

Status of Sold/Awarded Klamath Falls RMP Timber Sales

Table 19.5 lists the status of Klamath Falls Resource Area sales that have been sold and awarded since signing of the RMP in June of 1995. As shown, the KFRA presently has thirty-six completed timber sale contracts and six active contracts. Eighteen timber sales have been monitored (including post harvest stand exams and/or soil monitoring), three of which have involved the Regional Ecosystem Office (REO) review team, and all have involved the resource area interdisciplinary team. The results from the monitoring are discussed in the Monitoring Report. Tables 19.6,19.7, 19.8 and 19.9 summarize sale activity from 1995 to 2010.

Table 19.1 - Klamath Falls Timber Sale Volume (MBF) and Acres FY 2010

	Westside		Eastside		Combined	
Total MBF	**FY 2010**	**FY 95-10**	**FY 2010**	**FY 95-10**	**FY 2010**	**FY 95-10**
Timber Sale Program	5,406	87,657	20	7,553	5,426	95,210
Matrix Timber Sales	5,297	86,792	20	7,446	5,317	94,238
All Reserves	109	865	0	107	109	972
Key Watersheds	5,406	53,243	0	0	5,406	53,243
Regeneration Harvests	0	5,728	0	0	0	5,728
Density Management	5,297	60,276	0	5,703	5,297	65,979
Mortality Salvage	0	19,253	0	1,606	0	20,859
Small Sales (Regulated)	0	80	20	74	20	154
R/W Clearing	0	143	0	0	0	143
Unmapped LSRs	0	22	0	0	0	22
Riparian Reserves	109	416	0	51	109	467
Total Admin Withdrawal	0	84	0	56	0	140
Forested Stewardship - Regulated	0	1,311	42	64	317	1,375
Forested Stewardship - Non-Reg.	0	344	0	0	294	344
Juniper Sawlog Volume (MBF)	0	0	230	2,179	230	2,179
Stew. Biomass - Hog Fuel (tons)	6,987	17,433	0	8,518	6,987	26,949
Stewardship Clean Chip Vol. (tons)	884	2,540	1,230	9,124	2,114	10,008

	Westside		Eastside		Combined	
Total Acres	**FY 2010**	**FY 95-10**	**FY 2010**	**FY 95-10**	**FY 2010**	**FY 95-10**
Timber Sale Program	940	23,831	0	4,624	940	28,455
Matrix Timber Sales	910	23,494	0	4,543	910	28,037
All Reserves	30	337	0	41	30	378
Key Watersheds	940	12,143	0	0	940	12,143
Regeneration Harvests	0	259	0	0	0	259
Density Management	910	14,922	0	3,319	910	18,241
Mortality Salvage	0	7,438	0	1,154	0	8,592
Small Sales (Regulated)	0	1	0	20	0	21
R/W Clearing	0	4	0	0	0	4
Unmapped LSRs	0	2	0	0	0	2
Riparian Reserves	30	127	0	39	30	166
Total Admin Withdrawal	0	50	0	2	0	52
Forested Stewardship - Regulated	0	870	0	50	0	920
Forested Stewardship - Non-Reg.	0	158	0	0	0	158
Juniper Sawlog Volume	0	0	586	2,354	0	2,354
Juniper Stewardship Chip Vol.	115	115	627	1,587	742	1,702

Table 19.2 - Timber Volume Sold in FY 2010

Name	Acres	Volume (MMBF)	Value
Cold Creek	507	2.757	$218,145.70
Onion Springs	433	2.649	$240,749.40
Modifications to Existing Sales	0	0	$0
Total Forested Areas	**940**	**5.406**	**$458,895.10**
Stewardship - Biomass (Hog Fuel)	0	6,987 (tons)	Goods for Services Work
Stewardship Contract - Clean Chips	742	2,114 (tons)	Goods for Services Work
Juniper Sawlog Sales	0	0.23	Goods for Services Work
Non-BLM Volume Sold			
Bear Valley III (USFWS)	400	1.372	$34,619.00

Table 19.3 - Harvest Activity for FY 2010

TS Contract Number	Sale Name	Harvest Acres	Volume Yarded (MMBF)	Value
OR-014-TS10-1	Cold Creek	318	1.886	$157,925.10
OR-014-TS9-1	Buck 23	232	1.856	$278,992.30
OR-014-TS8-3	PVJ	0	0	$0
OR-014-TS8-1	Buck 15	281	1.7981	$136,239.10
Totals		**831**	**5.5403**	**$573,156.50**

Table 19.4 – Planned Timber Sales (FY 2011 & 2012)

FY	Sale Name	Location	W/E	Date	MMBF	Acres	Harvest Rx
11	Adobe West	T40S, R14.5E, Secs. 1,2,11,12	E	2011	2.4	1,216	DM
11	Replacement Gal	T38S, R6E, Secs. 20,29	W	2011	3.3	200	DM
12	Wildgal	T41S, R5E, Secs. 5, 7, 8,17	W	2012	1.5	600	DM
11	Mid Spencer	T.38S, R6E, Secs. 19-21, 23,26,28, 29, 33, 35; T.39S, R6E, Sec. 4	W	2012	1.8	600	DM

Notes: The sales listed above do not include small negotiated sales such as Right-of-Ways.

W/E : W = Westside Sale (West of Klamath Falls) E = Eastside Sale (East of Klamath Falls)

DM = Density Management sales are designed primarily to improve forest health conditions. Silvicultural prescriptions are written to maintain uneven aged stands and also maintain and improve the health and resiliency of primarily the shade intolerant species: ponderosa pine, sugar pine and Douglas-fir. They are also designed to reduce stand densities, fuel loads, and risk of stand replacing wildfires.

MS = Mortality Salvage sales are designed to capture the immediate but scattered mortality (dead or dying trees) occurring over the Resource Area. This primarily involves only the removal of the recent mortality within the stand. Normally, less than 10% of the volume removed is live trees in the mortality salvage sales. Some thinning does occur beneath the old growth pines. Failure to remove the immediate mortality results in wood deterioration and complete loss of commercial value within approximately two years.

UR = Understory Reduction - Part of the objective of the sale is to reduce the density of primarily submerchantable (3”-7” diameter) shade tolerant species in the understory to reduce fire risk and ladder fuels as well as to enhance health of overstory trees.

RH = Regeneration Harvest - Designed primarily to initiate and to enhance the development of seedlings and saplings in the understory while still maintaining an overstory component. Per KFRA RMP requirements, of an average of 16-25 large green trees per acre will be left in Regeneration Harvest Units.

Table 19.5 – Status of Sold and Awarded Timber Sales

FY	Sale Name (Area)*	Location	Date	MMBF	Acres	Prescript**	%Complete(FY)	
1995	Frosty One (W)	Upper Johnson Creek Area	9/95	2.8	829	DM/UR	100%	(1995)
1996	Too Frosty (W)	Upper Johnson Creek Area	1/96	2.5	459	DM/UR	100%	(1997)
1996	West Rome 1 Salvage (W)	KFRA Lands North of HWY 66	6/96	3.0	2,000	MS	100%	
1997	Lower Spencer Salvage (W)	KFRA Lands North of HWY 66	12/96	2.5	2,000	MS	100%	(1998)
1997	West Rome II Salvage (W)	KFRA Lands North of HWY 66	12/96	2.0	1,500	MS	100%	
1997	Stukel Mountain (E)	Stukel Mountain Area	6/97	0.30	300	DM	100%	(2000)
1997	SKB Neg. Salvage (W)	Blowdown - Buck Mountain	6/97	0.05	50	MS	100%	
1998	Kakapo Stew (W)	Lower Spencer Creek Area	12/97	2.0	397	DM/UR	100%	(1999)
1998	Grenada East (W)	S. of HWY 66 – W. of Hamaker Mt.	7/98	2.5	1,300	DM/UR	100%	(2001)
1998	STH Neg. Salvage (W)	Blowdown - Burton Flat Area	9/98	0.05	50	MS	100%	
1999	Bly Mountain (E)	Klamath Forest Estates	7/99	1.06	646	DM	100%	(2004)
2000	Muddy Tom (W)	S. of HWY 66 - W. of Klam Riv Can	6/00	4.6	1,873	DM/UR	100%	(2006)
2000	Clover Hookup (W)	N. of HWY 66 - Low Spencer Ck	8/00	2.8	944	DM/UR/RH	100%	(2002)
2001	Grenada West (W)	S. of HWY 66 – E. of Klam Riv Can	8/01	2.6	1,003	DM	100%	(2000)
2002	Slim Chicken (W)	S. of HWY 66 – E. of Klam Riv Can	7/02	3.97	2,113	DM	100%	(2000)
2002	Saddled Again (W)	North of HWY 66	8/02	4.0	570	DM/RH	100%	(2007)
2002	Sinking Salvage (W)	North of HWY 66	8/02	0.04	5	MS	100%	
2003	Rattlesnake Negotiated (E)	Yonna Valley	10/02	0.101	48	DM	100%	(2002)
2003	Surveyor (W)	North of HWY 66	9/03	9.58	406	DM/RH	100%	(2000)
2003	Whiteline Redone (E)	Swan Lake Rim Area	6/03	0.573	278	DM	100%	
2003	Toolbox Salvage (E)	Silver Lake Area (Lakeview RA)	6/03	0.344	109	MS	100%	
2003	Boundary Spr. Juniper (E)	Gerber Block	8/03	0.79	366	MS	100%	
2004	Matchbox (W)	South of HWY 66	9/04	0.8	287	DM	100%	
2004	Baldy Salvage (W)	North of HWY 66	7/04	1.5	250	MS	100%	(2006)
2004	Stateline Neg. Salvage (E)	Gerber Block	6/04	0.1	50	MS	100%	
2004	Gerber Chips (Juniper) (E)	Gerber Block	7/04	0.6	1,000	MS	100%	
2005	CHEW (W)	South of Hwy 66	8/05	2.9	1,156	DM/RH	100%	(2003)
2005	Adobe East (E)	Gerber Block	12/05	2.5	1,400	DM	100%	(2009)
2005	Twenty-one Juniper (E)	Gerber Block	8/05	0.09	90	MS	100%	
2006	Walter's Plant. Neg. Sale (W)	North of Hwy 66	10/05	0.254	66	DM	100%	(2006)
2006	Walter's Cabin (W)	North of Hwy 66	8/06	1.961	578	DM	100%	(2008)
2007	Thin Sheep (W)	North of Hwy 66	11/06	3.259	590	DM/RH	100%	(2007)
2007	Pleasant Val. Neg. Salv. (W)	South of Hwy 66	9/07	0.095	115	MS	0%	
2008	PVJ (W)	South of Hwy 66	8/08	1.268	793	DM	cancelled	N/A
2008	Buck 13 (W)	North of Hwy 66	9/08	0.535	28	DM/RH	0%	
2008	Buck 15 (W)	North of Hwy 66	5/08	2.921	467	DM/RH/MS	100%	(2010)
2009	Buck 23 (W)	North of Hwy 66	11/08	3.056	379	DM	75%	
2009	Brady's Boot (E)	Gerber Block	9/09	0.561	551	DM	0%	
2010	Cold Creek (W)	North of Hwy 66	12/09	2.757	507	DM/UR	100%	(2011)
2010	Onion springs (W)	North of Hwy 66	9/10	2.649	433	DM/UR	0%	
Non BLM Sales								
1998	USFWS Bear Valley (W)	Bear Valley Wildlife Refuge	6/97	1.0	245	DM/UR	100%	(2000)
2003	USFWS Bear Valley 2 (W)	Bear Valley Wildlife Refuge	6/03	2.6	1,040	DM	100%	(2006)
2010	USFWS Bear Valley 3 (W)	Bear Valley Wildlife Refuge	12/09	1.376	400	DM/UR	0%	

NOTES: The sales listed above do not include small, negotiated sales such as Right-of-Ways.

*W = Westside Sale (West of Klamath Falls). E = Eastside Sale (East of Klamath Falls).

**Prescription abbreviations as follows:

DM = Density Management, MS = Mortality Salvage, UR = Understory Reduction, RH = Regeneration Harvest

USFWS – Bear Valley – Timber sales within the Bear Valley National Wildlife Refuge. These sales were designed to maintain and improve forest health within the refuge by thinning overstocked stands, to thin understory trees beneath eagle roosting trees, and also to reduce fuel loads and risk of stand replacement wildfires.

Table 19.6 - Summary of Volume Sold

	FY 2010		FY 95-10		16 Year Projection	
Sold (MMBF)	**West**	**East**	**West**	**East**	**West**	**East**
ASQ Volume (Harvest Land Base)	5.30	0.02	86.79	7.45	94.56	6.40
Non-ASQ Volume (Reserves)	0.11	0.00	0.87	0.11	0.00	0.00
TOTAL	5.41	0.02	87.66	7.55	94.56	6.40
Sold (Unawarded as of 9/30/10)	**West**	**East**	**West**	**East**		
ASQ Volume (Harvest Land Base)	0.00	0.00	0.00	0.00		
Non-ASQ Volume (Reserves)	0.00	0.00	0.00	0.00		
TOTAL	0.00	0.00	0.00	0.00		

Table 19.7 - Volume and Acres Sold by Allocations

	FY 2010		FY 95-10		16 Year Projection	
ASQ Volume -MMBF (Harvest Land Base)	**West**	**East**	**West**	**East**	**West**	**East**
Matrix	5.30	0.02	86.79	7.45	94.56	6.40
Adaptive Mgmt Area	NA	NA	NA	NA	NA	NA
ASQ Acres (Harvest Land Base)	**West**	**East**	**West**	**East**	**West**	**East**
Matrix	910	0	23,494	4,543	15,344	4,304
Adaptive Mgmt Area	NA	NA	NA	NA	NA	NA
ASQ Volume -MMBF (Key Watersheds)	**West**	**East**	**West**	**East**	**West**	**East**
Key Watersheds	5.41	NA	53.24	NA	45.45	NA

Table 19.8 - Timber Sales Sold by Harvest Types

	FY 2010		FY 95-10		16 Year Projection	
ASQ Volume -MMBF (Harvest Land Base)	**West**	**East**	**West**	**East**	**West**	**East**
Regeneration Harvest	0.00	0.00	5.73	0.00	30.24	0.0
Commercial Thinning & Density Management	5.30	0.00	60.28	5.70	64.32	6.4
Stewardship	0.00	0.00	1.31	0.06	0.00	0.0
Other (Mortality Salvage)	0.00	0.02	19.48	1.68	0.00	0.0
TOTAL	**5.30**	**0.02**	**86.79**	**7.45**	**94.56**	**6.4**
ASQ Acres (Harvest Land Base)	**West**	**East**	**West**	**East**	**West**	**East**
Regeneration Harvest	0	0	259	0	2,096	528
Commercial Thinning & Density Management	910	0	14,992	3,319	13,248	4,304
Stewardship	0	0	870	50	0	0
Other (Mortality Salvage, small sales, R/W)	0	0	7,443	1,174	0	0
TOTAL	**910**	**0**	**23,494**	**4,543**	**15,344**	**4,832**
Reserve Acres	**West**	**East**	**West**	**East**	**West**	**East**
Late Successional Reserves	0	0	2	0	NA	NA
Riparian Reserves	30	0	127	39	NA	NA
Other Withdrawn Land*	0	627	208	3,357	NA	up to 1000 ac/yr
TOTAL	**1**	**627**	**337**	**3,396**	**NA**	**NA**

*Includes Stewardship and Western Juniper Woodlands

Table 19.9 - Timber Sale Acres Sold by Age Class

(Harvest Land Base)	FY 2010		FY 95-10		Sixteen Year Projection [1]	
Regeneration Harvest	**West**	**East**	**West**	**East**	**West**	**East**
0 - 70 Years	0	0	0	0	928	0
80 - 140 Years	0	0	76	3	712	0
150 - 190 Years	0	0	53	0	147	0
200+ Years	0	0	130	2	308	0
TOTAL	**0**	**0**	**259**	**5**	**2,096**	**0**
Density Management &Commercial Thinning	**West**	**East**	**West**	**East**	**West**	**East**
0 -70 Years	203	0	4,251	766	3,585	1,174
80-140 Years	233	0	7,238	1,970	6,106	2,313
150 - 190 Years	128	0	1,582	579	1,827	817
200+ Years	330	0	2,782	0	1,728	0
TOTAL	**894**	**0**	**15,853**	**3,315**	**13,245**	**4,304**
Mortality Salvage & Other	**West**	**East**	**West**	**East**	**West**	**East**
0 - 70 Years	0	0	1,512	270	0	0
80 - 140 Years	0	0	3,654	630	0	0
150 - 190 Years	0	0	842	190	0	0
200+ Years	0	0	731	0	0	0
TOTAL	**0**	**0**	**6,739**	**1,090**	**0**	**0**

[1] See Table R-1 of KFRA Record of Decision and RMP.

Forest Development Activities

Data on Forest Development Activities are displayed in Table 19.10. Overall, for the first fifteen years of the KFRA RMP, silvicultural treatments implemented through timber sales, have focused on salvaging drought-related mortality and windthrow, and thinning overstocked stands. This forest health-driven prescription has resulted in fewer regeneration cuts than projected and a reduced need for associated reforestation and development treatments that would follow.

Brushfield Conversion

In the RMP, no conversion acreage was identified for commercial forest lands. In FY 2010, 108 acres of brushfield conversion was tasked out. This is not expected to be a common treatment.

Site Preparation

No site preparation was implemented this year. Accomplishments to date total 14% of projected levels on the westside of the resource area and 1% on the eastside resulting from the emphasis on thinning for forest health, as opposed to regeneration harvesting.

Planting (regular stock)

This fiscal year, trees were planted on 35 acres on O&C lands and brush was planted on 250 acres of public domain lands. Planting is 38% of projected levels on the Westside and 85% on the eastside.

Planting (improved stock)

No improved stock has been used to date. Potentially available stock is sugar pine and white pine, and possibly ponderosa pine and lodgepole pine from private sources. The use of

genetically improved stock is expected to be well below projected levels, due to the smaller planting program.

Vegetation Control

This includes vegetation control treatments like brush cutting, grass grubbing, and paper mulching of seedlings. No vegetation control treatments were implemented this year. For the Westside, treatments are 90% of projected levels while eastside treatments completed are 64% of projected levels.

Precommercial Thinning (PCT)

No PCT treatments were implemented this year. Treatment levels through FY 2009 are 354% of projected levels on the westside, and 110% of projected levels on the eastside. Depending upon funding, westside treatments could continue to exceed projected levels.

Restoration Thinning/Understory Reduction

These treatments have usually been performed as part of timber sale operations or as part of fuels reduction treatments in commercial forest stands. Understory treatment benefits include reduced fuel loads and improved forest health. On O&C lands, 387 acres were treated in FY 2010. Westside treatments are 211% of projected, and eastside treatments are 86% of projected. Treatment needs are expected to continue at previous levels on the Westside, while Eastside treatments are expected to increase.

Pruning

No pruning was implemented this year. On the westside, 293% of projected work has been completed to date and 0% on the eastside. The eastside pruning acre targets are small and can be elevated to RMP projected levels under one service contract, assuming funding is available.

Fertilization

To date, no fertilization treatments have been implemented on either side of the resource area. The small areas projected for the decade could be done under one service contract.

Animal Damage Control

On the KFRA, animal damage control is usually porcupine or pocket gopher control. No treatments were implemented this fiscal year. Treatments to date are 17% of projected on the Westside and 13% of projected on the eastside. Limited regeneration harvests have reduced the need for these treatments. In addition, many older plantations are growing in size and are less vulnerable to gopher damage.

Table 19.10 - Forest Development Activities

Entire Resource Area

Activity (Acres)	FY10	Totals to date	Average Annual	Projected Annual	Accomplishments (% of Projected)
Brushfield Conversion	108	108	7	0	0%
Site preparation	0	465	31	250	12%
Planting (regular stock)	285	2,497	147	360	41%
Planting (improved stock)	0	0	0	115	0%
Vegetation Control	0	2,918	226	225	86%
Precommercial Thinning	0	3,388	226	70	323%
Restoration Thin/Understory Reduction	387	11,108	741	440	168%
Pruning	0	650	43	29	148%
Fertilization	0	0	0	32	0%
Reforestation Surveys	100	32,676	2,172	N/A	N/A
Animal damage control	0	1,017	68	415	16%
Oak Woodland thinning	0	772	51	N/A	N/A

Westside

Activity (Acres)	FY10	Totals to date	Average Annual	Projected Annual	Accomplishments (% of Projected)
Brushfield Conversion	108	108	7	0	N/A
Site preparation	0	396	26	180	15%
Planting (regular stock)	35	1,721	115	300	38%
Planting (improved stock)	0	0	0	100	0%
Vegetation Control	0	2,679	179	200	90%
Precommercial Thinning	0	2,665	178	50	355%
Restoration Thin/Understory Reduction	387	9,175	612	290	211%
Pruning	0	700	47	16	292%
Fertilization	0	0	0	32	0%
Reforestation Surveys	100	26,639	1,776	N/A	N/A
Animal damage control	0	992	66	400	17%
Oak Woodland thinning	0	772	51	N/A	N/A

Eastside

Activity (Acres)	FY10	Totals to date	Average Annual	Projected Annual	Accomplishments (% of Projected)
Brushfield Conversion	0	0	0	N/A	N/A
Site preparation	0	69	5	70	7%
Planting (regular stock)	250	765	51	60	85%
Planting (improved stock)	0	0	0	15	0%
Vegetation Control	0	239	16	25	64%
Precommercial Thinning	0	330	22	20	110%
Restoration Thin/Understory Reduction	0	1,933	129	150	86%
Pruning	0	0	0	13	0%
Fertilization	0	0	0	N/A	N/A
Reforestation Surveys	120	5,214	348	N/A	N/A
Animal damage control	0	25	2	15	13%
Oak Woodland thinning	(No oak on the Eastside.)				

Stewardship Contracting

The BLM received Stewardship Contracting authority in 2003 under Section 323 of Public Law 108-7. The legislation authorizes trading goods for services and multi-year contract authority greater than five years but not to exceed ten years. The BLM is authorized to enter into contracts or agreements for services to achieve land management goals as well as meet local and rural community needs. A source for performance under a contract must be selected on a best value basis. When designing stewardship projects, the BLM is directed to consider projects that will involve treatments and techniques available to make forests, woodlands, and rangelands more resilient to natural disturbances such as fire, insects, disease, wind, and flood. Stewardship contracting projects are to be designed to accomplish one or more of the goals noted below:

- Road and trail maintenance or obliteration for improved water quality;
- Soil productivity, habitat for wildlife and fisheries, or other resource values;
- Setting of prescribed fires to improve composition, structure, condition, and health of stands or to improve wildlife habitat;
- Removing vegetation or other activities to promote healthy forest stands, reduce fire hazards or achieve other land management objectives;
- Watershed restoration and maintenance;
- Restoration and maintenance of wildlife and fish habitat; and
- Control of noxious and exotic weeds and reestablishing native plant species.

In FY 2004, the KFRA awarded the Gerber Stew Stewardship Contract to Quicksilver Contracting. The contract was designed as a long-term contract to implement up to 10,000 acres of primarily restoration treatments on forest land, juniper woodlands, rangelands, riparian areas, and roads. This contract is designed to treat BLM administered lands in the KFRA that meet the appropriate criteria over the next ten years. Since 2004, the KFRA has issued 27 task orders.

In 2010, The KFRA awarded a second stewardship contract, Klamath Stewardship, to two contractors, Quicksilver Contracting and Ore-Cal Land Development, LLC. The objectives of this contract are to reduce the risk of high intensity wildland fire to life, property, and natural resources on lands managed by the BLM Lakeview District and to improve forests and rangelands through stand density reduction, removal of encroaching western juniper, and reduction of hazardous fuel loads. A secondary objective of this contract was to provide a means to spend ARRA funding awarded to the district . This year 12 task orders were issued.

A summary of the status of stewardship task orders is shown Table 19.11 below:

Table 19.11 - Stewardship Contract Summary

	Tasked to Date		Completed to Date		
Gerber Stew	**Units**	**Cost**	**Units**	**Cost**	
Pruning (acres)	270	$38,580.30	270	$38,580.00	
Manual Precomm. Thin (acres)	2,220	$163,351.72	1,466	$109,031.08	
Manual Cut, Pile, and Cover (acres)	268	$135,742.00	265	$133,942.00	
Mechanical Cut/Pile or Yard (acres)	3,579	$773,441.02	3,206	$701,833.42	
Yarding (acres)	4,350	$394,203.00	3,698	$328,480.00	
Biomass Removal (tons)	38,087	$909,250.78	30,209	$715,511.91	
Tube Removal (acres)	205	$6,902.30	205	$6,902.30	
New Fence or Repair (feet)	6,800	$5,344.00	5,295	$4,095.00	
Seeding (acres)	2,128	$33,191.00	1,073	$16,138.00	
Total Vegetation Treatments		**$2,460,006.12**		**$2,054,513.56**	
Temp. Road Const. (stations)	226	$5,019.78	80	$1,680.00	
Road Maintenance (stations)	2,400	$19,650.60	1,545	$12,497.50	
Road Obliteration (stations)	115	$1,037.30	115	$1,037.30	
Road Barricading (# of roads)	10	$1,650.00	9	$1,485.00	
Spot Rocking (tons/station)	5,313/171	$173,058.70/$109,440	4,965/166	$157,678.20/$106,240	
Miscellaneous Road Work		$12,968.00		$10,542.50	
Total Road Treatments		**$322,823.88**		**$291,160.50**	
Products					Cost of Production
Sawlogs (MBF)	1,337	$32,593.00	321	$10,147.00	$0
Clean Chips - Biomass (tons)	22,207	$44,704.58	16,088	$42,616.00	$0
Hog Fuel - Biomass (tons)	37,686	$208,356.47	30,209	$155,407.00	$715,512

	Tasked to Date		Completed to Date		
Klamath	**Units**	**Cost**	**Units**	**Cost**	
Pruning (acres)	0	$0.00	0	$0.00	
Manual Cut (acres)	1,005	$68,440.00	0	$0.00	
Hand Pile, and Cover (acres)	0	$0.00	0	$0.00	
Mechanical Cut or Cut/Pile (acres)	1,641	$288,901.00	906	$163,262.00	
Yarding (acres)	5,446	$660,306.00	871	$146,311.00	
Mechanical brushing (acres)	246	$86,100.00	0	$0.00	
Tube Removal (acres)	0	$0.00	0	$0.00	
Manual brushing(acres)	120	$45,360.00	0	$0.00	
Seeding (acres)	3,485	$107,305.00	1,159	$50,393.00	
Biomass Removal (tons)	10,045	$283,202.00	0	$0.00	
Firewood/Posts Removal (cds/tons)	0	$0.00	0	$0.00	
Total Vegetation Treatments		**$1,539,614.00**		**$359,966.00**	
Temp. Road Const. (stations)	268	$13,824.00	0	$0.00	
Road Maintenance (miles)	72	$43,116.00	0	$0.00	
Road Obliteration (stations)	0	$0.00	0	$0.00	
Road Barricading (# of roads)	0	$0.00	0	$0.00	
Spot Rocking (tons)	1,475	$38,336.00	0	$0.00	
Miscellaneous Road Work	210	$4,452.00	0	$0.00	
Total Road Treatments		**$99,728.00**		**$0.00**	
Products					Cost of Production
Sawlogs (MBF)	0	$0.00	0	$0.00	$0
Clean Chips - Biomass (tons)	38,119	$46,889.00	0	$0.00	$0
Hog Fuel - Biomass (tons)	10,280	$123.00	0	$0.00	$0
Firewood/Posts (cds)	0	$0.00	0	$0.00	$0

20.0 Special Forest Products

The district sold a variety of special forest products as shown in Table 20.1. The more popular special forest products sold are firewood, Christmas trees, and boughs. Occasional permits for mushrooms, mosses, and transplants have also been issued. In FY 2010, 401 permits were issued for a total receipt value of $5,733. The sale of special forest products follows the guidelines contained in the Oregon/Washington Special Forest Products Procedure Handbook. There are no estimates or projections in the RMP ROD or FEIS that need to be compared to the sold quantities shown.

Table 20.1 - Special Forest Products Fiscal Year 2010

	WESTSIDE		EASTSIDE		COMBINED	
Product	**FY2010**	**FY95-10**	**FY2010**	**FY95-10**	**FY2010**	**FY95-10**
Boughs, coniferous						
Contracts (#)	2	13	0	31	2	44
Amount (lbs)	770	8,020	0*	744,095	770	752,115
Value ($)	$21	$136	0*	$17,991	$21	$18,127
Christmas trees						
Contracts (#)	65	729	0	15	65	744
Amount (#)	99	1,007	0	20	99	1,027
Value ($)	$495	$4,974	$0	$99	$495	$5,073
Seed and seed cones						
Contracts (#)	0	11	0	8	0	19
Amount (bushels)	0	1,956	0	1,260	0	3,216
Value ($)	$0	$185	$0	$252	$0	$437
Mosses - Bryophytes						
Contracts (#)	0	1	0	1	0	2
Amount (lbs)	0	16	0	20	0	36
Value ($)	$0	$14	$0	$10	$0	$24
Mushrooms - Fungi						
Contracts (#)	33	106	0	7	33	146
Amount (lbs)	220	8,173	0	952	220	9,345
Value ($)	$380	$1,380	$0	$160	$380	$1,920
Transplants						
Contracts (#)	2	7	0	5	2	12
Amount (#)	6	284	0	686	6	970
Value ($)	$20	$91	$0	$93	$20	$184
Floral & Greenery						
Contracts (#)	0	1	0	1	0	2
Amount (lbs)	0	10	0	1	0	11
Value ($)	$0	$10	$0	$10	$0	$20
Wood products /firewood						
Contracts (#)	137	889	161*	2,424	298	3,313
Amount (cubic feet)	34,393	201,811	54,330*	596,316	131,706	798,128
Value ($)	$2,110	$15,927	$2,510*	$36,405	$4,620	$52,332
Small Sales Biomass						
Contracts (#)	1	2	0	0	1	2
Amount (tons)	197	3,188	0	0	197	3,188
Value ($)	$197	$9,171	$0.00	$0.00	$197	$9,171
Total Contracts (#)	**240**	**1,792**	**161***	**2,492***	**401***	**4,284***
Total Value ($)	**$3,223**	**$32,268**	**$2,510***	**$55,019***	**$5,733***	**$87,287***

***Figures represent district-wide sales of special forest products.**

21.0 Energy and Minerals

There were no mining plans of operations, mining claims, or mining or energy notices submitted during FY 2010. There are no leases of oil, gas or geothermal resources within the Klamath Falls Resource Area, although there are several known geothermal resource areas and most of the public lands are prospectively valuable for oil and gas. The Resource Area has approved permits for wind monitoring test sites for the purpose of assessing wind energy potential. In FY 2010, the resource area sold 1,553.38 cubic yards of mineral materials (cinders and gravel) to individuals. Refer to Table 21.1 for Energy and Minerals program information.

Table 21.1 - Energy and Minerals Management - FY 2010

	FY 2010	FY 95-10
Total Mining Claims	0	1
New mining claims	0	0
Mining claims submitted	0	1
Mining claim compliance inspection	0	4
Noncompliance notices issued	0	1
Abandoned mines removed	0	0
Community pit inspections	3	14
Permits issued for mineral removal	6	87
Total Oil leases	0	0
Total Gas leases	0	0
Total Geothermal leases	0	0
Total Wind Energy Leases	0	0
Total Solar Energy Leases	0	0

22.0 Land Tenure Adjustments

Since completion of the RMP, 3,056.75 acres have been sold (see Table 22.1). The land was sold to offset losses to Klamath County's tax base that resulted from the Wood River Wetland acquisition. In FY 2010, a total of 124.6 acres were sold.

Since the RMP was completed, 1,160 acres originally identified for sale have been re-evaluated and determined suitable for disposal only by exchange. An additional 5,680 acres originally evaluated for sale was determined appropriate to be retained in Federal ownership. Resource values, including, but not limited to, wildlife habitat, timber, and cultural resources found on these lands justify retention in public ownership. In a plan amendment, Appendix I was updated to reflect the work accomplished over the first 4 years in evaluating public lands for sale or exchange.

Public Law 105-321 requires that, when selling, purchasing and exchanging land, the Bureau of Land Management may neither, 1) reduce the total acres of O&C or CBWR lands, nor, 2) reduce the number of O&C, CBWR, and Public Domain lands that are available for timber harvest below what existed on October 30, 1998. Since 1996, we have sold approximately eight acres of public domain "timberland" in order to address unintentional trespass and other land and access situations. To date, there have been no opportunities to acquire timberland to replace these three acres.

An amendment to the RMP on Unintentional Encroachments and Survey Hiatuses was completed in FY 99. The plan amendment allowed a 1.01-acre tract of land to be moved from Land Tenure Zone 1 to Land Tenure Zone 3, which allows for sale. The amendment added the following provision to the Land Tenure Adjustment - Management Actions/Direction for All Land Use Allocations section: *"Where survey hiatuses and unintentional encroachments on public lands are discovered in the future that meet disposal criteria, the lands may be automatically assigned to Zone 3 for disposal."* The disposal criteria to be used are those defined in Appendix I of the Klamath Falls Resource Area Record of Decision and Resource Management Plan, June 1995.

Table 22.1 - Land Use Tenure Adjustments Fiscal Year 2010

	FY 2010	FY 95-10
Amount of land acquired (acres)	0	0
Amount of land exchanged (acres)	0	120
Amount of land sold (acres)	124.6	3,056.75
Amount of land easement acquired (#/acres)	0	4/7.71
Leases/permits issued (number)	0	6
Unauthorized uses identified/resolved, (number/number)	3/2	18/17
Withdrawals completed (number/acres)	0	1/1
Withdrawals revoked (number/acres)	0	11/11,281

23.0 Access and Rights-of-Way

The summary table in the front of this document summarizes some of the various realty actions accomplished in the fourteen years since implementation of the RMP. Applications for rights-of-way have been received and processed at a moderate and consistent rate. New authorizations are predominantly for commercial use of existing roads to haul timber and other forest products. Rights-of-way were issued for timber haul roads, communications sites, power lines, and wind generator test sites. Inquiries and interest in solar and geothermal projects has been growing. Road and utility rights-of-way applications for solar and geothermal projects and/or road access supporting these projects are expected .

24.0 Transportation and Roads

Approximately 520 miles of BLM controlled roads are within the Klamath Falls Resource Area. The BLM maintained approximately 72 miles of these roads in FY 2010. Additional road maintenance was performed by those authorized to use BLM roads under timber sale contracts and road use permits. Refer to Table 24.1 for a summary of road treatments completed in FY 2010. (For additional discussion of road treatments specific to watershed restoration, refer to Section 5.0 - Aquatic Conservation Strategy.)

A Transportation Management Plan (TMP) was updated for O&C lands west of Highway 97 early in FY 2011. A TMP is being developed for Eastside lands and will be completed sometime in the future. Transportation Management Objectives (TMOs) for each BLM road are completed. If management changes over time, TMO's will also be revised.

Table 24.1 - Roads and Transportation Management Fiscal Year 2010

	FY 2010	FY 95-10
Roads maintained (estimated miles)	72	1,064
Roads decommissioned (miles)	0	12.7
Roads closed - year round (miles)	0	27.61
Roads closed - seasonally (miles)	0	18
New roads constructed (miles)	0.1	9.64
Road improvements (miles)	5	34.6
Transportation Plan for O&C land west of HWY 97	Updated in FY 2011	
Transportation Plan for Eastside KFRA	To be determined	

25.0 Hazardous Materials

Two known releases of hazardous wastes were identified on public lands in fiscal year 2010. (See Table 25.1.)

Table 25.1 - Hazardous Materials Management Fiscal Year 2010

	FY 2010	FY 95-10
Number of Hazardous materials site evaluations	2	11
Number of Environmental Site Assessments completed for realty acquisitions	0	10
Number of facility assessments for corrective actions	4	28
Number of abandoned hazardous sites found	2	6
Hazardous waste incidents requiring emergency response	2	2
Removal actions	0*	5

*Removal actions occurred in October 1010 and will be reported in FY 2011.

26.0 Wildfire/Fuels Management

The BLM/Klamath Falls Resource Area is one of the leading Federal agencies in the field of prescribed fire and fuels management. Prescribed fire is used to reduce hazardous fuels accumulations so that wildfires are reduced in size and intensity when they do occur. Another benefit of prescribed fire is to mimic natural wildfire in a mosaic pattern to benefit the total ecosystem (plants, animals, fish, soils, trees, and human uses). On the Klamath Falls Resource Area in FY 2010 there were seventeen wildfires, burning 196.4 acres (see Table 26.1).

The public was notified of proposed prescribed burning activities via news releases to local newspapers, television and radio stations as well as legal notices published in the Herald and News.

Table 26.1 - Fire and Fuels Management Fiscal Year 2010

	FY 2010	FY 95-10
Number (acres) of prescribed fires	12 (4,051)	227 (76,978)
Number (acres) of mechanical fuel treatment	5 (1,731)	173 (41,017)
Number (acres) of On-Resource Area wildfires:		
- number human caused wildfires (acres)	4 (2.25)	29 (692.4)
- number lightening or natural caused wildfires (acres)	13 (196)	101 (1,511)

27.0 Law Enforcement

The Klamath Falls Resource Area has a full time BLM Ranger along with the services of a Klamath County Deputy Sheriff (through a law enforcement agreement with Klamath County) for law enforcement duties. The Ranger works cooperatively with the Lakeview BLM District Ranger, Oregon State Police, Lake County Sheriff's Office, Lakeview and Klamath Falls Police Departments, National Park Service, U.S. Forest Service, and U.S. Fish and Wildlife Service. Investigative support is provided by BLM Special Agents from the Oregon State Office. Law enforcement efforts are focused on protecting natural resources and property while providing for public and employee safety. Educating the public in the safe and proper use of public lands is accomplished by patrol, investigation of criminal activity, issuance of verbal or written citations, and making arrests where appropriate.

There were 54 incidents and violations recorded in the Klamath Falls Resource Area in 2010 (see Table 27.1). These included theft of Federal property, forest products theft, vandalism to public or private property, Archaeological Resource Protection Act (ARPA) violations, closure violations, search and rescue, human-caused wildfire, camping or day-use violations, vehicle abandonment, and improper disposal of household trash. The table below summarizes the law enforcement activity within the Klamath Falls Resource Area since 1995.

Table 27.1 - Law Enforcement Fiscal Year 2010

	FY 2010	FY 95-10
Number of full-time Rangers	1	1
Number of Law Enforcement Agreements	1	1
Number of Incidents or Violations	54	883
Number of warnings issued	32	416
Number of citations issued	11	123
Number of Arrests	0	3

28.0 Rangeland Resources/Grazing Management

Overview

The rangeland management program administers livestock grazing activities on most of the lands in the Klamath Falls Resource Area (approximately 208,000 of the KFRA's 224,900 acres). Grazing licenses are issued yearly, authorizing up to approximately 13,000 Animal Unit Months (AUMs) on 95 individual grazing allotments (see Table 28.1). A percentage of the grazing fees (37.5%) go to the U.S. Treasury. The remaining fees are returned to the district and resource area for rangeland improvement projects to benefit wildlife and watershed resources while enhancing livestock grazing systems.

Existing projects such as water holes, spring developments, and fences are monitored and maintained, as necessary, either by range staff personnel or by the grazing users. Grazing use supervision is constantly performed during the grazing season to ensure compliance with approved grazing authorizations, with the efforts concentrated on resource priority allotments. The range program also collects vegetation inventory data, rangeland condition and trend information, actual livestock use information, and monitors vegetation utilization levels on high priority allotments. This information is evaluated - both formally and informally - to determine

whether allotment goals and objectives are being met. Monitoring data is being utilized in an ongoing effort to assess efforts to meet the Standards for Rangeland Health on all grazing lands.

As required by BLM policy, a Range Program Summary (RPS) is published periodically to update the public on implementation of the RMP. This summary typically includes information on the season-of-use and forage allocation by allotment. Since the original RPS, which was included as part of the June 1995 Klamath Falls Resource Area RMP/Record of Decision (Appendix H), there have not been enough significant changes in the range program to warrant publishing a full, independent update (i.e. recounting all of the information for all of the KFRA grazing allotments). As the resource area allotments are assessed (see next section) and other changes in grazing management take place, the public will be updated via this Annual Program Summary and Monitoring Report for the KFRA. This APS will fulfill the requirement for the RPS.

Table 28.1 – Range Resources Management Fiscal Year 2010

	FY 2010	FY 95-10
Number of acres administered grazing	207,392 acres***	207,540 acres
Number livestock operators	83	83 (average/year)
Number of allotments	94***	95***
Number of AUMs	~10,500	~11,000 (average/year)
Number of permits leases renewed/transferred	9	164
Billings issued/fees collected	68/$15,000	~80/$15,000 (average/year)
Number of allotments/acres assessed (RHSAs*)	3/3,156 acres	75/191,369 acres
Acres of Ecological Site Inventory	0	149,943 acres
Wild Horse and Burro Adoption Events**	0	4
Number of horses/burros placed	1	60

* Rangeland Health Standards Assessments
** Does not include yearly raffle of individual horse at the Klamath County Fair.
***One grazing allotment (Flesher [0820] – 160 acres) was entirely transferred to private ownership (i.e. sold) during FY 2006

Fiscal Year 2010 Summary

Rangeland Health Standards Assessments

Three (3) KFRA grazing allotments had Rangeland Health Standards Assessments (RHSAs) completed during FY 2010: 7C (0853), Barnwell (0807), and Horton (0829). These three allotments contain a total of 3,156 acres and comprise about 2% of the KFRA's grazed acres. Since the Assessment process began in 1999, almost 93% of the KFRA's grazed acres have been assessed. All three of the allotments assessed in 2010 were found to have met all the Standards for Rangeland Health, or were making significant progress toward meeting them with current grazing management.

Rangeland Health Standards Assessments compare accumulated rangeland monitoring data against the five Standards for Rangeland Health. These standards address watershed function in uplands; watershed function in riparian areas; ecological processes; water quality; and native, threatened and endangered, and locally important species. These assessments also compare the rangeland monitoring data against other pertinent objectives (i.e. land use plan, ESA Section 7 consultations, etc.) to see if current grazing use is meeting them. (Note: These Assessments only address grazing management - not other uses of the public lands.) On November 13, 1998, the Klamath Provincial Advisory Committee (PAC) approved the KFRA Plan for the Implementation of Standards and Guidelines. The KFRA Plan is the local plan to implement the policies and guidance stemming from the broad direction contained in the August 12, 1997 "Standards for Rangeland Health - Oregon/Washington Standards and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the States of Oregon and Washington".

The entire assessment process for the resource area is scheduled to be completed in 2012 - a total of 14 years (1999-2012). This is an adjustment (extension) of the original schedule listed in the 2002 APS. This schedule extension is necessary in order to collect adequate information on many of the KFRA's smaller and lower priority allotments - most of which have never had basic rangeland resource information collected on them - so that a proper Assessment can be prepared.

Endangered Species Act Section 7 Consultation

Three grazing allotments in the Gerber Reservoir area (Horsefly, Pitchlog, and Dry Prairie) are subject to formal consultation under Section 7 of the Endangered Species Act. These allotments in combination comprise over 20% of the KFRA. The existing Biological Opinion (BO) covering these allotments expired after the 1998 grazing season and was in need of renewal. All three were fully re-evaluated and re-consulted on in FY 99. Subsequent to the re-evaluation the USFWS issued a memorandum (1-10-99-I-47) that indefinitely extended the existing BO, with some very minor modifications, primarily dealing with monitoring requirements. An end-of-year grazing report for the 2009 grazing season was prepared for these allotments and submitted to the USFWS during early FY 2010, as required by the BO. The BO was reaffirmed for the 2010 grazing year by USFWS memorandum. The grazing report for the 2010 grazing year is pending at the time of providing input into this APS.

Grazing Leases and Fees

Nine grazing permits/leases were renewed or transferred during FY 2010. This process included appropriate NEPA review/documentation. Approximately sixty-three licenses or billings were issued authorizing approximately 10,500 AUMs in grazing use and collecting approximately $16,350 in grazing fees.

Range Improvements

Water Structure Maintenance

During FY 2010, maintenance of 13 spring developments was completed using labor from the Northwest Youth Corps. This included the replacement of livestock bumper poles and posts, cleaning of the water troughs, exclosure fence repairs, and the removal of small trees.

Riparian Fence Maintenance

Range staff personnel continued to maintain all of the important riparian exclosure/pasture fencing that is the responsibility of the BLM. This included the inspection and repair of approximately four to six miles of riparian related fencing within the resource area. Various portions of the riparian fencing around Duncan Springs, Pitch Log Creek, Long Branch Creek, Tunnel Creek, Antelope riparian pasture, Surveyor Campground, and Dixie exclosures as well as the north boundary fence of the northeast pasture of the Pitchlog Allotment all received significant additional rebuilding or rehabilitation during FY 2010. A new exclosure fence was also completed around a wet meadow/spring area above the Surveyor pump chance development.

Monitoring of Grazing Allotments

Monitoring of grazing use, and effects of that use, continued on priority allotments in accordance with the KFRA's *Coordinated Monitoring and Evaluation Plan for Grazing Allotments*. At least eight high priority allotments had various monitoring data collected on them. These rangeland studies monitor utilization, ecological condition, vegetation trends, actual grazing use, and other resource attributes. As is typical of all grazing years, at least 100 grazing use supervision checks of high priority allotments were performed.

Fiscal Years 1996-2010 Summary

Rangeland Health Standards Assessments

The acreage of Assessments completed to date (FY 1999 to 2010) is 191,369 acres, or almost 93% of the KFRA grazing allotted acres, which includes all of the high priority resource concern allotments in the resource area. The remaining 7% of the KFRA grazing lands are low priority, fragmented public lands which will be assessed gradually over the next two to three years as information becomes available (see next section).

Rangeland Ecological Site Inventory

Ecological Site Inventory *(*ESI): An ESI was completed for the entire Gerber Block (Eastside of the resource area) in FY97 and FY98. The Gerber Block is approximately 110,000 acres. Ecological Site Inventory, the BLM's rangeland vegetation survey method, allows for classification and comparison of the current vegetation to its potential. It also provides the Bureau information which assists in setting proper, achievable objectives for resource management. An Ecological Site Inventory also includes an Order 3 soil survey. The soil mapping for the Gerber ESI was done by a soil scientist from the BLM's Lakeview District ESI crew. The vegetation mapping was done by resource area range management specialists.

Beginning in late FY 2002 and continuing through 2008, the ESI was performed on the fragmented public lands located between Klamath Falls and the Gerber Block. The purpose of this survey is to acquire baseline, ecologically based, vegetation condition information on fragmented BLM administered lands that have never been rangeland vegetation inventoried. The soils were previously classified as part of the south Klamath County soil survey in the 1960's and 70's. The ESI information collected will be used to complete Rangeland Health Standards Assessments on these allotments over the next three to four years, tentatively. During FY 2009, no additional acres of ESI surveys were completed. It is expected that this ESI survey will be performed intermittently by existing rangeland management staff members over the next several years (FY 2008-2012) and will eventually classify a total of 55,000 additional acres.

Monitoring of Grazing Allotments

Rangeland monitoring studies were completed during FY 1996-2010 in accordance with KFRA's *Coordinated Monitoring and Evaluation Plan for Grazing Allotments*. This directs the most monitoring emphasis on high priority (management category "I") allotments; in particular the three previously mentioned allotments that are under Section 7 Consultation. This includes various rangeland condition, trend, and utilization studies; riparian condition and photo trend studies; actual grazing use supervision and information; and other rangeland monitoring studies as needed.

Wild Horse Management

The Klamath Falls Resource Area has one designated wild horse herd and herd management area, the Pokegama Herd Management Area (HMA). This HMA is located in the western portion of the resource area, west and north of the Klamath River Canyon, south of Highway 66, and east of Jenny Creek, overlapping the border between California and Oregon.

In 1996, 20 head of horses were removed from the HMA and adopted to the public via the BLM's Adopt-a-Horse program. No removals were done in FY97, FY98, or FY99. Based on aerial and ground counts of the wild horse herd made during FY 2000, the herd size was 55 horses. This herd size was above the upper end of the Appropriate Management Level (AML) of 30-50 animals. This AML was initially established in the Klamath Falls Resource Area RMP (June 1995) and has been evaluated and reaffirmed in the Lakeview District Wild Horse

Gather EA (OR-010-95-10) and again in the 1996 Topsy/Pokegama Landscape Analysis. Since the herd was above AML in FY 2000, a total of 18 horses were removed. These horses were transported to the Burns Wild Horse corrals and placed in the Adopt-a-Horse program. No additional removals have been done since FY 2000. The most recent aerial census (March 2010) counted 12 head in the HMA. Based on this census and multiple yearly ground counts, the actual total herd number is believed to be currently 25 to 30 head.

A major portion of the KFRA's wild horse program consists of performing compliance checks of wild horses and burros adopted by residents of Klamath County. Compliance checks of adopted horses and their maintenance facilities is required to assure that adopters properly execute their responsibilities as required by the *Private Maintenance and Care Agreement* that adopters sign when adopting an animal. Adopters are eligible to receive title to the animal after one year of appropriate care. In FY 2010, KFRA completed on site inspections of 100% of the recently adopted and untitled local horses and burros. Four horses were inspected for adopter compliance. One hundred and forty-six horses and/or burros have been inspected for compliance since 1997. Prior to FY 1997, compliance checks were not required.

Starting in 1999, the Klamath Falls Resource Area teamed up with the local 4H & FFA equestrian clubs to promote wild horse awareness and education and to provide scholarships for deserving young students. Every year since then – including 2010 - the Klamath Falls 4-H members have sold raffle tickets to people who qualify for horse adoption. The drawing is held at the Klamath County fair in August and has generated an average of $1,400 per year in donations for a scholarship fund for eligible equestrian members.

29.0 Cadastral Survey

The Medford District BLM office provided cadastral support to the resource area in FY 2010. The Oregon Institute of Technology, in conjunction with BLM cadastral survey, has also provided support to the resource area. Cadastral survey completed in FY 2010 is shown below (see Table 29.1).

Table 29.1 - Cadastral Survey Summary Fiscal Year 2010

	FY2010	FY95-10
Number of survey groups/projects completed	1	6
Number of projects ongoing	1	1
Number of monuments set*	24	52
Number of miles surveyed**	3.5	18.5

*Remonumentation for individual projects.
**Retracement

30.0 Education and Outreach

This fiscal year, the Klamath Falls Resource Area sponsored several community outreach events and played an active role in many others. Most of the events focused on public education about natural resources management, stewardship practices on public land, BLM programs and mission, and creating partnerships with private landowners and service organizations committed to improving conditions for all living things. KFRA employees presented programs to both school children and adults. Topics discussed included wetland/river biology, wildland fire suppression and prescribed fuels treatments, forest health practices,

archeology, wildlife/fisheries biology, archaeology, and rangeland ecology, as well as careers in natural resources. (Refer to Tables 30.1, 30.2 and 30.3.)

For the past several years the resource area has hired one to three high school students in the Apprentice in Science and Engineering Program. The program is designed to introduce sophomore and junior students to natural resource management professions. Each student was also given a general overview of the many professions and specialties employed by the BLM.

Annual Horse Packing & Wilderness Skills Clinic

In May, BLM sponsored a booth, complete with a corral, where people could get a close-up look at "Pepper", a wild horse from the Paisley Herd Management Area. Students from local 4-H organizations sold raffle tickets to raise money for college scholarships. Employees handed out brochures and answered questions regarding the Wild Horse and Burro Adoption Program, and BLM recreation opportunities. This event, which draws people from throughout the northwest, was held at the Klamath County Fair Grounds Event Center. There were over 5,000 visitors at this year's event.

Annual International Migratory Bird Day Celebration

This marks the tenth year that the Klamath Falls Resource Area has participated in the International Migratory Bird Day (IMBD) event held in Klamath Falls. The IMBD is the hallmark outreach event for Partners in Flight, which focuses on migratory birds. Other sponsors in this local event included the U.S. Fish and Wildlife Service, Oregon State University Klamath County Extension Service, Fremont-Winema National Forest, and community volunteers. The main outreach event included guided bird walks along the Lake Ewana trail, mist netting demonstrations, art and photographic displays, a variety of hands-on educational activities for children, and participation from community organizations.

RAP (Resources and People) Career Camp

Designed for High School students ages 15 and older, the week long RAP Camp focuses on educating students about the region's vast array of natural and cultural resources and how they are all inter-related. Sessions focus on hands-on learning, with a wide variety of demonstrations and field trips throughout the week. Several agencies participate in the event including, KFRA, Fremont-Winema National Forest, Modoc National Forest, USFWS, various private organizations, and private citizens.

Klamath County Fair

The BLM provided an information booth on wild horses and burros at the Klamath County Fairgrounds in August 2010. Each year a KFRA range technician volunteers time to halter break a wild horse which is then raffled at the fair. This successful event has been a mainstay at the Klamath County Fair since 1994. Prior to 1999, the "fair horse" was raffled with free tickets to anyone who met the BLM requirements for adoption. For the last eleven years, the BLM has worked in partnership with local 4-H Equestrian clubs selling raffle tickets to raise money for a scholarship fund. Each year, a scholarship is awarded to a member of the participatory clubs. Since 1999, this effort has raised over fifteen thousand dollars.

National Public Lands Day

The resource area celebrated National Public Lands Day on September 25, 2010. Approximately 14 people from the community, plus 11 employees participated in the event which was held at Gerber Potholes campsite. Activities included: loading and unloading firewood for the Klamath Basin Senior Citizens Council, planting native willows, and installation/repair of wood duck nest boxes.

Klamath County School Forestry Tour

The Klamath Falls Resource Area provided information at one of eight education stations at the Klamath County School Forestry Tour held in September at the Clover Creek Environmental Educational Area. The tour is for all Klamath County sixth graders and their teachers. This

year approximately 800 students and teachers attended the tour. The Forestry Tour provides students with a natural resource career awareness and appreciation of forest resources. The School Forestry Tour is coordinated by the Oregon State Extension Service with participation from the Oregon Department of Forestry, U.S. Forest Service, Oregon State Fish and Game, U.S. Fish and Wildlife Service, Henley High School forestry Club, USDA Natural Resources Conservation Service, Klamath County Soil and Water District, and others. The tour was first presented in 1963.

Table 30.1 - Environmental Education/Outreach Program Summary FY2010

	FY 2010	FY 97-10
Number of education outreach programs/events offered	9	346
Number of participants	~10,900	2000-15,000/year

Table 30.2 - Environmental Education/Outreach Annual Events FY 2010

Event/Activity	Date	Location	# of Public Participants
Wilderness & Horse Packing Clinic	April 30-May 1	Klamath County Fairgrounds	5,000
International Migratory Bird Day	May 8	Veteran's Memorial Park	700
RAP (Resources & People) Camp	June 14-18	Camp Esther Applegate	80
Klamath County Fair	Aug. 5-8	Klamath County Fairgrounds	5,000
6th Grade Forestry Tour	Sept. 22-24	Clover Creek Educational Area	1,000
National Public Lands Day	Sept. 25	Gerber Potholes	14

Table 30.3 - Environmental Education/Outreach Programs & Tours FY 2010

Program/Tour	Date	Location	# of Public Participants
Fins and feathers Day	5/25/10	Fort Klamath	50 (7th grade students)
OIT Aquatic ecology class	5/27/10	Spencer Creek	12 (college students)
Mountain Warrior Karate School	8/5/10	Wood River Wetland	13 (students and adults)

31.0 Research

Profuse flowered mesa mint

An Inventory and Site Management plan for *Pogogyne floribunda* (profuse flowered mesa mint) was accomplished by Dr. Robert J. Meinke (Oregon State University) for both the Lakeview and Klamath Falls resource areas of the Lakeview District, and the Malheur-Jordan resource area of the Vale District. This plan is a written Conservation Assessment which includes a summary of existing populations and current management practices at these sites. It also includes management recommendations for the conservation of *Pogogyne floribunda*. Field work for this plan was conducted between 2003 and 2006, and in 2009. The completed plan was received in March of 2010.

Seeds of Success Program

The Bureau of Land Management and Royal Botanic Gardens, Kew's Millennium Seed Bank are participating in the Seeds of Success (SOS) program under the terms of a cooperative agreement signed by both parties in May 2000, with a renewed agreement signed in November 2005. Since the original signing of the agreement, SOS has grown to include: Chicago Botanic Garden; Lady Bird Johnson Wildflower Center; New England Wild Flower Society and New York Department of Parks and Recreation, Greenbelt Native Plant Center; North

Carolina Botanic Garden; and the Zoological Society of San Diego. This group is collectively referred to as the SOS Partners. In June of 2008, a Memorandum of Understanding (MOU) was signed by the Bureau of Land Management, Chicago Botanic Garden, Lady Bird Johnson Wildflower Center, New England Wild Flower Society, New York City Department of Parks and Recreation, North Carolina Botanical Garden, and the Zoological Society of San Diego. The MOU ratifies Seeds of Success as a national native seed collection program in the United States coordinated by BLM. The goal of SOS is to provide wild collected seeds to researchers for common garden studies and other native plant materials development projects within the National Native Plant Materials Development Program.

Since 2003, BLM has been cooperating with the US Forest Service Seed Extractory in Bend, Oregon for cleaning and storing restoration seed collected by BLM Field or State Offices . Excess seed is returned to BLM so that it can be grown out at native plant nurseries to produce viable native plant populations which in turn can have their seeds harvested for use in planting and restoration projects on BLM lands.

For the 2010 field season, Klamath Falls BLM hosted two interns from the Chicago Botanic Garden. These interns collected seed from fifty native plant populations, as well as collecting samples of each population for use in the herbarium. Population description data as well as location data was also collected and entered into ArcGIS for general use by BLM.

Vernal Pool Grass Surveys

Federally endangered *Tuctoria greenei* (Green's tuctoria) and threatened *Orcuttia tenuis* (Slender Orcutt grass) recently have been located in vernal pools on the Modoc National Forest, adjacent to the Klamath Falls Resource Area (KFRA) of the Lakeview BLM District. These listed species are currently known only from California, and both BLM and USFWS want to know if they also occur in comparable habitats in Oregon. Building on preliminary GIS and field work done by BLM and USFWS in 2009, this project will locate, assess, and classify vernal pool habitat and vegetation in the KFRA. Potential habitat in Oregon includes portions of the Gerber Block, which are included in grazing and fuels programs on the KFRA. Presence of these listed species on the District could affect current management activities and require ESA consultations. KFRA recognizes the importance of complete surveys to identify any populations of these species. Field work for this project is being conducted from 2010 until 2015, by John Christy of Portland State University.

Neotropical Migratory Landbirds

A long-term study of neotropical migratory landbirds is being conducted in cooperation with Klamath Bird Observatory, Pacific Southwest Research, PacifiCorp, Winema National Forest, and Point Reyes Bird Observatory. On BLM lands, there are 44 point-count stations and four constant effort mist-netting sites in a variety of habitats.

Oregon Spotted Frogs

In FY 2010, the BLM continued to contribute samples to a US Geological Survey study on occurrence and effects of a skin disease that affects Oregon spotted frogs (OSF's) and American bullfrog. Samples have been examined from several study sites including the Wood River Wetland, Buck Lake and Fourmile Wetland. Chytridiomcosis is a fairly recently described disease that affects the skin of amphibians, and may partially explain some of the observed amphibian population declines. The suspected infecting agents are chytrids (water molds), which are primitive fungi. Chytridiomycosis induces behavioral and morphological changes that put the individual at greater risk to environmental stresses and to predators. Also, in FY 2010, the BLM continued to contribute genetic samples collected during spring egg mass surveys to USGS and Colorado State University. These samples will be analyzed and the information will help managers better understand population isolation, isolation duration and genetic interaction between populations.

Wood River Wetland

The Wood River Wetland was the focus of monitoring and research effort by the USGS between 2003-2005 to investigate water and nutrient budgets and nutrient dynamics in the wetland. This study provides a basis for adaptive management to reduce nutrient exports to environmentally sensitive Agency and Upper Klamath Lakes. A final report was published in early 2009 and can be viewed at http://pubs.usgs.gov/sir/2009/5004/pdf/sir20095004.pdf.

Oregon Institute of Technology was the recipient of a grant focused on studying wetland vegetation in restored and natural wetlands adjacent to Upper Klamath Lake, including Wood River Wetlands. This study has compared wetland species composition and nutrient composition. The project established long-term monitoring plots for wetland vegetation at restored and reference sites in the Upper Klamath Basin. First year data results and analysis was reported at a regional science conference: "Vegetative and soil characteristics of a large hydrologically-isolated restoration wetland" A Ray, J Litts, A Hamilton, M Boyter, and A Lutz. Presented at the PNW Chapter of the Society of Wetland Scientists Meeting in Bellingham, WA 28 -30 April, 2010.

An Intergovernmental Agreement (IGA) was prepared to initiate Phase II of development of a GIS interface tool for water management in the lower Wood River Valley, including the BLM Wood River Wetland ACEC. In Phase I of this study, completed in 2007 (Haluska and Snyder, 2007), elevation data from LiDAR (Light Detection and Ranging) for the northern margin of Upper Klamath and Agency Lakes was used to create stage-volume and stage-area relations for 34 land parcels. USGS, Oregon Water Science Center will design a GIS computer interface for use with ArcMap to access and analyze hydrologic information generated in Phase I to guide habitat restoration and water storage in reclaimed shoreline wetlands. The project is scheduled for completion at the end of FY 2011. This project will assist the BLM in fulfilling obligations under the Klamath Basin Restoration Agreement to study water management alternatives for the diked portion of the Wood River Wetlands.

BLM is assisting the Oregon State University Biological and Ecological Engineering Department in development of a site-specific surface-ground water hydrology and nutrient transport model for the lower Wood River Basin, including Wood River Wetland. The project, titled "Assessing the Effects of Water Management on Development, Elevation Change and Nutrient Composition of Wetlands Adjacent to Agency Lake" This project will assist the BLM in fulfilling obligations under the Klamath Basin Restoration Agreement to study water management alternatives for the diked portion of the Wood River Wetlands and will be applicable to adjoining properties and the Williamson River Delta.

Northern Spotted Owl Telemetry

The National Council of Air and Stream Improvement (NCASI) finished the telemetry portion of a five year study on the Northern Spotted Owl. The vegetation data collection was completed in FY 2009. This study monitored up to eight pairs of spotted owls year round. The study is designed to assess how spotted owls utilize managed timber stands for nest sites and/or activity centers as well as foraging areas.

Cultural Resources

The partnership continues between Klamath Falls Resource Area and Boise State University (BSU) in order to research the possibility of creating two National Register Archaeological Districts under the National Historic Preservation Act (NHPA) 1966 as amended as well as updating older site data within these areas. An analysis of BSU's fieldwork conducted in the Bumpheads and Antelope Creek areas in July 2009 by BSU's staff from the Department of Anthropology continues. A final report for fieldwork and National Register Nominations are expected in the fall of 2011.

An ethnographic study was performed by ethnographer, Douglas Deur, PhD with The Klamath Tribes as a result of a FERC interstate pipeline which will terminate in Malin, OR; which crosses KFRA lands. Additionally, as a result of this pipeline, a Traditional Culture Place study and landscape National Register Nomination will be performed in the future as mitigation of the pipeline for KFRA's Willow Valley area.

A doctorate candidate from University of California - Berkley continues his research on rock art within the Klamath Basin. KFRA lead archaeologist and the doctoral candidate visited sites of interests on KFRA managed lands in FY 2010 that will be included in his research.

KFRA archaeologists participated in a Passport in Time Project (PIT Project) with the US Forest Service (USFS) and Natural Resources Conservation Services (NRCS) in order to relocate the Bonanza-Lakeview Stage Road on BLM, USFS, and private lands. Volunteers were utilized in order to carry out the field work of identifying portions of the old stage road in the field. Analysis of field data is underway and a paper with initial results will be presented at the spring 2011 Society for American Archaeology annual meeting.

32.0 Coordination and Consultation

Federal Agencies

Since 1995, BLM has continued to engage in cooperative efforts with other federal agencies including the U.S. Fish and Wildlife Service, U.S. Forest Service, Environmental Protection Agency, U.S. Geological Survey, Bureau of Reclamation, and National Resource Conservation Service on projects such as watershed analysis, water quality improvement projects, and the Wood River Wetland Restoration Project**.** In addition, personnel from these agencies have been involved in planning, conflict resolution, and Section 7 consultation under the Endangered Species Act.

The Regional Interagency Executive Committee, Klamath Provincial Advisory Committee, Klamath Basin Ecosystem Restoration Office, and the Regional Ecosystem Office, established under the Northwest Forest Plan, have increased BLM's interagency role as well.

U.S. Fish and Wildlife Service

Wood River Wetland

The USFWS and the BLM, through a memorandum of understanding, have shared staff to complete both restoration work in the refuge as well as restoration work at the Wood River Wetland.

Klamath Basin Ecosystem Restoration Office

The Ecosystem Restoration Office (ERO) is an interagency office, which is operated cooperatively by the U.S. Fish and Wildlife Service, Bureau of Reclamation, U.S. Forest Service and the BLM. This interagency office provides funding, technical assistance, and monitoring for watershed restoration projects which are proposed by private landowners, private and public organizations and agencies, and the Upper Klamath Basin Working Group. The ERO works closely with the Klamath Basin Provincial Advisory Committee and watershed councils within the Klamath Basin. BLM has helped support this office since 1997.

State of Oregon

The Klamath Falls Resource Area has continued its long term working relationship with Oregon Department of Forestry, Oregon Department of Fish and Wildlife, Oregon Department

of Agriculture, Oregon Parks and Recreation Department, State Historic Preservation Office, and the Oregon Department of Environmental Quality. BLM has participated with these agencies in diverse activities such as recreation and timber sale planning, fish habitat inventory, water quality monitoring and TMDL development, noxious weed management, hazardous material cleanup, air quality maintenance, and wildfire suppression.

Counties

The Klamath Falls Resource Area (KFRA) is located within Klamath County. There is frequent communication between the KFRA and county commissioners and other county staff. This communication involves BLM proposed projects, county projects that may affect BLM lands, water quality issues, noxious weeds and other issues. County Commissioners receive copies of all major publications, project updates and project proposals.

Cities

The KFRA works with staff from the City of Klamath Falls and other outlying communities (Bonanza, Bly, Lorella, Keno, etc.) in the areas where BLM lands adjoin city limits. On a regular basis, personnel from the Klamath Falls Resource Area attend a ten month long Leadership Klamath training which gives participants an overview of the history, workings, and interrelationships of city and county government and reviews services and relationships to private, state, and federal agencies.

Tribes

The KFRA contacts the Klamath Tribes directly for coordination of many projects by presenting projects to the Tribal Council and by meeting bimonthly with the Klamath Tribes Culture and Heritage Department. The BLM is working with numerous tribes on FERC relicensing. Tribes are represented on the Southeast Oregon Provincial Interagency Executive Committee, which coordinates activities within the province.

Watershed Councils

There is ongoing participation with the Klamath Watershed Council and associated Working Groups. The BLM is represented on the Councils' Technical Advisory Committee and participates in cooperative activities that can benefit public lands. The council is active in coordinating watershed and water quality enhancement projects on private lands.

Upper Klamath Basin Working Group

The BLM is also involved in the Upper Klamath Basin Working Group. The working group was appointed by Senator Mark Hatfield in 1995 and authorized by Congress under the Oregon Resource Conservation Act. The senator's charge for the group was to identify short and long term solutions to issues in the Upper Klamath Basin. Specifically he asked the group to address:

- Ecosystem restoration and water quality
- Economic stability
- Reducing drought impacts

The working group was designed to be citizen-led. Two non-agency members serve as co-chairs. The membership totals 33, including representatives from — the Klamath Tribes (3 members), the city of Klamath Falls, Klamath County, Oregon State government (2 members), the Soil and Water Conservation district, Oregon Institute of Technology, the environmental

community (4 members including a California representative with refuge interests), local businesses (4 members including the wood products industry and commercial and recreational fisheries), the ranching and farming community (4 members), and the local community (4 members). In addition, there are representatives from eight federal agencies – U.S. Fish and Wildlife Service, the Bureau of Reclamation, the Bureau of Land Management, the Bureau of Indian Affairs, the U.S. Forest Service, the Natural Resource Conservation Service, and the National Marine Fisheries Service. The working group meets regularly to address issues, and propose and seek out grants for projects that promote ecosystem restoration.

Chartered Advisory Groups

Klamath Provincial Advisory Committee

The purpose of the Klamath Provincial Advisory Committee (PAC) is to advise Federal agency representatives on implementation of the Record of Decision for Amendments to the Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (ROD) of April 13, 1994. The agencies represented make up the Provincial Interagency Executive Committee (PIEC) that facilitates the successful implementation of the ROD. The PIEC consists of representatives of some or all of the following Federal agencies: the Forest Service, Bureau of Land Management, Fish and Wildlife Service, National Marine Fisheries Service, Bureau of Indian Affairs, National Park Service, and Environmental Protection Agency. The PAC provides advice regarding implementation of a comprehensive ecosystem management strategy for Federal land within the Klamath province (from the Klamath Basin to the California coast). The PAC provides advice and recommendations to promote better integration of forest management activities among Federal and non-Federal entities to ensure that such activities are complementary. The PAC has not met regularly for the last year.

Southeast Oregon Resource Advisory Council

The Council's objectives and scope are to provide representative citizen counsel and advice to the Bureau of Land Management (BLM) and the U.S.D.A. Forest Service (USFS) line managers concerning the planning and management of the public land and national forest resources located in whole or in part within the Vale, Burns, and Lakeview Districts of the BLM and the Fremont, Deschutes, Ochoco, and Malheur National Forests. The actual jurisdictional boundary includes the Middle Snake/Boise, Oregon Closed Basins, and Goose Lake Hydrologic Units, as described by the United States Geological Survey. This area includes most of Malheur, Harney, and Lake Counties and very small portions of Klamath, Deschutes, Crook, Grant, and Baker Counties. Although none of the resource area lands are within the boundaries of the RAC, project coordination occurs at the Lakeview District level.

Medford District Resource Advisory Committee

The BLM makes "Payments in Lieu of Taxes" and O&C Payments to states that in turn distribute the money to county governments. Public Law 106-393, the Secure Rural Schools and Community Self-Determination Act of 2000, signed October 30, 2000 established a new formula for calculating payments, which is based on selecting the highest three years in the eligibility period (1986-1999). The law also allows for annual increases in the payment based on Consumer Price Index information. Klamath County elected to receive payments under the new legislation. Beginning in Fiscal Year 2001 and continuing through 2008, payments are to be made based on historic O&C and CBWR payments to the counties. Proposals are submitted to the county by BLM and/or the public to fund projects on federal and/or private lands. The Medford District Resource Advisory Committee meets to evaluate and prioritize projects and distribute funding.

Other Local Coordination and Cooperation

Klamath-Lake Forest Health Partnership

A partnership was created in 1995 to promote forest health in Klamath and Lake Counties. This included private industrial and nonindustrial landowners, The Nature Conservancy, Chiloquin Visions in Progress, Klamath Ecosystem Education Partnership, consulting foresters, county, state, and federal agencies who work together on problem solving, sharing science and information, and providing assistance to small woodland owners. The KFRA is a member of this active partnership that meets monthly.

Klamath-Lake-Modoc-Siskiyou Outdoor Recreation Working Group

This working group was formed in 1991. This is a multi-county organization, which covers portions of southern Oregon and northern California. This working group provides a forum where private businesses, city, county, state, and federal agencies communicate, plan, and implement recreational and tourism activities. BLM is an active participant.

Major accomplishments have been the development of 19 outdoor recreation brochures, the construction of 50 highway rest stop displays in locations in California and Oregon, and developing tear-off sheet maps that highlight outdoor recreational activities and the Klamath Basin Birding Trail. The brochures and tear-off maps are used in motels, restaurants, and other businesses to promote outdoor recreation and tourism in the four-county area. Representatives from this group also meet quarterly with the county commissioners from each county to share information and receive new ideas.

Klamath Basin Water Adjudication Resolution Process

The Oregon Water Resources Department (OWRD) initiated the Klamath Basin Adjudication in 1975. The Klamath Adjudication is an Oregon general water claim adjudication in which the final decree will be issued by the Klamath County Circuit Court. All Adjudication claims were filed with the OWRD by April 1997. The Adjudication is the first Oregon general water adjudication in which complex federal claims have been filed.

Given the complexity of the Adjudication and other water allocation issues in the Klamath Basin, the OWRD has initiated a voluntary alternative dispute resolution process to provide a forum to address Adjudication claim issues and other matters related to water supply and demand in the Klamath Basin. The BLM is an active participant in the adjudication process.

Coordinated Resource Management Plans (CRMP)

Coordinated resource management planning involves resource owners, managers, users, and specialists, concurrently formulating and implementing plans for the management and use of all natural resources and ownerships within a specific area. The group established through the planning effort provides a forum to help resolve resource conflicts. The KFRA has been involved in four Coordinated Resource Management Planning areas: the Yainax, Spencer Creek, Rock Creek and Gerber-Willow Valley areas.

Yainax CRMP

The Yainax Butte CRMP was originally completed in 1974 in conjunction with the United States Forest Service (USFS), Oregon Department of Fish and Wildlife (ODFW), Oregon Department of State Lands (ODSL), Oregon Department of Transportation (ODOT), Klamath County Extension Service, Natural Resource Conservation Service (NRCS), Weyerhaeuser, and the common grazing permittee. In 1993, the plan was completely revised with the same group of organizations and a new grazing permittee. The revised plan is still in effect and being followed by the current grazing permittee (different than in 1993) and the successor to Weyerhaeuser - US Timberlands. The Yainax Butte CRMP addressed a myriad of issues

including grazing, forestry, recreation, wildlife, T&E species, private land and cultural issues. The CRMP coordinates the management of the area to accomplish a broad range of resource goals and uses.

Spencer Creek CRMP

This CRMP was developed in 1990 and was updated in 1994. The planning group is made up of county, state, and federal agency personnel and private landowners who coordinate watershed enhancement and other projects within the Spencer Creek Watershed.

Rock Creek CRMP

The BLM's Rock Creek allotment is included in the broader Warm Springs Coordinated Allotment Management Plan. This plan was originally completed in 1983 with the Modoc National Forest (NF), Fremont National Forest, and the common permittee, and establishes resource objectives and institutes a grazing system to address the resource issues. The Warm Springs Coordinated Plan is in the process of being revised with the Modoc NF taking the lead, as they are the majority land administrator.

Gerber/Willow Valley CRMP

Development of this plan began in FY 2000. The first objective is to complete a joint watershed analysis on two 5th field watersheds (Gerber and Willow Valley) with BLM, Forest Service and private landowners participating. Federal agencies involved are the Klamath Falls Resource Area, Fremont National Forest, and Modoc National Forest (California). The watershed analysis was completed in FY 2003. Efforts to complete a coordinated resource management plan are on hold.

Pokegama Working Group

This working group was formed in 1991 to coordinate projects to improve habitat in big-game winter range and reduce harassment of wildlife during critical winter months. This group has been active in informing and educating the public of the critical habitat needs for deer and elk. Members of this group include US Timberlands, PacifiCorp, Oregon Department of Fish and Wildlife, and the BLM.

Intermountain West Joint Venture (IWJV)

The IWJV was formed in 1995 and covers eastern Oregon and parts of nine other western states. This group meets quarterly and has written an area plan with input by local Federal and State agencies, and private organizations to determine conditions of wetlands and identify opportunities to improve habitat. Oregon Wetlands Group hired a private consultant to write the plan that focuses on the Klamath Basin eco-region. This plan, as well as other eco-region plans within the ten western states, follows the guidelines outlined under the North American Wetlands Conservation Act of 1989. The representatives for the Klamath Basin eco-region are BLM, Ducks Unlimited, Oregon Department of Fish and Wildlife, U.S. Fish and Wildlife Service, Modoc National Forest, California Fish and Game, and Oregon Joint Venture. Wood River Wetland restoration is part of the completed plan.

33.0 National Environmental Policy Act Analysis and Documentation

NEPA Documentation

The review of the environmental effects of a proposed management action can occur in any of four ways: administrative determination, categorical exclusion, environmental assessment, or environmental impact statement.

An administrative determination is made when NEPA documentation previously prepared by the BLM fully covers a proposed action and no additional analysis is needed. This procedure is often used in conjunction with a plan conformance determination. If a proposed action is fully in conformance with actions specifically described in the RMP and analyzed in the RMP/FEIS or a subsequent environmental assessment, a plan conformance determination may be made and no additional analysis is needed. This determination is documented in a "*Documentation of Land Use Plan Conformance and NEPA Adequacy (DNA)*".

Some projects may qualify for a categorical exclusion from further NEPA documentation. Numerous types of projects have been determined that the nature and scope of the proposed activities do not individually or cumulatively have significant environmental effects on the environment. Specific categories of projects may therefore be exempt from requirements to prepare an environmental analysis. Categorical exclusions (CX) are covered specifically by Department of Interior and BLM guidelines.

An environmental assessment (EA) is prepared to assess the effects of actions that are not exempt from NEPA, are not categorically excluded, and are not covered by an existing environmental document. An EA is prepared to determine if a proposed action or alternative will significantly affect the quality of the human environment. A Finding of No Significant Impact (FONSI) is prepared to document the determination that actions proposed will not create significant effects. Once the authorized officer (KFRA Field Manager) decides to implement actions proposed and analyzed in an environmental assessment, a decision record (DR) is prepared to document that decision.

Major proposals that could significantly affect the environment, and have not been previously analyzed through an environmental impact statement (EIS), require that an EIS be prepared. A Record of Decision (ROD) is prepared to document the decision of the authorized officer (Lakeview District Manager) to implement actions analyzed in the EIS.

In FY 2010, seventeen categorical exclusions, four determinations of NEPA adequacy, seven environmental assessments, and nine decision records were prepared. Table 33.1 shows the number of NEPA documents completed since FY 1995.

Table 33.1 - NEPA Analyses and Documentation Fiscal Year 2010

	FY 2010	FY 95-10
Categorical Exclusions	17	344
Plan Conformance and Determinations of NEPA Adequacy	4	201
Environmental Assessments/FONSI	7	75
Decision Records	9	83
Environmental Impact Statements	0	2
Activity Level Plans	0	1
Record of Decision	0	1
Resource Management Plan Amendments	0	1

Protests and Appeals

In FY 2010, there were no protests or appeals filed with the Klamath Falls Resource Area.

34.0 Plan Evaluations

Third Year Evaluation

Periodic evaluations of land use plans and environmental review procedures are required by the Bureau's planning regulations (43 Code of Federal Regulations (CFR), Part 1610.4-9) to determine the status of ongoing plan implementation, conformance and monitoring. The BLM performed a third year evaluation of implementation of the RMP. An executive summary of the resource area evaluation is available, free of charge, upon request, or is accessible "on-line" at the Klamath Falls Resource Area website: http://www.or.blm.gov/Lakeview/kfra/index.htm.

The third year evaluation of the Klamath Falls Resource Area Resource Management Plan by Oregon State Office staff has been completed. The purpose of the third year evaluation was to determine whether there is cause for an amendment or a revision to the resource management plan. This evaluation includes reviewing cumulative monitoring results and accomplishments, determining if the plan's goals or objectives are being met, determining whether goals and objectives were realistic and achievable in the first place, and determining whether changed circumstances or new information have altered activities or expected impacts. Evaluations are usually done after the third year of implementation under the RMP, but because of unforeseen problems, release of the third year evaluation for years 1995-1998 was delayed, and not released until 2001.

On July 31, 2001, the Oregon/Washington State Director, Bureau of Land Management (BLM), released the following findings based on the Third Year Plan Evaluation for the Lakeview District (Klamath Falls Resource Area).

> *"Based on this plan evaluation which included information through Fiscal Year 1998, I find that the Klamath Falls Resource Area RMP goals and objectives are being met or are likely to be met, and that the environmental consequences of the plan are similar to those anticipated in the RMP FEIS, and that there is no new information, as of September 30, 1998, that would substantively alter the RMP conclusions. Therefore, a plan amendment or plan revision of the RMP is not warranted. This document meets the requirements for a plan evaluation as provided in 43 CFR 1610.4-9*."

Eighth Year Evaluation

A second formal Resource Management Plan evaluation was completed in fiscal year 2004. The evaluation served as a review of cumulative progress for the composite fiscal year period of 1995 through 2003 and assessed the progress of implementation and meeting the objectives of the RMP. The evaluation team found that 90-100% of planned RMP actions are being implemented, to fully meet plan objectives. The RMP/Record of Decision varies in program detail, but is fully adequate for the dominant programs with clearly established and described desired outcomes. Monitoring and planning update reports have documented staff effectiveness in making good progress towards achieving those desired outcomes.

The RMP decisions have been found to be correct since RMP approval, however, an EIS-level analysis, proposed to amend portions of the RMP to address Wild and Scenic River and Area of Critical Environmental Concern values for the Upper Klamath River is in progress. In general, there are no major changes in the officially approved or adopted, natural resource related plans, programs and policies of Indian tribes, State or local governments or other federal agencies which would immediately affect the RMP. Where changes were made or are expected, the resource sections identify those opportunities for greater interagency or intergovernmental consistency.

Although supplemental data are continually being developed, there are no available new data or analyses that affect the existing plan's validity. Any new data can be incorporated through plan maintenance and used in ongoing implementation action decision making. RMP maintenance or amendments to incorporate new conservation strategies, recovery plans or management guidance for species will be needed as they become available. No unmet needs or new opportunities that can only be met through an RMP amendment or revision were identified. No critical or immediate new inventories are warranted, although some potential program or resource specific inventories or updating of data bases for the existing management situation would be recommended as part of any RMP revision. With a few potential exceptions, there were no identified new legal or policy mandates as a result of new statues, proclamations, executive orders or court orders not addressed in the plan which cannot be addressed through plan maintenance (e.g., newly listed streams with water quality issues) or considered and documented in ongoing implementation actions (e.g., adverse energy impacts). Local review of the revised National Fire Plan and Healthy Forests Restoration Act requirements could trigger some change in fuels management strategies in the Wildland Urban Interface, but would not require changes in the plan.

35.0 Plan Maintenance

The Klamath Falls Resource Area Management Plan Record of Decision was approved in June of 1995. Since that time, the Klamath Falls Resource Area 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. Potential minor changes, refinements or clarifications in the plan may take the form of maintenance actions.

Maintenance actions respond to minor data changes and incorporation of activity plans. This maintenance is limited to further refining or documenting a previously approved decision incorporated in the plan. Plan maintenance will not result in expansion of the scope of resource uses or restrictions or change the terms, conditions and decisions of the approved resource management plan. Maintenance actions are not considered a plan amendment and do not require the formal public involvement and interagency coordination process undertaken for plan amendments.

Important plan maintenance will be documented in the Klamath Falls Resource Area Annual Program Summary and Monitoring Report. Examples of possible plan maintenance issues that would involve clarification may include the level of accuracy of measurements needed to establish riparian reserve widths, measurement of coarse woody debris, etc. Much of this type of clarification or refinement involves issues that have been examined by the Regional Ecosystem Office and contained in subsequent instruction memos from the BLM Oregon State Office. Depending on the issue, not all plan maintenance issues will necessarily be reviewed and coordinated with the Regional Ecosystem Office or Provincial Advisory Committee. Plan maintenance is described in the Klamath Falls Resource Area Management Plan Record of Decision.

Plan Maintenance for Fiscal Year 1995

- REO memorandum dated 10/13/94: Memo reviewing BLM's interpretation of Coarse Woody Debris requirements.
- REO Memorandum dated 3/22/95: Memo reviewing BLM site potential tree height determination.
- REO Memorandum dated 4/7/95: Clarifies access for key watersheds, how to meet S&G for no net increases in roads where third parties have access rights.
- REO Memorandum dated 7/5/95: Interagency memo exempting certain silvicultural

activities from LSR assessment requirements.
- BLM IM OR-95-123, dated 7/5/95: Memo clarifying when watershed analysis is and is not required for activities in Riparian Reserves.
- REO Memorandum dated 7/24/95: Memo changing status of dwarf mistletoe in Table C-3 of the ROD.
- REO Memorandum dated 8/31/95: Memo on LSR boundary adjustments.

Plan Maintenance for Fiscal Year 1996

- REO Memorandum dated 12/15/95: Memo clarifying REO review of LSR assessments.
- Memo on protocols for Survey & Manage amphibians (BLM IB-OR-96-006, dated 3/19/96.
- REO Memorandum dated 4/26/96: Additional Guidance on LSR assessment reviews.
- REO Memorandum dated 6/11/96: Memo changing provisions regarding management of the lynx.
- Memo implementing Regional Ecosystem Office memo on management of lynx (BLM IM-OR-96-97, dated 6/28/96)
- Memo on plan maintenance (OR IB-OR-96-294, dated 7/5/96)
- REO Memorandum dated 7/9/96: Memo exempting certain commercial thinning projects in LSRs and MLSAs from REO review.
- Internal Memorandum No. OR-96-108 (dated July 26, 1996) instructed the Klamath Falls Resource Area to remove Buxbaumia piperi, a moss that was erroneously listed as a species considered at risk in the Northwest Forest plan. This removal was deemed necessary B. piperi is not considered to be rare, therefore the standards and guidelines from the Northwest Forest Plan were applied in error.
- Memo on dwarf mistletoe (BLM IB-OR-95-443, dated 8/15/96)
- REO Memorandum dated 9/6/96: Draft memo limiting surveys for certain arthropods to southern range.
- REO Memorandum dated 9/30/96: Memo amending commercial thinning exemption in LSRs.

Plan Maintenance for Fiscal Year 1997

- BLM IM-OR-97-007, dated 11/1/96: Interagency Memo clarifying implementation of S&M component 2 species; contains definitions of S&G terms such as “ground disturbing” and “implemented”.
- Memo directing changes in surveys for arthropods (BLM IB-OR-97-045, dated 11/8/96.
- Memo on implementing Coarse Woody Debris Standard & Guide (BLM IB-OR-96-064, dated 11/19/96.
- Memorandum dated November 8, 1996: Northwest Forest Plan Record of Decision (ROD). The sentence “Understory and forest gap herbivores” (page 61) was changed to be specific to the south range.
- Northwest Forest Plan, Adjustments in the Great Gray Owl (GGO) Survey Protocol. These adjustments were recommended by the Research and Monitoring Committee subsequent to findings and recommendations of a science panel. The six recommendations for the 1997 survey season were incorporated into the May 12, 1995 version of the protocol. In addition, habitat occupancy are to be located in habitat with the highest likelihood of supporting nesting Great Gray Owls. Methods, locations, and timing of habitat occupancy surveys are at the discretion of the resource area. Among the recommendations is one acknowledging that, using the onset of snowmelt to determine the start of the survey season, may not allow completion of all four visits prior to May 15. However, there should still be a good faith effort put forth to complete the four visits between March 15 and may 15, even if they go past the specified time period. A total of six visits is still required. In southwestern Oregon, some Great Gray Owls have been found below 3,000 feet elevation. Although not a requirement at this time, surveys below 3,000 feet (but otherwise according to protocol) will both assist in maintaining species viability and provide important data for evaluation of the GGO Record of Decision requirements. Field offices should assess which, if any, lower elevation locations would be priority areas to survey given the existing workload, staffing,

and funding.

- In 1997, the Klamath Falls Resource Area developed some criteria to use to select the "16-25 large green trees per ace..." for retention in a harvest unit. As of 1997, the Klamath Falls Resource Area was still trying to determine which prescription/harvest unit this standard and guideline was intended for (Density Management, Regeneration Harvests, Commercial Thinnings, Patch Cut, etc.). (See 1999 Plan Maintenance for clarification).
- The 1997 APS stated: Klamath Falls Resource Area RMP, Timber Resources, Page 56, Unscheduled Harvests, 4th paragraph, "On the Westside, retain 16 to 25 large green trees per acre in harvest units". This plan maintenance clarifies that harvest units, prescription units, and treatment units are the same thing. For each prescription unit, stand exams will be conducted to determine existing stand structure. Unit reports will show, by species: basal area, crown closure, and the average number of trees per acre by diameter class. The number of snags and amount of coarse woody debris will also be determined. A prescription unit average of at least 16 green trees from the larger size classes present within the unit will be retained. Criteria for retention will be:

  -**Species:** Tree species naturally adapted to the site, especially those species presently under-represented (usually ponderosa pine, Douglas-fir, and sugar pine).

  -**Condition:** Vigorous trees and other trees in any condition having special habitat characteristics. This mix, will ideally supply overstory structure, as well as a variety of a snags and logs in a various decay classes over an extended time period.

  -**Size:** Trees from the larger size classes of a given unit. (The size and density of trees vary tremendously, however. The largest trees in some units do not exceed 14 inches DBH; others have many trees over 30 inches DBH).

Plan Maintenance for Fiscal Year 1998

- <u>*Guidance on Implementation of the 15 percent retention Standard & Guideline*</u>: Joint BLM/Forest Service final guidance, which incorporated the federal executives' agreement, was issued on September 14, 1998, as BLM-Instruction Memorandum No. OR-98-100. The memorandum emphasizes terminology and intent related to the Standards and Guidelines, provides methods for completing the assessment for each fifth field watershed, dictates certain minimum documentation requirements, and established effective dates for implementation. This Instruction memorandum is adopted in its entirety as RMP clarification.
- <u>*Survey Protocols for Survey and Manage Species*</u>: Final protocols were issued during FY98 for Component 2 lichens, the fungus *Bridgeoporus nobillissimus*, terrestrial mollusks, and aquatic mollusks. These protocols are adopted in their entirety as RMP clarification.
  - 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.
  - Copies of the Executive Order, the accompanying Memorandum for the Heads of All Departments and Agencies, and Council on Environmental Quality Guidance on Environmental Justice issued February 1998 can be requested from the Klamath Falls BLM office.

Plan Maintenance for Fiscal Year 1999

- Correction of numerous errors or updates to Appendix H - "Grazing Management and Rangeland Program Summary" of the KFRA ROD/RMP (pages H-1 through H-77).
  - Page H-5, Chase Mountain Allotment (0101); Page H-7, Edge Creek Allotment (0102) and Buck Mountain Allotment (0103); Page H-10, Dixie Allotment (0107); Page H-11,

Dry Lake Allotment (0140); and H-13, Grubb Springs Allotment (0147). Under the "Constraints" sections, change "Weyerhaeuser Company" to "U.S. Timberlands, Inc.". This reflects the 1986 change in ownership for all of these private, intermingled lands.

- Page H-26, JELD-WEN allotment (0824). Due to land exchanges, the "Public Acres" should be changed from 360 to 240. Also, the "Active Preference", "Total Preference", and "Total" under the "Grazing Administration Info (AUMs)" column should be changed from 36 to 24.
- Page H-32, *Kethcham* allotment (0835). Name should be spelled **Ketcham**.
- Page H-51, Campbell allotment (0878). "Suspended nonuse" should be 13 AUMs instead of 12; "Total Preference" should be 60 AUMs instead of 59.
- Page H-56, Dry Prairie allotment (0885). "Exchange of Use" AUMs should be changed from 275 AUMs to the "30 AUMs permanent AUMs, although the total number is variably higher depending on private land leases in the Dry Prairie pasture".

• "Corrections of errors or updates to Klamath Falls Resource Area RMP Appendix H, Grazing Management....."

- Page H-56, Dry Prairie allotment (0885). Under "Grazing Administration Info. (AUMs)" the "Active Preference" should be changed from 608 to 642 AUMs, and the "Suspended Nonuse" should be changed from 392 to 358 AUMs. This change reflects the transfer of state lands to public ownership in 1988 that was not previously reflected on the grazing permits.

• Additional information to the Grazing Management section of the ROD/RMP dealing with the recently implemented Standards for Rangeland Health.

• KFRA ROD/RMP, Page 62-63, "Grazing Management", "Management Actions/ Direction", "General" section. The following should be added after the 5th paragraph (one on Standards and Guidelines): Recently (August 12, 1997), the "Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public lands Administered by the Bureau of Land Management in the States of Oregon and Washington" was implemented. This and related guidance requires that all grazing lands be assessed to see if the grazing use meets the 5 Standards for Rangeland Health. These standards address watershed function in uplands; watershed function in riparian areas; ecological processes; water quality; and native, threatened and endangered, and locally important species. This guidance will be effected in accordance with the KFRA's "Plan for the Implementation of Standards and Guidelines" dated October 29, 1998 (available upon request).

• Additional support for the Appropriate Management Level (AML) of 30-50 head for the Pokegama Herd Management Area (HMA).

- KFRA ROD/RMP, Page 64, "Wild Horse Management", "Management Actions/ Directions" section. Additional support information should be added after the second paragraph as follows:
- The Lakeview District Wild Horse Gather Environmental Assessment (OR-010-95-10) and the Topsy-Pokegama Landscape Analysis (July 1996) both affirmed that the wild horse herd should be kept within the 30-50 head AML as proposed in the ROD/RMP. This level is necessary to "...ensure a thriving natural ecological balance... and protect the range from deterioration associated with overpopulation" as stated in this plans objectives for Wild Horse Management and required by the Wild Free-Roaming Horse and Burro Act of 1971. 20 head were removed from the HMA in 1996 in order to get the herd number down within the AML.

• Klamath Falls Resource Management Plan, Appendix K, Water and Soils, Page K-8, Implementation Monitoring Question #12 is not stated correctly. Add the word "coordinated" before the word "watershed-based". Thus, the first part of the question should read: "What is the status of cooperation with other agencies in the development of coordinated watershed-based Research Management Plans and other cooperative agreements to meet Aquatic Conservation Strategy Objectives?"

• In the RMP dated June 1995, The section on energy and minerals refers to restrictions listed in appendix "G" located in volume II of the Final KFRA RMP & EIS. **This should refer to appendix "K" in Volume II.**

• Appendix "G", pages 12-13 in the Final KFRA RMP/ROD, dated September 1994, failed to give exact distant measurement for the buffers associated with the timing limitations for

bald and golden eagles, osprey and sage grouse leks. **The sentence should read** " Surface occupancy and use is prohibited . . ., within **1/4** mile of known . . . sites.

- Appendix G, KFRA/ROD, pages 12 and 13 **Add:** Timing Limitation, Resource: Wildlife - Northern Spotted Owl, Stipulation: Surface occupancy and use is prohibited from March 1 to August 15, within 1/4 mile of known Northern Spotted Owl nest sites and nesting habitat.
- In same document and same appendix on page G-15, the controlled surface use for the Upper Klamath River - segment 2 should also state **"1/4"** mile.
- Change in specific provisions regarding management of the great gray owl. The NFP Record of Decision page C-21; Klamath Falls Resource Area RMP Record of Decision pages 39-40.
- The NFP states the following with regard to management: "Specific mitigation measures for the great gray owl, within the range of the northern spotted owl, include the following: provide a no-harvest buffer of 300 feet around meadows and natural openings....."
- For the Topsy/Pokegama Landscape Analysis Area, the Klamath Falls Resource Area wrote a Late Successional Reserve Assessment (LSRA) which addressed a variety of habitat manipulations for the long-term enhancement of great gray owl nesting habitat within the 300-foot buffers required around meadows and natural openings. These habitat manipulations were proposed in areas where the following conditions are present: 1) marginally suitable as great gray owl habitat, 2) at risk of decline to the point where suitable nesting habitat conditions are unattainable in the long-term, and 3) at risk due to poor forest health conditions including high fuel loads and/or overstocking.
- As a result of discussions in 1999 between members of the Regional Ecosystem Office Team and the Klamath Falls Resource Area Staff, meadows and natural openings <u>would be buffered only in cases where it has been determined the area is "occupied" by great gray owls</u>. Occupancy is defined in the May 12, 1995, great gray owl survey protocol. Forested areas adjacent to meadows and natural openings would receive 300-foot buffers within approximately two miles from activity centers of sites occupied by great gray owls.
- A Memorandum from the Executive Director to the State Director dated August 4, 1999, served as documentation of the Regional Ecosystem Office's (REO) review of the Late Successional Reserve Assessment and finding that the LSRA provides a sufficient framework and context for future management activities within the 300-foot meadow buffers in the Topsy/Pokegama Landscape Analysis Area.
- On pages 23, 33 & 56 of the KFRA RMP, for Westside Matrix lands, Management Actions / Directions states:

  "*Retain 16 to 25 large green trees per acre where available."*

  To be consistent with the Medford RMP, Chapter 2-21, the KFRA will change the wording in the KFRA RMP to read:

  "Retain at least 16 to 25 large[1] green trees per acre in regeneration harvest units."

Rationale for change:

The proposed change will help clarify when the KFRA must meet the 16-25 standard and guide (S&G). It was noted during the 3rd year evaluation that their was a difference in the wording and subsequent interpretation between the Medford District and the KFRA RMPs relating to this S&G. The Medford District applies this S&G to regeneration harvests units only. The word "regeneration" was left out of the KFRA RMP. Subsequently, KFRA personnel interpreted this S&G be applied to all types of harvest units including density management harvests. The KFRA has completed four density management harvests to date and posttreatment stand exam data indicates that over 200 trees per acre are being retained including the larger and more vigorous trees. BLM Managers feel that this S&G is not applicable nor was it intended for density management harvests and should only be applied to regeneration harvest units as defined in the Medford RMP. Presently, the KFRA has not implemented any regeneration harvests. The 16 to 25 tree S&G in regeneration harvest units should be sufficient to meet the intended objectives of structural retention for both a legacy component as well as serve as a shelterwood for the understory component. In addition, this change will align with how these stands were initially modeled.

- On pages 23, of the KFRA RMP, for Westside Matrix lands, Management Actions / Directions states: *"When an area is regeneration harvested, limit patch size to 3 acres."*

The above sentence erroneously includes the word "regeneration" where "density management" was intended. The KFRA will modify the patch cut size limit from 3 acres to 5 acres. The limit on patch cuts to 15% or less of the density management harvest area, which was intended, and was used in modeling, was not mentioned in the RMP. Therefore, the correct wording for this maintenance should be modified to read:

"*Patch cuts within a density management unit are limited to 5 acres in size and to no more than 15% of the density management treatment area.*"

Rationale for Change:

A clarification is needed between patch cuts and regeneration harvests. Patch cuts are small openings in relatively large density management units. The primary objective of cutting small patches/openings is to regenerate under-represented species in the stand; normally pines and Douglas-fir. Due to past harvesting practices and fire suppression, the species composition of stands has trended from shade intolerant species (pines and Douglas-fir) towards stands dominated by tolerant species (white fir). On page E-10 (Appendix E) of the RMP, Table E-1 lists the "Desired Species Composition (by percent conifer basal area)" for the South General Forest Management Area (SGFMA). The RMP states on page E-10 that the KFRA is to "Manage so that trees species over time trend toward ..." these composition levels. One of primary reasons for this objective is to improve the resiliency of the stands to natural disturbances (insects, disease, and fire). The small patch cuts are one of the prescriptions the KFRA is using to meet the species composition objective.

The amount of patch cuts that can be implemented in a density management unit is not changing. The limit, as modeled, has always been and will remain up to 15% of the unit. However, because the 15% limit has never been documented, it was necessary to add that statement as well. The size is increasing from 3 acres to 5 acres to insure that sufficient sunlight is reaching the younger seedlings and is not impacted by the shade from the patch cut edge. To date, approximately 72 acres (2.3%) of 3072 acres of density management treatments have received patch cuts.

- **Clarification of What a Regeneration Harvest Is, and the Constraints Involved When Implementing.**
  A regeneration harvest is a silvicultural system discussed in a number of places in the RMP. The partial objective of regeneration harvests (See Glossary, page 6-14, Vol. 1 of the FEIS) is to open "a forest stand to the point where favored tree species will be reestablished." There are two constraints to regeneration harvests. The first is mentioned in Appendix E, page E-10 of the RMP that states, "Regeneration harvests would not be programmed for stands under 120 years of age and generally would not be programmed for stands under 150 years of age within the next decade unless required by deteriorating stand condition, disease, or other factors that threaten the integrity of the stand." The second constraint relates to the Plan Maintenance items mentioned above that states; retain at least 16 to 25 large green trees per acre in regeneration harvest units. The KFRA projected 131 acres of regeneration harvests on the Westside and 33 acres on the Eastside. To date, no regeneration harvests have been implemented due to placing priority on mortality salvage sales.

- **Clarification of Snag Classification**
  During a timber sale review in KFRA in fiscal year 1999, the initial posttreatment stand exam data indicated that not enough Class 1 & 2 snags were retained. The stand exam data was surprising because many snags were intentionally marked for removal as required in the silvicultural prescription due to an already abundant down fuels load and snags at the time of marking. A review of the posttreatment stand exam data revealed that a snag was only classified as Class 1 or 2 if it had just died and/or still had red needles on it (1-2 years old). All other snags were classified as Class 3, 4, or 5. The KFRA determined that it needed a standardized format for classifying snags. The BLM Forest Survey Handbook, BLM Manual Supplement 5250-1, pages IV-10 to IV-12 was reviewed to determine if it was

sufficient for classifying snags. The handbook provides both pictures and descriptions of the different snag categories. The KFRA concluded that the handbook would be sufficient for classifying snags for future monitoring purposes.

Plan Maintenance for Fiscal Year 2000

- **Page I-7, KFRA RMP, Appendix I - Land Tenure**,

  Delete: Remove the following lands from Land Tenure Zone 3 and place them into Land Tenure Zone 1.

  T.36 S., R.15 E. W.M.; Sec. 28 (all); Sec. 32 (all).

  Rational for Change: The presence of the endangered species, cinder pit, and wetlands associated with Campbell Reservoir on the public lands preclude the BLM from making the finding that the resource values on the federal land are less than the resource values of the private land.

- Page #_C-44, Last_Paragraph, Line # 2 (Also found on other pages) of **Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning documents Within the Range of the Northern Spotted Owl Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl.**

  "Provide for retention of old-growth fragments in watersheds where little remains."

  "Landscape areas where little late-successional forest persists should be managed to retain late-successional patches. This standard will be applied to fifth field watersheds (20-200 square miles) in which federal forest lands are currently comprised of 15 percent or less late-successional forest."

- Pages 51-52, **KFRA RMP,** Off-Highway Vehicles

Add:

•To allow off-highway vehicles to use BLM/Klamath Falls Resource Area roads when weather conditions are such that damage to roads will not occur, or to use roads that will not impact threatened, endangered, or sensitive plan, animal, or fish species.

•To prevent off-highway vehicles from using BLM/Klamath Falls Resource Area roads by extending the seasonal closure when weather conditions are such that damage to roads will occur, or to prevent use of roads that will impact threatened, endangered or sensitive plant, animal, or fish species.

Before either scenario is implemented, the proposal must be reviewed by the Klamath Falls Resource Area Interdisciplinary Team (ID Team). The ID Team will make a recommendation to the Klamath Falls Field Manager to open the road or to extend the closure. The Field Manager will consider the ID Team's recommendation and make a decision on that recommendation.

A decision to extend the closure must be accompanied by publishing a Notice of Emergency Closure in the Federal Register according to the regulations found at 43 CFR 8364.1.

Rational for Change: The Plan Maintenance provides a mechanism to close a road prior to November 1st or to extend the closure past April 15th, if conditions warrant it. The same mechanism would be used to delay closing a road past the November 1st date or to open a road prior to April 15, if conditions warrant it.

Plan Maintenance for Fiscal Year 2002

Change of RMP Evaluation Interval to Five Years

The 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 circumstance to warrant amendment or revision of the plan. The ecosystem approach of the RMP is based on long term management actions to achieve multiple resource objectives including; habitat development, species protection, and commodity outputs. The relatively short three year cycle has been found to be inappropriate for determining if long term goals and objectives will be met. A five year interval is more appropriate given the resource management actions and decisions identified in the RMP. The Annual Program Summaries and Monitoring Reports continue to provide the cumulative RMP accomplishments. Changes to the RMP continue through appropriate amendments and plan maintenance actions. A five year interval for conducting evaluations is consistent with the BLM planning regulations 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. The next evaluation of the Klamath Falls Resource Area RMP will address implementation through September 2008.

Plan Maintenance for Fiscal Year 2010

Maintenance of the RMP Relative to Communication Sites

The Klamath Falls Resource Area Resource Management Plan and Environmental Impact Statement (RMP/EIS), approved September 1994, included a statement in the direction for the Proposed Resource Management Plan to, "*Allow expansion of communication facilities on existing communication sites*." (RMP/EIS p.2-63).

The current direction for communication sites in the KFRA RMP includes direction under the Headings, "Rights-of-way", and "Land Use Allocations" that reads:
"*Communication facilities will be allowed on existing communication sites, also shown on Map 12*." (KFRA RMP p. 66).

The RMP references Map 12, but fails to reference "Table 15. Communication Sites". Text should be added to page 66 of the RMP following the third paragraph as follows in italics:
"*Communication facilities will be allowed on existing communication sites, also shown on Map 12 and listed in Table 15. This table lists existing uses (under "Site Type") at designated Communication Sites and identifies current "BLM Restrictions" for those sites that may inhibit development unless alternate methods are used*."
Within Table 15 for the Stukel Mountain site, the spelling of the word "poer" should be corrected to read: "Must be FAA and low <u>power</u> radio compatible."

36.0 Plan Amendments and Revisions

Plan Amendment for Unintentional Encroachments - May 1999

- An amendment to the RMP on Unintentional Encroachments and Survey Hiatuses was completed in FY 99. The plan amendment allowed a 1.62-acre tract of land to be moved from Land Tenure Zone 1 to Land Tenure Zone 3, which allows for sale. The amendment added the provision to the RMP Land Tenure Adjustment - Management Actions/Direction for All Land Use Allocations section:
  - "*Where survey hiatuses and unintentional encroachments on public lands are discovered in the future that meet disposal criteria, the lands may be automatically assigned to Zone 3 for disposal*."

Plan Amendment for Survey and Manage Progam - January 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." This January 2001 Record of Decision amended a portion of the Northwest Forest Plan by adopting new standards and guidelines for Survey and Manage, Protection Buffers, and other mitigating measures. The ROD selects, with additional mitigation and minor modifications, Alternative 1 in the November 2000 Final Supplemental Environmental Impact Statement for Survey and Manage, Protection Buffers, and other Mitigation Measures in the Northwest Forest Plan (Final SEIS). The ROD made it possible for the Agencies to more efficiently provide the level of species protection intended in the Northwest Forest Plan. The ROD retained the major elements of Survey and Manage, restructuring them for clarity, describing criteria and processes for changing species assignments in the future, and removing 72 species in all or part of their range because new information indicates they are secure or otherwise do not meet the basic criteria for Survey and Manage. The Decision applies to administrative units of the USDA Forest Service and USDI Bureau of Land Management (BLM) (generally referred to as "the Agencies") within the range of the northern spotted owl.

Although this ROD continues to use the popular and inclusive title of "Northwest Forest Plan" to denote what is being amended, readers need to recognize there is no one such "Plan." The phrase denotes the April 13, 1994, amendments to all existing land and resource management plans for the U.S. Bureau of Land Management and U.S. Forest Service within the range of the northern spotted owl relating to management of habitat for late-successional and old-growth forest related species, as well as to the Regional Guides for Forest Service Regions 5 and 6, as listed below. The ROD amended a portion of those previous amendments, the standards and guidelines relating to Survey and Manage, Protection Buffers, and three other mitigation measures. The administrative units whose Plans were amended by this Decision are generally located in western Oregon and Washington (including some areas east of the Cascades) and northwestern California. The amended Resource Management Plans are for the Salem, Eugene, Roseburg, Medford, and Coos Bay Districts in Oregon; the Klamath Falls Resource Area of the Lakeview District, also in Oregon; and the Arcata, Redding, and Ukiah field offices in California. The King Range National Conservation Area Management Plan in the Arcata Resource Area in California is also amended.

Copies of the ROD and Final SEIS may be obtained by writing the Regional Ecosystem Office at P.O. Box 3623, Portland, Oregon 97208, or may be accessed at: http//www.or.blm.gov/nwfp/nepa

Plan Amendment for Survey and Manage Program - March 2003

Survey and Manage Annual Species Review

The 2001 Record of Decision added a process called the Annual Species Review to change in category and add or drop species from the Survey and Manage list. This process allows for adaptive management of species based on new information. In March of 2003 the Annual Species Review was released reducing the number of species requiring Survey and Manage mitigation from 317 to 304. Reference Table 1-1 of the 2002 ASR for a complete listing. Table 35.1 shows a break down of the placement of these species and a brief description of management actions required for each.

Table 36.1 - Redefined Survey and Manage Categories

Relative Rarity	Pre-Disturbance Surveys Practical	Pre-Disturbance Surveys Not Practical	Status Undetermined Pre-disturbance Surveys Not Practical
Rare	Category A - 53 species • Manage All Known Sites • Pre-Disturbance Surveys • Strategic Surveys	Category B - 182 species • Manage All Known Sites • N/A • Strategic Surveys	Category E - 17 species • Manage All Known Sites • N/A • Strategic Surveys
Uncommon	Category C - 3 species • Manage High-Priority Sites • Pre-Disturbance Surveys • Strategic Surveys	Category D - 12 species [1] • Manage High-Priority Sites • N/A • Strategic Surveys	Category F - 8 species • N/A • N/A • Strategic Surveys

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

Plan Amendment for Aquatic Conservation Strategy - October 2003

In October, 2003 the Under Secretary of Agriculture for Natural Resources and the Environment and the Assistant Secretary of the Interior for Land and Minerals Management, amended the 1994 Northwest Forest Plan to clarify provisions relating to the Aquatic Conservation Strategy (ACS). The Northwest Forest Plan is formally known as the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl (April 13, 1994). The Northwest Forest Plan amended agency resource management plans throughout the range of the Northern Spotted Owl. This decision amended Resource Management Plans (RMPs) for seven Bureau of Land Management (BLM) Districts including the Klamath Falls Resource Area Resource Management Plan and also amended Land and Resource Management Plans for 19 National Forests. The decision clarified the proper spatial and temporal scale for evaluating progress toward attainment of ACS objectives and clarified that no project-level finding of consistency with the ACS objectives is required.

The ACS is intended to maintain and restore the ecological health of watersheds and aquatic ecosystems within the Northwest Forest Plan area. The April 13, 1994 Record of Decision (1994 ROD) identifies the nine objectives of the ACS. Page B-10 of the 1994 ROD includes language that had been incorrectly interpreted. This language had been interpreted to mean that decision makers must evaluate proposed site-specific projects for consistency with all of the ACS objectives, and that a project cannot be approved if it has adverse short-term effects, even if the ACS objectives could be met at the fifth-field or 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 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 amended existing agency resource management plans in order to clarify project requirements with regard to the ACS but did not authorize any specific actions. It was a non-significant amendment under the National Forest Management Act. Project requirements related to Watershed Analysis, Endangered Species Act consultation, and NEPA will not change as a result of this decision. This decision does not assign or otherwise estimate Probable Sale Quantity (PSQ) for individual administrative units or for the Northwest Forest Plan as a whole.

Plan Amendment for Survey and Manage Program - March 2004

The Survey and Manage mitigation in the Northwest Forest Plan was amended in March 2004 through the signing of the Record of Decision (ROD) for the "Final Supplemental Environmental Impact Statement to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines." The intent of the amendment was to "conserve rare and little known species, reduce cost and effort and allow for achievement of healthy forests and timber outputs." The ROD removes the Survey and Manage Mitigation Standards Guidelines from the Northwest Forest Plan. The ROD states that this action will:

1. 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.
2. Reduce the Agencies' cost, time and effort associated with rare and little known species conservation.
3. Restore the Agencies' ability to achieve Northwest Forest Plan resource management goals and predicted timber outputs.

This decision does not eliminate the portion of the Survey and Mange Mitigations for certain cavity nesting birds, some bat roosts, and Canadian Lynx. Former Survey and Manage requirements regarding survey protocols, buffer requirements, and management of known sites will no longer apply. Some of the species that were formerly Survey and Manage are already listed as Special Status Species. The Forest Service and Bureau of Land Management's Special Status species programs will consider additional species for listing under their respective programs. Information Bulletin No. OR-2004-145 implemented special status species guidelines for former Survey and Manage species for the BLM.

For the BLM, this Decision amended the Resource Management Plans for the Salem, Eugene, Roseburg, Medford, and Coos Bay Districts in Oregon; the Klamath Falls Resource Area of the Lakeview District, also in Oregon; and the Arcata, Redding, and Ukiah field offices in California. The King Range National Conservation Area Management Plan in the Arcata Resource Area in California is also amended. Copies of the ROD and Final SEIS may be obtained by writing the Regional Ecosystem Office at P.O. Box 3623, Portland, Oregon 97208, or may be accessed at: http//www.or.blm.gov/nwfp/nepa

Survey and Manage Program Update - FY 2006

On January 9, 2006, a U.S. District Court order in Northwest Ecosystem Alliance et al. v. Rey et al. set aside the 2004 Record of Decision To Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines in Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern spotted Owl (March, 2004) (2004 ROD) and reinstated the 2001 Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measure Standards and Guidelines (January, 2001) (2001 ROD), including any amendments or modifications in effect as of March 21, 2004. The U.S. District Court subsequently modified this order to exempt four types of activities from the injunction such that the decision to eliminate the survey and manage provision is effective as to these activities. In general, these activities are described as thinning in stands of timber less than 80 years in age, stream improvement or restoration projects, road decommissioning, and fuel hazard reduction projects other than those that would involve harvest in timber stands greater than 80 years old. Also, subsequent to this court order in Klamath Siskiyou Wildlands Center et al. v. Boody et al., the Ninth Circuit held that the changes in survey and manage protection regarding the red tree vole resulting from the 2001 and 2003 Annual Species Reviews are invalid under the Federal Land Policy and Management Act (FLPMA) and the National Environmental Policy Act (NEPA). During fiscal year 2007, we expect to resolve the concerns raised in the court opinions through a supplemental EIS.

The Survey and Manage program is currently being implemented according to direction specified in the court order and in BLM Instruction Memorandum OR-2006-029.

Survey and Manage Program Update - FY 2007

The U.S. Forest Service and Bureau of Land Management released Records of Decision on the (2007) Final Supplement to the 2004 FSEIS to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines. The Decisions, signed by Assistant Secretary of the Interior Steve Allred and Under Secretary of Agriculture Mark Rey, select Alternative 2 which removes the Survey and Manage mitigation measure standards and guidelines from the 1994 Northwest Forest Plan (NWFP). The 1994 NWFP included Survey and Manage mitigation measures that provided specific guidelines for management of approximately 400 rare or little-known species of fungi, lichens, bryophytes, vascular plants, mollusks and vertebrates associated with late-successional, old-growth forests. By 2004 there were 295 species and 4 arthropod groups that still remained under the Survey and Manage mitigation measure.

Alternative 2 was selected over the other alternatives because it:

- Best restores the Agencies' ability to achieve Northwest Forest Plan resource management goals and predicted timber outputs.
- Best reduces the Agencies cost, time, and effort associated with rare and little known species conservation.
- Relies on other elements of the Northwest Forest Plan and the Agencies' existing Special Status Specie Programs to conserve rare and little known species.
- Species protection appears adequate and consistent with applicable laws and regulations.

The Secretaries each concluded that the Northwest Forest Plan without the Survey and Manage mitigation measure provides an adequate and reasonable approach to species conservation, consistent with the Agency's legal obligations.

Plan Amendment for the Western Energy Corridor - January 2009

In January 2009, the BLM signed the Approved Resource Management Plan Amendments/ Record of Decision for Designation of Energy Corridors on Bureau of Land Management-Administered Lands in the 11 Western States, also known as the West-wide Energy Corridor Record of Decision (WEC ROD). This decision amended 92 land use plans in support of the designation of more than 6,000 miles of energy transport corridors on Federal lands in 11 Western States. Specifically the KFRA RMP was amended to designate corridor segments 7-8, 7-11, and 7-24 on the eastern side of the resource area (refer to WEC ROD FIGURE A-8: BLM Resource Management Plans in Oregon Amended by this ROD).

The decision is based on analyses presented in the Final Programmatic Environmental Impact Statement, Designation of Energy Corridors on Federal Land in the 11 Western States, released on November 28, 2008, by the BLM and the U.S. Departments of Energy, Agriculture, and Defense as part of their work to implement Section 368 of the Energy Policy Act of 2005. The PEIS identifies energy corridors to facilitate future siting of oil, gas, and hydrogen pipelines, as well as renewable energy development projects and electricity transmission and distribution facilities on Federal lands in the West. The purpose of the plan amendments, enacted in the WEC ROD, is to establish pathways for long-distance energy transport projects across Federal lands in the West (ROD p. 1 – 2; Section 368 Energy Policy Act 2005). Future plan amendments should not sever connectivity across the landscape, or diminish or foreclose options for long-distance energy transport development within Section 368 corridors.

Plan Revision and Rescinded Records of Decision - July 2009

Since June 1995 the Klamath Falls Resource Area has been managing most lands under the direction of the Klamath Falls Resource Area Resource Management Plan (RMP). In addition, acquired lands at the Wood River Wetland have been managed under the Klamath Falls Resource Area Upper Klamath Basin and Wood River Wetland Record of Decision and Resource Management Plan (Wood River RMP) since February 1996. In FY 2004, the BLM began to revise the six existing Resource Management Plans in western Oregon. The Klamath Falls Resource Area RMP was included in this revision process. As part of that process, the decisions and management direction for the Wood River Wetland were to be incorporated into this new (revised) RMP.

In December 2008, the BLM issued six Records of Decision (ROD) for the Resource Management Plans (RMP) that were developed under the Western Oregon Plan Revisions. The RODs formally adopted the Proposed Resource Management Plan (PRMP) that was put forward in the Final Environmental Impact Statement (EIS), released in October 2008.

On July 16, 2009 the U.S. Department of the Interior, withdrew the Records of Decision (2008 RODs) for the Western Oregon Plan Revisions 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.

This Annual Program Summary will continue to report on implementation and monitoring for the 1995 and 1996 resource management plans currently in effect for the Klamath Falls Resource Area.

KLAMATH FALLS RESOURCE AREA

MONITORING REPORT

Fiscal Year 2010

KLAMATH FALLS RESOURCE AREA RESOURCE MANAGEMENT PLAN MONITORING REPORT

Introduction

This document represents the fifteenth year monitoring report of the Klamath Falls Resource Area Resource Management Plan since the Record of Decision was signed in June 1995. This monitoring report compiles the results and findings of implementation monitoring for fiscal years 1996-2010. This report does not include all the monitoring conducted by the Klamath Falls Resource Area that is identified in activity or project plans. Monitoring at multiple levels and scales, along with coordination with other BLM and Forest Service units, has been initiated through the Regional Interagency Executive Committee (RIEC).

Fiscal Year 1996-2010 Monitoring Summary

The Resource Management Plan monitoring effort for Fiscal Years 1996-2010 addressed the 88 implementation questions relating to the 21 land use allocations and resource programs contained in the Monitoring Plan. There are 54 effectiveness and validation questions included in the Monitoring Plan. The effectiveness and validation questions were not addressed because some time is required to elapse after management actions are implemented in order to evaluate results that would provide answers.

Findings

Monitoring results found full compliance with management action/direction in the 21 land use allocations and resource programs identified for monitoring as well as the 88 implementation monitoring questions contained in the plan.

Recommendations

No implementation or management adjustments are recommended, as Fiscal Year 1996-2010 monitoring results indicate very high compliance with management action/direction.

Conclusions

Analysis of the Fiscal Years 1996-2010 monitoring results concludes that the Klamath Falls Resource Area has almost 100% compliance with management action/direction, and therefore no major changes in management direction or resource Management Plan implementation is warranted at this time. The results indicate a continuing conscientious implementation of the plan by informed and knowledgeable staff and managers.

Fiscal Year 2010 Monitoring

Introduction

This monitoring report compiles the results and findings of implementation monitoring of the sixteenth full fiscal year of implementation of the RMP, fiscal year 2010. Tables M-1 and M-2 provide a summary of the projects monitored and the selection categories respectively.

This report does not include the monitoring conducted by the Klamath Falls Resource Area that is identified in activity or project plans. Monitoring at multiple levels and scales along with coordination with other BLM and Forest Service units has been initiated through the Regional Interagency Executive Committee (RIEC).

Table M.1 - Projects Monitored FY 2010

Project Type	Number and/or Names of Projects Monitored
Timber Sales	Slim Chicken, CHEW, Clover Creek
SilvicultureTreatments	Forest Development Projects: restoration thinning, precommercial thinning, pruning, site preparation, tree and bitterbrush planting, reforestation surveys, maintenance/ protection of stands
Fish Habitat Improvement	In FY 2010, post-treatment monitoring was conducted on two reaches of Spencer Creek since the helicopter log placement project using blocknet/electrofishing methods to determine changes in aquatic species occurance. As in FY 2009, year round fish passage was improved between the lower Wood River and Agency Lake by the maintenance of a secondary connective channel.
Wetland Water Quality	Water quality monitoring at the Wood River Wetland, including pH, conductivity, dissolved oxygen, ammonia, nitrate+nitrite, total Kjeldahl nitrogen (TKN), orthophosphate, and total phosphorus were measured to assess nutrient loading to Agency Lake (see also Wood River Wetland Monitoring Section). Temperature monitoring in Wood River, Spencer Creek, Gerber Tributaries, and Klamath River. Flow monitoring at Spencer Creek Hook-up road culvert and at the Wood River Wetland fish screen.
Wildlife	Wood River Wetland - Oregon spotted frogs, American bullfrogs, eagles/raptors, and neotropical migratory landbirds Remainder of the Resource Area - Three areas in the Willow Valley watershed for bats as part of the Oregon Bat grid; 10 osprey nests; landbird monitoring; 12 northern spotted owl nest territories; 23 bald eagle nest territories and four mid-winter trend routes; the Wood River Wetland Oregon spotted frog sites; 8 northern goshawk nest territories; and 6 golden eagle nest territories. Bitterbrush Plantings – Four bitterbrush planting units were monitored in 2010 to determine planting success. Monitoring showed an average survival rate of 82% for the two units planted in 2010 and an average of 50% survival rate for the two units planted in 2009. Pokegama Winter Range Brush Mowing and Oak Treatments
Prescribed Burns	Horsefly Underburn
Grazing Projects	16 existing improvements (fences, spring improvements) and 62 grazing allotments (studies and use supervision)
Water & Soil Projects	Monitoring of spring flow in the Gerber Block; water temperature monitoring in the Gerber watershed, Klamath River, Spencer Creek, Johnson Creek, and Fourmile Creek; riparian photo points throughout the resource area. Flow monitoring and culvert performance at the new open bottom Spencer Creek Culvert Replacement, a Title II project completed in 2006, was monitored for site stabilization and erosion potential.
Juniper Projects	West Boundary, Dog Hollow, FTZ 110, Horse Camp Rim North and South, Bryant Mountain, Smith Reservoir, Dorris II, Lower Midway II and Dog Hollow/Midway manual juniper cutting

Table M.2 - FY 2010 Implementation Monitoring Selection Categories

Selection Categories	# of Projects	# Monitored	% Monitored
Ground-Disturbing Activities (other than timber sales)	8	8	100%
Grazing Allotments	94	60*	64%
Projects in Riparian Reserves	2	2	100%
Removing Structures within Riparian Reserves	0	0	N/A
Projects in Late Successional Reserves	1	1	100%
Timber Sales in Watersheds With <15% Late Success. Forest	0	0	N/A
Timber Sales (Harvesting completed)	3	3	80%
Juniper Projects	8	8	100%
Projects Within or Adjacent to Special Areas	0	0	N/A
Projects That Include or are Adjacent to Special Habitats	2	2	100%
Projects in VRM II or III Areas	3	3	100%
Projects Within or Adjacent to Wild & Scenic River Corridors	3	3	100%
Projects in Rural Interface (prescribed fire)	5	1	20%
Noxious Weed Project (sites)	380	75	19%
Prescribed Burn Projects	13	3	25%
Projects That Required Dust Abatement	3	3	N/A

Note: Minimum monitoring requirement in each listed category is 20%. The district exceeded the minimums in numerous categories, primarily due to overlapping applicability (many projects meet several criteria in above table).
* Includes one or more of the following monitoring studies or activities: utilization, use supervision, condition, trend, actual use, photo points, range/riparian studies.

Discussion of Discrepancies

Timber Harvest Acres - Discrepancies from the RMP:

Table M-3 compares projected volume and acres to actual volume and acres harvested to date. On the Westside, 112.9 MMBF has been sold on approximately 31,196 acres. On the Eastside, 9.232 MMBF as been sold on approximately 5,717 acres. While the total volumes harvested are in line with the RMP, the number of acres yielding that volume was higher than predicted on the Westside. A combination of factors has contributed to this discrepancy. Regeneration harvests were expected to result in higher yields per acre than other treatments. To date, only 259 acres of regeneration harvests have been implemented to date on the Westside and none on the Eastside of the KFRA. Under the RMP, regeneration harvest was planned for approximately 131 acres per year on the Westside (2,096 acres in sixteen years) and 33 acres annually on the Eastside (528 acres in sixteen years). In lieu of regeneration harvests, approximately 22 percent of the volume to date has come from mortality salvage sales and the remaining from density management/uneven-aged harvests. Typically, mortality salvage harvests consist of removing less volume per acre but treating more acres than regeneration harvests.

In FY 2010, 5.317 million board feet (MMBF) was offered. This represents approximately 93% of the 6.31 MMBF allowable sale quantity for both the Eastside and Westside lands combined. Cumulative information on timber harvest acres, volumes, and harvest types since the beginning of the RMP are provided in Table M-4. Except for the District declared Allowable Sale Quantity, projections made in the RMP are not intended as management action/direction, but rather are underlying RMP assumptions. Projected levels of activities are the approximate level expected to support the Allowable Sale Quantity.

Unresolved litigation and uncompleted strategic surveys under Survey and Manage limited the ability to offer timber sales at the levels anticipated by the RMPs during Fiscal Year 2001 and in some prior years. The KFRA has been able to make up the shortfall in volume sold in recent years. The Western Oregon O&C Districts, including the KFRA, revised their Resource Management Plans including reassessment of the assumptions used to generate an Allowable Sale Quantity. The revised RMP Record of Decision was issued and then rescinded in FY 2009. The KFRA will continue to implement the 1995 RMP Allowable Sale Quantity.

Wildlife Discrepancies:

As part of the RMP, it was planned to treat 1/4 of the brushfields in each allotment during a decade. Treatment, in this case, meant returning the brushfield to an early seral state or rejuvenating it through extensive use of mechanical, manual or fire treatments. The acre figures noted in the Grazing EIS were based on 1/4 of the acres of identified mature brushfield in each allotment. Since the RMP was approved, the range inventories have shown the need for more treatment acres to simply maintain existing sagebrush stands in optimum condition. The treatments did not result in as extensive ground disturbance as originally proposed, but may cover more acres per allotment.

The prescribed fire EA (Environmental Assessment OR-014 94-09) was incorporated into the RMP and proposed treating up to 10,000 acres. Currently, the projects proposed to treat excess fuels under the Fire EA, treat some of the same allotments where brushfields are scheduled to be managed. Fuels management treatments were also analyzed in the RMP.

Therefore, there may be more acres treated in each allotment than is covered in Appendix H of the RMP. However, since the types of treatments have been analyzed in the RMP and the disturbance per acre is less than previously predicted, the impacts are well within those analyzed in the RMP.

The number of acres treated in large blocks for density management purposes may have a negative effect upon deer and elk and other species dependent upon the understory components of a stand for cover. In order to provide some variation in the stand density across the landscape, small clumps of trees were retained within the sale areas. The number and acreage of clumps retained was dependent upon the importance of an area to deer and elk and upon the original characteristics of the stand. The combination of these clumps and reserve areas such as Riparian Reserves comprise up to 20 percent of the harvested acres for a given entry. Some of these "wildlife clumps" are comprised primarily of white fir and are overstocked. These "wildlife" clumps may be treated during subsequent harvest entries and are not considered to be permanent reserves. For the sales within the third year evaluation time frame, all wildlife clumps were less than an acre. For the period beyond this evaluation period, larger clumps of up to 15 acres may be retained. The decision not to thin these areas may result in an increase in the number of snags and thus result in a potential benefit to woodpeckers, secondary cavity nesters and bats. No evaluation of the use of these wildlife clumps by wildlife has been made to date.

Table M.3 - Projected vs. Actual Harvest Volumes and Acres to Date

	WESTSIDE				EASTSIDE			
	Volume(MMBF)*		Acres		Volume(MMBF)		Acres	
Harvest Method	**Projected**	**Actual**	**Projected**	**Actual**	**Projected**	**Actual**	**Projected**	**Actual**
Density Management	94.56**	87.66**	15,344	23,494	6.4**	7.55**	4,304	4,543
Regeneration Harvests	30.24**	5.73**	2,096	259	0.0**	0.0**	528	0
Mortality Salvage	0.0	19.48	0	7,443	0.0	1.68	0	1,174
Totals	**124.8**	**112.9**	**17,440**	**31,196**	**6.4**	**9.232*** **	**4,832*** **	**5,717**

*MMBF = Million Board Feet
**Westside/eastside projected and actual volumes are combined figures for Density Management, Regeneration Harvest, and Stewardship volumes.
***Actual exceeds Projected because the KFRA offered 2.5MMBF of volume on the eastside in 2005, which equates to approximately 5-6 years of volume for estimated ASQ on the eastside.

Table M.4 - Timber Sale Volume and Acres Offered (Entire Resource Area)

Total Timber Volume – MBF (Thousand Board Feet)

	Westside		Eastside		Combined		Annual	Assumed	% Assumed
	FY10	FY95-10	FY10	FY95-10	FY10	FY95-10	Average	Ann. Ave.	Ave.
Timber Sale Program	5,406	87,657	20	7,553	5,426	95,210			
Matrix Timber Sales	5,297	86,792	20	7,446	5,317	94,238	5,890	6,310	93%
All Reserves	109	865	0	107	109	972	61		
Key Watersheds	5,406	53,243	0	0	5,406	53,243	3,328		
Regeneration Harvests	0	5,728	0	0	0	5,728	352		
Density Management	5,297	60,276	0	5,703	5,297	65,979	4,124		
Mortality Salvage	0	19,253	0	1,606	0	20,859	1,304		
Small Sales-Regulated	0	80	20	74	20	154	10		
R/W Clearing	0	143	0	0	0	143			
Unmapped LSRs	0	22	0	0	0	22			
Riparian Reserves	109	416	0	51	109	467			
Admin Withdrawal	0	84	0	56	0	140			
For. Stewardship - Regulated	0	1,311	0	64	0	1,375			
For. Stewardship - Non-Regulated	0	344	0	0	0	344			
For. Steward. - Biomass (tons)	531	12,102	8,518	8,518	9,049	20,620			
Juniper Sawlog Vol. (MBF)	0	0	230	2,179	230	2,179			
Biomass - hog fuel (tons)	6,987	17,433	0	8,518	6,987	26,949			
Stew. Clean Chips (tons)	884	2,540	1,230	9,124	2,114	10,008			

Total Timber Sale Acres

	Westside		Eastside		Combined		Annual	Assumed	% Assumed
	FY10	FY95-10	FY10	FY95-10	FY10	FY95-10	Average	Ann. Ave.	Ave.
Timber Sale Program	940	23,831	0	4,624	940	28,455			
Matrix Timber Sales	910	23,494	0	4,543	910	28,037	1,752	1,261	139%
Reserves	30	337	0	41	30	378			
Key Watersheds	940	12,143	0	0	940	12,143			
Regeneration Harvests	0	259	0	0	0	259	16	164	10%
Density Management	378	14,012	551	3,319	929	17,331	1,155	1,097	105%
Mortality Salvage	0	7,438	0	1,154	0	8,592	573		
Small Sales-Regulated	0	1	0	20	0	21			
R/W Clearing	0	4	0	0	0	4			
Unmapped LSRs	0	2	0	0	0	2			
Riparian Reserves	30	127	0	39	30	166			
Admin Withdrawal	0	50	0	2	0	52			
For. Stewardship - Reg.	0	870	0	50	0	920			
For. Stewardship - Non-Reg.	0	158	0	0	0	158			
Juniper Sawlog (acres yarded)	0	0	0	1,768	0	1,768			
Stew. Clean Chips (acres yarded)	115	115	627	1,587	742	1,702			

All Land Use Allocations

Expected Future Conditions and Outputs

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

Implementation Monitoring

Monitoring Question 1: Are surveys for the species listed in Appendix E (RMP/EIS) and/or Table 1-1 of the Standards and Guidelines (S&M SEIS) conducted before ground-disturbing activities occur?

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

determine if surveys are conducted for species listed in Appendix E, 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 E are protected.

Monitoring Performed: Surveys for Survey and Manage species continued in FY 2010. Surveys were conducted for the Wildgal, Spencer Creek and LOST project areas. The emphasis of survey effort is on Threatened and Endangered, Survey and Manage, and BLM Sensitive Species.

Findings (for all activities):

Animals

White-headed Woodpecker

Surveys were conducted in the Spencer Creek watershed including the Spencer Creek project area. One of the three routes produced a detection of this species. No other detections occurred.

Great Gray Owl

Surveys for Great gray owls were initiated in 2010 for Lost and Wildgal. No detections occurred in the initial year of surveys. Spencer Creek great gray owl surveys were completed in 2009. No detection of great gray owls occurred for the Spencer Creek project.

Mollusks

Surveys were conducted for the Wildgal project area in 2010 for survey and manage category terrestrial mollusks. Several sites of one survey and manage species, the chace sideband snail, were located in the project area. Those sites will be buffered and protected during the implementation of the project. No other survey and manage terrestrial mollusks were located.

Plants

Fungi

Surveys for fungi were not conducted on the KFRA in FY 2010.

Vascular Plants

Surveys for special status, including Interagency Special Status / Sensitive Species Program (ISSSSP) vascular plant species were conducted in FY 2010 through a new botanical survey contract.

Conclusions: Surveys for Threatened and Endangered, Survey and Manage and Bureau Sensitive species are typically conducted prior to ground disturbing activities.

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

Monitoring Requirement: At least 20 percent of all ground-disturbing management actions will be examined prior to project initiation and reexamined following project completion, to determine if surveys are conducted for species listed in Appendix E, 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 E are protected.

Monitoring Performed: Thin Sheep Timber Sale

Findings:

Animals

A ¼ mile nest buffer was provided for the great gray owl nest site within the Thin Sheep timber harvest area. This area was checked post harvest during nest monitoring in 2010. The

buffer was still functioning and providing nest habitat. The great gray owls were found near their nest site within the buffer.

Plants

Fungi

No special status fungi were found, therefore no buffers were required.

Vascular Plants

No special status vascular plants were found, therefore no buffers were required.

Conclusions: The required management actions for specific rare, and locally endemic, species, and other species in the upland forest matrix, are being implemented.

Monitoring Question 3: Are the known sites of amphibians, birds, mammals, bryophytes, mollusks, vascular plants, fungi, lichens, and arthropod species listed in Appendix E (FEIS) and/or Table 1-1 of the Standards and Guidelines (S&M SEIS) being protected?

Monitoring Requirement: At least 20 percent of all ground-disturbing management actions will be examined prior to project initiation and reexamined following project completion, to determine if surveys are conducted for species listed in Appendix E, 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 E are protected.

Monitoring Performed: Thin Sheep Timber Sale

Findings: See answer to Monitoring Question 2 above.

Conclusions: Known sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi, lichens, and arthropod species listed in Appendix E of the RMP and/or Table 1-1 of the Standards and Guidelines (S&M SEIS) are being surveyed and protected.

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

Monitoring Requirement: At least 20 percent of all ground-disturbing management actions will be examined prior to project initiation and reexamined following project completion, to determine if surveys are conducted for species listed in Appendix E, 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 E are protected.

Monitoring Performed: Thin Sheep Timber Sale

Findings Surveys for SEIS species continued in FY 2010. Surveys were conducted for the Wildgal and Lost Project Areas. The emphasis of survey effort is on Survey and Manage and BLM Sensitive Species.

Conclusions: Known sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi, lichens, and arthropod species listed in Appendix E of the RMP are being surveyed.

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

Monitoring Requirement: At least 20 percent of all ground-disturbing management actions will be examined prior to project initiation and reexamined following project completion, to determine if surveys are conducted for species listed in Appendix E, 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 E are protected.

Monitoring Performed: Wildgal Project Area

Findings:

Animals

Mollusks

Surveys located several sites of the Chace Sideband snail in the Wildgal project area. These sites have been identified on the ground and will be protected during project implementation. Surveys for great gray owl (GGO) have been partially completed. No GGO's have been located yet. Surveys will continue in 2011.

Plants

Fungi

No high priority sites for fungi were found.

Vascular Plants

No high priority sites for fungi were found.

Conclusions: High priority sites for species management are being identified. High priority species are managed the same as manage all known sites species.

Late-Successional Reserves

Expected Future Conditions and Outputs

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

• Protection and enhancement of habitat for Late-Successional and old-growth forest-related species including the northern spotted owl

Implementation Monitoring

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

Monitoring Requirement: The Annual Program Summary will address Implementation Question #1.

Monitoring Performed:
The status of the development of the resource area wide LSR assessment was reviewed.

Findings: A single Late-Successional Reserve Assessment was prepared in FY 2003 that assesses all 19 of the reserves designated for late-successional forest values within the resource area. Data on current conditions within each of the reserves had been collected in previous fiscal years. Along with historical descriptions and harvest data, these data served as a basis for written assessments of conditions in each reserve. The Late-Successional Reserve Assessment was submitted to the Regional Ecosystem Office (REO) for review and approval in the spring of 2003. In a memorandum dated September 27, 2004, the Regional Ecosystem Office, based upon the final review of the LSR Assessment by the LSR Work Group, concurred with the Klamath Falls Resource Area in its findings and consistency with the Standards and Guidelines (S&Gs) under the Northwest Forest Plan (NWFP).

Conclusion: RMP requirements will be met.

Monitoring Question 2:
A) What activities were conducted or authorized within Late-Successional Reserves (LSRs) and how were they compatible with the objectives of the LSR plan?
B) Were the activities consistent with SEIS ROD Standards and Guides, RMP management direction, and Regional Ecosystem Office review requirements and the LSR assessment?

Monitoring Requirement: The Annual Program Summary will address Implementation Question #2.

Monitoring Performed: Review of activities conducted or authorized within Late-Successional Reserves (LSRs).

Findings: No activities in LSR's were conducted or authorized in FY 2010.

Conclusion: N/A

Monitoring Question 3: What is the status of development and implementation of plans to eliminate or control non-native species, which adversely impacts LSRs?

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

Monitoring Performed: Review of species lists from each unmapped LSR, and review of the noxious weed management program.

Findings: Noxious weed management is not a habitat manipulation activity that requires a Late-Successional Reserve Assessment before implementation. Standards and Guides for LSRs direct us to evaluate the impacts of nonnative species currently within reserves, and to develop plans for control or elimination of species that are inconsistent with LSR objectives.

Conclusion: Impacts of nonnative species have been evaluated, and the species that currently exist within the reserves, are not inconsistent with LSR objectives. Noxious weed management activities and prevention strategies on lands near and adjacent to late-successional reserves will reduce the probability that other nonnative species will become established within the reserves.

Monitoring Question 4:
A) Are the effects of existing and proposed livestock management and handling facilities in Late-Successional Reserves being evaluated to determine if LSR objectives are met?
B) Are livestock management and/or handling facilities relocated where LSR objectives are not met?

Monitoring Requirement: The Annual Program Summary will report the status of evaluations of existing and proposed livestock management facilities inside LSRs, to determine if reserve objectives are being met. The APS will report on the status of relocating those facilities where LSR objectives cannot be met.

Monitoring Performed: Review of existing and proposed livestock management facilities within the resource area.

Findings: No existing or proposed livestock management facilities are located within LSRs in the resource area.

Matrix

Expected Future Conditions and Outputs

- Production of a stable supply of timber and other forest Commodities.
- Maintenance of important ecological functions such as dispersal of organisms, carryover of some species from one stand to the next, and maintenance of ecologically valuable structural components such as downed logs, snags, and large trees.
- Assurance that forests in the Matrix provide for connectivity between mapped Late-Successional Reserves.
- Provision of habitat for a variety of organisms associated with early and Late-Successional forests.

Implementation Monitoring

Monitoring Question 1: Are suitable numbers of snags, coarse woody debris, and green trees being left, following timber harvest, as called for in the SEIS ROD Standards & Guidelines and RMP management direction?

Monitoring Requirements: At least 20 percent of timber sales in the resource area will be examined by pre- and post-harvest (and after site preparation) inventories to determine snag and green tree numbers, heights, diameters, and distribution within harvest units. Snags and green trees left following timber harvest activities (including site preparation for reforestation) will be compared to those that were marked prior to harvest.

The same timber sales will be inventoried pre- and post-harvest to determine if SEIS Record of Decision and RMP down log retention direction and protection buffers for special status and SEIS special attention species have been followed.

Monitoring Performed: Table M-5 displays all the timber sales that have been monitored from FY 1997 through FY 2008.

Findings: Results of prior year timber sale monitoring are shown in earlier Annual Program Summaries. Table M-6 summarizes the stand attribute data that was gathered from post-treatment stand exams on the recently completed Walters Cabin Timber Sale. This sale was located on the westside of the Resource Area.

Table M.5 - Timber Sale Monitoring Summary

FY	Timber Sale Name	Acres	Monitored By	Pre/Post Treatment Stand Exams Completed	Soil Monitoring Completed
1997	Too Frosty	459	KFRA ID Team	Yes	Post Treatment Only
1998	Lower Spencer Salvage	1,000+	REO & KFRA ID Team	No	No
1999	Kakapoo Stew	397	REO & KFRA ID Team	Yes	Pre & Post Treatment
2000	Stukel Mountain	230	KFRA ID Team	Yes	No
2001	Grenada East	1,440	Silviculture/Wildlife/Timber	Yes	Post Treatment Only
2001	Grenada West	1,003	Silviculture	Pre-treatment	No
2001	Slim Chicken	2,113	Silviculture	Yes	No
2001	Muddy Tom	400	Soils	Yes	Pre Treatment
2002	Muddy Tom	1,880	Timber and Silviculture	Yes (some)	GPS Skid Trails
2002	Bull Sp. Fire Salv. Modif.	84	KFRA ID Team	Yes (ongoing)	No
2002	Clover Hookup	940	Silviculture and Timber	Yes	Snow Logging Photo Pts
2003	Bly Mountain	631	Silviculture	Yes	Pre & Post Treatment
2004	Grenada West	1,003	Silviculture	Yes (ongoing)	No
2005	CHEW	1,158	Silviculture	Yes	No
2005	Muddy Tom	400	Soils	NA	Post Treatment
2005	Saddled Again	200	Soil / Snow Logging	NA	Post Treatment
2006	Chase Mountain (Sec. 5)	447	Silviculture/Timber	Yes	No
2006	Thin Sheep	590	Wildlife/Timber	Pre-treatment	No
2007	Thin Sheep	590	Wildlife/Timber	Yes	No
2007	Buck Again	850	Wildlife	Pre-treatment	No
2007	Pleasant Valley Salvage	115	Timber	No	No
2008	Walters Cabin	578	Timber	Yes	No
2009	Adobe West	1,720	Silviculture/Timber	Pre-treatment	No
2009	Wildgal	700	Silviculture	Pre-treatment	No
2009	West Spencer	500	silviculture	Pre-treatment	No

Table M.6 - Summary of Post-Treatment Stand Characteristics for the CHEW Timber Sale

Stand Attributes	CHEW TS Area		
Canopy Closure (%)	Average = 76% SE% = 27		
Basal Area/Acre (Sq.ft./acre)	Average = 93.8 Range = 20 - 160		
Number of Trees/Acre	Average = 132.4 Range = 2.3 to 203.2		
0”-6” DBH	210 (WF)/148 (DF)/ 1119 (IC)/ 28.7 (PP) Total = 505.7		
7”-18” DBH	39.3 (DF) /31.3 (PP) / 17.6 (WF)/ 1 (SP) Total = 89.2		
19”-30” DBH	6.5 (DF) / 6.5 (PP) / 0.8 (SP)/ 0.8 (WF) Total = 14.6		
> 30” DBH	None		
Tree Species Compositon (BA)	48.4% (DF)/ 44% (WF)/ 43.9% (PP)/ 3% (SP)/ 0.1% (IC)		
Fuel Loading (Tons/Acre, logs >5”x8’)	2.2 tons/acre SE% = 100		
Coarse Woody Debris (total length/acre)			
Decay Class 1 and 2 (>16” diam x >8’ long)	114 feet, SE=100		
Decay class 3, 4, & 5 (>16” diam x >8’ long)	none measured		
All Decay Classes (>16” diam x >8’ long)	114 feet		
All Decay Classes (>8” diam x >8’ long)	114 feet, SE=100		
Snags/Acre Category	7”-14” DBH	>” DBH	Total
Class 1 and 2 Snags (>51’ height)	none measured	none measured	none measured
Class 1 and 2 Snags (<50’ height)	none measured	none measured	none measured
Class 3, 4, & 5 Snags (>51’ height)	none measured	none measured	none measured
Class 3, 4, & 5 Snags (<50’ height)	none measured	none measured	none measured
Totals	none measured	none measured	none measured

Table M.7 - Summary of Post-Treatment Stand Characteristics for the Slim Chicken Timber Sale

Stand Attributes	Slim Chicken TS Area		
Canopy Closure (%)	Average = 72% SE% = 3.7		
Basal Area/Acre (Sq.ft./acre)	Average = 116.2 SE% = 5.5		
Number of Trees/Acre	Average = 98 SE% = 10.4		
0”-6” DBH	169 (DF)/43.6 (WF)/ 35.4 (IC)/ 210.9 (PP) Total = 258.9		
7”-18” DBH	48.7 (DF) /28.4 (PP) / 6.3 (IC)/ 1.7 (WF) Total = 85.1		
19”-30” DBH	8 (PP) / 7.3 (DF) / 0.8 (IC) Total = 16.1		
> 30” DBH	0.3 (DF), 0.2 (PP) Total=0.5		
Tree Species Compositon (BA)	55.8% (DF)/ 40.8% (WF)/ 38.6% (PP)/ 3.2% (IC)		
Fuel Loading (Tons/Acre, logs >5”x8’)	18.6 tons/acre SE% = 90		
Coarse Woody Debris (total length/acre)			
Decay Class 1 and 2 (>16” diam x >8’ long)	65.2 feet, SE=90		
Decay class 3, 4, & 5 (>16” diam x >8’ long)	none measured		
All Decay Classes (>16” diam x >8’ long)	65.2 feet		
All Decay Classes (>8” diam x >8’ long)	65.2 feet		
Snags/Acre Category	7”-14” DBH	>” DBH	Total
Class 1 and 2 Snags (>51’ height)	1.5	0.7	2.1
Class 1 and 2 Snags (<50’ height)	none measured	none measured	none measured
Class 3, 4, & 5 Snags (>51’ height)	none measured	none measured	none measured
Class 3, 4, & 5 Snags (<50’ height)	none measured	none measured	none measured
Totals	1.5	0.7	2.1

Snags

The KFRA RMP requires leaving approximately 1.9 snags per acre (1.4 eastside) to meet the 60 percent optimum cavity nesting habitat for cavity nesters. An additional 0.7 snags per acre must also be left to meet the protection buffer requirement for white-headed and black-back woodpeckers. Snags for the white-headed woodpecker need to be at least 15 inches DBH and in the soft category. For the black-backed woodpecker, the snags must be at least 17 inches DBH and in the hard category. Silvicultural prescriptions in the KFRA have generally called for leaving a total of 2.6 snags per acre (1.4 eastside) or more with at least one greater than 20 inches DBH. For the CHEW Timber Sale, there were no snags measured after harvest. For the Slim Chicken timber sale, 1.5 snags between 7”-14” and 0.7 snags > 14” were measured for a total of 2.1 snags/acre. No snags were marked for removal under either timber sale so there should be little change in the total number of snags between pre and post harvest. This indicates that both sales are deficit in snags/acre. Generally under a timber sale, only snags that present a risk to operations are cut per requirements under Occupational Safety and Health Administration (OSHA).

Coarse Woody Debris (CWD)

For KFRA westside lands within the boundaries of the NFP, page C-40 of the Northwest Forest Plan Record of Decision (ROD) states, “*Until standards are developed as described above, the following guidelines apply in areas of* ***regeneration harvests****:...In eastern Oregon and Washington and western Oregon south of the Willamette National Forest and the Eugene BLM District, a minimum of 120 linear feet of logs per acre greater than or equal to 16 inches in diameter and 16 feet long should be retained. Decay class 1 and 2 logs can be counted towards these totals. Down logs should reflect the species mix of the original stand. In all cases, standards and guidelines from current plans and draft plans preferred alternatives apply if they provide greater amounts. In areas or partial harvest, the same basic guidelines should be applied, but they should be modified to reflect the timing of stand development cycles where partial harvesting is practiced.*” For eastside lands in the KFRA which are not under the NFP guidelines, the KFRA RMP standard is 50 linear feet of logs per acre greater than or equal to 12 inches in diameter and 8 feet long in **regeneration harvest** areas only.

Both the CHEW and Slim Chicken timber sales were considered "partial harvest." The primary prescription was Density Management/Uneven-aged Management. CHEW was found to have 2.2 tons and 114 feet per acre of DWD. Slim Chicken was found to have 18.6 tons and 65.2 feet per acre of CWD. This indicates that both sale areas are deficit in CWD. Qualitative observations indicate that CWD in the mature, natural stands is primarily a result of on-going insect, disease, and wind throw related mortality.

Green Tree Retention

The RMP requires that an average of 16 to 25 Westside (5-10 eastside) large green trees per acre be left. Plan maintenance (see 1999 APS) clarification indicates that this requirement is for regeneration harvests only. Over the past fourteen years, the KFRA has implemented 259 acres of regeneration harvest on the westside and none on the eastside. Most harvest prescriptions have consisted of either density management/uneven-aged management or mortality salvage. In both prescriptions, a majority of the large green trees are retained. For the CHEW Timber Sale, as Table M-6 indicates, an average of 103.8 trees per acre (7"- 30" DBH) were marked for retention. In the Slim Chicken Timber Sale, an average of 101.7 trees per acre (7"-50" DBH) were marked for retention. With the exception of regeneration harvest areas, the KFRA intends to implement uneven-aged management prescriptions, maintain late-successional structural components, and address forest health issues in the Matrix. That is why the stand exam data reveals a complete array of tree sizes.

Tree Species Composition

The KFRA is tracking species composition changes through pre- and post-treatment stand exams to help determine trends in species composition changes. An objective in most silvicultural prescriptions is to retain the more desirable species, including healthy pines and Douglas-fir. Eastside stands are predominantly ponderosa pine with scattered juniper and some white fir and cedar.

Many of the mixed conifer stands contain a higher percentage of shade tolerant species (white fir) than historically found (Leiburg, 1899). This is primarily a result of past harvesting practices—where many of the overstory pines and Douglas-fir were removed—and fire suppression, which tends to favor the shade tolerant white fir. Historical data has shown that this area was 40-60% ponderosa pine, 22-55% Douglas fir, 5-15% sugar pine, and < 2% of a combination of white fir and incense cedar.

The post-treatment monitoring data from the CHEW Timber Sale indicated that trees to be left after harvest consisted of approximately 48.4% Douglas fir, 43.9% ponderosa pine, 4% white fir, 3% sugar pine and 0.1% incense cedar. The post-treatment monitoring data from the Slim Chicken Timber Sale indicated that trees to be left after harvest consisted of approximately 55.8% Douglas fir, 38.6% ponderosa pine, 3.2% incense cedar and 0.8% white fir.

Canopy Closure

The KFRA is monitoring canopy closure changes through pre- and post-treatment stand exams. Biologists often use canopy closure as one stand variable to assist in evaluation of whether a particular stand meets nesting, roosting, or foraging habitat for different species. To date, using the density management/uneven-aged management prescription, canopy closure after harvest on westside timber sales has averaged 50 to 86 percent, which is a level that meets the requirements for some late-successional dependent species. Canopy closure after harvest averaged 76% on the CHEW Timber Sale and 72% on the Slim Chicken Timber Sale.

Basal Area/Relative Density

The KFRA monitors basal area and relative density changes for a number of reasons. There has been considerable research on optimizing stand densities and growth using basal area and relative density to monitor stand stocking levels and to prevent the on-set of density

related mortality in overstocked stands. The Growth and Yield Model (ORGANON) that was used to help determine the ASQ is highly dependent upon basal area levels before and after harvest to predict and maintain growth rates. The silvicultural prescriptions for all harvests contain basal area objectives. Pre- and post-treatment monitoring is done to determine if those silvicultural objectives were met. There has been a significant amount of research, particularly on drier sites, determining basal area levels where stands are most susceptible to insect outbreaks. The KFRA uses these threshold levels in the silvicultural prescriptions to assure that treatments are adequate to improve the overall resiliency of the stand against natural disturbances including insects and diseases as well as wildfire. Generally, the higher elevation stands have a higher basal area threshold than the drier, low elevation stands. The objective for both sales was to retain, on the average, between 60 and 120 square feet of basal area per acre. The post-treatment monitoring data indicated an average basal area of 110 square feet per acre was retained in the CHEW Timber Sale and 116 square feet per acre was retained in the Slim Chicken Timber Sale (Tables M-6 and M-7).

Conclusion:
The FY 2001 annual program summary contained some clarification in the Plan Maintenance addressing the requirement of leaving an average of 16 to 25 large green trees in regeneration harvests only. The KFRA has complied with the snag, coarse woody debris, and green tree requirements to date. A quality control program has been initiated to assure that silvicultural prescriptions modeled are actually being implemented on the ground. This is normally monitored using basal area. Post-harvest monitoring of timber sales indicates retention of many desirable late-successional characteristics. The wildlife staff is monitoring biological use of posttreatment stands by late-successional dependent species (see Wildlife Section).

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

Monitoring Requirements: At least 20 percent of the files on each year's timber sales within Matrix will be reviewed annually to determine if ecosystem goals were addressed in the silvicultural prescription.

Monitoring Performed: Monitoring is completed on at least one timber sale per year. Table M-5 displays sales monitored from FY 1997 through 2010.

Findings: All timber sales are designed to meet ecosystem goals for the Matrix and address resource concerns raised in both the respective Watershed Analysis and Environmental Assessment. All resources are analyzed for impacts including wildlife, soils, hydrology, plants, social, cultural, as well as others. All timber sales incorporate the applicable Best Management Practices (BMPs) described in Appendix D of the RMP. Post-treatment monitoring of all sales to date indicates that most BMPs have been addressed in the Environmental Analysis and incorporated into the Timber Sale Contract.

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

Monitoring Requirements: All proposed regeneration harvest timber sales in watersheds with less than 15 percent late-successional forest remaining will be reviewed prior to sale to ensure that a watershed analysis has been completed.

Monitoring Performed: A 15% analysis has been completed.

Findings: For all three Watershed Analyses, an analysis was done to determine the amount of Late-Successional Forest in the watershed on federal lands. For both the Spencer Creek Watershed and the Topsy/Pokegama/Hamaker Landscape Analysis Area, the percent of Late-Successional Forest in the watershed was above 15%.

One unique feature of the KFRA, as indicated by post-treatment monitoring thus far, is that many of the stands after harvest/treatment are still capable of contributing to late-successional habitat and providing connectivity within the watershed due to the residual stand characteristics being left. Silvicultural prescriptions have been implemented that addressed two primary objectives: first, maintenance of late-successional habitat; and second, improve stand resiliency to insects, disease and wildfire by thinning overstocked stands and reducing hazardous fuels. There are some watersheds where the residual late-successional habitat may be close to 15% and still experiencing forest health concerns that could benefit from some light understory treatments.

Riparian Reserves

Expected Future Conditions and Outputs

(See also Aquatic Conservation Strategy Objectives)

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

Implementation Monitoring

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

Monitoring Requirement: The files for each year's on-the-ground actions will be checked annually to ensure that watershed analyses were completed prior to project initiation and to ensure the concerns identified in the watershed analysis were addressed in the project's Environmental Assessment (EA).

Monitoring Performed: Review of project files and EAs**.**

Findings: Watershed analyses have been completed for most areas in the KFRA that contain substantial riparian areas. Since the completion of the Gerber-Willow Valley Watershed Analysis, planning and implementation of projects recommended for riparian areas has progressed.

Conclusions: Watershed analyses were completed for all projects having activities within Riparian Reserves. Recommendations and objectives of the watershed analysis were addressed in the EAs and in contract stipulations.

Monitoring Question 2: Is the width and integrity of the Riparian Reserves (RR) being maintained?

Monitoring Requirement: At least 20 percent of management activities within the KFRA will be examined prior to project initiation and reexamined following project completion, to determine whether the width and integrity of the Riparian Reserves (RRs) were maintained.

Monitoring Performed: In FY 2010, approximately 15 acres of riparian reserves were delineated adjacent to perennial streams within the planned Cold Onion Timber Sale Units.

Findings: The widths of these reserves comply with management direction in the KFRA RMP. Management activities conducted within riparian reserves to date have maintained the integrity of these reserves.

Conclusions: Riparian reserves were delineated properly.

Monitoring Question 3: What silvicultural practices are being applied to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain ACS objectives?

Monitoring Requirements: The Annual Program Summary will report what silvicultural practices are being applied in order to attain ACS objectives. See the Watershed Restoration Projects and Riparian Habitat Enhancement section, for a description of the silvicultural prescriptions applied.

Monitoring Performed: Post treatment monitoring of hand cut and piled juniper within riparian buffers in tributary streams to Gerber Reservoir to insure contract specifications were met.

Findings: Implementation of understory thinning and juniper treatment projects will help attain ACS objectives.

Monitoring Question 4: Are management activities in riparian reserves consistent with SEIS Record of Decision Standards and Guidelines, RMP management direction, and ACS objectives?

Monitoring Requirement: At least 20 percent of the activities that are conducted or authorized within Riparian Reserves will be reviewed in order to identify whether the actions were consistent with the SEIS Record of Decision Standards and Guidelines, RMP management direction, and ACS objectives. In addition to reporting the results of this monitoring, the Annual Program Summary will also summarize the types of activities that were conducted or authorized within Riparian Reserves.

Monitoring Performed: No harvest or pre-commercial thinning occurred in riparian reserves in 2010.

Findings: This information will help in assessing the consistency of management actions with planning direction. It will also provide useful guidance for the design and implementation of future projects within riparian reserves. Monitoring data will provide a baseline for post-treatment analysis of long-term trend.

Conclusion: Monitoring results to date show that the silvicultural activities were consistent with the SEIS Record of Decision Standards and Guidelines, RMP management direction, and ACS objectives**.**

Comment/Discussion: See the Aquatic Conservation Strategy section of the Annual Program Summary for a discussion of the activities that were conducted or authorized in riparian reserves.

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

Monitoring Requirement: All new structures and improvements within a Riparian Reserve will be monitored during and after construction to ensure that it was constructed to: minimize the diversion of natural hydrologic flow paths, reduce the amount of sediment delivery into the stream, protect fish and wildlife populations and accommodate the 100-year flood.

Monitoring Performed: Post-treatment photo monitoring was performed on the Spencer Creek Helicopter Log Placement Project in FY 2010. Fish and geomorphic parameters were measured in 2004 and repeated in 2007 and 2008 to determine effectiveness of the previous

ground-based log placement project in improving fish habitat. Spencer Creek culvert replacement for improvement of fish passage was implemented in 2006. Post project flow monitoring was done and a staff gage placed below the culvert to monitor discharge.

Conclusion: Monitoring results will not be meaningful until several years of high flow act on placed large wood, effect sediment processes and cause pool scour. Preliminary results indicate that large wood placement was effective in meeting the goals and objectives of the project including higher fish/amphibian biomass, retention of spawning gravel deposits, and increase in habitat complexity.

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

Monitoring Requirement: All approved mining Plans of Operations will be reviewed to determine if: A) both a reclamation plan and bond were required, B) structures, support facilities and roads were located outside of Riparian Reserves, or in compliance with management action/direction for Riparian Reserves if located inside the Riparian Reserve, C) and if solid and sanitary waste facilities were excluded from Riparian Reserves or located, monitored, and reclaimed in accordance with RMP management direction.

Monitoring Performed: None; there are no mining claims in the Klamath Falls RA.

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

Monitoring Performed: An evaluation of existing recreation facilities inside Riparian Reserves has not been completed to date.

Monitoring Question 8: Are new livestock handling and/or management facilities located outside Riparian Reserves? Are existing livestock handling and/or management facilities within the Riparian Reserves meeting the Aquatic Conservation Strategy Objectives?

Monitoring Performed: Riparian exclosure fences are the only type of livestock handling and/or management facilities present or proposed in Riparian Reserves. The primary purpose for development of these projects is to meet Aquatic Conservation Strategy objectives.

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 are randomly selected for monitoring to assess what efforts were made to minimize particulate emissions, and whether the environmental analysis that preceded the decision to burn addressed the questions set forth in the SEIS discussion of Emission Monitoring (pages 3&4-100).

Monitoring Performed: On every prescribed burn project, smoke plume was documented by the burn boss and/or fire monitor during implementation. Particulate matter concentration was monitored in Klamath Falls by the automated nephelometer at Peterson School.

Findings: Burns were conducted when the atmosphere was unstable and transport winds favorable; thereby decreasing the impact of smoke in sensitive areas. As related to harvest units, logging methods required the yarding of tops and limbs attached. Some of this material was chipped and utilized. The material not in locations suitable to chipping were burned in the winter to provide for complete and quick consumption. Where feasible, sheared juniper was removed from the site for utilization rather than burning.

Conclusion: Efforts were made to reduce particulate emissions from prescribed burns and still meet hazard reduction objectives by conducting burns with higher fuel loads in the spring.

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

Monitoring Requirements: At least 20 percent of the construction activities and commodity hauling activities conducted and subject to the current RMP will be monitored to determine if dust abatement measures were implemented where needed.

Monitoring Performed: The Buck 15 and Buck 23 timber sales have been monitored since harvest operations started.

Findings: All timber sales in the Klamath Falls Resource Area include a road watering specification as part of the contract. Water is required to abate dust during any road construction phase of the contracts. Impacts on air quality from road construction and timber hauling were of short duration, local nature, and had little impact on regional air quality. Where feasible, slash material that would normally be burned in landing piles is chipped for use in biomass energy production, thereby reducing emissions including particulates.

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

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

Monitoring Performed: In FY 2010, the Klamath Falls PM2.5 NAAQS was never exceeded as a probable result of KFRA activities. No intrusion reports were filed on any KFRA burning activities.

Findings: Preplanning of prescribed fire projects, use of current weather data, and onsite observations during prescribed burning have reduced frequency and severity of smoke from prescribed fire violating Air Quality Standards.

Water and Soils

Expected Future Conditions and Outputs

- Restoration and maintenance of the ecological health of watersheds. See Aquatic Conservation Strategy Objectives.
- Improvement and/or maintenance of water quality in municipal water systems.
- Improvement and/or maintenance of soil productivity.
- Reduction of existing road mileage within Key Watersheds, or at a minimum, no net increase.

Implementation Monitoring

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

Monitoring Requirement: All management activities using best management practices will be monitored to determine whether best management practices are incorporated into the project design. At least twenty percent of the timber sales, silviculture projects, or other ground disturbing activities stratified by management category will be randomly selected for monitoring to determine whether or not best management practices were implemented as prescribed. The selection of management actions to be monitored will be based on beneficial uses likely to be impacted, and for which best management practices are being prescribed.

Monitoring Performed: In FY 2010, no soil monitoring was conducted on the KFRA.

Findings: Paired transects were established in skid trails where juniper was yarded and in adjacent sites that were not yarded. Frequency and cover (%) were taken on each transect. Each transect will be measured over time to determine plant response in the skid roads and control as an indicator of soil health and compaction.

Conclusion: Resource Management Plan (RMP) objectives for limiting soil disturbance have been met.

Comment/Discussion: Quantifying soil disturbance enables resource area staff to determine whether resource management plan objectives for protecting soil resources are being met. Soil monitoring on the resource area is a long term program.

To date, quantitative soil monitoring has been completed on four resource area timber sales: Kakapoo Stew, Frosty Too, Grenada East, and Bly Mountain. Post-treatment monitoring has been initiated on the Muddy Tom and Saddled Again timber sales. Quantitative soil monitoring has been conducted on additional projects such as juniper treatments, slashbusting treatments, and prescribed burns.The results from soil monitoring on these timber sales and other ground disturbing projects will be considered in the layout of future resource area timber sales/projects, and in the design of future soil monitoring programs. In FY 2006, soil monitoring on the Norcross Stewardship Juniper Project was concentrated in the juniper yarding skid trails. Paired transect (one in a disturbed area and one in a non-disturbed area) were established. Cover (%) and frequency were measured. These measurements will be re-read to see what vegetation re-establishes after this type of disturbance and will give and indicator of soil health.

Monitoring Question 2: Are the prescribed actions, programs and interagency coordination efforts called for in the NFP Record of Decision Standards and Guidelines and resource management plan management direction being conducted?

Monitoring Performed: Review of timber sale and project files and monitoring of ground disturbing activities.

Findings: Management actions and programs are being conducted to meet or move towards desired future water and soils conditions. Riparian reserve treatments are being implemented to move towards Aquatic Conservation Strategy objectives. In coordination with Oregon Department of Environmental Quality (ODEQ), the resource area is supporting the development of Total Maximum Daily Load (TMDL) calculations and associated Water Quality Restoration Plans (WQRPs) for 303(d)-listed streams within the resource area. Data collection to support the sediment and temperature TMDLs has been completed in coordination with the USFS and ODEQ for the Lost River subbasin and the Upper Klamath subbasin. In late FY 2003, the TMDL and associated USFS/BLM WQRP for the Upper Klamath Lake drainage was completed and is continuing to be implemented. An interim WQRP is being implemented for riparian projects in the Gerber Block.

Soil productivity requirements are being maintained and improved in timber sales and other projects. Existing road mileage in the Spencer Creek watershed is being reduced. Riparian reserves are being managed to meet ACS objectives.

Monitoring Question 3: What watershed analyses have been or are being performed? Are watershed analyses being performed prior to management activities in key watersheds?

Findings: See Table M-7 describing the completed and ongoing watershed analyses.

Table M.8 - Status of Watershed Analysis

Watershed Analyses Completed	Key Watersheds Present	Completion Date
Spencer Creek Watershed Analysis	Spencer Creek & Clover Creek	August 1995
Jenny Creek Watershed Analysis	Jenny Creek	February 1995
Topsy-Pokegama Landscape Analysis	None	July 1996
Gerber/Willow Valley Watershed Analysis	None	July 2003

Conclusion: Watershed analyses have been completed for 77% of the KFRA, including all key watersheds and essentially all BLM managed lands west of Highway 97. The Spencer Creek watershed analysis will eventually be updated with the new GIS Hydrology theme, the recently completed Spencer Creek Road Inventory, and new water temperature data. Portions of the Topsy-Pokegama Landscape Analysis will be updated in the Affected Environment section of the Upper Klamath River Management Plan/EIS.

The findings and recommendations of watershed analyses are incorporated in project design.

Monitoring Question 4:
What is the status of identification of in-stream flow needs for the maintenance of channel conditions, aquatic habitat, and riparian resources?

Findings: The BLM is cooperating with PacifiCorp and numerous other stakeholders to develop and implement studies as part of the relicensing of the Klamath Hydroelectric Project. Some of these studies focus on the relationships between instream flow, aquatic habitat, water quality, and riparian vegetation. These studies were used to determine flow regimes that will be incorporated in the new license for the Project.

Monitoring Question 5: What watershed restoration projects are being developed and implemented?

Findings: In addition to the projects described in the Aquatic Conservation Strategy section, other restoration projects are being developed as part of the Klamath River Management Plan/ EIS and other project level analyses.

In FY 2006, replacement of a large culvert on the Spencer Hookup Access Road was completed - bringing an under-sized culvert up to NFP standards, alleviating a barrier for upstream fish passage; improving water, sediment, and wood debris transport capacity; and lowering the risk of culvert blockage and subsequent environmental damage. In FY 2007 and 2008, stream parameters were measured below the culvert including substrate size composition, pool characteristics and cross-section profiles. The results of the monitoring revealed that the structures functioned as anticipated. There was some movement of the placed logs however, they generally remained in the same location, trapping smaller logs and forming complex stream habitat features. New gravel patches suitable for trout spawning formed and new pools were scoured under and around the debris structures.

Another log placement project on Spencer Creek was completed in FY 2010. This log placement project was a coordinated effort and partnership between Bureau of Land Management, US Fish and Wildlife Service and JWTR (private land management company). The intent of the treatments is to improve instream aquatic habitat and subsequently increase populations and distribution of aquatic species. Placement of large wood structures in the 3.1 mile reach of Spencer Creek was completed in early FY 2010 to restore natural sinuosity, increase channel complexity, and create hydraulics favorable to the formation of spawning gravel accumulations. On October 17, 2009 approximately 220 logs were placed at 54 specific log structure placement sites by Columbia Helicopters, Inc. using a Boeing Chinook 234 helicopter. The logs ranged from 10-51 inches in diameter, 10-53 feet in length and weighed up to approximately 14,000 pounds each. Each interlocking log structure was constructed with 1 key log and 3-4 non-key logs. Post-treatment photo and visual monitoring was completed by BLM and USFWS personnel in FY 2010 and will continue in FY 2011. This monitoring showed channel scour, gravel/debris accumulation and very little log movement.

Project planning and implementation continues throughout the KFRA to enhance aspen stands; remove, realign, and improve roads; and construct fences to better manage livestock grazing near riparian areas.

Conclusion: Watershed restoration projects are being developed and implemented to meet the RMP and ACS objectives.

Monitoring Question 6: What fuel treatment and fire suppression strategies have been developed to meet Aquatic Conservation Strategy Objectives?

Findings: BMPs for the protection of soils, water, and riparian resources are being implemented during prescribed fire activities. Silvicultural prescriptions involving understory thinning treatments are being implemented in riparian reserves to reduce potential fuel loads to decrease the risk of catastrophic fires. These treatments are designed to improve forest health and meet the Aquatic Conservation Strategy objectives.

Conclusions: Fuel treatment prescriptions are being implemented to meet ACS and RMP objectives.

Monitoring Question 7: What is the status of development of road or transportation management plans to meet Aquatic Conservation Strategy Objectives?

Findings: A Transportation Management Plan (TMP) has been developed for lands covered by the NFP ROD. Inventories of existing road conditions and their potential to effect the attainment of ACS objectives have been completed in the Spencer Creek watershed, the Klamath River canyon, and the Gerber and Upper Lost River watersheds. This data will

be used to supplement the existing TMP. A TMP is currently underway for the eastside of the resource area. Analysis of roads and road treatment options is done during timber sale planning.

Conclusions: A Transportation Management Plan has been developed and will be revised and supplemented with additional data from road inventories and project analyses.

Monitoring Question 8: What is the status of preparation of criteria and standards which govern the operation, maintenance, and design for the construction and reconstruction of roads?

Findings: A Transportation Management Plan has been developed for lands covered by the NFP ROD. Roads, culverts, and bridges are designed, constructed and maintained in accordance with policies and standards set forth in BLM 9100 Series Manual and the Best Management Practices (BMP). Maintenance levels are assigned to each road reflecting the appropriate maintenance that fits the Transportation Management Objectives (TMO) for the planned management activity.

Conclusions: Progress is being made on development of the criteria and standards for roads.

Monitoring Question 9: What is the status of the reconstruction of roads and associated drainage features identified in watershed analysis as posing a substantial risk? What is the status of closure or elimination of roads to further Aquatic Conservation Strategy Objectives, and to reduce the overall road mileage within all watersheds? If funding is insufficient to implement road mileage reductions, are construction and authorizations through discretionary permits denied to prevent a net increase in road mileage in Key Watersheds?

Findings: During FY 2008, two miles of road were improved and 1.1 miles of road were closed year round to reduce erosion. For a complete summary of road treatments, refer to Section 24.0 - Transportation and Roads and Table 24.1.

Repair of culverts and drainage features were completed where a sensitive spring discharge area is intercepted by the Klamath River Canyon access Road near the Klamath River Campground.

Conclusions: Progress is being made in reducing overall road mileage and density and reducing the impacts of roads on water quality and aquatic/riparian habitat.

Monitoring Question 10: What is the status of reviews of ongoing research in key watersheds to insure that significant risk to the watershed does not exist?

Monitoring Requirement: Review of existing and proposed research activities in key watersheds and riparian reserves.

Findings: No formal research activities are being conducted in key watersheds or riparian reserves in the Klamath Falls Resource Area.

Monitoring Question 11: What is the status of evaluation of recreation, interpretive and user-enhancement activities/facilities to determine their effects on the watershed? What is the status of eliminating or relocating these activities/facilities when found to be in conflict with Aquatic Conservation Strategy objectives?

Findings: An evaluation of existing recreation facilities inside riparian reserves has not been completed to date.

Monitoring Question 12: What is the status of cooperation with other agencies in the development of watershed-based Coordinated Resource Management Plans and other cooperative agreements to meet Aquatic Conservation Strategy objectives? What is the status

of cooperation with other agencies to identify and eliminate wild ungulate impacts which are inconsistent with attainment of Aquatic Conservation Strategy objectives?

Findings: A Coordinated Resource Management Plan was developed for the Spencer Creek Watershed in 1994 by a group consisting of several government agencies, private companies and individuals. Many individual and cooperative projects have been implemented to address concerns from the plan. The group continues to meet on an irregular basis to address resource management concerns on both public and private land.

Resource concerns on private and public lands west of Highway 97 are also addressed through the Pokegama Cooperative Habitat Project, which is an alliance of government agencies, private companies, citizens groups and organizations, and individuals.

No detrimental impacts from wild ungulates have been identified. The Pokegama Cooperative Habitat Project group and the BLM will address any impacts if they are identified.

Conclusions: Cooperative agreements and planning efforts are being developed to meet RMP and ACS objectives.

Monitoring Question 13: Are management practices achieving the goal of maintaining long-term site productivity by avoiding, minimizing, or ameliorating soil compaction, displacement, surface erosion, and loss of organic material, including coarse woody debris?

Monitoring Requirement: All management activities using best management practices will be monitored to determine whether best management practices are incorporated in the project design.

At least twenty percent of the timber sales, silviculture projects, or other ground disturbing activities stratified by management category will be randomly selected for monitoring to determine whether or not best management practices were implemented as prescribed. The selection of management actions to be monitored will be based on beneficial uses likely to be impacted, and for which best management practices are being prescribed.

Monitoring Performed: No new timber sales were selected for soil disturbance monitoring.

Findings: See Findings under Water and Soils, Implementation Question 1.

Conclusions: See Conclusion under Water and Soils, Implementation Question 1.

Comment/Discussion: The issue of soil health on the resource area is being investigated by quantifying disturbance levels. Concerns have been raised on the resource area about excessive soil compaction possibly occurring with repeated use of a mechanical harvester, mechanical slashbuster, or combination of both in a forest stand or juniper woodland over time. Use of a mechanical harvester/slashbuster results in greater areal ground disturbance since it is not confined to skid roads, although in theory a mechanical harvester reportedly causes less soil compaction since it exerts less pounds per square inch of force/pressure than other ground-based harvesting machinery. Since use of a mechanical harvester/slashbuster is becoming more and more common and is the most economical choice for density-management treatment of forest stands and juniper woodlands, the resource area is measuring the areal extent of soil disturbance and changes in soil bulk density in representative ground disturbing projects to evaluate soil health.

The RMP threshold for soil disturbance is detrimental soil compaction (defined as 15 percent increase in bulk density) over 20 percent of the project area. Findings from monitoring done in 1998 for one timber sale area suggest that detrimental soil compaction may have occurred. Findings from monitoring done in a different timber sale area in 1998 through 2000 suggest that the threshold for detrimental compaction was approached. The areal extent of soil

disturbance monitored in a third timber sale in FY 2000 and FY 2001 was within the standards and guidelines recommendations. In FY 2004, post treatment soil monitoring was conducted on the Short Lake Mountain juniper treatment area and the Bly Mountain Timber Sale on the Eastside of the resource area. Findings on areal disturbance on Bly Mountain show that there was a 30 percent increase in total disturbance, caused primarily by the creation of new skid roads during the timber sale. Insufficient data exist to determine how much of the disturbance was detrimental.

Results of monitoring data analysis to date have not been conclusive regarding soil compaction. Consequently, the resource area will continue to monitor ground disturbing treatments and modify monitoring protocols to quantify the areal extent and degree of soil compaction resulting from various treatment methods. In FY 2006, paired transects were established in the Norcross Stewardship Juniper Project to compare cover (%) and frequency on skid roads and non-yarded areas. Copies of the soil monitoring reports, detailing methods and results, can be obtained at the resource area office.

Terrestrial Species Habitat

Expected Future Conditions and Outputs

- Maintenance of biological diversity and ecosystem health to contribute to healthy wildlife populations, consistent with BLM's Fish and Wildlife 2000 plan and other nationwide initiatives.
- Maintenance of desired conditions in each special habitat (such as meadows, wetlands, and cliff/talus slopes), plus desired conditions in buffers at least 100 feet wide around dry meadows, and wooded swamps.

Implementation Monitoring

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

Monitoring Requirement: At least 20 percent of regeneration harvest timber sales in each resource area will be examined by pre- and post-harvest (and after site preparation) inventories to determine snag and green tree numbers, heights, diameters, and distribution within harvest units. The measure of distribution of snags and green trees will be the percent in the upper, middle and lower thirds of the sale units monitored. Snags and green trees remaining 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 be inventoried pre- and post-harvest to determine if SEIS Record of Decision and RMP down log retention direction has been followed.

Monitoring Performed: Stand Exams were conducted for the CHEW and Slim Chicken Timber Sales. Refer to Matrix monitoring discussion above for results. Thermal clumps were identified and established to meet wildlife objectives in timber sale areas. Project design features for retention of coarse woody debris and snag retention were implemented in timber sale and fuel treatment units. (Refer to the Timber section of this monitoring report for further discussion.)

Findings: The post harvest monitoring for the Slim Chicken and CHEW sales shows that while the both sales met green tree retention requirements, they are both deficit in snags and CWD.

Both sales were deficit pre-harvest and are again limited post harvest. No snags were cut during the sale. See Matrix discussion as well as Tables M.6 and M.7.

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

Monitoring Requirement: At least 20 percent of BLM actions, within each resource area, on lands including or near special habitats will be examined to determine whether special habitats were protected.

Monitoring Performed: On the Slim Chicken and Chew timber sale areas, surveys for special status species such as northern spotted owls, great gray owls, northern goshawk, and terrestrial mollusks were conducted prior to ground-disturbing activities. Nest site protection measures (nest buffers) were included for the northern goshawk, northern spotted owl and bald eagle. All protected areas were visited post harvest in 2010 and the nest sites post harvest were still protected. Seasonal restrictions were also in place during implementation to ensure that the birds were protected during the critical nesting period.

Findings: Special habitats are identified and protected through project design that avoids these habitats or by creating reserves within the project areas. Buffers and seasonal restrictions are also included in the project design features. Wildlife biologists often participate in the actual layout to ensure that special habitats get proper recognition and protection. Biologists also participate in the fuels program to identify objectives of the treatment that are compatible with special habitats.

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

Monitoring Performed: Projects completed to improve wildlife habitat in FY 2010 were: 1) planting of 25,000 bitterbrush and mountain mahogany seedlings on 350 acres within the Interstate Deer Herd winter range, and 2) mechanical and manual removal of juniper trees on 608 acres on historic sage grouse habitat and big-game winter range. Various bird nest boxes and bat boxes were erected throughout the resource area and wildlife escape ramps were upgraded or installed in three water developments within the Gerber area. An Osprey nest platform was relocated to reduce disturbance to the nest site from management activities at the Wood River Wetland.

Findings: Several projects have been designed and implemented to improve habitat for wildlife. Fuels reduction projects were designed around eagle nest sites and range improvement projects were implemented to benefit sage grouse and landbirds.

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

Monitoring Performed: No design or construction of wildlife interpretive facilities occurred in FY 2010.

Findings: No design or construction of wildlife interpretive facilities occurred in FY 2010.

Monitoring Question 5: Are elk herds on BLM-administered lands stable or increasing?

Monitoring Performed: Annual guzzler/cistern maintenance and repair was conducted by the BLM, Oregon Department of Fish and Wildlife (ODFW) and Oregon Hunter Association (OHA). In addition, native grasses were seeded and bitterbrush and mountain mahogany seedlings were outplanted in elk winter range areas. Seasonal and permanent road closures continued across to the Resource Area in elk habitat.

Findings: The Oregon Department of Fish and Wildlife (ODFW) monitor elk populations for the state. According to ODFW informal herd counts, elk are stable to increasing in number in the Klamath Falls Resource Area.

Monitoring Question 6: Are range conditions stable or is there obvious competition between resources?

Monitoring Performed: See the response to the "Grazing Management" question #1 in regards to studies and monitoring that address the range condition stability.

Findings: In general, all studies have found range conditions to be stable to improving on the vast majority of the BLM administered lands in the KFRA. Also, see the response to Question #1 in "Grazing Management".

Summarized findings to date are that livestock (cattle) and wild horses (westside only) make little use of any of the shrub species, with a couple exceptions. Cattle and, in particular, wild horses, will make occasional significant use (i.e., moderate or higher) on serviceberry on the westside; neither make significant summer use of the wedgeleaf ceanothus. On the eastside of the KFRA, cattle will make similar occasional significant use (moderate to heavy) on bitterbrush, but only in the few areas that receive significant livestock use after approximately August 15th.

Conclusions: Rangeland conditions are apparently stable or improving on most of the BLM administered lands within the KFRA. The recently completed Ecological Site Inventory showed this to be true on the Gerber Block. Also, see response to Question #1 in "Grazing Management".

There are no particular resource concerns with shrub use within the KFRA. The westside use on the serviceberry is insignificant because that shrub is an insignificant part of the vegetation communities. Wedgeleaf ceanothus is vastly more abundant and is not being impacted at present by summer livestock (or wildlife) use. On the eastside, the areas that have received moderate or higher bitterbrush use are extremely small and in areas that are rarely, if ever, used by wintering deer or elk. No studies have found any significant resource competition issues between large wildlife herbivores and livestock on the BLM lands.

Monitoring Question 7: Are facilities or improvements functional and providing desired management results?

Monitoring Requirement: Maintain and check management facilities (such as guzzlers, springs, road closures, etc.) periodically to ensure that they are functioning properly.

Monitoring Performed: There are currently 10 cisterns and 24 spring developments in the resource area are being maintained for wildlife. The cisterns are located throughout the resource area in areas where water is not plentiful. In the past, maintenance of these water sources was through a challenge cost share with the Oregon Department of Fish and Wildlife. In 2009, these springs and guzzlers were checked by volunteers, OHA, ODFW and BLM biologists. Major repairs were scheduled through the range and wildlife programs.

Various bird nest boxes and bat boxes were erected throughout the resource area. Nest boxes are monitored for success and for needed repairs. During the National Public Lands Day event the public assisted in repairing and replacing eight wood duck boxes along Miller Creek and the Gerber potholes area. Additional areas that could support nesting structures and water developments are periodically reviewed.

On the existing mule deer winter range closures, four new gates were installed and three gates were replaced to provide a more effective closure. Seasonal road closures are visited biannually.

Findings: Severe damage to locks and road closure gates throughout the KFRA is a continual problem. Many of the locks are being shot and the gates opened, and/or vehicles are driving around the closures.

Conclusions: More time and effort needs to be given to wildlife improvements. Project files have been updated with current maps created in GIS. Due to the decreased effectiveness of the Gerber area closures, a project to replace the existing cable closures with more effective pipe gate closures was initiated and should be completed in 2011. An increased monitoring effort will be proposed with help from the Oregon Department of Fish and Wildlife, Oregon State Police, and local conservation groups. This may alleviate some of the closure violations and damage to the gates.

All water improvements for wildlife will be revisited and reviewed in summer of FY 2011.

Monitoring Question 8: Is the BLM protecting special habitats as provided for in the RMP?

Monitoring Requirement: Examine 20 percent of BLM actions on lands containing or near special habitats to determine whether special habitats were protected as provided for in the RMP. Monitor the effects of BLM management on wildlife species using a variety of methods. Coordinate surveys of game species with the Oregon Department of Fish and Wildlife. Conduct monitoring of other species and habitats as needed, such as neotropical migratory landbirds by vegetation community, individual species surveys when needed, and vegetation surveys as part of the timber and range management activities.

Monitoring Performed: Riparian zones are marked and managed according to the Aquatic Conservation Strategy. Raptor nest sites are protected with buffers and nest season restrictions. Special habitats (such as talus slopes, seeps and springs, etc.) are identified during the planning phase of the activities and protected during the design and implementation phase using the Best Management Practices identified in the RMP. Other habitats such as meadows important to great gray owls, big game species, and other wildlife are identified during surveys, and buffers are established during timber sale preparation.

Findings: Special habitats not already identified are being identified during project development and design, Nest trees, habitat buffers and reserves are marked in the field and recorded in GIS. District Designated Reserves (DDR's) and District Designated Reserve Buffers (DDRBs) have been established around all spotted owl nest cores, per RMP guidance. Known survey and manage mollusk and fungi sites are buffered and protected according to the management recommendations for the species.

Conclusions: Special habitats specified in the RMP are being provided for as they are identified.

Monitoring Question 9: Is the average width of undisturbed buffers retained following timber harvest and site preparation activities as specified in the RMP?

Monitoring Requirement: Determine average buffer widths by measurements at approximately equidistant points around the affected unique habitat within each timber sale unit.

Monitoring Performed: Buffers are checked during the post timber sale reviews on 20 percent of the sales. Nest buffers for owls, eagles, and accipiters are visited annually during nesting and reproductive success monitoring efforts.

Findings: Buffers are marked and managed according to NFP and RMP guidelines. The average width of buffers established according to the NFP and RMP are being retained following timber harvests.

Special Status and SEIS Special Attention Species Habitat

Expected Future Conditions and Outputs

- Protection, management, and conservation of federal listed and proposed species and their habitats, to achieve their recovery in compliance with the Endangered Species Act and Bureau special status species policies.
- Conservation of federal candidate and Bureau sensitive species and their habitats so as not to contribute to the need to list, and recover the species.
- Conservation of state listed species and their habitats to assist the state in achieving management objectives.
- Maintenance or restoration of community structure, species composition, and ecological processes of special status plant and animal habitat.
- Protection of Bureau assessment species and SEIS special attention species so as not to elevate their status to any higher level of concern.

Implementation Monitoring

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

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

Monitoring Performed: Review of the following projects for Special Status Species: Wildgal and Spencer Creek projects. Survey for potential habitat and monitoring of known territories/ sites continues on the resource area for special status species.

Findings: All areas where forest management or other ground disturbing actions are to take place are surveyed to protocol before the project implementation. If any listed species are found they are managed according to the Management Recommendation in the NFP and resource area guidelines.

Animals
Northern Spotted Owl
Northern spotted owls were surveyed and monitored to protocol for Wildgal and Spencer Creek projects. Surveys have been conducted at known sites and potential habitat. Seasonal restrictions have been or will be placed in all appropriate areas to avoid disturbance during the critical nesting period.

Northern Goshawk
Northern goshawks were adequately addressed to protocol in all of the timber sale areas and fuel treatment units mentioned. Surveys of potential habitat and monitoring of known sites have been conducted. Seasonal restrictions have been or will be placed in all appropriate areas to avoid disturbance during the critical nesting period.

Great Gray Owl
Great gray owl surveys were conducted or are in the process of being conducted to protocol in the spencer Creek and Wildgal project areas. Surveys have been conducted in potential habitat. Seasonal restrictions have been placed in all appropriate areas to avoid disturbance during the critical nesting period.

Bald Eagles
Bald eagle nest sites were identified in Wildgal and Spencer Creek project areas. Seasonal restrictions have been placed in all appropriate areas to avoid disturbance during the critical nesting period. Projects are designed to maintain nesting and roosting habitat.

Mollusks
Terrestrial*:* Survey and Manage terrestrial;l mollusks were completed in 2010 for the Wildgal project area. Several new S&M mollusk sites were identified.

Plants
Vascular Plants
Surveys for ISSSSP vascular plants were conducted in 2010.

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

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

Monitoring Requirement: Review implementation schedule and actions taken annually, to ascertain if the actions to recover species were carried out as planned.

Monitoring Performed: Programs were reviewed for compliance with recovery plans.

Findings:

Animals
Since the bald eagle has recovered from the Endangered Species Act there is only one recovery plan being implemented for terrestrial wildlife species. Recommendations within the Northern Spotted Owl recovery plan are being implemented in a timely manner.

Plants
No Federally listed threatened or endangered plant species occur on BLM land administered by the Klamath Falls Resource Area. Therefore, no recovery plans have been developed for plant species in the resource area.

Conclusions: Actions identified in plans to recover species are being implemented in a timely manner.

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

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

Monitoring Performed: Coordination and consultation continued with the USFWS on timber sales, forest health and fuel treatment projects, and any projects with potential impact to threatened and endangered species.

The KFRA has coordinated with adjacent landowners on management of northern spotted owls, bald eagles, and great gray owls. These practices include surveying for spotted owls, agreeing on core areas, coordinating timber management and silvicultural practices, and monitoring of nesting activity before, during, and after projects.

The KFRA continued to communicate with USFWS, ODFW, the Klamath Tribes, Oregon Division of State Lands, Bureau of Reclamation, and several private organizations about the Wood River Wetland restoration effort. Oregon spotted frog surveys were conducted at the Wood River Wetland (including adjacent lands), Fourmile Creek, and at Buck Lake (Tunnel Creek) in coordination with the USGS, the Fremont-Winema NF, and various private land owners.

Findings: Coordination and cooperation with multiple agencies is a continuous process in project planning and implementation on the Klamath Falls Resource Area.

Conclusions: Coordination with other agencies has occurred in the management of special status species.

Monitoring Question 4: What land acquisitions occurred or are underway, to facilitate the management and recovery of special status species?

Monitoring Requirement: The Annual Program Summary will address Implementation Question 4.

Monitoring Performed: Reviewed potential land acquisitions.

Findings and Conclusions: No land acquisitions occurred or are underway, to specifically facilitate the management and recovery of special status species.

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

Monitoring Requirement: The Annual Program Summary will address Implementation Question 5.

Monitoring Performed: Program review.

Findings:

Animals

The KFFO is not currently involved in the development of any site-specific recovery plan.

Plants

The KFFO is not currently involved in the development of any site-specific management plan.

Conclusions: Analyses that ascertain species requirements or enhances the recovery or survival of a species are ongoing.

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

Monitoring Requirement: The Annual Program Summary will address Implementation Question 6.

Monitoring Performed: Program review.

Findings:

Animals

The KFFO continues to monitor known sites for northern spotted owls, northern goshawks, and eagles. In addition we also survey potential habitat for spotted owls and northern goshawks before we conduct ground disturbing activity. Spotted owl habitat analysis that considers survival and recovery is ascertained for individual owls during project development through the EA process and subsequent Section 07 consultation with the USFWS.

Plants

The KFFO is not currently involved in the development of any site-specific management plan.

Conclusions: Analyses that ascertain species requirements or enhances the recovery or survival of a species are ongoing.

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

Monitoring Requirement: The Annual Program Summary will address Implementation Question 7.

Monitoring Performed: Program review.

Findings:

Animals

The forestry and rangeland programs continue to look at long term health of the ecosystem. Silvicultural prescriptions and fuels treatments are designed to maintain or restore the community structure, species composition and ecological processes

Plants

No efforts have been made specifically to maintain or restore the community structure, species composition and ecological processes of special status plant species habitat. However, the reintroduction of fire as an ecosystem process through the prescribed fire program may indirectly accomplish this objective since special status plant species are similarly adapted to fire as other plant species in the plant community of which they are a component.

Conclusions:

Long-term ecosystem health is addressed in management of the timbered land and rangelands.

Aquatic Species Habitat

Expected Future Conditions and Outputs

(See also Aquatic Conservation Strategy Objectives)

- Maintenance or enhancement of the fisheries potential of streams and other waters consistent with BLM's Fish and Wildlife 2000 Plan, the Bring Back the Natives initiative, and other nationwide initiatives.
- Rehabilitation and protection of at-risk fish stocks and their habitat.

Implementation Monitoring

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

Monitoring Requirements: The Annual Program Summary will report on the status of watershed analysis of habitat within individual watersheds and restoration project needs.

Monitoring Performed: Refer to Tables 5.1 and 5.2 for status of watershed analyses in the Klamath Falls Resource Area.

Findings: The KFRA continued to plan and develop restoration projects on BLM administered lands as identified within the relevant watershed analyses. Presence/absence and distribution of at-risk fish species/stock continued to be developed in support of restoration actions.

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

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

Monitoring Performed: Large wood enhancement to for the purpose of increasing channel complexity and habitat diversity. (See the **Water and Soils** section - Monitoring Question 5.)

Findings: Fish habitat restoration and enhancement activities are being designed and implemented to contribute towards attainment of ACS objectives related to at-risk fish stocks.

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

Monitoring Requirements: The Annual Program Summary will report on the status of cooperation with federal, tribal and state fish management agencies to identify and eliminate impacts associated with poaching, harvest, habitat manipulation and fish stocking which threaten the continued existence and distribution of native fish stocks inhabiting federal lands. The APS will identify any management activities or fish interpretive and other user-enhancement facilities that have been detrimental effects on native fish stocks.

Monitoring Performed: There has been considerable cooperation between state, federal, and tribal biologists on the work being conducted and work being proposed at the Wood River project (see Wood River section). The project will have long term benefits to fish habitat but there have been short-term losses in habitat quality such as increased sediment which have been identified. These impacts have been mitigated in a number of ways (see Wood River section).

There has also been considerable cooperation between state, federal, and tribal biologists on the Klamath Hydro-electric relicensing project (#2082) to identify existing and potential adverse impacts to fish habitat and fish stocks.

The resource area staff have been cooperating with U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife, U.S. Forest Service, The Nature Conservancy, U.S. Bureau of Reclamation, and U.S. Geological Survey-Biological Resources Division on redband trout, sucker, and bull trout working groups to develop and implement scientifically based management strategies for these species.

The resource area staff continues to coordinate with the range, timber, and fuels management programs in order to protect and improve the aquatic habitats. Through the interdisciplinary process actions that are identified as potentially affecting fishery and aquatic resources are identified and recommendations are made to avoid adverse impacts.

Findings: Adverse impacts to fish habitat and fish stocks are being identified and mitigation performed.

Monitoring Question 4: Are habitat improvement projects and opportunities being identified?

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

Monitoring Performed: A review of project proposals, including watershed analysis, is performed throughout the year. Habitat improvement projects are typically designed as part of the proposed action or alternatives to the proposed action.

Significant time has been spent time in Gerber, Spencer Creek, and Klamath River areas reviewing existing road/stream crossings for extension of channel connections from road networks and sedimentation problems in most of the fish bearing reaches on BLM administered lands.

Findings: Habitat improvement projects and opportunities are being identified and designed into the overall management of the resource area.

Monitoring Question 5: Are fish populations adequate to provide present and expected future recreational needs?

Monitoring Requirements: Monitor lakes and fish populations, and stocks if necessary.

Monitoring Performed: The KFRA has several excellent recreational fisheries: the lower Wood River, the Klamath River, Fourmile Creek, Spencer Creek, reservoirs of the Gerber/ Willow Valley Watershed, and Topsy reservoir. Most stream fisheries are for redband trout and some brown trout, but Fourmile Creek contains brook trout as well. Reservoir fisheries are for multiple cold water and warm water game fish species. The BLM has contributed to ODFW radio-telemetry monitoring of the Wood River redband trout populations to assess fish movement and aquatic habitats.

Findings: Recreational needs for fisheries are growing in Klamath County. The resource area staff will need to assess and consult with ODFW and USFWS on these streams and watersheds in light of the increasing recreational demand. The potential exists for improving habitat to protect recreational fisheries against adverse impacts in order to continue to meet recreational needs.

Noxious Weeds

Expected Future Conditions and Outputs

- Containment and/or reduction of noxious weed infestations on BLM-administered land using an integrated pest management approach.
- Avoidance of the introduction or spread of noxious weed infestations in all areas.

Implementation Monitoring

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

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

Findings: Noxious weed control applications in FY 2009 were conducted using an integrated pest management approach that includes manual, mechanical, chemical, and biological control methods. These methods are used in accordance with the Klamath Falls Resource Area Integrated Weed Control Plan (IWCP) and Environmental Assessment (EA)(OR-014-93-09), which is tiered to the Northwest Area Noxious Weed Control Program EIS (December 1985) and Supplement (March 1987), and are compatible with Aquatic Conservation Strategy Objectives.

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, Research Natural Areas, and Environmental Education Areas.
- Preservation, protection, or restoration of native species composition and ecological processes of biological communities in research natural areas.
- 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 resource management plan objectives and management direction for special areas?

Monitoring Requirement: Annually, the files on all actions and research proposals within and adjacent to special areas will be reviewed to determine whether the possibility of impacts on areas of critical environmental concern values was considered, and whether any mitigation identified as important for maintenance of areas of critical environmental concern values was required. If mitigation was required, the relevant actions will be reviewed on the ground, after completion, to ascertain whether it was actually implemented.

Monitoring Performed: Review of program and actions for consistency with RMP objectives and direction.

Findings: The Wood River Wetland Area of Critical Environmental Concern (ACEC) has a specific prescriptive plan, developed in conformance within a separate RMP that provides overall management direction and resource use constraints. The project has its own published annual monitoring report, covering a wide range of resources.

Treatment of noxious weed populations is conducted annually within the Klamath Canyon ACEC. An integrated management approach is used which includes chemical, mechanical and biological methods. Control of noxious weeds would help maintain and restore the biological, recreational and scenic resources for which the area was designated.

Conclusions: BLM actions and BLM authorized actions/uses near or within special areas are consistent with resource management plan objectives and management direction for special areas.

Monitoring Question 2:
What is the status of the preparation, revision, and implementation of areas of critical environmental concern management plans?

Findings: The Wood River Wetland ACEC has a specific prescriptive plan, developed in conformance within a separate RMP that provides overall management direction and resource use constraints. Many of the restoration and interpretation actions have been completed, including river restoration, interpretive displays, and scenic view areas. Implementation and management direction has been closely coordinated with the Klamath Tribes. The project has its own published annual monitoring report, covering a wide range of resources.

Management of the Upper Klamath River Canyon ACEC was addressed in the Draft Upper Klamath River Management Plan and Environmental Impact Statement, released for public comment in April 2003. The final River Plan/EIS will be completed at some future date.

No other management plans for ACECs have been developed. However, all ACECs are managed to protect the relevant and important values, which were identified when they were evaluated and designated during the RMP process. General management direction for each special area is given in the Klamath Falls Resource Area Record of Decision and Resource Management Plan and Range Program Summary (pp. 41 - 42).

Conclusions: Management plans for some ACECs are being or have been developed and implemented.

Monitoring Question 3: What environmental education and research initiatives and programs are occurring in the research natural areas and environmental education areas?

Findings: The Clover Creek Environmental Education Area is the site of an annual Forestry School Tour. Sixth graders from all over Klamath County learn about reforestation, tree identification, soil and water conservation, fire, wildlife and outdoor recreation. This three-day event includes about 80 children and a number of agencies including BLM, USFWS, USFS, ODFW, ODF and several private and county groups. Multiple tours of the Wood River Wetland are conducted annually for participants that range in age from first graders to adults.

Conclusions: Environmental education and research initiatives and programs are occurring in the research natural areas and environmental education areas.

Monitoring Question 4: Are existing BLM actions and BLM authorized actions and uses not consistent with management direction for special areas being eliminated or relocated?

Findings: BLM actions and BLM authorized actions/uses near or within special areas are consistent with resource management plan objectives and management direction for special areas.

Monitoring Question 5:
A) Are actions being identified which are needed to maintain or restore the important values of the special areas?
B) Are the actions being implemented?

Findings: The Wood River Wetland ACEC has a specific prescriptive plan, developed in conformance within a separate RMP that provides overall management direction and resource use constraints. Many of the restoration and interpretation actions have been completed, including river restoration, interpretive displays, and scenic view areas. Implementation and management direction has been closely coordinated with the Klamath Tribes. The project has its own published annual monitoring report, covering a wide range of resources.

In the Tunnel Creek District Designated Reserve, prescribed fire effects monitoring plots were established in FY 2003 according to protocols developed by the National Park Service. The plots will provide pre- and post-treatment data on dead and down fuel loads and vegetation composition. In FY 2004, modified KFRA tree exams were established in the same plots to monitor tree condition and age pre and post treatment. Additional data were collected in FY 2005. Analysis will describe changes in cover and frequency of species, fuel loading, organic soil layers, burn severity and tree mortality.

Treatment of noxious weed populations is conducted annually within the Klamath Canyon ACEC. An integrated weed management approach is used which includes chemical, mechanical and biological methods. Control of noxious weeds would help maintain and restore the biological, recreational and scenic resources for which the area was designated.

Conclusions: Actions are being identified which are needed to maintain or restore the important values of the special areas, and the actions are being implemented.

Wild and Scenic Rivers

Expected Future Conditions and Outputs

- Protection of the Outstandingly Remarkable Values (ORVs)of designated components of the national Wild and Scenic Rivers System through the maintenance and enhancement of the natural integrity of river-related values.
- Protection of the Outstandingly Remarkable Values of eligible/suitable Wild and Scenic Rivers and the maintenance or enhancement of the highest tentative classification pending resolution of suitability and/or designation.
- Designation of important and manageable river segments suitable for designation where such designation contributes to the National Wild and Scenic Rivers System.

Implementation Monitoring

Monitoring Question 1: Are BLM actions and BLM authorized actions consistent with protection of the Outstandingly Remarkable Values of designated or suitable rivers?

Monitoring Requirements: Annually, the files on all actions and research proposals within and adjacent to Wild and Scenic River corridors will be reviewed to determine whether the possibility of impacts on the Outstandingly Remarkable Values was considered, and whether any mitigation identified as important for maintenance of the values was required. If mitigation was required, the relevant actions will be reviewed on the ground, after completion, to ascertain whether mitigation was actually implemented.

Monitoring Performed: BLM recreation staff members correspond periodically with outfitters and guides who provide commercial rafting tours on the upper Klamath River, personnel working for PacifiCorp, the utility company that operates the hydroelectric plants above and below the designated Wild & Scenic segment, and personnel from other agencies that perform work in the canyon. Topics such as outfitter/guide permit regulations and compliance, road conditions, water flows, visitor safety, BLM projects being implemented, and wildfire safety are typically discussed.

In FY 2010, BLM personnel also met informally with rafting outfitters and guides and representatives of Klamath County Law Enforcement, on the ground in the upper Klamath River canyon to discuss the same type of issues, concerns, and management activities.

Findings: Whitewater rafting is consistent with maintaining the Outstandingly Remarkable recreation Value on the upper Klamath Wild and Scenic River.

Monitoring Question 2:
A) Are existing plans being revised to conform to Aquatic Conservation Strategy Objectives?
B) Are revised plans being implemented?

Findings: A draft Upper Klamath River Management Plan/EIS, released for public comment in April 2003, was developed for the 15-mile portion of the Klamath River that is within the KFRA to conform with Aquatic Conservation Strategy Objectives. The final UKRMP/EIS is on hold.

Monitoring Question 3: Do actions and plans address maintenance or enhancement of the outstandingly remarkable values?

Monitoring Requirements: Annually, the files on all actions and research proposals within and adjacent to Wild and Scenic River corridors will be reviewed to determine whether the possibility of impacts on the Outstandingly Remarkable Values was considered, and whether any mitigation identified as important for maintenance of the values was required. If mitigation was required, the relevant actions will be reviewed on the ground, after completion, to ascertain whether mitigation was actually implemented.

Monitoring Performed: Thinning and piling of slash occurred in and around the Upper Klamath River Campground to reduce the risk of wildfire to the campground and surrounding canyon. Approximately 75 acres were piled and burned on the west side of the Upper Klamath River in an area of high recreation use. Mitigation measures were implemented for these projects to reduce visual resource impacts and maintain the scenic ORV. Klamath Bird Observatory is conducting landbird research on the effect of oak thinning in the Klamath River Canyon.

Findings: Objectives for maintaining and enhancing ORV's were met in all project implementation.

Cultural Resources Including American Indian Values

Expected Future Conditions and Outputs

- Identification of cultural resource localities for public, scientific, and cultural heritage purposes.
- Consideration and protection of cultural resource values for future generations.
- Provision of information on long-term environmental change and past interactions between humans and the environment.
- Fulfillment of responsibilities to appropriate American Indian groups regarding heritage and religious concerns.

Implementation Monitoring

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

Monitoring Requirements: At least 20 percent of the files on each year's timber sales and other relevant actions (e.g., rights-of-way, instream structures) will be reviewed annually to evaluate documentation regarding cultural resources and American Indian values in light

of requirement, policy and NFP Record of Decision Standards and Guidelines, and RMP management direction. If mitigation was required, review will ascertain whether such mitigation was incorporated in the authorization document and the actions will be reviewed on the ground after completion to ascertain whether the mitigation was carried out as planned.

Monitoring Performed: Review of existing survey data for Fuels and Timber management projects and in-field inspection of contract activity.

Findings: A review of existing data (Class I inventory) was conducted prior to implementation of all ground disturbing projects, all but two projects occurred in areas of previously surveyed areas (Class III Inventory). In previously surveyed areas, an archaeologist performed monitoring at site locations within the project area. Monitoring consisted of relocating sites, reestablishing flagging to outline site boundaries for avoidance, and updating site location and site report forms. Once sites were relocated with a Global Positioning System, site location/ boundaries were downloaded into a geographical information system (GIS) database. Because the sites would be avoided during project activity, a "no effect" determination was made under the BLM- State Historic Preservation Office under our existing protocol. A total of 80 sites were monitored.

Conclusion: Cultural resources were addressed in deciding whether or not to go forward with ground disturbing activities.

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

Findings: Boise State University continues analyzing their field data which consists of sites within the Bumpheads and Antelope Creek areas. This work resulted in the monitoring of 122 sites.

Additionally, a Ethnogrpahic Study was performed as part of the FERC project known as "Ruby Pipeline." As a result of this project a TCP study will also occur on the Willow Valley landscape.

Conclusion: Site data is being updated and sites are being assessed for the inclusion to the National Register of Historic Places.

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

Findings: The BLM consults with the Klamath Tribes on projects that could potentially impact cultural resources and Tribal values through a bimonthly meeting with the Klamath Tribes Culture and Heritage Department, as well as additional phone calls and emails as needed.

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

Findings: KFRA archaeologists regularly participate in public education programs. During FY 2009, archaeological presentations were given to Tribes and high school students (Resources and People summer camp). Approximately 150 people attended these presentations. Presentation topics included perishable artifacts in the project record, as well as the dissemination of "*Exploring Oregon's Past*, activities for teachers to share with students". KFRA archaeologists also participated in the US Fish and Wildlife Service's "Fin and Feathers" middle school outreach with a presentation on archaeology and tribal use of landscapes. KFRA Lead Archaeologist presented "Project Archaeology" sessions to Klamath Counties Talented and Gifted (TAG) students as well. KFRA Lead Archaeologist also continues to serve as OR/

WA BLMs heritage education contact and serve as the point of contact for Project Archaeology (a program to assist teachers that wish to make archaeology part of there classroom).

Visual Resources

Expected Future Conditions and Outputs

- Preservation or retention of the existing character of landscapes on BLM-administered lands allocated for Visual Resource Management Class I and II management; partial retention of the existing character on lands allocated for Visual Resource Management Class III management and major modification of the existing character of some lands allocated for Visual Resource Management Class IV management.
- Continuation of emphasis on management of scenic resources in selected high-use areas to retain or preserve scenic quality.

Implementation Monitoring

Monitoring Question 1: Are visual resource design features and mitigation methods being followed during timber sales and other substantial actions in Visual Resource Management Class II, III, and IV areas?

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

Monitoring Performed: All fiscal year 2010 timber sales and other substantial projects.

Findings: Several project actions for various resources, including fuels treatments, a new cellular communications site and a FERC interstate pipeline were reviewed and additional mitigation or project design features to protect visual resources were incorporated as needed.

Conclusion: Visual resource design features and mitigation methods are being followed during forest health treatments planning and other substantial actions in Visual Resource Management Class II, III, and IV areas to ameliorate any adverse impacts from those projects on visual resources.

Wildland Urban Interface Areas

Expected Future Conditions and Outputs

- Consideration of the interests of adjacent landowners, including residents, during analysis, planning, and monitoring related to managed rural interface areas. These areas are defined as public lands within 1/4 mile of identified rural interface areas zoned for one to twenty acre lots. (These interests include personal health and safety, improvements to property and quality of life.)

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: In FY 2010, monitoring was completed on projects implemented in rural interface areas.

Findings: The monitoring of interface projects found no instances where the project design features or mitigation measures were not followed.

Conclusion: Implementation of interface projects is consistent with project design features and objectives to minimize impacts were met.

Socioeconomic Conditions

Expected Future Conditions and Outputs

- Contributions to local, state, national, and international economies through sustainable use of BLM-managed lands and resources and use of innovative contracting and other implementation strategies.
- Provision of amenities for the enhancement of communities as places to live and work.

Implementation Monitoring

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

Findings: Since 1991, the resource area has been participating in a unique partnership of government and private recreation and tourism providers: Klamath/Lake/Modoc/Siskiyou (KLMS) County Outdoor Recreation Working group. The group meets approximately every two months, sharing information on projects, and events, exploring new opportunities for partnerships and coordination, and promotion of local tourism. For FY 2010, the Lakeview District provided $5,000 to support this organization. One of the partnership opportunities identified by the KLMS working group was the need for a coordinated approach to off-highway vehicle (OHV) inventory and planning. As a result of this goal, the Klamath Falls BLM and the Fremont-Winema National Forests developed a Service First agreement for conducting a combined OHV road and trail inventory. This inventory was completed in 2008. The outcome of this effort is expected to be a joint USFS/BLM travel management map identifying all travel routes and trails available to the public in the inventoried area.

In 2010, the KFRA accepted bids on a new stewardship contract. One of the objectives of the contract was to supply more jobs within the local area. Two contractors were awarded the contract, initially funded largely by ARRA funds, and are currently working on a number of projects within the Klamath county area.

The Klamath Falls Resource Area has coordinated with state and local governments in diverse activities such as recreation and timber sale planning, fish habitat inventory, water quality monitoring, hazardous material cleanup, air quality maintenance, wildfire suppression, road improvement, and recreation site developments.

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

Findings: In 2010, the majority of the support for local economies came from timber sales, stewardship contract work, and fuel reduction/vegetation manipulation contracts that employed local people. Since 2004, the Resource Area has tasked out over $2,000,000 of service work under the Gerber Stew Stewardship Contract. Funding for the stewardship work comes from multiple benefiting programs resulting in treatments such as forest health thinning, riparian restoration, spring improvement, juniper woodland cutting and yarding, road improvement, culvert removal, and road obliteration. In addition to the service work which generated local employment, a variety of forest and rangeland products are removed and delivered both locally and to the surrounding region. Products include sawlogs, clean chips for hardboard production locally, and biomass for energy production. The KFRA offered two timber sales in FY 2009 which results in local employment opportunities both in the implementation and manufacturing businesses. Recreation facilities in such areas including the Upper Klamath River and several campgrounds (Gerber and Topsy) received infrastructure enhancements to improve visitor experiences and meet user expectations. Additional enhancements such as construction of new trails, designated back county byways, interpretive displays, and brochures are also developed as funding allows.

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

Findings: Reference Monitoring Question Findings in # 1 and 2 above, and in the sections addressing Recreation, Wildlife and the Wood River Wetland area accomplishments in this document. In addition, the Klamath/Lake/Modoc/Siskiyou County (KLMS) Outdoor Working Group was instrumental in the development of the Klamath Basing Birding Trail (KBBT). The KBBT is a 300 mile long tour, featuring 47 birding sites within three major regions-Cascade Mountains, Great Basin and Modoc Plateau. The Klamath Falls BLM assisted in the KBBT development by identifying and signing six of the birding trail sites on BLM lands. A revised KBBT brochure was completed in 2010 by the KLMS Outdoor Working Group.

Recreation

Expected Future Conditions and Outputs

- Provision of a wide range of developed and dispersed recreation opportunities that contribute to meeting projected recreation demand within the planning area.
- Provision of non-motorized recreational opportunities and creation of additional opportunities consistent with other management objectives.

Implementation Monitoring

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

Findings: The BLM completed the draft Upper Klamath River Management Plan/ Environmental Impact Statement (KRMP/EIS) in April 2003. The final KRMP/EIS is on hold. Recreation management (including proposed alternatives for non-motorized recreation opportunities) is a component of this river plan. A memorandum of understanding has been signed with the Oregon State Parks and Recreation Department on joint management of the Wild and Scenic River/State Scenic Waterway. A separate chapter of the river plan will address State Scenic Waterway issues.

Analysis of issues and projects has been completed for the Hamaker Mountain Special Recreation Management Area (SRMA), and has been started for the Stukel Mountain SRMA. No timeline for completing more comprehensive recreation plans for these areas is proposed.

Site-specific design and planning along with ongoing facility upgrades and renovations continue to be implemented through Recreation Pipeline Restoration Funds under the existing Klamath Falls RMP and Wood River Wetland RMP.

The Gerber/Willow Valley Watershed Analysis was completed in July 2003. The watershed analysis contains a discussion of existing recreation management and proposed changes or additions to recreation management in the Gerber area, since completion of the RMP/EIS in June 1995. Layout and design for the Miller Creek-Potholes non-motorized trail began in FY 2003. Construction of approximately 8 miles of trail to link Gerber North and South campgrounds with Miller Creek and 3 primitive campsites began in 2005. Through FY 2010, a total of eight miles of the trail have been constructed, using an Integral Youth Services program which hired high school students from Bonanza, OR. A new boat ramp extension and new boat dock for the Gerber South campground area was completed in FY 2010. Construction of a new horse camp at Gerber campground continued in 2010. Installation of vault toilets, horse corrals, and water is expected in 2011.

Forest Management and Timber Resources

Expected Future Conditions and Outputs

- Provision of a sustained yield of timber and other forest products.
- Reduction of the risk of stand loss due to fires, animals, insects, and diseases.
- Provision of salvage harvest for timber killed or damaged by events such as wildfire, windstorms, insects, or disease, in a manner consistent with management objectives for other resources.
- Maintenance or restoration of healthy ecosystems while providing for the harvest of timber and other forest products in balance with other resource values and needs.

Implementation Monitoring

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

Monitoring Performed: Table M-4 is a summary by land use allocation of the timber volume and acreage that has been harvested in the KFRA since the signing of the RMP on June 2, 1995. The volume and acres are summarized by harvest method, land allocation, RMP/EIS Assumed Average, and Percent of Assumed average. All KFRA westside lands are in the Southern General Forest Management Area (SGFMA). All KFRA eastside lands are outside the boundaries of the Northwest Forest Plan.

Findings: There are some differences between actual treatments acres and the projected average. These are discussed in detail in the section near the beginning of this monitoring report.

Monitoring Question 2: Were the silvicultural (for example, planting with genetically selected stock, fertilization, release, and thinning) and forest health practices anticipated in the calculation of the expected sale quantity implemented?

Monitoring Requirements: An annual district wide report will be prepared to determine if the silvicultural and forest health practices identified and used in the calculation of the probable sale quantity were implemented. This report is summarized in this Annual Program Summary.

Findings: Completed silvicultural treatments are shown in Table 2.1 and Table 19.10 of the Annual Program Summary. Calculation of the ASQ was based on successful planting

of regeneration units and normal stand development unimpeded by excessive vegetative competition or animal damage, and also taking into consideration precommercial thinning when needed. (Yield gains were not assumed for planting genetically selected trees, fertilization, or pruning.)

All timber sale silvicultural prescriptions and watershed analyses consider forest health practices. In each prescription, retention and maintenance of the more desirable but under-represented early-successional species (pines and Douglas fir) is emphasized to help increase the composition of these species in stands to more closely reflect historic conditions. These are generally located in the mixed conifer forest types in the Spencer Creek and Jenny Creek drainages. Even in the mortality salvage sales, some thinning is done around the larger old growth for reduction of understory competition. Elevated fuel level hazards are addressed in the density management sale prescriptions. All prescriptions are designed to reduce fuel loads, lower the risk of a stand replacing fire, and leave in a condition where post-project underburns could be implemented if determined necessary and where compatible with forest management objectives.

Conclusion: Silvicultural and forest health practices were anticipated and are being implemented. The excess mortality that has occurred was not anticipated and as a result, a modification in treatment prescriptions has been necessary to harvest the on-going mortality.

Special Forest/Natural Products and Biomass

Expected Future Conditions and Outputs

- Production and sale of special forest/natural products when demand is present and where actions taken are consistent with primary objectives for the land use allocation.
- Utilization of the principles of ecosystem management to guide the management and harvest of special forest products.

Implementation Monitoring

Monitoring Question 1: Is the sustainability and protection of special forest/natural product resources ensured prior to selling special forest products?

Findings: To date, sustainability of special forest products has not been an issue because the demand has been primarily on special/natural products which can be readily found. Permits have been issued for wood products including; firewood, sawlogs, posts, and poles. Additional special forest products that have been sold include; juniper boughs, Christmas trees, mushrooms, greenery, lichen, cones, and transplants. When selling lichens, bryophytes, and certain fungi, resource specialists are consulted prior to issuing any unique permits.

With the recent shortage of power concerns throughout the west, there are some on-going discussions and plans for additional small cogeneration power plants that would be fueled by biomass. The KFRA has two potential sources of biomass that could be utilized for fuel. One source would be western juniper trees that have encroached on thousands of acres of rangeland. The KFRA analyzed treating up to 1,000 acres per year of western juniper in the RMP in addition to range allotment improvements where juniper cutting was also analyzed. The capability of providing western juniper on a sustained basis for power plants, and to meet the needs of the public for personal use as well, may eventually need to be addressed. Western juniper utilization (yarding) is presently being monitored by the resource area to assess short term and long term impacts (See Water and Soils section) Another source of biomass is from the residual logging slash left on the landings as a result of timber harvests. The KFRA has historically burned residual landing piles from timber sales.

Conclusion: At the present time, based on the different resource evaluations completed thus far, and permits issued to date, sustainability of Special Forest Products is not threatened.

Monitoring Question 2: What is the status of the development and implementation of specific guidelines for the management of individual special forest/natural products?

Findings: The Klamath Falls Resource Area received from the Oregon State Office an updated Handbook 5400-2 addressing Special Forest Products in June of 1995. In addition, the Klamath Falls Resource Area individually develops specific harvesting guidelines for products to ensure sustainability and permit compliance. For example, for bough harvest, permit holders are required to follow specific guidelines to assure survival of the tree from which the boughs are removed. In addition, specific guidelines are written for harvesting mushrooms to ensure sustainability. Although most small sales permits generally result in minimal resource impacts, specifications are included in the permits that address weather, roads, fire risk, sustainability, cultural, and other resource concerns. In FY 2003, the KFRA updated the District Special Forest Product Handbook and included a number of new collection requirements.

The Klamath Falls Resource Area is continuing to monitor on-going juniper treatment areas. Monitoring is being designed to assess impacts from juniper cutting and in some cases removal. In addition, the plots are designed to monitor soil and vegetative impacts from the different equipment used to cut and remove the juniper. Pre and post treatment monitoring is being done (See Water and Soils section).

Conclusion: Based on field experience, and the small number of permits issued for products, sustainability of Special Forest Products in the immediate future is assured.

Wildfire / Fuels Management

Expected Future Conditions and Outputs

- Provision of the appropriate suppression responses to wildfires in order to meet resource management objectives and minimize the risk of large-scale, high intensity wildfires.
- Utilization of prescribed fire to meet resource management objectives. (This will include, but not be limited to, fuels management for wildfire hazard reduction, restoration or desired vegetation conditions, management of habitat, and silvicultural treatments.)
- Adherence to smoke management/air quality standards of the Clean Air Act and State Implementation Plan standards for prescribed burning.

Implementation Monitoring

Monitoring Question 1: Have analysis and planning been completed to allow some natural fires to burn under prescribed conditions?

Findings: No analysis and planning were completed for FY 2010 natural fires. BLM managers have not completed adequate planning or analysis to allow natural fires to burn under certain prescribed conditions.

Monitoring Question 2: Do wildfire suppression plans emphasize maintaining late-successional habitat?

Findings: All fires in 2010 that occurred in late-successional habitat were successfully caught by initial attack resources.

Conclusions: The Interagency Fire Management Plan was updated in 2010 and it emphasizes maintaining late-successional habitat. The Wildland Fire Decision Support System may be utilized for fires that escape initial attack and the information in the Interagency Fire Management Plan will be referenced when decisions are made.

Monitoring Question 3: Are Wildfire Situation Analyses being prepared for wildfires that escape initial attack?

Findings: Wildfire Situation Analyses was replaced by the Wildland Fire Decisions Support System (WFDSS) in 2009. There were no fires in 2010 that required the use of a WFDSS run.

Monitoring Question 4: What is the status of interdisciplinary team preparation and implementation of fuel hazard reduction plans?

Findings: Fuels and Fire Management Plans continue to be developed in conjunction with a late-successional reserve assessments, completed by the interdisciplinary team. These LSR assessments contain recommendations for each LSR as to fuel treatments. Some LSRs require extensive actions, while others will receive no treatments at the present time.

Conclusions: In FY 2010, there were 10 fires on the west side of the resource area and they were all successfully suppressed with initial attack resources. The largest of these fires grew to 3.8 acres and occurred within a fuels treatment unit that had machine piles created from thinning, that had not yet been removed for utilization.

Rangeland Resources / Grazing Management

Expected Future Conditions and Outputs

- The livestock and wild horse grazing programs will be managed under the principles of multiple use and sustained yield. Monitor the existing grazing allotments and the wild horse herd management area in compliance with the established "Coordinated Monitoring and Evaluation Plan for Grazing Allotments" for the Klamath Falls Resource Area.
- Monitoring data will be the foundation to support adjustments in the management of grazing use by livestock and wild horses. Evaluation of the monitoring data, in relation to the identified allotment objectives in this Proposed Resource Management Plan as well as future standards and guidelines, will be completed through a team of interdisciplinary resource specialists, with public review as appropriate.

Implementation Monitoring

Monitoring Question 1: Are allotments and herd management area goals and objectives being achieved with current management as specified on an allotment specific basis?

Monitoring Performed: Rangeland monitoring studies have been completed during FY 1995-2010 in accordance with KFRA's *Coordinated Monitoring and Evaluation Plan for Grazing Allotments*. This directs the most monitoring emphasis on high priority (management category "I") allotments, including the two allotments (Dixie and Edge Creek), which constitute the Pokegama HMA. Of particular importance are the three allotments in the Gerber Block – Horsefly, Dry Prairie, and Pitchlog - that are under ESA Section 7 consultation.

Studies include various rangeland condition, trend, and utilization studies; riparian classification, condition, and photo trend studies; actual grazing use supervision and information; Ecological Site Inventory, or ESI (though not monitoring per se, this survey does help support and direct the other rangeland monitoring); and other rangeland monitoring studies as needed. On low priority allotments (virtually all of the "C" category allotments) monitoring

is done on an as needed basis depending on problems or concerns that arise at some given point in time. Typically this is some situational, short term grazing administration problem that occurs on an allotment, needs some type of management attention to solve, the effects of which need monitored (usually use supervision) to ensure that the problem was properly and adequately addressed. As noted previously under the grazing section, ESI is being conducted for most of the "C" category allotments in order to have ecologically based vegetation information to assist in the preparation of upcoming Rangeland Health Standards Assessments.

The Pokegama HMA has been aerial and/or ground censused every year since completion of the KFRA ROD/RMP. In 2010, the current herd population level was estimated to be between 30-35 head, based on the latest aerial census (February 2010) supplemented by numerous ground observations. This herd level is within the established AML (Appropriate Management Level) and not in need of any removals.

Findings: Rangeland monitoring studies established, read, and reread over the past 20 grazing seasons (FY 1992-2010) have found that grazing use on priority allotments is within land use planning and other pertinent resource objective levels and requirements including the five Standards for Rangeland Health for Oregon and Washington. Priority allotments include the 14 "I" category, 4 "M" category, and 1 "C" category allotments (allotment categorization is explained in the KFRA ROD/RMP - pages H-69-70). The combined acreage of these priority allotments comprises 60% of the KFRA grazing land base. Yearly priorities also include a number of "C" allotments that need attention based on a variety of grazing administration problems or issues. Recent watershed analysis efforts, allotment evaluations, and Rangeland Health Standards Assessments have supported the above finding. However, the amount of information collected is more than can be summarized in this APS; this information and the various evaluations and assessments are available at the KFRA.

For the Pokegama HMA, the herd was found to be above the determined Appropriate Management Level (AML) of 30 to 50 head in 1996 and 2000. (The AML was established based on properly evaluated rangeland monitoring studies performed over time that have determined the current number is appropriate to a self-sustaining population of healthy animals in balance with other uses and the productive capacity of their habitat.) Because the AML was exceeded, wild horse removals were necessary to get back to AML. This was accomplished by bait-trapping performed by Resource Area personnel during the spring/summer/fall of 1996 and again in May/June 2000. Twenty horses (in 1996) and 18 horses (in 2000) were removed from the HMA and transported to the wild horse corrals in Burns, Oregon for adoption via the Bureau's Adopt-a-Horse program. No removals have been done since 2000. Based on the currently slow growth rate of the herd, it is not expected that any removals will be necessary until later in the decade.

Conclusion: The answer to this monitoring question is "generally yes", on a priority allotment basis. This means that allotments in the "I" and "M" categories, those that are identified for livestock use reductions in the RMP, are under ESA Section 7 consultation, contain important perennial streams, and/or have other critical resource issues, are receiving the most attention and management action and are at, or moving significantly towards, meeting Land Use Plan (LUP) objectives. The Pokegama HMA is also meeting LUP objectives and goals by being within AML and having at least adequate habitat available. Lower priority "C" allotments are generally also meeting the minimal objectives set for these areas. The currently ongoing process of assessing all allotments (including low priority "C" category ones) to ensure the meeting of the Standards for Rangeland Health will determine if allotments are meeting resource objectives, and if not, management will be adjusted to ensure the future meeting of objectives. This process, which began in 1999, is scheduled to extend through 2010.

Monitoring Question 2: Are the appropriate standards and guidelines, applicable to livestock and wild horse grazing, being correctly applied and followed?

Findings: See response to #1 above.

Monitoring Question 3: Are rangeland improvement projects consistent with meeting the objectives of all resources addressed in this Resource Management Plan as well as the Aquatic Conservation Strategy and Late-Successional/District Designated Reserve objectives?

Monitoring Performed: Monitoring of rangeland improvements is done in conjunction with normal grazing use supervision and rangeland monitoring field visits to grazing allotments. This monitoring is typically to determine if a given rangeland improvement is functioning as it should, i.e. fence is intact, spring is flowing, etc. If not, the project is repaired or reconstructed by the BLM (typically maintenance of riparian projects), or the grazing user is notified and required to fix the problem if the project is their maintenance responsibility (grazing regulations at 43 CFR 4100). An estimated 20-25 grazing improvement projects are checked annually, with 5-10 repaired by BLM personnel. Many more are inspected and repaired by grazing permittees and lessees.

Findings: No existing rangeland improvements are known to conflict with the objectives stated in this monitoring question.

Conclusion: All rangeland projects (new or existing) are believed to be consistent with the meeting of the listed LUP objectives. If projects are found in the future that are inconsistent, they will be altered or removed. All future proposed projects would be reviewed to ensure consistency.

GLOSSARY / ACRONYMS

Allowable Sale Quantity (ASQ) - An estimate of annual average timber sale volume that can be harvested from lands allocated to be planned, sustainable harvest. ASQ is used interchangeably with PSQ in this Annual Program Summary to avoid confusion related to technical differences in their definitions.

Alternate Dispute Resolution (ADR) - Given the complexity of the Adjudication and other water allocations issues in the Klamath Basin, the Oregon Water Resources Department (OWRD) has initiated a voluntary alternative dispute resolution (ADR) process to provide a forum to address adjudication claim issues and other matters related to water supply and demand in the Klamath Basin.

Appropriate Management Level (AML) - The optimum number of wild horses (or burros) within a Herd Management Area (HMA) that results in a thriving ecological balance and avoids a deterioration of the range. Numbers above the AML are considered "excess" and must be removed.

Animal Unit Month (AUM) - Amount of forage required to sustain one cow and calf, or one horse, or five sheep, for one month.

Annual Program Summary (APS) - A review of the programs on a district or resource area for a specific time period, usually a fiscal year (FY).

Aquatic Conservation Strategy (ACS) - A strategy developed to restore and maintain the ecological health of watersheds and aquatic ecosystems within the planning area addressed by the Northwest Forest Plan.

Areal extent – In soil monitoring, a quantifiable measurement that is a comparison of pretreatment undisturbed project area and post treatment project disturbance area. Further defined as area of detrimental conditions: leave a minimum of 80% of area (including permanent transportation system) in an acceptable productivity potential for trees and other managed vegetation.

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

Archaeological Resource Protection Act (ARPA) - (P.L. 96_95; 93 Stat. 721; 16 U.S.C. 47Oaa et seq.) as amended (P.L. 100_555; P.L. 100_588) - provides felony-level penalties, more severe than those of the Antiquities Act of 1906 (see .O3A), for the unauthorized excavation, removal, damage, alteration, defacement, or the attempted unauthorized removal, damage, alteration, or defacement of any archaeological resource, more than 100 years of age, found on public lands or Indian lands. The act also prohibits the sale, purchase, exchange, transportation, receipt, or offering of any archaeological resource obtained from public lands or Indian lands in violation of any provision, rule, regulation, ordinance, or permit under the act, or under any Federal, State, or local law. No distinction is made regarding National Register eligibility. The act establishes definitions; permit requirements, and criminal and civil penalties, among other provisions, to correct legal gaps and deficiencies in the Antiquities Act (see .O3A). The act overlaps with and partially supersedes the Antiquities Act.

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.

Biological Opinion (BO) - A determination reached for endangered fish or wildlife species that is issued by the USFWS through consultation with another agency. This opinion evaluates the potential impacts to a species from a specific project and provides recommendations for protection of the viability of the species.

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

Bulk Density - Soil bulk density is the ratio of mass to volume for a given sample of soil and is commonly used as a measure of the compaction of a given soil. The higher the bulk density value, the more compact a soil is. Bulk density is expressed in grams/cubic centimeter (g/cm3). Water at room temperature (25 degrees C.) and 1 atmospheric pressure has a bulk density of 1.0 g/cm3.

Bureau Assessment Species – (Refer to "Special Status Species")

Bureau of Land Management (BLM) - Agency within the Department of the Interior charged with management of the public lands.

Bureau Sensitive Species - (Refer to "Special Status Species")

Candidate Species - (Refer to "Special Status Species")

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

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

Clean Water Act (CWA) - the Clean Water Act is the primary Federal stature governing the restoration and maintenance of the chemical, physical, and biological integrity of the Nation's waters.

Coarse Woody Debris (CWD) - Woody pieces of trees that have been detached from their original source of growth (dead trees that are not self-supporting shall be considered severed). This includes uprooted trees and any severed stems or branches attached to them. It does not include: live trees, dead limbs or branches attached to a dead tree, stumps, dead foliage, bark, or designated shrub species.

Coordinated Resource Management Plan (CRMP) - A resource management plan covering a specific geographical area, typically with a mixed land ownership pattern, that coordinates with all interested land owners and affected government agencies to manage for a wide array of resources and resource concerns. This process emphasizes mutually agreed upon goals and a cooperative, instead of confrontational, approach.

Council on Environmental Quality (CEQ) - Government agency with oversight of the implementation of the National Environmental Policy Act (NEPA).

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

Cultural Resource - objects, sites and information of historic, prehistoric, archeological, architectural, paleontological or traditional significance.

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 (DM) - 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.

Department of Environmental Quality (DEQ) - A department of Oregon State government with responsibilities to oversee the state's environmental laws.

Diameter at Breast Height (DBH) - The diameter of a tree 4.5 feet above the ground on the uphill side of the tree.

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

Ecological Site Inventory - BLM's rangeland survey method has four seral stages based on similarity to the perceived Potential Natural Community. Those stages are Early Seral, Mid Seral, Late Seral and Potential Natural Community.

Ecosystem Restoration Office (ERO) - The ERO is an interagency office which is operated cooperatively by the U.S. Fish and Wildlife Service, Bureau of Reclamation, U.S. Forest Service and the BLM. This interagency office provides funding, technical assistance, and monitoring for watershed restoration projects which are proposed by the Upper Klamath Basin Working Group. This group works closely with the Klamath Basin Provincial Advisory Committee and watershed councils within the Klamath Basin.

EIS Special Attention Species - A term that incorporates the "Survey and Manage" and "Protection Buffer" species from the Northwest Forest Plan.

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 - (Refer to "Special Status Species")

Endangered Species Act (ESA) - Act created in 1973 that identified a National List (administered by the USFWS) of any plant, animal, or fish that is in danger of extinction throughout all or a significant portion of its range. Prior to implementation of projects, a consultation process with USFWS is required for species that have threatened, proposed, and candidate status.

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.

Environmental Education Area - Area used to inform and educate the public on topics relating to the environment(s) found within the KFRA.

Environmental Impact Statement (EIS) - Type of document prepared by Federal agencies in compliance with the National Environmental Policy Act (NEPA) that identifies the environmental consequences of proposed major Federal actions expected to have significant impacts on the human environment.

Federal Energy and Regulatory Commission (FERC) - Government agency with responsibility for issuing permits and license for power projects.

Fiscal Year (FY) – Budgeting year for the BLM from October 1 through September 30 each year.

Geographic Information System (GIS) - Computer Database of resource information.

Global Positioning System (GPS) - Satellite technology used to locate a specific point on the ground.

Green Tree Retention (GTR) - Within the KFRA, a term for leaving green trees in a stand when planning a regeneration cut timber sale. Typically, between 16-25 trees per acre, will be retained in the stand.

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.

Herd Management Area (HMA) - Public land under the jurisdiction of the Bureau of Land Management that has been designated for special management emphasizing the maintenance of an established wild horse herd. HMAs are defined by the "Wild Free-Roaming Horse and Burro Act" of 1971.

Interdisciplinary Team (IDT) - A team of resource specialists organized by agencies to prepare environmental documents.

Integrated Weed Control Plan (IWCP) - The plan and programmatic EA for noxious weed management within the KFRA approved in 1993.

Intermountain West Joint Venture (IWJV) - The IWJV was formed in 1995 and covers eastern Oregon and parts of nine other western states. This group meets quarterly and is in the process of writing an area plan to determine conditions of wetlands and identify opportunities to improve wetland habitat. The plan (in development) will focus on the Klamath Basin eco-region. This plan, as well as other eco-regions plan within the ten western states, is following the guidelines outlined under the North American Wetlands Conservation Act of 1989. The representatives for the Klamath Basin eco-region are BLM, Ducks Unlimited, Oregon Department of Fish and Wildlife, U.S. Fish and Wildlife Service, Modoc National Forest, California Fish and Game, and Oregon Joint Venture. The plan is expected to be completed within two years.

Klamath Falls Resource Area (KFRA) - That portion of the BLM/Lakeview District located in the south end of Klamath County.

Land Use Allocation (LUA) - Allocations that define uses and or activities that are allowable, restricted, and prohibited. They may be expressed in terms of area such as acres or miles. Each allocation is associated with a specific management objective.

Late-Successional Reserves (LSR) - Lands managed to maintain and restore old-growth forest conditions.

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

Memorandum of Understanding (MOU) - A document between agencies or sovereign nations, such as an Indian tribe, that discloses the protocol for how each party will coordinate and consult with each other relative to a particular activity or activities.

Million Board Feet (MMBF) - An expression of volume of trees harvested from timber sales, in millions of board feet.

Monitoring and Evaluation - Collection and analysis of data to evaluate the progress and effectiveness of on-the-ground actions in meeting resource management goals and objectives.

Mortality Salvage - Timber sales designed to utilize mortality (dead and /or dying trees). This primarily involves only the removal of the mortality within the stand. Normally, less than 10% of the volume removed is live trees in the mortality salvage sales.

National Environmental Policy Act of 1969 (NEPA) - Law requiring all federal agencies to evaluate the impacts of proposed major Federal actions with respect to their significance on the human environment.

National Historic Preservation Act (NHPA) - An act to establish a program for the preservation of additional historic properties throughout the nation, and for other purposes. This act extends the policy in the Historic Sites Act to include State and local as well as national significance, expands the National Register of Historic Places, and establishes the Advisory Council on Historic Preservation, State Historic Preservation Officers, and a preservation grants-in-aid program.

Natural Resource Conservation Service (NRCS) - A Federal agency that helps private landowners correct resource problems occurring on their land.

Northwest Forest Plan (NFP) - The plan for management of Forest Service and Bureau of Land Management late-successional and old-growth forest lands within the range of the northern spotted owl.

Noxious Plant/Weed - A plant designated by the U.S. Department of Agriculture, or state or local weed board, as being injurious to public health, recreation, wildlife, or any public or private property.

O&C Lands (O&C) - Public lands granted to the Oregon and California Railroad Company, and subsequently re-vested to the United States, that are managed by the Bureau of Land Management and Forest Service 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. It should be noted that for this Annual Program Summary, offered is considered the same as sold.

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.

Oregon Department of Agriculture (ODA) - A branch of Oregon State Government with responsibilities for agricultural activities, noxious weed management, and native plant conservation.

Oregon Department of Environmental Quality (ODEQ) - A department of Oregon State government with responsibilities to oversee the state's environmental laws.

Oregon Department of Fish and Wildlife (ODFW) - A branch of Oregon State Government with responsibilities for managing wildlife populations on federal and state lands.

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.

Payment in Lieu of Taxes (PILT) - Federal payments to local governments to offset losses in property taxes due to nontaxable Federal lands within their boundaries. BLM is responsible for calculating the payments according to formulas established by law and distributing the funds appropriated by Congress.

Pre-commercial Thinning (PCT) - 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 and designed to accomplish definite, define objectives.

Probable Sale Quantity (PSQ) - An estimated average annual volume that can be harvested from lands allocated to planned, sustainable harvest. PSQ is used interchangeably with ASQ in this Annual Program Summary to avoid confusion related to technical differences in their definitions.

Projected Acres - These "modeled" age class acres are estimates derived from modeling various silvicultural prescriptions for regeneration, commercial thinning and density management harvest. Modeled age class acre projections may or may not correspond to "Offered" or "Harvested" age class acres at a given point in the decade. Additional age classes are scheduled for regeneration, commercial thinning and density management harvest at other points in the decade.

Protection Buffer Species - Species designated in the Northwest Forest Plan that provides for specific management of known sites for these species, and, in many cases, requires surveys prior to ground disturbing activities.

Rangeland Program Summary (RPS) - A BLM planning document typically completed in conjunction with an RMP Record of Decision that lays out the specifics for grazing management by grazing allotment. This includes allotment specific resource objectives, level and season of use, allotment categorization, wildlife allocations, and other information relevant to a give allotment.

Resource Apprentice Program for Students (RAPS) - A work experience program for high school students intended to give the students actual experiences in natural resource management.

Regeneration Harvest - Timber harvest with the objective of opening a forest stand enough to regenerate desired tree species.

Regional Ecosystem Office (REO) - Office established to provide staff work and support to the Regional Interagency Executive Committee (RIEC) so the standards and guidelines in the Northwest Forest 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. Each RNA is also an Area of Critical Environmental Concern (ACEC).

Resources and People (RAP) Camp - This camp is designed to inform students (ages 15-18) and educators about natural resource management and careers working with natural resources.

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

Right-of-Way (ROW) - A permit or 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.

Riparian Reserve (RR) - Riparian Reserves are portions of watersheds where riparian-dependent resources receive primary emphasis and where special standards and guidelines apply. Riparian Reserves occur at the margins of standing and flowing water, intermittent stream channels and ephemeral ponds, and wetlands.

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

Seral Stages (Eastside rangeland communities) - The series of relatively transitory plant communities that develop during ecological succession from a community with no native plants (or possibly bare ground) to the potential natural community (PNC or climax) stage. There are four levels recognized by the Ecological Site Inventory, each of which is defined as the present state of vegetation on an ecological site in relation to the historic climax plan community for the site. The four stages are defined (for our area) as follows:

> **Early Seral** – A plant community that exhibits 0-25% similarity to the historic climax plant community. Often these communities are dominated by exotic annual plant species or native species that are not typically found on the site (e.g. western juniper dominated sites that should not have much juniper). Site typical plant species are sparse to (rarely) absent.
>
> **Mid Seral** - A plant community that exhibits 26-50% similarity to the historic climax plant community. These sites may or may not have functional plant communities, typically have a distinct overabundance of shrubs and/or juniper, have significant amounts of exotic annuals, and typically, have less half of the climax quantity of perennial native grasses.

Late Seral – A plant community that exhibits 51-75% similarity to the historic climax plant community. These communities are often very functional and stable, but may have a slight overabundance of shrubs or tree species, an slight to moderate under-abundance of native perennial grasses, and have some quantity of non-site typical plants species. Exotic annuals are sparse, though often present in small to insignificant quantities.

Potential Natural Community (PNC) – A plant community that has 76-100% of the historic climax plant community present. These are typically the most ecologically functional – and often stable - plant community that can exist on a site. Exotic annuals are rare to nonexistent.

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

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 for wildlife may be produced.

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 about 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 of about 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 professional plan for controlling the establishment, composition, constitution, and growth of forests.

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 condition can be created by altering ground cover, soil or microsite conditions, using biological, mechanical, or manual clearing, prescribed burns, or a combination of methods.

Southern General Forest Management Area (SGFMA) (See Matrix) - Forest land managed on a regeneration harvest cycle of 60-110 years. All Matrix lands south of Grants Pass, Oregon are designated as SGFMA.

Special Recreation Management Area (SRMA) - Area having commitment to provide specific recreation activity and experience opportunities. These areas usually require high level of recreation investment and/or management. Include, but not limited to, recreation sites.

Special Status Species - Plant or animal species falling into any one of the following Federal, State, or BLM status categories:

FEDERAL STATUS (USFWS)
Endangered – Any species defined through the Endangered Species Act as being in danger of becoming extinct within the foreseeable future throughout all or a significant portion of their range. Listings are published in the Federal Register.

Threatened - Any plant or animal species defined under the Endangered Species Act as likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Listings are published in the Federal Register.

Listed Endangered (LE) - Taxa listed by the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) as Endangered under the Endangered Species Act (ESA), or by the Departments of Agriculture (ODA) and Fish and Wildlife (ODFW) of the state of Oregon under the Oregon Endangered Species Act of 1987 (OESA).

Listed Threatened (LT) - Taxa listed by the USFWS, NMFS, ODA, or ODFW as Threatened.

Proposed Endangered (PE) - Taxa proposed by the USFWS or NMFS to be listed as Endangered under the ESA or by ODFW or ODA under the OESA.

Proposed Threatened (PT) - Taxa proposed by the USFWS or NMFS to be listed as Threatened under the ESA or by ODFW or ODA under the OESA.

Candidate (C) - Taxa for which NMFS or USFWS have sufficient information to support a proposal to list under the ESA, or which is a candidate for listing by the ODA under the OESA. There are two categories of primary concern to BLM:

Category 1 - Taxa for which the USFWS has substantial information on hand to support proposing the species for listing as threatened or endangered. Listing proposals are either being prepared or have been delayed by higher priority listing work.
Category 2 - Taxa for which the USFWS has information to indicate that listing is possibly appropriate. Additional information is being collected.

Species of Concern (SoC) - Former C2 candidates which need additional information in order to propose as Threatened or Endangered under the ESA. These are species which USFWS is reviewing for consideration as Candidates for listing under the ESA.

BUREAU STATUS (BLM)
Bureau Sensitive (BS) - According to the definition in the Bureau 6840 policy, BS designation includes species that could easily become endangered or extinct in a state. They are restricted in range and have natural or human-caused threats to survival. BS species are not FE, FT, FPE, FPT, FC, SE, or ST, but are eligible for federal or state listing or candidate status. BS species are designated by the State Director and are tiered to the state fish/wildlife/botanical agencies' or ONHP designations. BS species that are Oregon state Critical - animals and Candidates - plants, Washington state Sensitive - animals and Threatened and Endangered - plants, or ONHP List 1 are considered BS species.

Bureau Assessment (BA) - Bureau Assessment is category that pertains to OR/WA BLM only per the OR/WA BLM 6840 policy. Plant and wildlife species which are not presently eligible for official federal or state status but are of concern in Oregon or Washington may, at a minimum, need protection or mitigation in BLM activities. These species will be considered as a level of special status species separate from BS, and are referred to as BA species.

Bureau Tracking (BT) - Bureau Tracking is a status that pertains to OR/WA BLM only per the BLM OR/WA 6840 policy. To enable an early warning for species which may become of concern in the future, districts are encouraged to collect occurrence data on species for which more information is needed to determine status within the state or which no longer need active management. Until status of such species changes to federal or state listed or proposed, FC, BS or BA species, BT will not be considered as special status species for management purposes.

STATE STATUS (ODFW)
Critical (SC) - Species for which listing as threatened or endangered is pending; or those for which listing as threatened or endangered may be appropriate if immediate conservation actions are not taken. Also considered critical are some peripheral species which are at risk throughout their range, and some disjunct populations.

Vulnerable (SV) - Species for which listing as threatened or endangered is not believed to be imminent and can be avoided through continued or expanded use of adequate protective measures and monitoring. In some cases the population is sustainable, and protective measures are being implemented; in others, the population may be declining and improved protective measures are needed to maintain sustainable populations over time.

Peripheral or Naturally Rare (SP) –Peripheral species refer to those whose Oregon populations are on the edge of their range. Naturally rare species are those which had low population numbers historically in Oregon because of naturally limiting factors. Maintaining the status quo for the habitats and populations of these species is a minimum requirement. Disjunct populations of several species which occur in Oregon should not be confused with peripheral.

Undetermined Status (SU) - Animals in this category are species for which status is unclear. They may be susceptible to population decline of sufficient magnitude that they could qualify for endangered, threatened, critical or vulnerable status, but scientific study will be required before a judgment can be made.

OREGON NATURAL HERITAGE PROGRAM STATUS (ONHP)
List 1 contains taxa that are threatened with extinction or presumed to be extinct throughout their entire range.

List 2 contains taxa that are threatened with extirpation or presumed to be extirpated from the state of Oregon. These are often peripheral or disjunct species which are of concern when considering species diversity within Oregon's borders. They can be very significant when protecting the genetic diversity of a taxon. ONHP regards extreme rarity as a significant threat and has included species which are very rare in Oregon on this list.

List 3 contains species for which more information is needed before status can be determined, but which may be threatened or endangered in Oregon or throughout their range.

List 4 contains taxa which are of conservation concern but are not currently threatened or endangered. This includes taxa which are very rare but are currently secure, as well as taxa which are declining in numbers or habitat but are still too common to be proposed as threatened or endangered. While these taxa currently may not need the same active management attention as threatened or endangered taxa, they do require continued monitoring.

State Listed Species - Any plant or animal species listed by the state of Oregon as threatened or endangered within the state under ORS 496.004, ORS 498.026, or ORS 564.040. (See above.)

Survey and Manage - As outlined in the Northwest Forest Plan, the survey and manage standards and guidelines; provide benefits to old-growth associated species, which are considered to be at risk even after establishment of mapped and unmapped Late-Successional reserves.

Target Volume - As used in the document, target volume refers to the volume to be offered for sale as directed by the resource area annual budget.

The Nature Conservancy (TNC) - An environmental group that promotes returning managed lands to their historical or natural state.

Threatened Species - (Refer to "Special Status Species")

Thousand Board Feet (MBF) - An expression of volume of trees harvested from timber sales in thousands of board feet.

Timber Sale Information System (TSIS) - The national information system that tracks all facets of a timber sale/salvage.

Total Maximum Daily Load (TMDL) - A tool for implementing State water quality standards. It is based on the relationship between pollution sources and in-stream water quality standards. The TMDL establishes allowable pollutant loadings or other quantifiable parameters (such as temperature) for a water body and thereby provides the basis for States to establish water quality-based controls.

Transportation Management Plan (TMP) - The transportation plan developed for a specific area or by a specific agency that provides how and what kinds of vehicles are allowed in that area.

Unmapped Late Successional Reserves (UMLSR) - a small block of forest approximately 100 acres in size designated around known spotted owl activity centers located on lands in the matrix. UMLSRs were established under the direction of the Northwest Forest Plan (NFP), but are not displayed on regional maps in the NFP. The objective for these areas is to protect and restore conditions for a variety of late successional and old growth dependent species.

Understory Reduction - Timber cutting done to reduce the density of primarily sub-merchantable (3-7 inch diameter) shade-tolerant species in the understory for the purpose of reducing fire risk and ladder fuels, as well as to enhance health of overstory trees.

United States Fish and Wildlife Service (USFWS) - That branch of the Federal Government with responsibility for enforcing the Endangered Species Act and managing the network of National Wildlife Refuge System Lands.

United States Forest Service (USFS) - An agency within the Federal Department of Agriculture with responsibility for management of the Federal National Forests.

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.

Water Quality Management Plan (WQMP) - Plans required by the State of Oregon for management of rivers and tributaries to assure that total maximum daily loads are not exceeded.

Water Resources Department (WRD) - The Oregon Water Resources Department (WRD) initiated the Klamath Basin Adjudication in 1975. The Klamath Adjudication is an Oregon general water claim adjudication in which the final decree will be issued by the Klamath County Circuit Court. All Adjudication claims were filed with the WRD by April 1997. The Adjudication is the first Oregon general water adjudication in which complex federal claims have been filed.

Watershed Council - There is ongoing participation with the Klamath Watershed Council. The BLM is represented on the Councils' Technical Advisory Committees. The council is active in coordinating watershed and water quality enhancement projects.

Whitewater Rafting - The recreational activity of running a river in a rubber raft or other river non-motorized craft usually when river flows are high.

Wild & Scenic River System (W&S) - 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.
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> **Scenic River** - A river or section of river free of impoundments, with shorelines or watersheds still largely primitive and undeveloped but accessible in places by roads. Designated scenic as part of the national Wild and Scenic Rivers System.
>
> **Recreational River** - A river or section of a river readily accessible by road or railroad that may have some development along its shorelines, and that may have undergone some impoundment or diversion in the past. Designated recreational as part of the national Wild and Scenic Rivers System.

Wilderness Study Area (WSA) - Public land under the jurisdiction of the Bureau of Land Management that has been studied for wilderness character and is currently in an interim management status awaiting official wilderness designation or release from WSA status by Congress.