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

Klamath Falls Resource Area  
2795 Anderson Ave., Bldg. #25  
Klamath Falls, OR 97603

February 1999

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# Fiscal Year 1998 Annual Program Summary and Monitoring Report

## BLM Klamath Falls Resource Area

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## Message from the Area Manager

This is the second separate annual program summary (APS) prepared by the Klamath Falls Resource area. Prior to 1997, the annual work accomplishments were included in a Lakeview District Planning Update. The 1998 Annual Program Summary is more in-depth than previous annual reports we have published because it includes data gathered to conduct analyses for the Third Year Evaluation of the resource management plan. The Third Year Evaluation of the resource management plan is required by the Klamath Falls Resource Area Record of Decision and Resource Management Plan (ROD/RMP) to determine whether our activities are being conducted according to plan projections.

In this Annual Program Summary is an overview of the work accomplished by the Klamath Falls Resource Area during fiscal year 1998, as well as some projected for the next fiscal year. Some accomplishments are presented in summary tables for individual programs by fiscal year and cumulative years since the RMP implementation in June of 1995. Some programs are discussed in detail and others are summarized only generally.

A highlight of this past year was dedication of the Wood River Wetland during June, which culminated several years of work by many different groups and individuals. Another accomplishment that the district was proud to be a part of was the cooperative effort in the Bear Valley National Wildlife Reserve, which involved BLM staff helping with timber harvest on USFWS lands; in exchange USFWS provided equipment and staff for work at Wood River Wetland.

There were several personnel changes during the past year. The Klamath Falls Resource Area's area manager Barron Bail relocated to a job in BLM's Washington D.C. office, as did the Lakeview District Hydrologist, who provided assistance to the Klamath Falls office. Positions filled in 1998 included an archaeologist job and a timber cruiser/marker. For about four months during late 1998, the writer-editor/planner provided public affairs assistance to the Lakeview District. Jobs being filled or expected to be filled in 1999, in addition to the area manager, are a computer specialist, archaeologist, hydrologist, geographical information system staff, and a wildlife biologist. The new area manager, Teresa Raml, is expected to report to Klamath Falls during March.

During FY98, the resource area staff endured office remodeling, which resulted in staff being relocated to different parts of the building. The remodeling expanded office space and provided more room for automated equipment and even a lab for the biologists.

We hope this annual program summary is informative and welcome your suggestions for its improvement. If you have questions about any specific program, please feel free to call us or stop by our office to get additional information about our management activities.

Acting Area Manager

You'll find some information about activities on the BLM's Klamath Falls Resource Area through the Lakeview BLM's Internet web site:  
**[www.or.blm.gov/Lakeview](http://www.or.blm.gov/Lakeview)**

This Internet connection provides an opportunity for BLM to keep its publics informed.

INSERT GENERAL LOCATION MAP - Figure 1

**Table S-1. Klamath Falls RMP Summary of Renewable Resource Management Actions, Directions and Accomplishments**  
(page 1 of 2)

| <b>RMP Resource Allocation or Management Practice or Activity</b>  | <b>Fiscal Year 1998 Accomplishments</b> | <b>Cumulative Accomplishments 1996-1998<sup>1</sup></b> | <b>RMP's Projected Decadal Practices</b> |
|--|---|---|--|
| <b>Westside</b>  |   |   |  |
| Regeneration harvest (acres offered)<br>TRIM-Plus  | 0                                       | 0   | 1,222 <sup>4</sup><br>569 <sup>9</sup>   |
| Commercial thinning/density management/<br>uneven-age harvests (acres offered)<br>(regulated/non-regulated) <sup>2</sup> | 1,889/7                                 | 3,074/92 <sup>3</sup>                                   | 7,725 <sup>4</sup><br>3,592 <sup>9</sup> |
| Mortality Salvage (acres offered)  | 50                                      | 5,600 <sup>5</sup>                                      | 0 <sup>5</sup>                           |
| Timber sale quantity offered (mm board feet)(regulated/non-regulated)  | 5.8218/0.042                            | 22.066/0.0549   | 55.14 <sup>4</sup>                       |
| Timber sale quantity offered (mm cubic feet)<br>(regulated/non-regulated)  | 1.1/0.008                               | 3.8/0.01  | 9.61 <sup>4</sup>                        |
| Site preparation (acres)   | 95                                      | 215   | 1,800                                    |
| Vegetation control, mechanical/hand (acres)  | 253                                     | 551   | 2,000                                    |
| Animal damage control (acres)  | 0                                       | 904   | 4,000                                    |
| Precommercial thinning (acres)   | 91                                      | 292   | 500                                      |
| Brush field/hardwood conversion (acres)  | 0                                       | 0   | 0  |
| Planting/regular stock (acres)   | 261                                     | 592   | 3,000                                    |
| Planting/genetically selected (acres)  | 0                                       | 0   | 1,000                                    |
| Fertilization (acres)  | 0                                       | 0   | 320                                      |
| Pruning (acres)  | 0                                       | 0   | 160                                      |
| Oak Woodland Thinning  | 0                                       | 103   | 0  |
| <b>Eastside</b>  |   |   |  |
| Regeneration harvest (acres offered)   | 0                                       | 0   | 308 <sup>4</sup>                         |
| Commercial thinning/density management/<br>uneven-age harvests (acres sold), regulated/non-<br>regulated                 | 30/0                                    | 239/0   | 2,510 <sup>4</sup>                       |
| Mortality Salvage (acres offered)  | 0                                       | 1,000 <sup>5</sup>                                      | 0 <sup>5</sup>                           |
| Timber sale quantity sold (mm board feet),<br>regulated/non-regulated  | 0.0609/0                                | 1.6622/-0.005   | 3.7/0 <sup>4</sup>                       |
| Timber sale quantity sold (mm cubic feet),<br>regulated/non-regulated  | .01089/0                                | 0.28251/0.0019  | 0.75 <sup>4</sup>                        |
| Site preparation (acres)   | 0                                       | 35  | 700                                      |
| Vegetation control, mechanical/hand (acres)  | 0                                       | 188   | 250                                      |
| Animal damage control (acres)  | 0                                       | 0   | 150                                      |
| Precommercial thinning (acres)   | 0                                       | 50  | 200                                      |
| Brush field/hardwood conversion (acres)  | 0                                       | 0   | 0  |
| Planting/regular stock (acres)   | 28                                      | 335   | 600                                      |

**Table S-1. Klamath Falls RMP Summary of Renewable Resource Management Actions, Directions and Accomplishments**  
(continued, page 2 of 2)

| <b>RMP Resource Allocation or Management Practice or Activity</b>                | <b>Fiscal Year 1998 Accomplishments</b>                   | <b>Cumulative Accomplishments 1996-1998</b> | <b>RMP's Projected Decadal Practices</b> |
|--|---|---|--|
| <b>Eastside (continued)</b>  |   |   |  |
| Planting/genetically selected (acres)  | 0   | 0   | 150                                      |
| Fertilization (acres)  | 0   | 0   | 0  |
| Pruning (acres)  | 0   | 0   | 130                                      |
| <b>Entire Resource Area</b>  |   |   |  |
| Juniper Thinning/Cutting   | 211   | 881   | 10,000 <sup>6</sup>                      |
| Prescribed burning (hazard reduction acres)                                      | 130   | 350   | 2,500                                    |
| Prescribed burning (wildlife habitat and forage enhancement acres)               | 1,118   | 1,200                                       | 7,400                                    |
| Natural or artificial ignition prescribed fire for ecosystem enhancement (acres) | 3,314   | 8,800                                       | 75,000                                   |
| New permanent road construction (miles/acres) <sup>6</sup>                       | 0   | 0.10/0.25                                   | Estimated 6.8/16.5                       |
| Roads fully decommissioned/obliterated (miles/acres <sup>7</sup> )               | 0   | 0   | Estimated 7/17                           |
| Roads closed/gated (miles <sup>8</sup> )   | 0   | 12  | no target                                |
| Open road density (per square mile <sup>7</sup> )                                | Average open miles for two townships = 2.3 miles/section. |   |  |
| Noxious weed control, chemical (sites/acres)                                     | 188/210   | 345/420                                     | no target                                |
| Noxious weed control, other (sites/acres)  | 10/10   | 30/20                                       | no target                                |
| Livestock grazing permits or leases (total/renewed units/animal unit months)     | 3/871   | 12/4,169                                    | 100/15,000                               |
| Reservoirs or springs constructed or developed (units each)                      | 0   | 0   | 7  |
| Livestock fences constructed (units/miles)                                       | 2/2   | 6/7.5                                       | 15/20                                    |

<sup>1</sup> Actual date is for 3 years and 4 months (June 1, 1995 to Sept. 30, 1998).

<sup>2</sup> Includes one FY98 timber sale that was offered in FY98, went no bid, and was reoffered and sold in FY99.

<sup>3</sup> Includes 3,072 of density management and 2 acres of right-of-way gas clearcut.

<sup>4</sup> Projected harvest estimated for green sales only, and based on 9.33 years.

<sup>5</sup> No acres projected in RMP exclusively for mortality salvage; these sales designed to capture ongoing excessive mortality.

<sup>6</sup> All methods, including cutting and burning.

<sup>7</sup> BLM-managed lands only.

<sup>8</sup> Roads closed to the general public, but retained for administrative or legal access.

<sup>9</sup> TRIM Plus acres.

**Table S-2. Klamath Falls RMP, Summary of Non-Biological Resource or Land Use Management Actions, Directions and Accomplishments**

| <b>RMP Resource Allocation or Management Practice</b>     | <b>Activity Units</b>             | <b>Fiscal Year 1998 Accomplishments</b> | <b>Cumulative Accomplishments 1996-1998</b> |
|---|-----------------------------------|---|---|
| Realty, land sales  | (actions/acres)                   | 1/1,600                                 | 1/1,600                                     |
| Realty, land exchanges                                    | (actions/acres acquired/disposed) | 0                                       | 1/120/120                                   |
| Realty, R&PP leases/patents                               | (actions/acres)                   | 0                                       | 0   |
| Realty, road rights-of-way acquired for public/agency use | (actions/miles)                   | 0                                       | 0   |
| Realty, road rights-of-way, permits or leases granted     | (actions/miles)                   | 6/33                                    | 22/126                                      |
| Realty, utility rights-of-way granted (linear/areal)      | (actions/miles/acres)             | 0                                       | 2/1.5                                       |
| Realty, withdrawals completed                             | (actions/acres)                   | 0                                       | 0   |
| Realty, withdrawals revoked                               | (actions/acres)                   | 0                                       | 0   |
| Mineral/energy, total oil and gas leases                  | (actions/acres)                   | 0                                       | 0   |
| Mineral/energy, total other leases                        | (actions/acres)                   | 0                                       | 0   |
| Mining plans approved                                     | (actions/acres)                   | 0                                       | 0   |
| Mining claims patented                                    | (actions/acres)                   | 0                                       | 0   |
| Mineral material sites opened                             | (actions/acres)                   | 0                                       | 0   |
| Mineral material sites, closed                            | (actions/acres)                   | 0                                       | 0   |
| Recreation, maintained off highway vehicle trails         | (units/miles)                     | n/a                                     | n/a   |
| Recreation, maintained hiking trails                      | (units/miles)                     | 1/0.5                                   | 6/38.5                                      |
| Recreation, sites   | (units/acres)                     | 16/2,000                                | 16/2,000                                    |
| Cultural resource inventories                             | (sites/acres)                     | 59/6,640                                | 170/24,212                                  |
| Cultural/historic sites nominated                         | (sites/acres)                     | 0/0                                     | 0/0   |
| Hazardous material sites                                  | (identified/cleaned)              | 1/1                                     | 1/1   |

## Acronyms/Abbreviations

|         |   |   |
|---------|---|---|
| ACEC    | - | Area of Critical Environmental Concern  |
| ACS     | - | Aquatic Conservation Strategy   |
| APS     | - | Annual Program Summary  |
| ASQ     | - | Allowable Sale Quantity   |
| BLM     | - | Bureau of Land Management   |
| CCS     | - | Challenge Cost Share  |
| CCF     | - | Hundred Cubic Feet  |
| CT      | - | Commercial Thinning   |
| CX      | - | Categorical Exclusions  |
| CWA     | - | Clean Water Act   |
| CWD     | - | Coarse woody debris   |
| CX      | - | Categorical Exclusions  |
| DM      | - | Density Management  |
| EA      | - | Environmental Analysis  |
| EIS     | - | Environmental Impact Statement  |
| ESA     | - | Endangered Species Act  |
| ESI     | - | Ecological Site Inventory   |
| FEIS    | - | Final Environmental Impact Statement  |
| FONSI   | - | Finding of No Significant Impacts   |
| FY      | - | Fiscal Year   |
| GFMA    | - | General Forest Management Area  |
| GIS     | - | Geographic Information System   |
| GPS     | - | Global Positioning System   |
| IDT     | - | Interdisciplinary Teams   |
| KFRA    | - | Klamath Falls Resource Area   |
| LSR     | - | Late-Successional Reserve   |
| LUA     | - | Land Use Allocation   |
| MBF     | - | Thousand board feet   |
| MMBF    | - | Million board feet  |
| NEPA    | - | National Environmental Policy Act   |
| NFP     | - | Northwest Forest Plan   |
| NMFS    | - | National Marine Fisheries Service   |
| O&C     | - | Oregon and California Revested Lands  |
| ODA     | - | Oregon Department of Agriculture  |
| ODFW    | - | Oregon Department of Fish and Wildlife  |
| PACs    | - | Province Advisory Councils  |
| PL      | - | Public Law  |
| REO     | - | Regional Ecosystem Office   |
| RIEC    | - | Regional Interagency Executive Committee  |
| RMIS    | - | Recreational Management Information System  |
| RMP     | - | Resource Management Plan  |
| RMP/ROD | - | <i>The Klamath Falls District Resource Management Plan and Record of Decision</i> |
| ROD     | - | Record of Decision  |
| RR      | - | Riparian Reserve  |
| R/W     | - | Right-of-Way  |
| SEIS    | - | Supplemental Environmental Impact Statement                                       |
| S&M     | - | Survey and Manage   |
| SOU     | - | Southern Oregon University  |
| SRMA    | - | Special Recreation Management Area  |
| TMO     | - | Timber Management Objectives  |
| TNC     | - | The Nature Conservancy  |
| USFS    | - | U.S. Forest Service   |
| USFWS   | - | U.S. Fish and Wildlife Service  |
| WSA     | - | Wilderness Study Area   |

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## **Introduction**

This Annual Program Summary (APS) is required by the Klamath Falls Resource Area Resource Management Plan and Record of Decision (June 1995). It reports progress on the various programs and activities occurring on the resource area during Fiscal Year (FY) 98 (Oct. 1997-Sept. 1998) and also some projected for the next fiscal year. The summary tables at the front of the document list types and levels of activities for the time period since the RMP was signed and implemented in June 1995. This information is being used to track the progress of plan implementation on the Klamath Falls Resource Area, which includes approximately 213,000 acres of BLM-administered lands (both surface and sub-surface) and another 21,000 acres of subsurface estate (where surface is either private or state owned).

This Annual Program Summary also includes a monitoring report and may include periodic plan maintenance. Among other information is data about the resource area's budget, timber receipt collections, and payments made to Klamath County. The annual summary is a means of reporting activities and accomplishments to local, state, and Federal agencies, as well as the public.

The FY98 APS is unique in that it will also be used as a source of information during the third year evaluation of the RMP in Spring of 1999. Detailed information is available in background files and data bases at the Klamath Falls BLM office. For additional information on any of the programs, call the Klamath Falls Resource Area at 541/883-6916 or the contact person listed for specific programs or projects.

## **Northwest Forest Plan Implementation**

Implementation of the Northwest Forest Plan (NFP) began in April 1994 with the signing of its Record of Decision. The Klamath Falls Resource Management Plan, signed in June 1995, incorporates all aspects of the Northwest Forest Plan. The Standards and Guidelines of the NFP were incorporated in the RMP in the form of Management Actions/Direction. Fiscal Years 1996 through 1998 represent the first full three years of implementation of the RMP.

Both the NFP and the Klamath Falls RMP/ROD embrace the concepts of ecosystem management at a broader perspective than done under previous management plans. The NFP established Land Use Allocations for all federal lands within the range of the northern spotted owl. Other management direction included conducting watershed analysis and late-successional reserve assessments and involving other landowners. These various analyses consider resource values from a landscape level. Requirements to conduct standardized surveys or inventories for special status species have been, or will be, developed for implementation at the regional scale.

## **Progress of Resource Management Plan Implementation**

*Land Use Allocations:* The 213,000 acres of public land managed by the Klamath Falls Resource Area are all within Klamath County. The NFP and the RMP specify management of these lands by Land Use Allocations: Matrix or General Forest Management Area (where majority of commodity production will occur), Late-Successional Reserves (which emphasize providing habitat for late-successional and old-growth forest-related species), and Riparian

Reserves (which emphasize maintenance of water quality and aquatic ecosystems). The RMP established objectives for management of the various resource programs on the resource area.

In this APS, there is some variance in reporting activities for these various programs. Some activities and programs can be summarized with statistics, while others are best reported in short narratives.

Summary tables at the front of this Annual Program Summary provide an overview of the progress of RMP implementation through FY98 (See Tables S-1 and S-2). Individual program summaries within the document provide detail on activities conducted during this past fiscal year, as well as some projected activities. Also provided at the end of the program summaries is a table listing proposed actions requiring environmental assessment (see Table 18). Anyone interested in providing input or learning more about those projects can contact Kathy Helm, who is the writer-editor/planner at the Klamath Falls Office (541/885-4105), or you can also call the resource specialist identified for the specific project.

Late-Successional Reserves: Workloads in FY98 did not allow resource area staff to complete its assessment of Late-Successional Reserves; however, the assessment will be given high priority during FY99. When complete, the assessment will address site-specific management of these areas.

Jobs-in-the-Woods: FY98 marked the fifth year of the Jobs-in-the-Woods (JITW) program, which is a multi-agency program established as part of the Northwest Forest Plan. The program's purpose is to restore the health of the key watersheds and to help communities, businesses, and the workforce affected by declining timber harvest to transition to new work opportunities associated with ecosystem management and restoration. As in the previous years, the FY98 Jobs-in-the-Woods projects involved forest underburning, fuel reduction, archaeological and plant surveys, and juniper thinning.

FY98 Jobs-in-the-Woods projects in the Klamath Falls BLM supported 109 worker days and included 16 projects.

Watershed Analysis: Portions of three Key watersheds (Jenny Creek, Spencer Creek, and Clover Creek), as designated by the Northwest Forest Plan, are within the BLM's Klamath Falls Resource Area. Watershed analysis is complete for all three of these watersheds.

Watershed analysis requirements for lands not subject to the Northwest Forest Plan are addressed in the Klamath Falls RMP and are also expected to be a component of the Interior Columbia Basin Ecosystem Management Project, which is still in progress. The resource area plans to initiate a watershed analysis in FY99 for lands on its east side; this analysis was projected to occur in FY98, but was not accomplished due to workload demands.

## **Plan Maintenance**

As the Resource Management Plan is implemented, it has become necessary to make minor changes, refinements, or clarifications to the plan. These actions are called "plan maintenance." They do not result in expansion of the scope of resource uses or restrictions or changes in the terms, conditions, and decisions of the approved Record of Decision and RMP. Because of this

scope, plan maintenance does not require environmental analysis, formal public involvement, or interagency coordination.

Certain plan maintenance was published in the resource area's FY96 Report included in the *Lakeview District Planning Update*, dated October 1997. That maintenance involved understory and forest gap herbivores, the great gray owl protocol, and the number of leave trees per acre.

The resource area is in the process of clarifying other management guidance, including that for regeneration harvest and patch cuts.

The following FY98 minor changes, refinements, and clarifications are implemented as part of plan maintenance for the Klamath Falls Resource Area's RMP.

*Guidance on Implementation of the 15 percent retention Standard & Guideline:* 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 & Guidelines, provides methods for completing the assessment for each fifth field watershed, dictates certain minimum documentation requirements, and establishes effective dates for implementation. This Instruction Memorandum is adopted in its entirety as RMP clarification.

*Survey Protocols for Survey & Manage Species:* 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.

### **Summary Listing of Other Plan Maintenance**

#### *Oregon State Office Guidance*

Memo directing changes in surveys for arthropods (BLM IB-OR-97-045, dated 11/8/96)  
Memo implementing Regional Ecosystem Office memo on management of lynx (BLM IM-OR-96-97, dated 6/28/96)  
Memo on protocols for Survey & Manage amphibians (BLM IB-OR-96-006, dated 3/19/96)  
Memo on dwarf mistletoe (BLM IB-OR-95-443, dated 8/15/96)  
Memo on plan maintenance (OR IB-OR-96-294, dated 7/5/96)  
Memo on implementing Coarse Woody Debris Standard & Guide (BLM IB-OR-96-064 11/19/96)

#### Memorandum Reference

#### Subject Summary or Description

REO Memorandums 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 7/5/995

- Interagency memo exempting certain silvicultural activities from LSR assessment requirements.

- BLM IM OR-95-123
  - REO Memorandum dated 7/24/95
  - REO Memorandum dated 12/15/95
  - REO Memorandum dated 4/26/96
  - REO Memorandum dated 9/6/96
  - REO Memorandum dated 6/11/96
  - REO Memorandum dated 7/9/96
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  - BLM IM-OR-97-007 dated 11/1/96
  - REO Memorandum dated 3/22/95
  - REO Memorandum dated 10/13/94
  - REO Memorandum dated
  - REO Memorandum dated 8/31/95
- Memo clarifying when watershed analysis is and is not required for minor activities in Riparian Reserves.
  - Memo changing status of dwarf mistletoe in Table C-3 of the ROD.
  - Memo clarifying REO review of LSR assessments
  - Additional guidance on LSR assessment reviews
  - Draft memo limiting surveys for certain arthropods to southern range.
  - Memo changing provisions regarding the management of the lynx.
  - Memo exempting certain commercial thinning projects in LSRs and MLSAs from REO review.
  - Memo amending commercial thinning exemption in LSRs.
  - Interagency Memo clarifying implementation of S&M component 2 species; contains definitions of S&G terms such as “ground disturbing” and “implemented.”
  - Memo reviewing BLM site potential tree height determination.
  - Memo reviewing BLM’s interpretation of Coarse Woody Debris requirements.
  - Removal of *Buxbazlmia* p. from S&M list.
  - Memo on LSR boundary adjustments.

### **Plan Maintenance Resulting From Legislation**

*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.

## **Third Year Evaluation**

A Third Year Evaluation of all western Oregon Resource Management Plans prepared and implemented subsequent to the Northwest Forest Plan is being conducted. The non-biological resources assessment portion of that evaluation for the Klamath Falls Resource Area was conducted by staff from BLM's Oregon State Office on January 22, 1999 at the resource office. The biological resources assessment will be conducted for all western Oregon districts, including the Klamath Falls Resource Area, during March 1999 in Portland.

Information gathered during the non-biological and biological resources assessments will be compiled with other data collected specifically for the Third Year Evaluation, including some presented in summary and appendix tables of this FY98 Annual Program Summary. The compiled information will be used to determine whether the resource management plans are within management parameters projected and if changes are needed. The data will also be used to evaluate the allowable sale quantity (ASQ) for timber harvesting.

Among the information being collected are cumulative totals of activities being conducted on BLM-administered lands and the amount of late-successional habitat on various ownerships by watershed. Some data collection, such as the 15% analysis, involves contacting neighboring landowners.

Public outreach was done in Spring of 1998, asking for input on the Third Year Evaluation. The resource area received one response, which is being considered in the analyses process. Results of the Third Year Evaluation will be available in mid-1999.

## **15 Percent Analysis**

The Northwest Forest Plan/Record of Decision (page C-44) and ROD/RMP (page 18) require that the Bureau of Land Management and U.S. Forest Service provide for retention of late-successional and old-growth fragments in watersheds where little remains. The standard and guideline is to be applied to any fifth field watershed where Federal forest lands are currently comprised of 15 percent or less late-successional forest (LSF), considering all land allocations. All Klamath Falls Resource Area FY95-98 timber sales sold under the Northwest Forest Plan have complied with the 15 percent Standard and Guideline per the initial analysis.

A joint BLM/USFS Instruction Memorandum was issued on September 14, 1998 to provide further guidance for implementing the 15% Standard and Guideline throughout the area covered by the Northwest Forest Plan. Implementation of this guidance is required for all actions with decisions beginning October 1, 1999. A 15% analysis, based on the September 1998 guidance, is in progress. Overall results of that analysis are not available for publication in the FY98 Annual Program Summary, but will be published with completion of the Klamath Falls Resource Area third-year RMP evaluation in Spring 1999.

## **Budget, Including Personnel**

During Fiscal Years 1996 to 1998, the Lakeview District had a total budget appropriation of approximately \$11.6 million (Table 5), a portion of which funded projects under Management of

Lands & Resources and Oregon & California (O&C) Railroad Lands in the Klamath Falls Resource Area.

Funding for other programs listed on Table 1 were in addition to the district budget (non-appropriated funding).

Collections and deposits for various accounts totaled approximately \$1.9 million. There were 38 full-time employees, 5 seasonal term employees, as many as 20 temporary employees, and several volunteers.

| <b>Table 1. FY98 Budget for Klamath Falls Resource Area</b> |                             |
|---|-----------------------------|
| <b>Program</b>  | <b>Dollars Appropriated</b> |
| Jobs-in-the-Woods (6650)                                    | \$381,120                   |
| Management of Lands & Resources                             | 510,313                     |
| Fire  | 985,884                     |
| Oregon & California Railroad Lands (O&C)                    | 1,023,113                   |
| Forest Ecosystem Health & Recovery                          | 666,557                     |
| Pipeline<br>Recreation (5830)                               | 265,500                     |
| Timber (5810)   | 138,000                     |
| Total   | \$2,875,418                 |

Volunteer Program: During FY-1998, the Klamath Falls Resource Area benefited having 7,840 contributed hours from 106 volunteers. Benefiting programs and activities included:

Recreation: Campground hosting, campground maintenance, and river/WSA patrol.

Forestry: Assistance with timber sale layout, marking and GIS/GPS projects, and tree planting by Cub Scouts.

Wildlife: Bitterbrush plantings, wildlife monitoring, and improving public access for hunting.

Wild Horses: Assistance with Klamath Falls wild horse adoption.

Cultural Resources: Assistance with cultural surveys and site stabilization.

Administration: Computer, administration, and front desk support.

Educational Training Programs: Other temporary staff were hired through two educational training programs: Student Temporary Education Programs (STEPS) and Resource Apprenticeship Program of Students (RAPS). STEPS students who provided work for the Klamath Falls Resource Area during FY98 were Joanna D'arcy, Jeffrey Dimke, Jeffrey McEnroe, Luke Bechdolt, Monica Nunes, and Samuel Harworth. There were two RAPS students: Chadd Jackson and Dewey Pizano.

Challenge Cost Share: Numerous projects implemented through the Klamath Falls Resource Area benefited from funding or services in-kind provided by other agencies or organizations

(Table 5). These are discussed in various sections throughout this Annual Program Summary, including the Wildlife/Fisheries and Botany sections, as well as Wood River. These three programs benefited substantially from challenge cost share funding sources which enabled implementation of many projects that otherwise could not have been done.

## **Timber Pipeline Restoration Fund**

The Timber Sale Pipeline Restoration Fund was established under Section 327 of the Omnibus Consolidated Rescissions and Appropriations Act of 1996 (Public Law 104-134). The Act established separate funds for the Forest Service and BLM, using revenues generated by timber sales released under section 2001(k) of the FY95 Supplemental Appropriations for Disaster Assistance and Rescissions Act. Public Law 104-134 directs that 75 percent of the Fund be used to prepare sales sufficient to achieve the total Allowable Sale Quantity (ASQ) and that 25 percent of the Fund be used to expend on the backlog of recreation projects after necessary payments. BLM's goal is to use the Fund to regain one year's lead time in ASQ timber sale preparation work over a five to seven year time frame, and to reduce the backlog of maintenance at recreation sites, and address crucial unresolved visitor services or recreation management needs.

The following actions were completed in FY98 with the Timber Sale Restoration Funds:

Slim Chicken Timber Sale, scheduled for FY2000 or 2001, with an anticipated volume of 3,800 CCF/2,000 MBF (including 1,900 acres in the Matrix).

- Cultural surveys on 1,900 acres.
- First year protocol surveys for Great Gray Owls.
- Continuing demographic surveys for northern spotted owls.
- Continuing surveys for Northern Goshawk.
- Completed environmental assessment.
- Field verification of stream classifications.
- Botanical surveys.
- Initial reconnaissance of sale area to determine boundaries, riparian zones, comers, and general condition.

## **Recreation Pipeline Funds**

Congressional funding was appropriated to complete backlogged recreation projects in western Oregon, including BLM-managed lands in Klamath County. The intent of this funding is to do facility or site maintenance at existing recreation sites. New construction of recreation projects that address critical visitor safety or recreation management needs are also prioritized. During FY98, which was the first year of this funding source, the Lakeview District obligated approximately \$265,000 for various recreation projects, including;

- Water well and water line replacement at Topsy Recreation Site.
- Road work and installation of a double vault toilet at the Gerber Recreation Site.
- Paving repair in the Upper Klamath river canyon at the Spring Island raft launch.
- Paving of the parking area and access road, installation of a vault toilet, construction of a canoe/small boat launch, and construction of a 0.5 mile accessible trail at the Wood River Wetland.

Numerous recreation projects using pipeline funds are scheduled to be completed in FY99; see the recreation section of this document for more details on those projects.

## Recreation Fee Demonstration Program

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.

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

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

*Implementation Status:* The Recreation Fee Demonstration Program includes all Klamath Falls Resource Area recreation program fee sites and special recreation permit fees. Fee sites include the Topsy and Gerber recreation sites, as well as 30 special recreation permits. Fees generated from these sites and applied to the Fee-Demo program are shown in Table 2.

**Table 2. Recreation Fee Demonstration Program, Fee Collection and Expenditures, FY98**

| Site Name                  | FY98- Fees Collected (\$) | FY98- Monies Obligated from Fee Accounts (\$) |
|----------------------------|---------------------------|---|
| Topsy Recreation Site      | 5,900                     | 1,000   |
| Gerber Recreation Site     | 3,840                     | 1,000   |
| Special Recreation Permits | 16,000                    | 2,000   |
| Total                      | 25,740                    | 4,000   |

During FY 1998, relatively little of the Fee Demonstration monies were actually used for maintenance, enhancements, and to cover operating costs of the recreation program. This is because the year's work had already been programmed into the budget prior to the resource area being added to the Fee Demo pilot project, and there was very little money in the accounts until close to the end of the fiscal year. As the fee demonstration accounts build to useable levels, they will be utilized fully for operations, maintenance, and recreation site enhancements.

## Program Summaries

### Air Quality

All prescribed fire activities conformed to the Oregon Smoke Management Plan and the Visibility Protection Plan. No intrusions occurred into special protection areas as a result of prescribed burning activities on the resource area.

The resource area does not have any quantitative data on measuring air quality on a year round basis. The information that is available is provided by the Department of Environmental Quality (DEQ) which uses a nephelometer. The DEQ, in cooperation with Klamath County, measures air quality in the Klamath Falls populated area during the wood-burning season. During the spring, summer, and fall, DEQ moves the nephelometer to rural areas to monitor field burning activities.

## **Water and Soils**

### **Water Quality, Riparian Areas, Wetlands, and Watershed Management**

In designing management activities, the Klamath Falls Resource Area emphasizes water quality and riparian area monitoring, riparian/watershed/water quality improvement projects, nonpoint source pollution control, and water rights documentation. Range, wildlife, and riparian-wetland projects are designed to protect water quality in accordance with the Clean Water Act and to implement the BLM's *Riparian-Wetland Initiative for the 1990s*.

Water quality and macroinvertebrate sampling and analyses are conducted on major streams throughout the resource area. Macroinvertebrates are useful indicators of nonpoint source pollution and cumulative water quality effects. Results of this monitoring are used to assess existing water quality and stream condition, as well as trends over time.

Monitoring of riparian and wetland areas is completed annually to determine if management systems and project implementation are meeting resource objectives. Riparian photo points, stream surveys, and wildlife and vegetation studies are some of the methods used to monitor the resources. For additional information, contact Dana Eckard at 541/885-4143.

*Participation in Watershed Councils and Similar Organizations:* During FY98, the Lakeview BLM District hydrologist (representing the Klamath Falls R.A.) and various Klamath Falls resource area staff participated in local watershed councils and advisory committees. The three main watershed groups were Upper Klamath Basin Working Group (also known as the Hatfield committee), Lost River Local Advisory Committee (organized by the Oregon Department of Agriculture), and Spencer Creek Coordinated Resource Management Plan (which generally meets twice a year).

Resource area staff also coordinated with the Bureau of Reclamation's Ecosystem Restoration Office to seek input on proposed management.

### **FY-98 Accomplishments**

Proper Functioning Condition surveys were completed on 7.3 miles of stream riparian areas, bringing the total PFC surveys done to 76 miles of streams in the resource area. Following is a summary of the survey results.

| <u>Stream Condition Status</u> | <u>Miles or Percent</u> |
|--------------------------------|-------------------------|
| Proper Functioning             | 43.8 miles or 58%       |
| Functional-At-Risk             | 16.0 miles or 21%       |
| Nonfunctioning                 | 16.2 miles or 21%       |

Willow and cottonwood seedlings were planted on about 2 acres of interior dikes at the Wood River Wetlands. These seedlings were grown from branch cuttings by local school groups for planting at the property.

Fence repairs and maintenance were completed on 10 riparian exclosures and riparian pastures. These fences are an important part of the livestock management systems for riparian areas.

Photo point monitoring was completed on 13 streams and wetlands.

### **FY-99 Projects Planned**

Proper Functioning Condition surveys will be done on a portion of the standing water wetlands in the resource area.

Low level aerial photography will be completed on 102 miles of streams.

Livestock exclosure fencing at Wild Gal Spring in the Dixie grazing allotment will be expanded to include a wet meadow area.

Approximately 0.5 miles of road will be obliterated and a culvert will be removed from a location on Miners Creek. The creek channel and road area will be recontoured and stabilized with vegetation, large wood, and rocks. The project will enhance native fish habitat.

On Clover Creek, a large quarry tailings pile will be removed from the riparian area, a section of road will be obliterated, and the stream channel and floodplain conditions will be improved to enhance the habitat for native fish species.

## **Soils**

### **FY97 Accomplishments**

*Training:* Six resource area staff (two timber sale administrators, a forester, two botanists, and an ecologist) attended a soil compaction workshop in Bend, Oregon. The focus of this workshop was understanding and managing soil compaction to maintain ecosystem productivity.

The soil scientist with the Winema National Forest's Chiloquin Ranger District helped Klamath Falls resource area staff refine their field techniques for conducting soil compaction monitoring. This individual also helped Klamath Falls BLM employees to process soil samples they had collected and allowed use of the Forest Service soil processing facilities.

*Monitoring Activities:* A long-term soil monitoring program was developed and implemented for the resource area. Monitoring objectives on the resource area include determining the amount of area disturbed within a timber sale and the degree of disturbance with specific attention to increases in soil compaction. This type of soil monitoring was conducted on the Frosty Too timber sale. The data was statistically analyzed and presented to the interdisciplinary team. Copies of this report are available upon request. Findings from this monitoring are considered in planning future timber sales.

## **FY98 Accomplishments**

*Training:* Three resource area staff attended the Pacific Northwest Forest and Rangeland Soil Organism Symposium in Corvallis, Oregon. This symposium addressed detrimental effects of soil compaction in relation to soil microorganisms such as fungi, mollusks, insects, and cryptobiotic crusts (lichens, bryophytes, and algae).

Two personnel attended a weeklong workshop concerned with study design and data analysis. This training should increase the efficiency and effectiveness of the resource area's soil monitoring program, as well as other monitoring efforts.

*Monitoring Activities:* Quantitative pre-harvest soil monitoring was conducted on the Kakapoo Stew timber sale. Monitoring objectives on the resource area include determining the amount of area disturbed within a timber sale and the degree of disturbance. A good parameter for measuring the degree of disturbance is change in soil bulk density or the degree of soil compaction that has occurred in an area. Pre-harvest monitoring develops baseline data that can later be compared to post-harvest data. Quantifying soil disturbance enables resource area staff to determine whether resource management plan objectives for protecting soil resources are being met.

## **FY99 Work Projections**

Post-harvest soil monitoring will be completed for the Kakapoo Stew timber sale. Data generated from this monitoring effort will be analyzed and findings presented to the interdisciplinary team. Copies of these findings will then be available upon request.

## **Wildlife/Fisheries Habitat and Habitat Management**

### **FY98 Aquatics Accomplishments**

Monitored stream temperatures on six streams to determine effects of management and restoration on water quality limited streams.

Monitored endangered sucker spawning habitat in the Gerber watershed and Wood River.

Conducted spotted frog surveys at Four-Mile, Wood River, and Buck Lake.

### **FY98 Terrestrial Program Accomplishments**

A major part of the terrestrial program involves monitoring and surveying for various Special Status Species and SEIS Special Attention Species

### **Special Status Species and Special Attention Species**

This section contains reports on species that are Federal or State listed or Sensitive, or Bureau Sensitive Species: bald eagle, northern spotted owl, northern goshawk, neotropical migratory birds, and yellow rails. There are also discussions on Survey and Manage Species and Protection Buffer Species (great gray owl, mollusks, bats, and lynx) identified in the Northwest Forest Plan.

Note: The Klamath Falls Resource Area has been able to implement the management action direction associated with Survey and Manage/Protection Buffer species through FY98. The adaptive management application of the experience gained in implementing this management action/direction has resulted in the consideration of possible adjustments (see Appendix C, Modifications Being Considered for Survey and Manage/Protection Buffer Guidelines). The information in this Annual Program Summary for Survey and Manage/Protection Buffer Species is not meant to be comprehensive nor exhaustive.

**Bald Eagle** (Federal Threatened Species) - Known nesting territories in the Klamath Falls Resource Area are monitored for reproductive status as well as roosting sites. The resource area works with the Oregon Eagle Foundation through a challenge cost share to monitor the majority of the nest sites. The rest of the sites are checked by the wildlife staff. The resource area currently has 13 active territories with 15 nest sites and 3 roost sites (see Table 3a). There are three historic sites where birds have not been located in the past few years.

| <b>Year</b> | <b>Reproductive status</b> | <b>Newly located nest</b>           | <b>Rebuilt nest</b> | <b>Destroyed nest</b> | <b>Total active territories</b> |
|-------------|----------------------------|-------------------------------------|---------------------|-----------------------|---------------------------------|
| 1996        | 7 young                    | 3 (2 territories, 1 alternate nest) | 0                   | 0                     | 8                               |
| 1997        | 12 young                   | 1 (alternate nest)                  | 0                   | 4                     | 9                               |
| 1998        | 13 young                   | 7 (4 territories, 3 alternate nest) | 1                   | 0                     | 13                              |

**Northern Spotted Owl** (Federal Threatened): Known breeding territories are monitored for occupancy, reproductive status, and turnover of adult birds. The resource area also participates in a banding program for this species on all sites located on BLM-administered lands and adjacent U.S. Timberlands (formerly Weyerhaeuser) property. The above monitoring and banding information was used through 1996 for Oregon State University's Regional Demographic Study of spotted owls. The information also provides needed monitoring data pertinent to ongoing Section 7 Consultation under the Endangered Species Act and for implementation of seasonal restrictions during timber sales. Both the Northwest Forest Plan and the RMP restrict management actions within fifteen 100-acre unmapped Late Successional Reserves and one owl-related District Designated Reserve, and within 0.25 mile of active nest sites during the breeding season.

FY-1996

Worked cooperatively with Winema National Forest, Weyerhaeuser, and Medford District BLM to monitor 17 known sites, five of which were on the Winema.

Under Interagency Agreement #6-96-20-011 with the Winema, the BLM surveyed three repetitions of 88 call points over an 11,000-acre area in proposed timber sales on the National Forest.

Monitored reproductive status of 17 spotted owl nesting territories, located 13 Pairs, 9 of which were nesting and fledged 11 young. Single owls were located on 4 territories.

Confirmed presence of bands on 21 spotted owls; banded 5 adults and 4 juveniles.

FY-1997

Worked cooperatively with U.S. Timberlands under a Memorandum of Understanding to monitor four known sites and survey one potential site.

Monitored total of 13 historic sites. Pair status was confirmed at 7 sites, 4 of which nested and fledged 8 young. Single birds were detected at four sites.

Located a male and female roosting together in a previously unidentified territory referred to as Edge Creek. This area borders BLM and U.S. Timberlands property.

Banded 7 juveniles and 5 adults (2 previously unbanded and 3 color bands changed).

FY-1998

Continued cooperative monitoring and survey work with U.S. Timberlands. Gathered data necessary for establishment of a new spotted owl territory on BLM-administered land at Edge Creek in cooperation with U.S. Timberlands. This area is within the Muddy Tom Timber Sale planned for sale in 1999. The activity center is allocated as matrix under the Northwest Forest Plan.

Surveyed 1,900 acres of suitable spotted owl habitat within proposed timber sale areas. Within this area, located two male spotted owls.

Monitored 13 historic sites. Nine of these were occupied with pairs, 4 of which nested and fledged a total of 3 young. No owls were found at the remaining 4 sites.

**Great Gray Owls** (Protection buffer species in the *Supplemental Environmental Impact Statement Record of Decision*): Since 1996, the KFRA has conducted surveys to protocol in areas where ground-disturbing events are planned (see Tables 3b and 3c below). Adjustments were made to the original protocol in 1997 with guidance from the document, *Great Gray Owl Survey Status and Evaluation of Guidelines for the Northwest Forest Plan*. Great gray owls have been detected in five different areas in the resource area.

**Table 3b. Results of Protocol Surveys for Great Gray Owls in KFRA, 1996-1998**

| Year | Night Protocol Survey Response | Day Protocol Survey Response |
|------|--------------------------------|------------------------------|
| 1996 | 0                              | 0                            |
| 1997 | 5                              | 5                            |
| 1998 | 10                             | 6                            |

**Table 3c. Results of Non-Protocol Responses for Great Gray Owl in KFRA, 1996-1998**

| Year | Day<br>Not During Surveys |
|------|---------------------------|
| 1996 | 1                         |
| 1997 | 0                         |
| 1998 | 6                         |

### **1996 Surveys**

Six night survey routes were conducted to protocol.

Results of these surveys: No birds were located during surveys. A bird was detected during goshawk surveys.

### **1997 Surveys**

Established 13 night survey routes along 20 miles of road. Seven routes were surveyed to protocol.

Established 15 day survey routes.

Results of these surveys: No nests were discovered. Great gray owls were detected in three different locations.

### **1998 Surveys**

Established 13 survey routes along 18 miles of road.

Confirmed one nesting attempt adjacent to BLM land, on US Timberlands. Reproductive success is unknown.

Results of these surveys: Great gray owls were detected in one new area that had not previously been documented.

**Northern Goshawk** (Bureau sensitive species): BLM 6840 policy directs that BLM's actions avoid contributing to the need to list these species as threatened or endangered. Direction under Instructional Memorandum OR-94-112 and OR-98-012 is to survey for presence of nesting goshawks in suitable habitat for all major management actions prior to on-the-ground management. The RMP directs that 30-acre buffers be provided around known and future activity centers. As a result, known sites are monitored to locate current active nest sites, particularly within proposed timber harvest areas.

### **FY-1996**

Revised, awarded, and administered a contract for goshawk surveys within 25,000 acres of suitable habitat in proposed timber sale areas. These surveys concluded three years of contract surveys conducted to protocol standards for all suitable goshawk habitat with no known nest sites.

Surveyed an additional 1,000 acres of suitable habitat where sightings of goshawks occurred. Monitored 16 known goshawk nesting territories and confirmed occupancy on 8 sites which fledged 11 young.

### **FY-1997**

Monitored 13 known nesting territories and confirmed occupancy on three sites that fledged four young.

Located one new active breeding territory at Chicken Hills within a proposed timber harvest area proposed for sale in the year 2000. A 30-acre nest core area will be established around the known nest sites.

An additional 500 acres of suitable habitat were surveyed.

#### FY-1998

Surveyed 3,200 acres of suitable habitat and areas where goshawks had been sighted within proposed timber sales.

Searched 2,200 acres within known territories in an effort to locate active nests at historic sites.

Monitored eight known breeding territories, confirming occupancy at 4 sites.

Located one new active nesting territory near Buck Lake (Big Tree). A 30-acre buffer will be established around the known nest sites.

Documented reproduction at all five occupied sites (which produced a total of 9 young).

**Yellow Rail (Sensitive Species):** 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 its rediscovery in the Wood River Valley in 1982. The BLM's Fourmile Creek Wetland harbors the largest of four breeding populations in Oregon and is the only area in western North America where yellow rail nests have been found since 1950. The BLM has proposed to graze this wetland. Information is needed to determine what type of grazing management options could be compatible with this breeding population of yellow rails.

In addition, the Wood River Wetland is being restored to wetland, which includes potential habitat for yellow rails. Monitoring for this species at Wood River will help determine if suitable habitat conditions are being provided for this species.

For the past four years, the resource area has participated in a cooperative agreement between The Nature Conservancy (TNC), Winema National Forest, and Oregon Department of Fish and Wildlife to conduct a study of breeding yellow rails at the Fourmile property. Valuable information on home range size, habitat relationships, and water level needs was obtained. The nests found in 1995 were the first documented active nests found in Oregon since 1926 and the second confirmed breeding event in Oregon since that date.

#### FY-1996

In 1996, 37 territorial male yellow rails and 17 nests (5 were active) were found. The 17 nests represented the largest number ever found collectively west of the Rocky Mountains. At Wood River, only one detection was made during the season and that was a male yellow rail heard early in the breeding season.

#### FY-1997

The 1997 study focused on determining the number of males, capture and banding, site fidelity and return rates, as well as measurement of habitat variables and study of nest sites and nesting success. There were 49 male rails heard (a 30% increase over 1996 levels) and 9 nests found. As of 1997, the TNC estimated a breeding population of male yellow rails in Oregon at approximately 150-200 birds. During 1997, no yellow rails were detected at Wood River; however, the potential habitat was relatively dry due to the pumping of water necessary for wetland restoration activities.

### FY-1998

FY98 study objectives were similar to 1997. A maximum of 73 male yellow rails were heard (49 percent increase over 1997) and 54 were captured for banding. In addition, three juveniles were banded. Six nests were located, one of which was active. The recapture rate of birds over the 1996-1998 period was very low (10 to 17 percent), but additional data is needed to determine the relationship to site fidelity and survivorship. The Fourmile Creek Wetland population of yellow rails is the most densely populated breeding area west of the Rocky Mountains, and the banding effort is the most intensive undertaken in the United States. Information collected from this population and on the habitat relationships of this bird indicate it is very susceptible to habitat changes and fluctuating water levels. The study is providing valuable information for determining the levels of grazing which might be compatible with the rail.

The recently flooded Wood River wetland was surveyed. Six territorial male yellow rails were captured and four of these were subsequently banded. Two of the six birds were recaptures which had been banded at the Fourmile Creek wetland earlier in the 1998 season.

**Neotropical Migratory Bird Surveys (Sensitive Species)** - Baseline surveys and monitoring for neotropical migratory birds are a requirement under the Upper Klamath Basin and Wood River RMP/EIS to evaluate the BLM's effort to restore the drained wetland at Wood River. Other sampling on the resource area is being conducted to collect baseline data on presence/absence and trends in grazing allotments, and in other selected areas to evaluate their importance to these birds. One such area is the Klamath River Canyon. PacifiCorp's permit for generating power at the J.C Boyle Powerplant and others on the Klamath River is up for relicensing with the Federal Energy Regulatory Commission in 2006. The BLM's evaluation process of this relicensing must formally begin early in 2001. One question that needs to be asked related to the relicensing is: Are there continuing impacts to neotropical migratory birds resulting from the operation of the power projects?

Another umbrella document that recommends neotropical migratory bird surveys is the Oregon-Washington Chapter of Partners in Flights, entitled *Management, Research and Monitoring Priorities for the Conservation of Neotropical Migratory Landbirds that Breed in Oregon*. This document identifies riparian habitats as one of four habitats of top priority for conservation and management.

### FY-1996

The second year of baseline surveys for neotropical migratory birds was conducted in 1996 at Wood River. This involved conducting 2 visits of point count surveys at 45 stations in five habitat types. In 1995, a total of 99 bird species were detected, 37 of which were neotropical migratory birds. In 1996, an additional 11 species were detected.

### FY-1997

Conducted third and final year of baseline surveys at Wood River using the same methodology as in 1995 and 1996. Results of three years of survey indicate the highest diversity of riparian obligate species in the habitats with a variety of structural layers, which included cottonwoods. As of the fall of 1997, 142 species of birds had been detected at Wood River; 26 of these were new detections in 1997. This data set will be the basis for measuring trends during the wetland restoration efforts.

Worked cooperatively with the Pacific Southwest Research Station of the U.S. Forest Service, the Winema National Forest, and Point Reyes Bird Observatory to establish and begin monitoring at two banding stations for the collection of demographic data. One of these stations was at Wood River, and the other at Johnson Creek on O&C lands near the Surveyor Mountain Old Growth Area. At Wood River, 10 of the 26 new species of songbirds detected were found during the fall migration period.

Conducted point counts on streams within grazing allotments at Gerber Reservoir. Data analysis is ongoing at this time.

#### FY-1998

Continued and expanded project work under cooperative agreement with the Pacific Southwest Research Station. Additional contributors to this effort included PacifiCorp. Demographic stations were added in the Klamath River Canyon and on a tributary to Gerber Reservoir, which is within a grazing allotment. Pilot demographic stations were run at four new locations. Point count surveys were conducted at 500 stations in a variety of habitats across the resource area to collect baseline data on presence/absence by habitat type. This data will also be used for BLM's evaluation of the FERC relicensing of power projects on the Klamath River and grazing allotments. Data from this study is in the analysis phase.

An additional six species of neotropical birds were found at Wood River during demographic sampling.

**Townsend's Big Eared Bat (Sensitive Species)** - Under the RMP, the resource area is to minimize human disturbance to the maternity colony of these bats at Salt Caves on the Klamath River. An issue at this site has been the indication that rafts stop at the river near this maternity colony. As a result, a seasonal closure is in place from May 1 through September 15 at this site.

The first two full years of RMP implementation (1996 and 1997) the resource area monitored rafting traffic during peak use periods to determine if implementation of the seasonal closure was effective in deterring rafters from visiting the cave. Observations indicated rafters were abiding by the seasonal closure, although some rafts did pull out of the river to the shore near the maternity site; however, they did not enter the caves.

In FY97, under a cooperative agreement with Southern Oregon University (SOU), the status of the maternity colony was monitored from outside of the cave. The larger cave did not appear to support a stable maternity colony. The smaller cave is believed to be used as a transition site, primarily in the fall. SOU also provided recommendations regarding restricting access to the caves. BLM is currently evaluating the feasibility of implementing the recommendations.

**Forested Carnivore Surveys (Lynx)** (Protection Buffer Species, Northwest Forest Plan) - During the winter of 1997-98, resource area staff worked with Oregon Department of Fish and Wildlife to survey for carnivores using camera stations. The survey was set up according to the document, *American Marten, Fisher, Lynx, and Wolverine: Survey Methods for their Detection*. The stations were located on BLM-administered and National Forest lands. The cameras detected bobcat, marten, and a long-tail weasel. These surveys will continue for the winter of 1998-99. The surveys will be set up in areas where timber sales are planned.

**Bats** - In the summer of 1998, resource area personnel worked with Southern Oregon University to conduct some testing for development of a potential bat monitoring protocol. Three sites were

evaluated in the Klamath Falls Resource Area. Mist nets were set up around various water sources to capture and mark bats. Eight species were documented, including four survey and manage species.

**Mollusks** (Survey and Manage Species, Northwest Forest Plan) - The survey and manage provision of the Northwest Forest Plan's Record of Decision was implemented for mollusk species listed in the RMP's Appendix C. Surveys will be completed prior to any ground-disturbing activities implemented in FY99.

Specific accomplishments for mollusks in FY98 are listed below:

- Initiated surveys for mollusk species in three timber harvest areas; surveyed approximately 4,300 acres.

- Documented presence of *Prophysaon coeruleum* (blue-gray tailed dropper) in two of three timber harvest areas.

- Documented presence of mollusk species within three different prescribed burn areas, including the presence of *P. coeruleum* in the Fall of 1998 after a 1998 spring prescribed underburn.

The mollusk surveys done in FY98 were completed by various interdisciplinary staff (wildlife, botanists, fisheries, and foresters), including 10 seasonal employees and 4 terms.

### **Wildlife Habitat Management**

- Contracted for 103 acres of juniper management on Swan Lake Rim. (Jobs-in -the-Woods funding).

- Used prescribed fire on 1,050 acres of old chainings to rejuvenate the shrub communities. Planted 30 acres of winter range with bitter brush seedlings. Seedlings were then tubed for added protection from browsing the first year.

- Manually felled juniper on 58 acres of important brush fields.

- Administered the contracts for mechanically treating juniper around potential eagle nest and roost trees. (The contracts were issued in previous years.)

- Wildlife biologists helped mark timber sales. The biologists delineated big game cover patches, helped explain the marking for turkey roosts, and showed cruisers the preferred leave trees for wildlife.

### **FY 1999 Work Projections**

- Work with cruising crew to mark timber sales.

- Survey all pipeline sales for mollusks and great gray owls and other survey and manage species.

- Work with fire program to help plan the areas to be treated for fuel reduction or brush field rejuvenation.

- Design and mark treatments in great gray owl buffers along meadows.

- Initiate meadow management in great gray owl areas.

- Rehabilitate Clover Creek and Miners Creek.

- Complete consultations on Four-mile property, timber sales, the burn program, recreation projects where needed, and grazing allotments in the Gerber area.

### **SEIS Special Attention Animal Species**

Note: The Klamath Falls Resource Area has been able to implement the management action direction associated with Survey and Manage/Protection Buffer species through FY98. The adaptive management application of the experience gained in implementing this management action/direction has resulted in the consideration of possible adjustments (see Appendix C, Modifications Being Considered for Survey and Manage/Protection Buffer Guidelines). The information in this Annual Program Summary for Survey and Manage/Protection Buffer Species is not meant to be comprehensive nor exhaustive.

Tables 3d and 3e summarize site information by species groups and status of special status and special attention animal species in the Klamath Falls Resource Area. See the glossary for definitions of Component species.

Component 1 and 2 Actions: Fall surveys meeting protocol were conducted for all FY99 ground-disturbing projects. Spring surveys for these project areas will be conducted when temperature and moisture conditions are suitable for surveys. Sites were documented and mapped. Three species of aquatic mollusks were documented from three sites during contract surveys. These sites are not in current project areas.

Management recommendations for aquatic and terrestrial Component 1 and 2 species are being developed for known sites.

Component 4 Actions: No known sites and no specific surveys were conducted.

Other SEIS Actions: No known sites and no specific surveys were conducted.

**Table 3d. Number of Sites by Taxa Group and Status of Special Status Plants and Special Attention Species (many species are in more than one category and are reported in each category where they occur).**

| Taxa Group      | Status <sup>1</sup> |    |    |     |    |    |     |     |     |     |    |
|-----------------|---------------------|----|----|-----|----|----|-----|-----|-----|-----|----|
|                 | FE                  | FT | FC | BS  | AS | TR | SM1 | SM2 | SM3 | SM4 | PB |
| Fungi           | --                  | -- | -- | --  | -- | -- | 3   | --  | 61  | 33  | 6  |
| Lichens         | --                  | -- | -- | --  | -- | 2  | --  | --  | --  | 3   | -- |
| Bryophytes      | --                  | -- | -- | --  | -- | -- | --  | --  | --  | --  | -- |
| Vascular Plants | --                  | -- | -- | 133 | -- | 50 | 2   | 2   | --  | --  | -- |
| Mollusks        | --                  | -- | -- | 3   | -- | -- | 150 | 150 | --  | --  | -- |
| Amphibians      | --                  | -- | -- | --  | -- | -- | --  | --  | --  | --  | -- |

<sup>1</sup> Abbreviations used in this table:

|                                    |                                    |
|------------------------------------|------------------------------------|
| FE = Federally Endangered          | FT = Federally Threatened          |
| FC = Federal Candidate             | BS = Bureau Sensitive              |
| AS = Assessment Species            | TR = Tracking Species              |
| SM1 = Survey and Manage Strategy 1 | SM2 = Survey and Manage Strategy 2 |
| SM3 = Survey and Manage Strategy 3 | SM4 = Survey and Manage Strategy 4 |
| PB = Protection Buffer             |                                    |



**Table 3e. Total Number of Species by Taxa Group for Special Status and Special Attention Species**

| Taxa Group      | Status <sup>1</sup> |    |    |    |    |    |     |     |     |     |    |
|-----------------|---------------------|----|----|----|----|----|-----|-----|-----|-----|----|
|                 | FE                  | FT | FC | BS | AS | TR | SM1 | SM2 | SM3 | SM4 | PB |
| Fungi           | --                  | -- | -- | -- | -- | -- | 2   | --  | 14  | 7   | 1  |
| Lichens         | --                  | -- | -- | -- | -- | 1  | --  | --  | --  | 2   | -- |
| Bryophytes      | --                  | -- | -- | -- | -- | -- | --  | --  | --  | --  | -- |
| Vascular Plants | --                  | -- | -- | 5  | -- | 2  | 2   | 2   | --  | --  | -- |
| Mollusks        | --                  | -- | -- | 3  | -- | -- | 4   | 4   | --  | --  | -- |
| Amphibians      | --                  | -- | -- | -- | -- | -- | --  | --  | --  | --  | -- |
| Total           | --                  | -- | -- | 8  | -- | 3  | 8   | 6   | 14  | 9   | 1  |

<sup>1</sup> Abbreviations used in this table:

|                                    |                                    |
|------------------------------------|------------------------------------|
| FE = Federally Endangered          | FT = Federally Threatened          |
| FC = Federal Candidate             | BS = Bureau Sensitive              |
| AS = Assessment Species            | TR = Tracking Species              |
| SM1 = Survey and Manage Strategy 1 | SM2 = Survey and Manage Strategy 2 |
| SM3 = Survey and Manage Strategy 3 | SM4 = Survey and Manage Strategy 4 |
| PB = Protection Buffer             |                                    |

Training and survey activity accomplishments for FY95-98 are listed below by fiscal year, followed by projections for FY99.

### **FY95 Accomplishments**

*Training:* Five personnel representing the resource area attended a three-day non-vascular cryptogam workshop in Bend, Oregon. This workshop included collection, curation, identification, and monitoring techniques.

*Survey Activities:* Three of the personnel who attended the above workshop spent approximately six weeks in the Fall of 1995 conducting forest surveys/inventories for survey and manage non-vascular cryptogam species for both the BLM Klamath Falls Resource Area and the neighboring Winema National Forest, Klamath Ranger District. Between BLM- and USFS-administered land, approximately 150 different species were collected, identified, curated, and submitted to the respective non-vascular cryptogam collections. This included discovery of some survey and manage fungi species on lands managed by both agencies.

### **FY96 Accomplishments**

*Training:* Three resource area personnel attended the Northwest Science Association/Lichen Guild annual symposium/workshop in Tacoma, Washington. The focus of this three-day workshop was the identification and management of survey and manage lichens, moss, and liverworts (identified in the Northwest Forest Plan, April 1994). The workshop included a field day to the Pack Experimental Forest, there we identified and collected voucher survey and manage species as well as other non-vascular cryptogam specimens.

Three resource area personnel attended a three-day lichen workshop in Grants Pass, Oregon, which included a field day in the Siskiyou National Forest. This workshop focused on identification and management of survey and manage lichens in the southern Cascades. The attendees made collections and learned about identification of survey and manage lichens, as well as other lichens. This workshop also included learning and applying lab identification techniques.

In the Fall of 1996, four resource area personnel attended a two-day lichen and moss workshop in Boise, Idaho. The focus of this workshop was identification, ecology, and management of microbiotic soil non-vascular cryptogams in the Great Basin and Snake River Plain. The session included a field day touring federal lands in the area to observe various management practices and their impact on soil non-vascular cryptogams. This workshop included learning and practicing lab techniques for identification purposes.

### **FY97 Accomplishments**

*Training:* Three KFRA personnel attended a two-day bryophyte (moss/liverworts) identification workshop held on the Winema National Forest and taught by prominent PNW bryologist David Wagner.

*Survey Activities:* Non-vascular cryptogam surveys and inventories were conducted in nineteen Un-Mapped Late Successional Reserves (each 100 acres in size) in the resource area. This included collection, identification, photographing, and curation of specimens. Some new sites for survey and manage fungi were discovered while conducting these surveys. The species lists that were generated from this project will be included in a resource area publication describing area LSRs and their future management. This inventory adds to the resource area's knowledge of Northwest Forest Plan survey and manage non-vascular cryptogam species, as well as other resource area non-vascular cryptogams.

### **FY98 Accomplishments**

*Training:* Four personnel represented Klamath Falls Resource Area at a weeklong field workshop located in the southern Cascades of Oregon. This workshop was sponsored by the Bureau of Land Management and U.S. Forest Service, with the purpose being for attendees to learn and review identification techniques and management of southern Oregon survey and manage non-vascular cryptogams (fungi, bryophytes, and lichens). The Klamath Falls Resource Area received equipment provided by the region, including a dissecting stereo scope, compound microscope, and various chemicals to aid in identification of non-vascular cryptogams. The workshop also reviewed microscopic techniques to aid in identification of rare non-vascular cryptogams.

*Survey Activities:* Non-vascular cryptogam surveys were conducted prior to harvest activities on two timber sales in the Klamath Falls Resource Area. Three sites for two different species of survey and manage fungi (two component 3 and 4, and one component 3) were discovered within one of these timber sales. These sites were documented using a global positioning system (GPS), and specimens were also collected for examination and verification. These sites will receive adequate buffers to protect them from ground-disturbing activities. Other sites of survey and manage fungi (component 3 and component 3 & 4) were also discovered and documented in neighboring Late-Successional Reserves (LSRs). Since no activities are planned within these LSRs, these sites were GPSed and documented, but not buffered.

In addition to specific project non-vascular cryptogam surveys, various resource area personnel conducting regular field activities also discovered numerous new sites of survey and manage fungi. This now brings the total number of survey and manage fungi sites on the Klamath Falls Resource Area to over 60, with 15 different species. One new site for a survey and manage lichen (component 4) was also discovered during 1998. The total number of sites for survey and manage lichens and bryophytes (moss and liverworts) is still relatively low (three lichens and no moss); this is because most survey and manage species occur in wetter climate west of the crest of the Cascade mountain range.

Non-vascular survey and manage cryptogam specimens collected this year were documented, their sites were recorded, and the specimens were examined by resource area non-vascular cryptogam specialists. Many were photographed and dried for preservation. These documents, photographs, and specimens are available at the Klamath Falls BLM office and will be examined and verified by regional experts.

The Klamath Falls Resource Area began an electronic database during the summer of 1998. The database includes information concerning both survey and manage non-vascular cryptogams and other resource area non-vascular cryptogams. In conjunction with the database, staff began recording sites using a global positioning system. The database will allow for tracking of species more efficiently, and the GPS will allow for more accurate site locations. Species lists for non-vascular cryptogams on the Klamath Falls Resource Area are available by request.

Six survey and manage photo field guides were assembled to help resource area personnel identify survey and manage fungi species in the field. These field guides were distributed during a survey and manage fungi workshop held at the Klamath Falls BLM Office. This workshop included a slide show of fungi species known to occur on lands in the resource area and a short discussion about available resources to aid in identification of an unknown fungi species. Among the Klamath Falls field-going personnel attending the workshop were mollusk surveyors, timber markers, and a silviculturist. Efforts of these various personnel will likely increase the number of sites and information collected concerning resource area non-vascular cryptogams. Additional mycological and bryophyte reference books were purchased during 1998. Various lichen references were already in the resource area's botanical library.

### **FY99 Work Projections**

Conduct non-vascular cryptogam surveys, including spring and fall fungi surveys in FY1999 and FY2000 project areas. Implement management recommendations to protect sites from ground-disturbing activities for survey and manage species discovered.

Conduct a survey and manage fungi identification workshop for Klamath Falls Resource Area field-going personnel.

Assemble and distribute up to six additional survey and manage fungi field books. Update existing field books with photos and information as new species are found on the resource area.

Create a non-vascular cryptogam survey and manage "theme" or overlay for the geographical information system. This will allow the survey and manage GPS data collected to be viewed by area personnel during project planning. This will facilitate management of known locations of survey and manage lichens, bryophytes, and fungi.

Continue updating the electronic database.

Begin a non-vascular cryptogam photo collection specific to the Klamath Falls Resource Area.

## **Special Areas (ACECs and Wilderness)**

### ***Areas of Critical Environmental Concern***

The Klamath Falls Resource Area has five Areas of Critical Environmental Concern:

- Upper Klamath River
- Wood River Wetland
- Miller Canyon
- Yainax Butte
- Old Baldy Research Natural Area

Management on the Upper Klamath River ACEC continued to include permitting of 29 commercial whitewater permittees, who generated \$16,000 in fee revenue to the BLM in FY98. Resource area staff provided routine patrols for permit compliance and general use monitoring, as well as protection of cultural sites and maintenance of roads and camping areas.

See separate write-up for Wood River in this APS.

*Wilderness:* The one wilderness study area (WSA) in the Klamath Falls Resource Area is the Mountain Lakes WSA. This 334-acre WSA, which borders the Mountain Lakes Wilderness Area, is managed under the wilderness interim management policy to protect its wilderness values. Monthly WSA interim management monitoring visits are made during the months the area is free of snow, typically June through October. No roads or trails access this WSA.

*Other Special Areas:* The resource areas has two environmental education areas (Clover Creek and Surveyor Forest Area) and three special botanical/habitat areas (Alkali Lake, Tunnel Creek Wetlands, and Bumpheads). Other special management attention areas are the Pacific Crest National Scenic Trail and Spencer Creek (which has a coordinated resource management plan). Activities occurring in these areas are discussed in Appendix B - Monitoring Report (Special Areas).

-----**Mike...put Wood River in a cool box...please.....thanks...gracious....**

### **Wood River**

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 *Upper Klamath Basin and Wood River Wetland RMP/EIS*, completed in July of 1995. Restoration work at the wetland is coordinated with several partners, as well as the Klamath Tribe.

A monitoring report specific to the Wood River Wetland is prepared annually and distributed. Copies of this report are also available on request. For further information about Wood River Wetland, contact the project manager, Wedge Watkins, at 541/885-4110.

## ***FY98 Accomplishments***

### **Planning**

Completed and distributed the 1997 Monitoring Report; also collected 1998 data, as appropriate .

Established Assistance Agreement with Oregon Trout.

Initiated draft MOU with Bureau of Reclamation, U. S. Fish and Wildlife Service, and the Nature Conservancy regarding cooperative management and sharing of resources for BLM-administered lands surrounding Agency Lake.

Completed Re-initiation of Consultation with U.S. Fish and Wildlife Service.

Applied for grants from National Fish and Wildlife Foundation and the Oregon Governor's Watershed Enhancement Board.

### **Funding**

Assistance Agreement with Oregon Trout brings \$500,000 to the river channel restoration portion of the project (through grants from Bureau of Reclamation, U.S. Fish and Wildlife Service Ecosystem Restoration Office, and Pacific Corp.).

National Fish and Wildlife Foundation provides \$25,000 in matching funds for Oregon Trout's non federal contribution.

Oregon Governor's Watershed Enhancement Board (\$50,000 contribution)

Presentation to Klamath Basin Ecosystem Foundation nets \$5,000 for transplanting vegetation.

Klamath Tribes continued monitoring of water quality, and contributed to cultural resource survey (\$12,000).

### **Tours/Presentations**

Wood River Dedication (June 27,1998) brought 150 visitors to the site to honor partners and to celebrate the progress of the project.

Oregon Wetlands Joint Venture

The Society of Wetland Scientists

Klamath Basin Working Group

Oregon Fish and Game Commission

Oregon Water Resources Board

Governor's Watershed Enhancement Board

Upper Klamath Basin Watershed Council

Oregon Public Broadcasting

KOTI/ TV

Klamath Falls Herald and News

Sixth graders (Shasta and Peterson elementary schools)

School staff of Chiloquin and Bonanza elementary schools

Henley, Lost River and Tulelake high schools

### **FY98 Project Implementation**

Willow and cottonwood planting (2,500 plants).

Completed cultural resource surveys for planned construction areas.

Completed paving of the entrance road and parking lot (1000 feet @\$40,000).

Completed fourth year of monitoring.

Completed construction of middle water control levee and associated ponds and water control structures (2.3 miles/25 acres/ 7 structures),(\$600,000).

Completed approximately 50% of the reconstruction of the Wood River channel between Crooked Creek and Agency Lake (12 acres, 1 mile \$750,000).

#### Projects Projected for FY-99

Oregon Trout completes reconstruction of the Wood River channel between Crooked Creek and the bridge.

Oregon Trout submits final design submits final design, and implements construction on channel work on the Wood River (Bridge downstream through the delta).

Complete design phase of Sevenmile Canal Restoration (Ducks Unlimited, Bureau of Reclamation, and Water for Life).

Install fish screen on Sevenmile canal diversion structure.

Surface rock dike roads from the entrance gate to Sevenmile canal, and from the bridge to the Wood River pump station.

Complete plan conformance or environmental assessment for Wood River channel work from the bridge downstream through the delta.

#### **Projects Projected for FY-00**

Complete construction of Wood River channel from the bridge downstream through the delta.

Maintain south dike lake interface (rip rap placement).

Complete final design and staking for realignment of Sevenmile canal dike; implement construction.

-----end of Wood River box -----

## **Cultural Resources**

Resource area accomplishments in compliance with the National Historic Preservation Act, Section 106 Compliance, are listed below. For more information about cultural resource protection on the Klamath Falls Resource Area, contact Matthew Kritzer at 541/885-4139.

A total of 26 data reviews were conducted during 1998. A data review can be a literature review, existing data review, file search, or records check, and is generally the first step before initiating a field survey.

There were 20 heritage resource inventories (BLM Class III surveys) performed, resulting in 6,640 acres cleared for projects requiring Section 106/State Historic Preservation Office clearance. Measures were implemented to protect 59 cultural properties recorded during these surveys.

Four BLM Class III survey contracts were awarded, and three of these were completed.

Site Monitoring and Maintenance: The 41 cultural properties identified in previous surveys were protected by project redesign/avoidance.

Southern Oregon University Intern Program: Four college students received instruction and training in archaeological recordation techniques while serving as crew members during the

summer field season. Students helped to input and edit over 40 site records in a cultural site database program.

Site Stabilization: Efforts were made to protect and stabilize human remains eroding from a bank within the Klamath River Canyon. This was a cooperative effort made possible by BLM employees and volunteers, Klamath Tribal members, and Shasta Tribe representatives.

Wood River: Extensive efforts were expended to facilitate the Wood River Restoration project when unanticipated cultural resources were encountered during construction activities. A cooperative effort involving BLM, The Klamath Tribes, and Oregon Trout has helped to ensure protection and stabilization of cultural sites.

#### Native American Coordination and Consultations

During FY98, over 40 meetings and field visits were conducted with The Klamath Tribes to assess and mitigate project impacts on cultural resources. Some of this coordination and consultation involved activities at the Wood River Wetland.

### **Visual Resources**

Visual resource management is addressed in watershed analysis and in developing site-specific projects.

### **Rural Interface Areas**

Projects planned in rural interface areas have involved extra planning efforts to gather input and inform residents in those areas. The resource area has two large rural interface areas (Klamath Forest Estates and Stukel Mountain).

The two types of management of most interest to the public and neighboring landowners, especially those in rural interface areas, are prescribed fire and timber harvesting. The resource area fire staff and public affairs personnel give advance public notification of prescribed burning activity. This is done through news releases to local newspapers, television and radio stations, and also through legal notices published in the *Herald and News* newspaper. Other outreach methods include door-to-door notification, telephone contact, and public meetings.

During FY99, the resource area is initiating an environmental assessment proposing harvest of some timber east of Klamath Falls in the general area of Klamath Forest Estates, a rural interface area with numerous landowners and residences. Management in this area has been in the development stages for about five years. During 1991 as part of preliminary planning, about 600 letters describing the proposal were sent to landowners in this rural interface area. The project has also been discussed with representatives of the Klamath Forest Estates Road Association. A letter has been drafted to distribute to rural residences in the vicinity of the proposed management and to post in the area as a means of informing the landowners and residents of the BLM's proposed management, and also to gather further public input. A public meeting and tour is also being planned for the Spring of 1999 to show local residents and interested individuals the proposed management, as well as other areas which have had similar treatments in the past.

## **Socioeconomics**

*Employment Trends:* Since implementation of the Klamath Falls Resource Management Plan in 1995, Oregon and the United States have benefited from a robust economy. In Klamath County, total wage and salary employment has steadily increased since 1992. Klamath County total employment decreased in 1990 and 1991 during a national recessionary period that lasted from third quarter 1990 through the first quarter of 1991 (Council of Economic Advisors 1997). As during the 1984-88 baseline period, Trade and Government remain the largest sectors, each representing over 20 percent of total employment. In 1997, Services increased to over 20 percent of total employment, supplanting Lumber and Wood Products, which had represented 19 percent of total employment during the baseline period. In 1997, Lumber and Wood Products employment was 12 percent of total employment, significantly above the statewide rate of almost 4 percent. This demonstrates that the Lumber and Wood Products Industry continues to be a vital component of the local economy.

Lumber and Wood Products employment in Klamath County has been stable since 1995, totaling 2,740 jobs in 1997. This is a significant drop from the 3,608 jobs during the 1984-88 baseline period. The largest losses occurred in 1990 and 1991. Statewide, Lumber and Wood Products employment has decreased by 15,160, or about 20 percent since the 1984-88 baseline period, to 59,900. The decline in lumber and wood products employment is less than would be anticipated given the 50 percent decline in harvests. Factors such as decreased exports and increases in manufactured home employment have had an offsetting effect.

See Tables 4a and 4b for detailed information on employment by industry for the state of Oregon and for Klamath County, respectively.

**Table 4a. Resident Labor Force, Employment by Industry, Oregon (Various Years)**

| Sector  | 1970           | 1980             | Average<br>1984-88<br>Baseline | 1990             | 1991             | 1992             | 1993             | 1994             | 1995             | 1996             | 1997             |
|---|----------------|------------------|--------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Civilian Labor Force</b>                           | <b>864,500</b> | <b>1,295,000</b> | <b>1,362,400</b>               | <b>1,491,000</b> | <b>1,508,000</b> | <b>154,200</b>   | <b>1,596,000</b> | <b>1,640,000</b> | <b>1,656,200</b> | <b>1,719,700</b> | <b>1,731,700</b> |
| <b>Unemployment</b>                                   | <b>61,700</b>  | <b>107,000</b>   | <b>104,800</b>                 | <b>82,000</b>    | <b>90,000</b>    | <b>116,000</b>   | <b>116,000</b>   | <b>89,000</b>    | <b>80,300</b>    | <b>101,600</b>   | <b>100,900</b>   |
| <b>Total Wage and Salary Employment</b>               | <b>709,200</b> | <b>1,044,600</b> | <b>1,068,680</b>               | <b>1,251,900</b> | <b>1,250,800</b> | <b>1,274,200</b> | <b>1,308,400</b> | <b>1,362,900</b> | <b>1,418,400</b> | <b>1,474,600</b> | <b>1,524,900</b> |
| <b>Total Manufacturing</b>                            | <b>172,300</b> | <b>215,100</b>   | <b>203,240</b>                 | <b>220,300</b>   | <b>211,700</b>   | <b>209,000</b>   | <b>211,700</b>   | <b>221,300</b>   | <b>229,300</b>   | <b>235,800</b>   | <b>243,700</b>   |
| <b>Lumber &amp; Wood Products (&amp; Paper)</b>       | <b>76,200</b>  | <b>79,900</b>    | <b>75,060</b>                  | <b>73,200</b>    | <b>65,800</b>    | <b>63,800</b>    | <b>62,700</b>    | <b>63,300</b>    | <b>61,300</b>    | <b>59,800</b>    | <b>59,900</b>    |
| <b>Other Manufacturing</b>                            | <b>96,100</b>  | <b>135,200</b>   | <b>128,180</b>                 | <b>147,100</b>   | <b>145,900</b>   | <b>145,200</b>   | <b>149,000</b>   | <b>158,000</b>   | <b>168,000</b>   | <b>176,000</b>   | <b>183,800</b>   |
| <b>Total Non-Manufacturing</b>                        | <b>536,900</b> | <b>829,500</b>   | <b>865,440</b>                 | <b>1,031,600</b> | <b>1,039,000</b> | <b>1,065,200</b> | <b>1,096,700</b> | <b>1,141,600</b> | <b>1,189,100</b> | <b>1,238,900</b> | <b>1,281,100</b> |
| <b>Construction &amp; Mining</b>                      | <b>30,800</b>  | <b>48,800</b>    | <b>35,800</b>                  | <b>54,000</b>    | <b>53,000</b>    | <b>52,000</b>    | <b>55,700</b>    | <b>62,900</b>    | <b>70,400</b>    | <b>79,400</b>    | <b>83,500</b>    |
| <b>Transportation, Communications &amp; Utilities</b> | <b>48,700</b>  | <b>60,500</b>    | <b>58,040</b>                  | <b>64,500</b>    | <b>65,200</b>    | <b>65,700</b>    | <b>66,800</b>    | <b>68,900</b>    | <b>71,300</b>    | <b>73,500</b>    | <b>74,100</b>    |
| <b>Trade</b>  | <b>162,000</b> | <b>255,600</b>   | <b>269,680</b>                 | <b>313,100</b>   | <b>314,300</b>   | <b>318,700</b>   | <b>328,900</b>   | <b>344,100</b>   | <b>357,000</b>   | <b>365,900</b>   | <b>377,500</b>   |
| <b>Finance, Insurance &amp; Real Estate</b>           | <b>36,000</b>  | <b>70,000</b>    | <b>69,360</b>                  | <b>80,300</b>    | <b>83,200</b>    | <b>86,000</b>    | <b>84,600</b>    | <b>87,800</b>    | <b>87,200</b>    | <b>91,000</b>    | <b>95,100</b>    |
| <b>Services &amp; Miscellaneous</b>                   | <b>112,700</b> | <b>191,400</b>   | <b>231,180</b>                 | <b>296,200</b>   | <b>296,900</b>   | <b>311,800</b>   | <b>328,300</b>   | <b>343,200</b>   | <b>362,900</b>   | <b>382,600</b>   | <b>400,500</b>   |
| <b>Government</b>                                     | <b>146,700</b> | <b>203,200</b>   | <b>201,360</b>                 | <b>223,500</b>   | <b>226,400</b>   | <b>231,000</b>   | <b>232,600</b>   | <b>234,700</b>   | <b>240,200</b>   | <b>246,600</b>   | <b>250,400</b>   |

**Table 4b. Resident Labor Force, Employment by Industry, Klamath County, Various Years**

| Sector                     | 1970  | 1980  | Average<br>1984-88<br>Baseline | 1990  | 1991  | 1992  | 1993  | 1994  | 1995  | 1996  | 1997  |
|----------------------------|-------|-------|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Civilian Labor Force       | 19310 | 26910 | 25184                          | 25670 | 25090 | 27790 | 28490 | 28400 | 28430 | 29790 | 29840 |
| Unemployment               | 1350  | 2780  | 2626                           | 2400  | 2340  | 2830  | 3100  | 2450  | 2100  | 2600  | 2870  |
| Total Wage and Salary Emp. | 15240 | 20180 | 19072                          | 20740 | 20020 | 20860 | 20940 | 21160 | 21920 | 22780 | 23230 |
| Total Manufacturing        | 3870  | 4940  | 4464                           | 4380  | 3830  | 3780  | 3690  | 3910  | 3900  | 3970  | 4020  |
| Lumber & Wood Products     | 3460  | 4370  | 3608                           | 3370  | 2940  | 2900  | 2780  | 2810  | 2740  | 2740  | 2740  |
| Other Manufacturing        | 410   | 570   | 856                            | 1010  | 890   | 880   | 910   | 1100  | 1160  | 1230  | 1280  |
| Total Non-Manufacturing    | 11370 | 15240 | 14608                          | 16360 | 16190 | 17080 | 17250 | 17250 | 18020 | 18820 | 19220 |
| Const. & Mining            | 470   | 620   | 412                            | 570   | 590   | 760   | 750   | 810   | 1090  | 1140  | 1000  |
| Trans., Comm. & Utilities  | 1460  | 1510  | 982                            | 1040  | 980   | 930   | 930   | 930   | 900   | 890   | 880   |
| Trade                      | 3290  | 4780  | 4838                           | 5140  | 4950  | 5250  | 5150  | 5350  | 5620  | 5780  | 5700  |
| Finance, Ins. & Real Est.  | 610   | 810   | 854                            | 930   | 940   | 960   | 1070  | 930   | 930   | 960   | 1040  |
| Services & Misc.           | 2260  | 3170  | 3244                           | 3970  | 4000  | 4300  | 4560  | 4540  | 4650  | 5180  | 5420  |
| Government                 | 3280  | 4350  | 4286                           | 4710  | 4730  | 4890  | 4790  | 4690  | 4830  | 4860  | 5170  |

Table 5 summarizes socioeconomic activities and allocations for the resource area by fiscal years, from FY96 through FY98. Timber sale collections the past two years were less than half of FY96, the first full year of RMP implementation. By contrast, the value of forest development contracts for FY98 exceeded the previous two years.

The PILT Payments to Klamath County for FY98 were substantially larger than the previous two years, but O&C payments show a decrease.

| <b>Table 5. Klamath Falls Resource Management Plan, Summary of Socioeconomic Activities and Allocations<sup>1</sup></b>  |                          |                                 |                               |
|--|--------------------------|---------------------------------|-------------------------------|
| <b>Program Element</b>   | <b>Fiscal Year 1996</b>  | <b>Fiscal Year 1997</b>         | <b>Fiscal Year 1998</b>       |
| District budget  | \$3,455,000              | \$4,032,000                     | \$4,075,000                   |
| Timber sale collections, O&C <sup>2</sup> lands  | \$4,472,906              | \$1,453,882                     | \$1,461,740                   |
| Timber sale collections, PD lands  | \$490,970                | \$31,106                        | 0                             |
| Timber sale collections, USFWS lands   | 0                        | 0                               | \$2,631                       |
| Payments to Klamath County (O&C)   | 1,709,117                | \$1,644,214                     | \$1,579,310                   |
| Payments to Klamath County (PILT)  | 245,190                  | \$207,044                       | \$479,807                     |
| Value of forest development contracts  | \$167,000                | \$100,958                       | \$185,553                     |
| Value of timber sales, oral auctions (_#)<br>and negotiated (_#)   | \$1,357,371 (2)<br>0 (0) | \$1,194,680 (2)<br>\$61,032 (2) | \$547,822 (1)<br>\$41,058 (2) |
| Jobs-in-the-Woods Funds in contracts   |                          |                                 |                               |
| Botany Surveys   | \$5,082                  | \$3,082                         | \$5,838                       |
| Archaeology  | \$10,000                 | \$32,156                        | \$3,418                       |
| Pipeline Restoration Funds   |                          |                                 |                               |
| <i>Recreation</i>  | n/a                      | n/a                             | \$265,500                     |
| <i>Timber</i>  | n/a                      | n/a                             | \$138,000                     |
| Recreation Fee Demonstration Project receipts  | n/a <sup>3</sup>         | n/a                             | \$25,000                      |
| Challenge cost-share project contributions and value-in-kind or volunteer efforts.   |                          |                                 |                               |
| <i>Wood River</i>  | 325,200                  | 416,500                         | 590,200                       |
| <i>Other</i>   | 58,500                   | 4,400                           | 69,700                        |
| Value of land sales  | 0                        | 0                               | 625,400                       |
| <sup>1</sup> Data Source: Oregon State BLM Office records.<br><sup>2</sup> O&C - Oregon and California Railroad lands<br>PD - Public Domain lands      PILT - Payments In Lieu of Taxes<br><sup>3</sup> Klamath Falls Resource Area was added to the Recreation Fee Demonstration Project in FY98. |                          |                                 |                               |

## Recreation and Off-Highway Vehicle Management

Outdoor enthusiasts find a wide variety of recreation opportunities on public lands managed by the Klamath Falls Resource Area. Among the more popular activities are camping, fishing, sightseeing, whitewater rafting, and birding. Maps and brochures with recreation information are available from the Klamath Falls BLM office. For further information, stop by the BLM office at 2795 Anderson Avenue, Building 25, to talk to Scott Senter or Grant Weidenbach, or call one of them at 541-883-6916.

*Operation and Maintenance of Recreation Facilities:* Current funding provides at least minimum staffing for operations/maintenance during summer months to the resource area's 16 recreation sites, 4 recreation trails, and 2 special resource management areas (Klamath River and Pacific Crest Trail). The resource area extensively relies on volunteers and seasonals as camp hosts or park rangers for fee collection, visitor contact, and maintenance at campgrounds and the Klamath River. Resource area recreation staff make regular visits to the recreation sites and maintain them, as needed. Due to logistics, the Klamath Falls resource area section of the Pacific Crest Trail is managed and maintained by informal agreement with the Medford BLM District.

*Status of Proposed Recreation Developments:* Proposed recreational developments include 15-20 additional recreational sites, 4 new recreation trails, 4 new special recreation management areas, and 2 back-country byways. The resource area is currently committing recreation pipeline funding for completing facility maintenance and infrastructure repairs to the 16 existing recreation sites. As recreation pipeline funding, grants, or other funding materializes, additional sites and trails will be included for development. The two additional Special Recreation Management Areas (SRMAs) designated in the Klamath Falls RMP (Stukel Mountain and Hamaker Mountain) are scheduled to receive pipeline funding. These two SRMAs are not shown in the Recreation Management Information System due to the inability to add new SRMAs into (RMIS) at the local level. Because of priorities in administering the ongoing recreation pipeline projects, the two Back Country Byways mentioned in the RMP (Topsy Road, Gerber Area Watchable Wildlife Tour) have not been nominated for designation.

The Topsy/Pokegama Landscape Analysis identified potential recreation projects and development of the Hamaker Mountain SRMA for winter recreation and mountain biking. Projects in the SRMAs have been prioritized, with input from the resource area's interdisciplinary team, for development with pipeline funding.

*Recreation Pipeline Restoration Funding:* In FY98, several recreation maintenance and improvement projects were completed with the use of Recreation Pipeline Restoration funding. This Congressional funding was appropriated for completion of backlogged recreation projects in western Oregon, including BLM-managed lands in Klamath County. The intent of this funding is to take care of facility replacement or maintenance project needs at existing recreation sites. New projects that address critical visitor safety or recreation management needs are also prioritized.

*Tourism:* The BLM supports tourism by participating with the Klamath/Lake/Modoc Outdoor Recreation Working Group, which is a consortium of government and private recreation and tourism entities from several counties and two states. One accomplishment of the working group this year was publication and distribution of an attractive tear-off sheet map showing scenic byway travel routes, towns and cities, and areas of interest to visitors.

*Adequacy of Barrier-Free Facilities/Trails:* All new recreation facilities and trails and existing facility renovations address accessibility during project planning and implementation. Topsy and Gerber campgrounds and the upper Klamath River boat launch meet barrier free standards. The Lakeview District's representative for the American Disabilities Act (Doug Troutman) has provided project review and accessibility analysis on several recent projects. Among projects recently completed in the resource area is 0.50 mile of barrier-free trail accessing Wood River Wetland.

*Accomplishments by Specific Recreation Area:* Listed below are FY98 accomplishments and projected work by specific recreation areas on the resource area.

### **Gerber Reservoir**

The boat ramp at the North campground was extended to prevent high water damage and allow use of the ramp and dock at all water levels.

Road surfaces throughout the recreation area received extensive work. Roads were graded, reshaped, and crushed rock base was applied.

A 0.5-mile section of the entrance road that passes in front of the fire guard station was paved to abate dust problems.

The recreational vehicle dump station was replaced.

The vault toilet at the North campground boat ramp was replaced.

A campground host and student volunteer were stationed onsite during the peak use season.

### *Activities Planned for FY-99*

Reshaping, oiling and chipsealing of roads and campsites.

Replace several damaged or worn picnic tables and vehicle barriers.

Replace the old fish cleaning stations with units that will process and hold the fish waste on site.

Do planning and design work for remodeling of the North campground, day use area, and Frog camp site.

Work at Barnes Valley to include reconstruction of the existing boat ramp and parking area, and installation of a new vault toilet.

### **Wood River Wetland**

The parking and staging area was developed with paving, a vault toilet, a canoe and small boat launch area, and landscaping.

A 0.5 mile accessible trail was built from the parking area to the main wetland area.

A contract was awarded to design and fabricate a six panel sign interpretive display that will interpret wildlife, wetland function, and other resources to visitors. The interpretive contract and trail work were partially funded with a wetland restoration grant received from the Klamath Falls Bureau of Reclamation office.

### *Activities Planned for FY-99*

Complete and install the above mentioned interpretive displays.

Begin construction and installation of a floating boardwalk trail.

Develop a gathering and staging area for environmental education activities and wetland presentations.

Contract the design and fabrication of additional interpretive sign panels.

Much of the above work will be partially funded with grants received from the U.S. Fish and Wildlife Service and the state of Oregon.

### **Upper Klamath River**

There were 29 special recreation permits issued and administered for white-water rafting, whitewater photography, and guided fly fishing. These permittees paid BLM a total of \$16,000 in permit fees.

BLM river rangers conducted 17 raft and kayak patrol trips through the canyon to perform maintenance work and assure visitor safety.

Paving repair work was done at the Spring Island launch site.

#### Activities Planned for FY-99

Survey and design work to upgrade the Stateline Recreation Site.

Repair work on the vault toilet at the Spring Island launch site.

### **Topsy Recreation Site**

A new well was installed and water lines were upgraded and expanded.

Volunteers contributed approximately 1,600 hours of labor for campground maintenance and construction projects while serving as camp hosts.

A park ranger and volunteer camp hosts were assigned to Topsy to assist visitors, manage use, and maintain the recreation site.

#### Activities Planned for FY-99

Road surfaces to be paved, or oiled and chipsealed.

Additional water lines to be installed.

A new recreational vehicle dump station will be installed.

### **Off-Highway Vehicle Management**

An Off-Highway Vehicle (OHV) trail inventory was recently completed in the resource area, identifying challenging OHV trail opportunities. A brochure is planned to be developed to highlight these trails, which can sustain a moderate amount of OHV use. Several areas needing road repair, road decommissioning, barriers and signs have been identified during the RMP and other planning efforts, including watershed analysis. Implementation of these efforts have begun and will continue as funding and labor allows. Also, the resource area's recreation specialist Scott Senter is a member of the Klamath County Stukel Mountain Road Task Force Committee, which has made several recommendations addressing OHV use to minimize wildlife and range cattle harassment and other resource concerns.

The majority of the resource areas is open to motorized use. Several areas are currently being managed to provide semi-primitive motorized, and others to maintain non-motorized recreation opportunities. Several new non-motorized trails are proposed, dependent on pipeline funding. New trails would be provided along the upper Klamath River, Swan Lake Rim, Gerber area (Miller Creek), and the Surveyor Mountain area (linking with the Pacific Crest Trail).

Additionally, OHV designations identified in the RMP have been included in a Federal Register notice. Implementation efforts (including signing, monitoring, and enforcement) are ongoing.

## Forest Management

The Klamath Falls Resource Area has approximately 57,300 acres of commercial forest land, over 70 percent of which is revested Oregon and California (O&C) grant lands located west of Klamath Falls. Predominant species on these mixed conifer forest lands are ponderosa pine, Douglas-fir, sugar pine, white fir, and Shasta red fir. In June of 1995 with publication of the RMP, the focus of forest management on the O&C westside lands changed to emphasize forest health, watershed, and wildlife habitat restoration. Implementation of that changed management emphasis reduced the amount of timber harvested compared to historic levels (pre-1995). Significant mortality is still occurring, primarily of white fir, but at reduced levels compared to 1991-1993 drought period.

About 30 percent of the Klamath Falls Resource Area's commercial forest land (approximately 15,300 acres) is east of Klamath Falls. The predominant conifer species on these lands is ponderosa pine mixed with western juniper.

Lands on the east side of the resource area also contain about 70,000 acres of non-commercial juniper woodlands, which are being analyzed and tested for various treatments. The objective on these lands is to restore the vegetation component to pre-fire suppression levels.

Forest management objectives continue to emphasize designing timber sales and treatments that address forest health problems of overstocking. Thinning from below is primarily used to reduce competition with large or old-growth overstory trees, as well as to restore species composition and stand structure to pre-fire suppression levels.

Approximately 3,000 acres of commercial forest lands were treated under timber sales in FY98 (Table 7), and about 2,000 acres are planned for treatment in FY99, either by partial cut or salvage (see Table 8). These activities are summarized in the following sections. In addition, miscellaneous special forest products such as firewood, mushrooms, posts, rails, and Christmas trees continue to be sold in response to public demand, but at a lower level than the previous two years (see Tables 15 and 16). For further information about forest management in the Klamath Falls BLM Resource Area, contact Mel Crockett at 541/885-4115.

Silviculture treatments completed are shown in Table S-1. These treatments are primarily done on units harvested in the past 30 years. In FY98, the value of silviculture treatment contracts totaled \$185,500.

### **FY98 Timber Sale Accomplishments**

*Timber Sold in FY98:* The Klamath Falls Resource Area sold approximately 2,629 MBF of timber from about 447 acres in FY98 (Table 6), which includes one timber sale (Kakapo Stew) and modifications. The total sale price of this timber was approximately \$673,000. The Klamath Falls Resource Area offered an additional 3,246 MBF (1,449 Acres) in FY98 with the Grenada East Timber Sale, but the sale went No-Bid. It was subsequently reoffered and sold in November 1998 (FY99). In addition, the Lower Klamath Basin USFWS and the Klamath Falls Resource Area negotiated the Bear Valley One Timber Sale with Western Timber Company in FY98.

**Table 6. Timber Volume Sold in FY-1998 in Klamath Falls Resource Area**

| Name  | Acres | Volume (MBF) | Value     |
|---|-------|--------------|-----------|
| Kakapo Stew   | 397   | 2,063        | \$547,822 |
| STH Salvage   | 50    | 50           | \$10,527  |
| Modifications   | n/a   | 566          | \$115,015 |
| Totals (BLM)  | 447   | 2,679        | \$673,364 |
| USFWS Bear Valley 1   | 246   | 1,019        | \$30,531  |
| <b>Timber Volume Offered that went “No-Bid” in FY - 1998 in Klamath Falls Resource Area</b> |       |              |           |
| Grenada East  | 1,449 | 3,246        | N/A       |

*Harvest Activity in FY98:* During FY98, harvesting occurred on nine sales (Table 7). These sales harvested approximately 7,030 MBF of timber valued at approximately \$1.4 million. The amount of volume harvested is slightly higher than the ASQ specified level in the KFRA RMP. This is primarily due to the backlog of unharvested sales and extensions that have been granted.

**Table 7. Harvest Activity for FY-1998.**

| Fiscal Year   | Sale Name             | Harvest Acres | Volume (MBF) | Value ( \$ ) |
|---|-----------------------|---------------|--------------|--------------|
| 1991  | Norcross Barnes       | 0             | 117          | (59,836)     |
| 1995  | Frosty 1              | 619           | 2,022.8      | 535,484      |
| 1996  | Too Frosty            | 24            | 571          | 35,525       |
| 1996  | West Rome 1           | 1648          | 2681.9       | 574,476      |
| 1997  | Lower Spencer Salvage | 500           | 500          | 173,000      |
| 1997  | West Rome II          | 100           | 600          | 39,000       |
| 1997  | Stukel Mountain       | 98            | 152.1        | 21,159       |
| 1997  | SKB Neg Salvage TS    | 60            | 314.9        | 73,892       |
| 1998  | Kakapo Stew           | 31            | 70           | 30,363       |
| Total   |                       | 3,080         | 7,029.7      | \$1,423,063  |
| <i>Data Source:</i> Timber Sale Information System (TSIS) |                       |               |              |              |

### **FY99 Timber Sales Planned or Accomplished**

The annual timber sale plan (Table 8) may be changed, altered, or amended by the authorized officer. None of the proposed sales are set-asides.

**Table 8. Status of Klamath Falls Resource Area Timber Sales Offered Under The RMP**

**SOLD & AWARDED SALES**

| FY | Timber Sale Name      | Location  | W/E | Sold  | Vol (MMBF) | Acres | Harvest Prescription | Percent Completed |
|----|-----------------------|---|-----|-------|------------|-------|----------------------|-------------------|
| 95 | Frosty One            | T 38 S,R 5 E. Secs. 29, 30, and 31  | W   | 9/95  | 2.8        | 829   | DM/UR                | 100%              |
| 96 | Too Frosty            | T38S, R. 5 E. Secs 29 and 30  | W   | 1/96  | 2.5        | 459   | DM/UR                | 100%              |
| 96 | West Rome I Salvage   | BLM -lands north of Highway 66  | W   | 6/96  | 3.0        | 2,000 | MS                   | 100%              |
| 97 | Lower Spencer Salvage | BLM lands north of Highway 66   | W   | 12/96 | 2.5        | 2,000 | MS                   | 50%               |
| 97 | West Rome II Salvage  | BLM lands north of Highway 66   | W   | 12/96 | 2.0        | 1,500 | MS                   | 80%               |
| 97 | Stukel Mtn.           | Stukel Mountain Area  | E   | 6/97  | 0.300      | 300   | DM                   | 100%              |
| 97 | SKB Neg Salv.         | Blowdown - Buck Mountain  | W   | 6/97  | 0.050      | 50    | MS                   | 100%              |
| 98 | USFWS Bear Valley     | Bear Valley Wildlife Refuge   | W   | 6/97  | 1.0        | 245   | DM/UR                | 35%               |
| 98 | Kakapo Stew           | Lower Spencer Creek Area  | W   | 12/97 | 2.0        | 397   | DM/UR                | 25%               |
| 98 | Grenada East          | T. 40 S.,R. 7 E., Secs. 27, 33, and 35<br>T. 41 S.,R. 7 E., Secs. 3, 5, 9, and 10 | W   | 7/98  | 2.5        | 1,300 | DM/UR                | 0%                |
| 98 | STH Neg. Salv.        | Blowdown - Burton Flat Area   | W   | 9/98  | 0.05       | 50    | MS                   | 75%               |

**PLANNED SALES (FY 1999 & 2000)**

| FY | Sale Name     | Location  | W/E | Sale Date | Vol (MMBF) | Acres | Harvest Prescription |  |
|----|---------------|---|-----|-----------|------------|-------|----------------------|--|
| 99 | Muddy Tom     | T. 40 S., R.5 E., 23, 25, and 35<br>T. 40 S., R.6 E., 31<br>T. 40 S., R.5 E., 1, 3, 12,and 15 | W   | 7/99      | 2,500      | 1,900 | DM/UR                |  |
| 99 | Clover Hookup | T. 38 S., R.6 E., 24, 25, 27, and 33-35   | W   | 9/99      | 1.5        | 900   | DM/UR                |  |

**Table 8. Status of Klamath Falls Resource Area Timber Sales Under The RMP (page 2 of 2)**

**PLANNED SALES (continued)**

| FY | Timber Sale Name | Location   | W/E | Sale Date | Vol (MMBF) | Acres | Harvest Prescription | Percent Completed |
|----|------------------|--|-----|-----------|------------|-------|----------------------|-------------------|
| 99 | Bly Mountain     | T. 37 S.,R. 11E., 23, 26-30, and 33-35<br>T. 38 S.,R. 11E., 1-3, 10-15, 22, 23, 26, and 35<br>T. 37 S.,R. 9E., 3, 4, 9, 13, 14, 24, 35, and portions of Swan Lake Rim Area | E   | 6/99      | 1.0        | 500   | DM                   |                   |
| 00 | Grenada West     | T. 40 S.,R. 7E., 7<br>T. 40 S.,R. 6E., 23 and 35<br>T. 41 S.,R. 6E., 1, 2, 11, and 13  | W   | 12/99     | 2500       | 1,300 | DM/UR                |                   |
| 00 | Slim Chicken.    | T. 40 S.,R. 7E., 19, 21, 29, and 31  | W   | 9/2000    | 1900       | 2,000 | DM/UR                |                   |

**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 pines 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 and/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.

USFWS - Bear Valley - The first proposed timber sale within the Bear Valley National Wildlife Refuge. The sale is designed to maintain and improve forest health within the refuge by thinning overstocked stands. Designed mainly to thin understory trees beneath eagle roosting trees and also to reduce fuel loads and risk of stand replacement wildfires.

*Eastside:* The existing Stukel Mountain Timber Sale Contract was modified in FY98 to include an additional 40 MBF on approximately 30 acres. Stukel Mountain Timber Sale was sold in June 1997.

Timber Sale preparation work (including writing a multi-activity EA for the Bly Mountain/Klamath Forest Estates Area) is scheduled to begin in FY99. The first Bly Mountain Timber Sale is scheduled to be sold in June of 1999.

*Westside:* As of January of 1999, the KFRA had reoffered and sold the Grenada East Timber Sale that was originally offered in FY 98. At least one large sale (Muddy Tom) is planned in FY 99 on the westside. An additional sale (Clover Hookup) will be offered in FY99 if Muddy Tom’s final volume is low. In addition, some modifications will be made to existing sales to capture on-going salvage that is occurring.

*Environmental Assessments and Watershed Analyses:* Completed environmental assessments and watershed analyses for timber sales are shown on Table 9.

**Table 9. Completed Environmental Assessments and Watershed Analysis for Timber Sales**

| <b>FY</b> | <b>Sale Name</b>      | <b>Environmental Assessment Name, Number, and Date</b>   | <b>Supporting Watershed Analysis</b>                 |
|-----------|-----------------------|--|--|
| 95        | Frosty One            | Frosty Forest Health Treatments & Recreation Site Enhancement<br>ORO14-95-3, dated 8/25/95           | Jenny Creek (Feb. 1995)                              |
| 96        | Too Frosty            | Frosty Forest Health Treatments & Recreation Site Enhancement<br>OR-O14-95-3, dated 8/25/95          | Jenny Creek (Feb. 1995)                              |
| 96        | West Rome I Salvage   | Roaming Salvage Timber Sales EA, OR-014-96-4, dated 5/21/96  | Spencer Creek (Aug. 1995)<br>Jenny Creek (Feb. 1995) |
| 97        | Lower Spencer Salvage | Roaming Salvage Timber Sales EA, OR-014-96-4, dated 5/21/96  | Spencer Creek (Aug. 1995)                            |
| 97        | West Rome II Salvage  | Roaming Salvage Timber Sales EA, OR-014-96-4, dated 5/21/96  | Spencer Creek (Aug. 1995)<br>Jenny Creek (Feb. 1995) |
| 97        | Stukel Mountain       | Bryant/Stukel Salvage, Thinning, and Bald Eagle Enhancement Timber Sale, OR-014-94-12, dated 2/28/95 | Landscape analysis, dated 2/28/95                    |
| 97        | USFWS Bear Valley     | USFWS Bald Eagle Habitat Improvement Project, dated 10/25/95   | Not applicable                                       |
| 98        | Kakapoo Stew          | Lower Spencer Creek Watershed Forest Health Treatment, OR-014-96-2, per FONSI dated 5/17/96          | Spencer Creek (Aug. 1995)                            |
| 98        | Grenada East          | Topsy/Pokegama/Hamaker Forest Health Treatments EA, OR-014-98-1, dated 6/98                          | Topsy/Pokegama Landscape Analysis (July 1996)        |

### Timber Sale Monitoring

The Too Frosty Timber Sale was monitored in the Fall of 1997. Both qualitative and quantitative monitoring was done. The monitoring team consisted of most of the Klamath Falls Resource Area's interdisciplinary team.

The Lower Spencer Salvage Timber Sale was monitored during the summer of 1998. To date, only qualitative monitoring is done. The monitoring team consisted of one local USFWS biologist, a Regional Ecosystem Office biologist, and the following specialists from the resource area: fisheries biologist, lead wildlife biologist, riparian team member, ecologist, and timber manager. Results of the monitoring completed to date are discussed in the Monitoring section of the APS.

### Cumulative Status of Timber Sales Under Klamath Falls RMP

Nine westside sales and one eastside sale have been sold and awarded under the Klamath Falls Resource Area's RMP (Table 8). These sales represent almost 22 MMBF (west side) and 1.7 MMBF (east side). Of the total harvested acres (8,674 on westside and 239 on the eastside), approximately 5,600 acres are from mortality salvage sales. Five sales (Frosty One, Stukel Mountain, West Rome Salvage 1, SKB Negotiated Salvage, and Too Frosty) are completed. One timber sale (Too Frosty) was monitored in 1997 and another (Lower Spencer Salvage) was monitored in 1998.

Tables 10-14 summarize the amount of acres and volume harvested in the KFRA since the signing of the RMP on June 2, 1995. The volume and acres are summarized by year, harvest method, land base allocation, and cumulative amounts to date.

**Table 10. Comparison of Timber Sale Volumes (Annual Projections and Offered FY 95-98)<sup>1</sup>**

| Land Use Allocation                   | Volume (MMBF) <sup>2</sup>                            |                   |                  |                  |                  |
|---------------------------------------|---|-------------------|------------------|------------------|------------------|
|                                       | Projected<br>@ Full ASQ                               | Offered<br>FY 95  | Offered<br>FY 96 | Offered<br>FY 97 | Offered<br>FY 98 |
| <b>Westside</b>                       |   |                   |                  |                  |                  |
| Matrix (GFMA)                         | FY95: 1.95 <sup>3</sup><br>FY96-98: 5.91 <sup>4</sup> | 3.12              | 6.99             | 6.13             | 5.82             |
| Connectivity                          | 0   | 0                 | 0                | 0                | 0                |
| Total Volume off<br>ASQ Lands         | n/a   | 3.12              | 6.99             | 6.13             | 5.82             |
| LSR Volume                            | 0   | 0                 | 0                | 0.02             | 0                |
| Misc. Volume                          | 0   | 0.12              | 0.09             | 0.02             | 0.04             |
| Total Volume Offered                  | n/a   | 3.24 <sup>3</sup> | 7.07             | 6.17             | 5.86             |
| Resource Area Budget<br>Target Volume | n/a   | 3.0               | 7.0              | 6.0              | 6.0              |

**Eastside**

|                                       |              |      |       |       |       |
|---------------------------------------|--------------|------|-------|-------|-------|
| Matrix (GFMA)<br>FY95<br>FY96-98      | 0.13<br>0.40 | 1.01 | 0.094 | 0.492 | 0.061 |
| Connectivity                          | n/a          | 0    | 0     | 0     | 0     |
| Total Volume off<br>ASQ Lands         | n/a          | 1.01 | 0.094 | 0.492 | 0.061 |
| Total Volume Offered                  | n/a          | 1.01 | 0.094 | 0.492 | 0.061 |
| Resource Area Budget<br>Target Volume | n/a          | 1.0  | 0.0   | 0.4   | 0.05  |

<sup>1</sup> Total volume off ASQ lands does not include LSR volume offered since it was not used in ASQ projections. Volumes do not include scattered salvage and miscellaneous volume. (Note: Projected figures are 1/10th of the decadal projection.)

<sup>2</sup> MMBF = million board feet

<sup>3</sup> Projected ASQ for FY95: 0.33 years x 5.91MMBF/year = 1.95 MMBF

<sup>4</sup> ASQ for FY96-FY98 for entire year.

**Table 11. Regeneration Harvest Timber Sale Volume - A Decadal Perspective  
(Comparison of projected versus offered harvest volume by Land Use Allocation , FY 95-98)**

| <b>Land Use Allocation</b>   | <b>District MMBF<sup>1</sup> Offered FY 95</b> | <b>District MMBF Offered FY 96</b> | <b>District MMBF Offered FY 97</b> | <b>District MMBF Offered FY 98</b> | <b>Total District Cumulative MMBF Offered FY 95-98</b> | <b>Total District Projected MMBF For Decade 1995-2005<sup>2</sup></b> |
|--|--|------------------------------------|------------------------------------|------------------------------------|--|---|
| <b>Westside</b>  |  |                                    |                                    |                                    |  |   |
| Matrix (GFMA)  | 0  | 0                                  | 0                                  | 0                                  | 0  | 7.5   |
| Connectivity <sup>3</sup>  | n/a  | n/a                                | n/a                                | n/a                                | n/a  | n/a   |
| LSR <sup>4</sup>   | 0  | 0                                  | 0                                  | 0                                  | 0  | 0   |
| AMA <sup>3</sup>   | n/a  | n/a                                | n/a                                | n/a                                | n/a  | n/a   |
| Total  | 0  | 0                                  | 0                                  | 0                                  | 0  | 0   |
| <b>Eastside</b>  |  |                                    |                                    |                                    |  |   |
| Matrix (GFMA)  | 0  | 0                                  | 0                                  | 0                                  | 0  | 0.4   |
| Connectivity   | n/a  | n/a                                | n/a                                | n/a                                | n/a  | n/a   |
| LSR  | 0  | 0                                  | 0                                  | 0                                  | 0  | 0   |
| AMA  | n/a  | n/a                                | n/a                                | n/a                                | n/a  | n/a   |
| Total  | 0  | 0                                  | 0                                  | 0                                  | 0  | 0.4   |
| <p>Volume based on sales sold.<br/> <sup>1</sup>MMBF = million board feet.<br/> <sup>2</sup>Percents are only valuable for evaluating the line they are on. They cannot be compared to each other .<br/> <sup>3</sup>No Connectivity areas or AMAs in Klamath Falls Resource Area.<br/> <sup>4</sup>No regeneration harvest projected in LSRs.</p> |  |                                    |                                    |                                    |  |   |

**Table 12. Thinning and Density Management Timber Sale Volume - A Decadal Perspective (Comparison of Projected Versus Offered Timber Sale Volume by Land Use Allocation, FY 95-98)**

| <b>Land Use Allocation</b>  | <b>District MMBF<sup>1</sup> Offered FY95</b> | <b>District MMBF Offered FY96</b> | <b>District MMBF Offered FY97</b> | <b>District MMBF Offered FY98</b> | <b>Total District Cumulative MMBF Offered FY95-98</b> | <b>Total District Projected MMBF For Decade 1995-2005</b> |
|---|---|-----------------------------------|-----------------------------------|-----------------------------------|---|---|
| <b>Westside</b>   |   |                                   |                                   |                                   |   |   |
| Matrix <sup>3</sup> (GFMA)  | 3.12  | 6.99                              | 6.13                              | 5.82                              | 22.06   | 55.14   |
| Connectivity <sup>3</sup>   | 0   | 0                                 | 0                                 | 0                                 | 0   | 0   |
| LSR <sup>4</sup>  | 0   | 0                                 | 0.02                              | 0                                 | 0.02  | 0   |
| <b>Total</b>  | <b>3.12</b>                                   | <b>6.99</b>                       | <b>6.15</b>                       | <b>5.82</b>                       | <b>22.08</b>  | <b>55.14</b>  |
| <b>Eastside</b>   |   |                                   |                                   |                                   |   |   |
| Matrix (GFMA)   | 1.01  | 0.094                             | 0.492                             | 0.061                             | 1.657   | 3.73  |
| Connectivity  | n/a   | n/a                               | n/a                               | n/a                               | n/a   | n/a   |
| LSR   | n/a   | n/a                               | n/a                               | n/a                               | n/a   | n/a   |
| <b>Total</b>  | <b>1.01</b>                                   | <b>0.094</b>                      | <b>0.492</b>                      | <b>0.061</b>                      | <b>1.657</b>  | <b>3.73</b>   |
| <p>Note: Volume based on sales sold.</p> <p><sup>1</sup> MMBF = million board feet.</p> <p><sup>2</sup> Percents are only valuable for evaluating the line they are on. They cannot be compared to each other.</p> <p><sup>3</sup> Commercial thinning projected in these LUAs.</p> <p><sup>4</sup> Density Management projected in these LUAs.</p> <p><sup>5</sup> Formula used: 9.33 years x 5.91 MMBF/year = 55.14 MMBF.</p> |   |                                   |                                   |                                   |   |   |

**Table 13. Regeneration Harvest Timber Sale Acres - A Decadal Perspective Comparison of Projected Versus Offered Timber Sale Acres by Land Use Allocation, FY 95-98)**

| <b>Land Use Allocation</b>  | <b>District Acres Offered FY 95</b> | <b>District Acres Offered FY 96</b> | <b>District Acres Offered FY 97</b> | <b>District Acres Offered FY 98</b> | <b>Total District Cumulative Acres Offered FY 95-98</b> | <b>Total District Projected Acres For Decade 1995-2005<sup>1</sup></b> |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---|--|
| <b>Westside</b>   |                                     |                                     |                                     |                                     |   |  |
| Matrix (GFMA)   | 0                                   | 0                                   | 0                                   | 0                                   | 0   | 1,222  |
| Connectivity <sup>2</sup>   | n/a                                 | n/a                                 | n/a                                 | n/a                                 | n/a   | n/a  |
| LSR <sup>3</sup>  | 0                                   | 0                                   | 0                                   | 0                                   | 0   | 0  |
| Total   | 0                                   | 0                                   | 0                                   | 0                                   | 0   | 1,222  |
| <b>Eastside</b>   |                                     |                                     |                                     |                                     |   |  |
| Matrix (GFMA)   | 0                                   | 0                                   | 0                                   | 0                                   | 0   | 308  |
| Connectivity  | n/a                                 | n/a                                 | n/a                                 | n/a                                 | n/a   | n/a  |
| LSR   | 0                                   | 0                                   | 0                                   | 0                                   | 0   | 0  |
| Total   | 0                                   | 0                                   | 0                                   | 0                                   | 0   | 308  |
| <p>Note: Acres based on sales sold.</p> <p><sup>1</sup> Percents are only valuable for evaluating the line they are on. They cannot be compared to each other.</p> <p><sup>2</sup> No Connectivity area in Klamath Falls Resource Area.</p> <p><sup>3</sup> No regeneration harvest projected in LSR.</p> |                                     |                                     |                                     |                                     |   |  |

**Table 14. Thinning and Density Management Timber Sale Acres<sup>1</sup> - A Decadal Perspective (Comparison of Projected Versus Offered Timber Sale Acres by Land Use Allocation, FY 95-98)**

| Land Use Allocation       | District Acres Offered FY 95 | District Acres Offered FY 96 | District Acres Offered FY 97 | District Acres Offered FY 98 | Total District Cumulative Acres Offered FY 95-98 | Total District Projected Acres For Decade 1995-2005 <sup>2</sup> |
|---------------------------|------------------------------|------------------------------|------------------------------|------------------------------|--|--|
| <b>Westside</b>           |                              |                              |                              |                              |  |  |
| Matrix (GFMA)             |                              |                              |                              |                              |  |  |
| Density Mgmt.             | 793                          | 440                          | 0                            | 1,839                        | 3,072  | 7,725  |
| Mortality Salv.           | 0                            | 2,000                        | 3,550                        | 50                           | 5,600  | 0  |
| Clearcut                  | 2                            | 0                            | 0                            | 0                            | 2  | 0  |
| Connectivity <sup>3</sup> | n/a                          | n/a                          | n/a                          | n/a                          | n/a  | n/a  |
| LSR                       | 0                            | 0                            | 0                            | 0                            | 0  | 0  |
| Total                     | 795                          | 2,440                        | 3,550                        | 1,889                        | 8,674  | 7,725 <sup>4</sup>   |

|                 |                    |     |     |     |       |                    |
|-----------------|--------------------|-----|-----|-----|-------|--------------------|
| <b>Eastside</b> |                    |     |     |     |       |                    |
| Matrix (GFMA)   | 1,000 <sup>5</sup> | 0   | 209 | 30  | 1,239 | 2,510 <sup>5</sup> |
| Connectivity    | n/a                | n/a | n/a | n/a | n/a   | n/a                |
| LSR             | 0                  | 0   | 0   | 0   | 0     | 0                  |
| Totals          | 1,000              | 0   | 209 | 30  | 1,239 | 2,510              |

<sup>1</sup> Acres based on sales sold. Data source: TSIS  
 DM = Density management.  
 MS = Mortality salvage  
 CC = Clearcut

<sup>2</sup> Formula used: 9.33 years x 828 acres/year = 7,725 acres.

<sup>3</sup> No Connectivity areas in Klamath Falls Resource Area.

<sup>4</sup> Decadal projection of 7,725 acres (westside) and 2,510 acres (eastside) is for Density Management sales only. No projection made in RMP for Mortality Salvage volume/acres.

<sup>5</sup> No acres of Density Management were done in FY95. TSIS data reports volume for mortality salvage, but not acres.

## Special Forest Products

There were 63 special forest product permits issued during FY98, which accounted for a total value of approximately \$600, which is considerably less than in the previous two years (Table 15). One factor for the decline was fewer wood permits issued. Also, during FY98, there were no permits issued for bough collection and transplants.

Table 16 shows the cumulative status of Special Forest Products sold since implementation of the RMP.

**Table 15. Sales of Special Forest Products in FY98 (48 permits).**

| <b>Product</b>  | <b>Amount Sold</b> | <b>Value</b> |
|-----------------|--------------------|--------------|
| Christmas Trees | 47                 | \$234        |
| Mushrooms       | 800 pounds         | \$80         |
| Wood Products   |                    |              |
| Fuelwood        | 4,783.5 cubic feet | \$272        |
| Posts - line    | 16.8 cubic feet    | \$8          |
| Total           |                    | \$594        |

**Table 16. Klamath Falls RMP, Summary of Special Forest/Natural Product Actions and Accomplishments**

| <b>RMP A authorized product sales</b>                        | <b>Unit of measure</b> | <b>Fiscal Year 1996<sup>1</sup><br/>Units/contracts/value</b> | <b>Fiscal Year 1997<br/>Units/contracts/value</b> | <b>Fiscal Year 1998<br/>Units/contracts/value</b> | <b>Three year total<br/>Units/contracts/value</b> |
|--|------------------------|---|---|---|---|
| Boughs, coniferous<br>Eastside                               | Pounds                 | 0/1/\$50  | 25,000/1/\$1,250                                  | 0/0/0   | 25,000/2/\$1,300                                  |
| Burls and miscellaneous                                      | Pounds                 | 0/0/0   | 0/0/0   | 0/0/0   | 0/0/0   |
| Christmas trees<br>Westside<br>Eastside                      | Number                 | 17/15/\$85<br>5/5/\$25  | 12/10/\$60<br>0/0/0                               | 47/36/\$234<br>0/0/0                              | 76/61/\$379<br>5/5/\$25                           |
| Edibles and medicinals                                       | Pounds                 | 0/0/0   | 0/0/0   | 0/0/0   | 0/0/0   |
| Feed & Forage  | Tons                   | 0/0/0   | 0/0/0   | 0/0/0   | 0/0/0   |
| Floral & greenery  | Pounds                 | 0/0/0   | 0/0/0   | 0/0/0   | 0/0/0   |
| Moss/bryophytes  | Pounds                 | 0/0/0   | 0/0/0   | 0/0/0   | 0/0/0   |
| Mushrooms/fungi<br>Westside<br>Eastside                      | Pounds                 | 500/5/\$50<br>750/3/\$120                                     | 200/2/\$20<br>0/0/0                               | 600/6/\$60<br>200/2/\$20                          | 1,300/13/\$130<br>950/5/\$140                     |
| Ornamentals  | Bushels                | 0/0/0   | 0/0/0   | 0/0/0   | 0/0/0   |
| Seed and seed cones  | Number                 | 0/0/0   | 0/0/0   | 0/0/0   | 0/0/0   |
| Transplants<br>Westside<br>Eastside                          | Number                 | 200/1/\$20<br>0/0/0   | 44/1/\$22<br>500/1/\$10                           | 0/0/0<br>0/0/0                                    | 244/2/\$42<br>500/1/\$10                          |
| Wood products/ firewood <sup>2</sup><br>Westside<br>Eastside | Cubic feet             | 1,050/5/\$48<br>6,622/27/\$452                                | 7,462/6/\$1,920<br>10,192/31/\$1,292              | 463/3/\$26<br>4,337/19/\$254                      | 8,975/14/\$1,994<br>21,151/77/\$1,998.30          |
| <b>TOTALS</b>  |                        |   |   |   |   |
| Westside   |                        | 1,767/26/\$203  | 7,718/19/\$2,022                                  | 1,110/45/\$320                                    | 10,595/90/\$2,545                                 |
| Eastside   |                        | 7,377/36/\$647  | 35,692/33/\$2,552                                 | 4,537/21/\$274                                    | 47,606/90/\$3,473                                 |
| Resource Area  |                        | 9,144/62/\$850  | 43,410/52/\$4,574                                 | 5,647/66/\$594                                    | 58,201/180/\$6,018                                |

<sup>1</sup> Contract numbers represent individual sale (or free use) actions. Value is in dollars per year received.

<sup>2</sup> To avoid double counting, this line does not include products converted into and sold as either board or cubic feet and reported elsewhere.

## Miscellaneous

Juniper treatments are continuing to be scheduled (primarily east of Klamath Falls).  
The Klamath Falls Resource Area has three open trespass cases.

## Botany

Bureau Sensitive Species: The Challenge Cost-Share project to develop a Conservation Strategy and draft Conservation Agreement for *Perideridia erythrorhiza* throughout the range of the species in southwestern Oregon was completed by receipt of the final report in April 1998. Project partners include three BLM Districts (Lakeview, Medford and Roseburg), one national forest (Winema), and the Oregon Department of Agriculture.

SEIS Special Attention Species, Component 1 & 2 Actions: The resource area area botanist assisted the Survey and Manage Workgroup in the revision of survey protocols for S&M vascular plant species listed in the Record of Decision for the Northwest Forest Plan and compilation of biological information for all 15 vascular plant species listed in Appendix C of the Klamath Falls RMP.

Other Botanical Program Accomplishments: Approximately 17,100 acres of BLM-administered land in the Klamath Falls Resource Area were inventoried, through contracts administered by the resource area botanist, during FY98 for populations of special status plant species. Of this acreage, 12,480 acres were in the Chase Mountain and Hamaker Mountain area where inventory emphasized potential habitat for *Limnanthes floccosa* ssp. *bellingiana* and *Mimulus pygmaeus*. The other 4,620 acres were in the Swan Lake Rim area, with the inventory emphasis there being potential habitat for *Silene nuda* ssp. *insectivora* and *Penstemon glaucinus*. No new populations of special status plant species were found in any of these areas.

Resource area botany staff participated in organization of "Celebrating Wildflowers Photo Contest" with the Forest Service (Winema), National Park Service (Crater Lake and Lava Beds), and Fish and Wildlife Service (Ecosystem Restoration Office). Susan Erwin, botanist at the Chiloquin Ranger District, served as project lead. After the public presentation of awards, a photo display showing contest entries including winners of several categories was circulated between participating agency offices.

Among other work accomplished in the botany program during FY98 was the layout design, plant purchase, and directing of the planting of a native plant display area at the entrance to the Wood River Wetland Restoration Project.

To date, approximately 38 additional plant species have been collected, processed, identified, and added to the resource area herbarium, which brings the herbarium total to approximately 850 species.

## Botany - FY99 Program Plans

### Bureau Sensitive Species

Initiate a Challenge Cost Share (CCS) project for the experimental reintroduction of red root yampah (*Perideridia erythrorhiza*) into habitats currently unoccupied by the species on public lands within its historic range

Monitor known population of *Rorippa columbiae* in the resource area.

### SEIS Special Attention Species

Complete survey protocols for Survey and Manage vascular plant species under the ROD for the Northwest Forest Plan.

### Other Program Plans

Award contracts for systematic inventory for special status plants:

- \* Approximately 8,500 acres in the northwest section of the Gerber block.
- \* Approximately 4,000 acres proposed juniper thinnings.

Participate in organization of Celebrating Wildflowers Photo Contest with USFS, NPS, and USFWS. Circulate a photo display as in past to participating agency offices.

Exhibit Colors of the Klamath Basin wildflower photo display in the reception area of resource area during Celebrating Wildflowers Week.

Collect data from 29 vegetation monitoring plots at Wood River Wetland.

As a member of the Late Successional Reserve Assessment Team, help complete the Late Successional Reserve Assessment for the KFRA.

## **SEIS Special Attention Plant and Fungus Species**

Note: As stated in the Special Status and SEIS Special Attention Animal Section of this APS, the resource area has implemented management action direction associated with Survey and Manage/Protection Buffer species through FY98. The adaptive management approach to applying the experience gained in implementing this management action/direction has resulted in consideration of possible adjustments (see Appendix C, Modifications Being Considered for Survey and Manage/Protection Buffer Guidelines). Information presented in this Annual Program Summary for Survey and Manage/Protection Species is not meant to be comprehensive nor exhaustive.

Tables 3d and 3e provide a summary of site information by species groups and status of special status and special attention plant species in the Klamath Falls Resource Area.

Component 1 Actions: Two fungi sites were discovered in timber sale areas that were sold before the Northwest Forest Plan required these surveys. A third fungi site was discovered in a Late-Successional Reserve where no projects are currently planned.

Component 2 Actions: Non-vascular cryptogam fall surveys were conducted for FY99 for ground-disturbing projects. There are no known sites on the Klamath Falls Resource Area, and no new sites were discovered during surveys.

Component 3 & 4 Actions: Specific surveys for non-vascular cryptogams were not conducted for component 3 & 4 species; however, when sites were discovered they were documented. The resource area plans to protect most sites discovered in FY99 project areas; management recommendations are being developed. Numerous other sites were discovered in non-project areas or projects prior to implementation of the Northwest Forest Plan. Management of these sites will be addressed when there are new projects planned for these areas.

Other SEIS Actions: Two protection-buffer fungi sites were marked as thermal clumps (no harvest entry areas) prior to a FY1998 timber harvest. Fall surveys for FY99 ground-disturbing projects were

conducted for all protection-buffer species. Spring surveys will be conducted in these project areas when temperature and moisture permit. Other known protection-buffer sites are not located in current project areas. These sites have been documented and will be protected during future projects which may occur in these areas.

## **Noxious Weed Management**

The systematic plant inventory conducted on approximately 17,100 acres of land in the Klamath Falls Resource Area included inventory of noxious weeds, in addition to the special status plant species discussed in the botany section. The inventory of 12,480 acres of the Chase Mountain and Hamaker Mountain area located eight new populations of diffuse knapweed (*Centaurea diffusa*). On the 4,620 acres inventoried on Swan Lake Rim, new populations of three species were found: Scotch thistle (*Onopordum acanthium*), Canada thistle (*Cirsium arvense*), and Dalmatian toadflax (*Linaria dalmatica*).

Other accomplishments included:

Continued support for the ODA position to implement weed management and coordination activities using add-on money from the national weed team. Duties included supervision of the treatment of weed infestations, GPS-ing of weed sites, biocontrol release and monitoring, and limited inventory for weeds.

Treatment of almost 200 noxious weed-infested sites, covering approximately 220 acres of BLM-administered lands. The treatments involved chemical and manual methods. The work was done by the ODA noxious weed treatment crew supervised by the ODA weed management specialist according to the annual operations plan and resource area priorities.

BLM staff conducted monitoring for treatment effectiveness and non-target effects of those sites treated for noxious weeds.

Biological control organisms for yellow starthistle (seed head weevil) and leafy spurge (flea beetle) were released on BLM-administered lands in the Klamath Falls Resource Area. Organisms were supplied by the Oregon Department of Agriculture.

Known and newly discovered noxious weed infested sites were located in the Bryant Mountain area using a GPS unit to aid in efficient treatment of these sites.

A noxious weed identification workshop was conducted in the resource area on July 1, 1998, by Bob Barrett of the Oregon Department of Agriculture (ODA). This was accomplished by a Memorandum of Agreement.

The resource area botanist participated on the Oregon State Office Weed Team, which prioritizes weed management on BLM-administered lands in Oregon and Washington.

## **Noxious Weed Management FY99 Plans**

Award contracts for systematic inventory for noxious weeds:

- \* Approximately 8,500 acres in the northwest section of the Gerber block.
- \* Approximately 4,000 acres proposed juniper thinnings.

Continue support for the Oregon Department of Agriculture position to implement weed management and coordination activities on the Klamath Falls Resource Area using add-on money from the national weed team.

Chemically and manually treat 220 noxious weed infested sites covering approximately 250 acres of BLM-administered lands.

Monitor sites where noxious weeds are treated for treatment effectiveness and non-target effects.

Release biological control organisms for yellow starthistle, Canada thistle, diffuse knapweed, and leafy spurge on BLM-administered lands in the Klamath Falls Resource Area.

Accurately locate known and newly discovered noxious weed-infested sites using a GPS unit.

Conduct noxious weed identification workshop in the resource area at the beginning of the field season.

## **Wild Horses**

### **Wild Horse Management**

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

According to the last aerial count (December 12, 1998) and ground observations made during the 1998 field season, the herd size is estimated at 50-60 head. This size is at or above the upper end of the Appropriate Management Level (AML) of 30 to 50 animals. This AML was initially established in the Klamath Falls Resource Area RMP and has been evaluated and re-affirmed in the Lakeview District Wild Horse Gather EA (OR-010-95-10) and again in the 1996 Topsy/Pokegama Landscape Analysis. In 1997, 20 head of horses were removed from the HMA. No removals were done in FY98. Since the herd is above the AML, removal of 10 to 20 is planned for FY99 or FY00, if logistically possible.

For information additional to that in this APS about wild horse management in the Klamath Falls Resource Area, contact Bill Lindsey at (541) 885-4140.

### **FY-98 Accomplishments**

Wild Horse Compliance Checks: During FY-98, resource area range personnel performed on-site compliance checks of 21 wild horses and 4 burros adopted by 10 different adopters. Compliance checks of adopted horses and their maintenance facilities ensures that adopters properly execute their responsibilities 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. During FY-98, two Notices of Need for Corrective Action were issued to adopters not fulfilling their agreement responsibilities. Both adopters took appropriate corrective action and the problems were resolved.

Wild Horse Adoption: During May 1998, the Klamath Falls conducted its first ever wild horse adoption. Of the 36 animals that the Burns BLM District made available, 28 were adopted.

Pokegama HMA Monitoring: During FY-98, the Pokegama HMA was checked by range staff personnel via ground observations every few weeks. Habitat and animal conditions are observed during these

checks, as well as photographing individual horses for record keeping purposes. During FY-98, one illegally killed wild horse was reported, investigated, and the responsible individual successfully prosecuted.

*Wild Horse Removal:* Contingent on logistics, up to 20 head of horses are planned for removal from the Pokegama HMA in FY99 or FY00. This would move the herd number closer to the lower end of the AML. As in 1997, the capture will be done by bait trapping method, since conventional helicopter capture methods do not work in heavily forested areas such as Pokegama. Potential logistical problems are the time available for resource area staff to perform the capture and the ability to relocate horses over 5 years of age to another area. Current BLM policy is to remove only those animals most likely to be adopted out, such as horses 5 years of age or younger. Older horses must be left in the HMA or relocated to another HMA below its appropriate management level; both of these issues are yet to be resolved.

### **FY-99 Projects Planned**

*Wild Horse Compliance Checks:* The range staff will continue to do extensive on-site compliance checks of wild horses and burros adopted by residents of Klamath County (our area of responsibility). The number of compliance checks for FY-99 is expected to be about the same as in FY98.

*Wild Horse Adoption:* Another wild horse adoption is scheduled in Klamath Falls in 1999 (on May 9th), in conjunction again with the Horse Packing and Wilderness Skills Clinic at the Klamath County Fairgrounds.

### **Rangeland Management**

The rangeland management program administers livestock grazing activities on most of the lands in the Klamath Falls Resource Area (approximately 208,000 of 213,000 acres). Grazing licenses are issued yearly, authorizing up to approximately 13,000 Animal Unit Months (AUMs) on 95 grazing allotments. A percentage of the grazing fees goes to the U.S. Treasury. Most of the fees, however, are returned to the county or district for rangeland improvement projects to benefit wildlife and watershed resources while enhancing livestock grazing systems. Numerous projects have been completed recently or are proposed as part of the RMP implementation (see *FY-98 Accomplishments and FY-99 Projects Planned*).

Existing projects such as waterholes, 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. 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 will also be utilized in the future in assessing the meeting of the Standards for Rangeland Health (see *FY-99 Projects Planned*).

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 last RPS, which was included in the 1995 Klamath Falls Resource Area RMP/Record of Decision, there have been no significant changes in the range program to warrant

publishing an update. As the resource area allotments are assessed to determine whether grazing management activities are consistent with the Standards for Rangeland Health, RPS updates will be published as needed. An RPS update is expected to be added to the Annual Program Summary in either 2000 or 2001.

For additional information to that provided in this APS about rangeland management in the Klamath Falls Resource Area, or to request consideration as an interested public in the allotment evaluation and assessment of Standards for Rangeland Health processes, contact Bill Lindsey at (541) 885-4140.

## **FY98 Accomplishments**

*Ecological Site Inventory (ESI)*: ESI field work was completed for the Gerber Block (east side of the resource area). Approximately 110,000 acres were field inventoried over FY97 and FY98. ESI, the BLM's rangeland vegetation survey method, allows for classification and comparison of the current vegetation to its potential. The survey also includes an Order 3 soil survey. ESI information provides the Bureau information that assists in setting proper, achievable objectives for resource management. Soil mapping was done by a soil scientist from the BLM's Lakeview District ESI crew; vegetation mapping was done by resource area range management specialists.

*Grazing Allotment Evaluations*: The three grazing allotments in the Gerber Reservoir area (Horsefly, Pitchlog, and Dry Prairie) subject to formal consultation under section 7 of the Endangered Species Act, were re-evaluated again this fiscal year. An end-of-year grazing report (1997 grazing season) was prepared for these allotments, as per a USFWS Biological Opinion. Evaluations for three other allotments in the south Gerber Block (Willow Valley, Bear Valley, and Timber Hill) were started in FY98 and are expected to be completed in FY-99 (see *FY-99 Projects Planned*).

### *Rangeland Improvements*

*Klamath Rim Gap Fencing*: Approximately 1 mile of fence was completed in April 1998 along the Klamath River Rim to prevent livestock drift between the Ward Pasture and the Klamath Canyon area of the Edge Creek (#0102) allotment. The fence was a cooperative project with the grazing lessee and PacifiCorp to manage grazing in and around the Klamath River area.

*Hoover Pasture Division Fence*: Approximately 1 mile of fencing was completed during the late summer in the Klamath Canyon just below the Klamath Rim Gap fencing. It was also completed with the assistance of the above listed cooperators.

*Antelope Riparian Pasture Fence Reconstruction*: Approximately ½ mile of fencing around this riparian area was reconstructed to ensure exclusion of livestock grazing during use in the neighboring allotment.

*Riparian Fence Maintenance*: Range staff personnel continued to maintain all riparian enclosure and pasture fencing. This includes the inspection and repair of approximately 25-30 miles of riparian related fencing in the resource area.

*Alkali Spring Reconstruction*: This spring was renovated by replacing the aging trough with new troughs, new piping to the troughs, and other related work to make the livestock watering facility more functional.

Monitoring of Grazing Allotments: Monitoring of grazing use, and effects of that use, continued on priority I and M (Improve and Maintain, respectively) and some C (Custodial) allotments in accordance with the KFRA's *Coordinated Monitoring and Evaluation Plan for Grazing Allotments*. Various monitoring data were collected from 15 to 20 allotments. This included the monitoring emphasis on the three grazing allotments under formal consultation regarding the shortnose sucker (noted above). These rangeland studies monitor utilization, ecological condition, trend, actual grazing use, and other resource attributes. In addition, grazing use supervision was performed at least 100 times during the grazing season on all high priority allotments, and other allotments on an as needed basis.

Fourmile Grazing EA: An environmental assessment (EA#OR-014-96-3) analyzing the grazing use of 1,200 acres in the Fourmile area, as well as its potential impacts, was completed and distributed for public review in April 1998. A proposed grazing decision selecting the proposed action (Alternative A) was issued on September 25, 1998 and sent to all identified interested publics. The decision was subsequently protested by an environmental group (see FY-99 Projects Planned). These lands, which are located northwest of Agency Lake, were transferred from the Bureau of Reclamation to BLM management in 1994.

### **FY-99 Projects Planned**

Ecological Site Inventory (ESI): When ESI is complete, the collected field data will be put into the proper data bases and the Geographical Information System (GIS).

Grazing Allotment Evaluations/Standards & Guides Assessments: Allotment evaluations and/or assessments to determine if the Standards for Rangeland Health are being met, are planned for FY-99. The entire assessment process for the resource area is envisioned to take up to 10 years (1999-2008) to complete. The eight allotments planned for assessment in FY-99 are: Willow Valley, Timber Hill, Bear Valley, Pitchlog, Horsefly, Dry Prairie, Fourmile, and Wood River. The first six allotments, which are located within the Gerber area, will have evaluations and assessments done. The other two areas (Fourmile and Wood River), which are in the Agency Lake area, will have assessments completed, but not evaluations. These eight allotments comprise approximately 36 percent of the resource area's total acreage. Evaluations compare accumulated rangeland monitoring data against planning objectives to see if rangeland management is meeting land use plan objectives. The five Standards of Rangeland Health address watershed function in uplands; watershed function in riparian areas; ecological processes; water quality; and native, threatened and endangered, and locally important species. The assessments are similar, except they compare the monitoring data against the Standards for Rangeland Health.

### **Rangeland Improvements**

Goodlow Fence Reconstruction: Approximately 2 miles of the Goodlow fence is planned for reconstruction. This old, deteriorating fence forms the boundary between the Dry Prairie (0885) allotment and a portion of the Fremont National Forest. (Reconstruction was completed in October 1998)

Wild Gal Spring Exclosure Expansion: (see *Riparian Projects Planned* section) This project would be completed by the range staff with on-hand fencing materials.

Riparian Fence Maintenance: Range staff personnel will continue to maintain all riparian enclosure and pasture fencing. This includes the inspection and repair of approximately 25-30 miles of riparian related fencing in the resource area.

Casebeer Fence: Approximately 0.75 mile of fencing will be done near the east shore of Gerber Reservoir and on the east side of Casebeer Creek to protect a private land portion of the creek from unwanted use by livestock. The fence would be on the private land-BLM boundary.

Monitoring of Grazing Allotments: Monitoring of grazing use, and effects of that use, will continue on priority allotments in accordance with the KFRA's *Coordinated Monitoring and Evaluation Plan for Grazing Allotments*. It is expected that 15-20 allotments will have various monitoring data collected on them. These rangeland studies will monitor utilization, ecological condition, trend, actual grazing use, and/or other resource attributes. As in past years, we also expect to perform at least 100 grazing use supervision checks of high priority allotments (and other allotments) on an as needed basis.

Fourmile Grazing EA: A final grazing decision selecting the grazing management for the Fourmile property will be issued during the late winter or early spring of FY-99. The final decision will address the protest points of the one protest filed on the proposed Fourmile grazing decision (FY-98), as well as select the preferred grazing management envisioned for Fourmile. It is expected that some grazing use will take place on Fourmile late in the season (August-October) in FY-99.

## **Fire and Fuels Management**

There are two main focuses of the Klamath Falls Resource Area's Fire Management program: wildfire suppression and prescribed fire. Wildfire suppression is directed by the fire staff at the Lakeview District office, and the prescribed fire program is directed by the Klamath Falls Resource Area with assistance from the district and national personnel.

During the 1998 fire season, there were eight wild fires that burned a total of 16.5 acres, representing a fairly low fire occurrence and fire acreage year.

The prescribed fire program completed prescribed burns on 4,432 acres and contracted another 6,000 acres to be completed over the next several years. The Lakeview District, including the Klamath Falls Resource Area, has a long history of successful use of fire to achieve hazard reduction goals and ecosystem enhancement objectives. Most of the acreage treated by prescribed fire during FY98 was selected for treatment by a random method identified in Environmental Assessment 014-94-09. An additional environmental assessment (OR014-98-03) was completed during FY98 addressing elected burning units totaling 455 acres in the Upper Swan, Little Yainax and Stukel areas. Treatment in these three areas is deemed high priority for resource protection.

## **Access and Rights-of-Way**

Table S-2 at the front of this document summarizes the various realty actions accomplished in the three years since implementation of the RMP. During FY98, new legal access was acquired through the amendment of an existing reciprocal agreement (L-690); this agreement was modified to provide access to BLM-administered lands, a portion of the agreement was assigned to Roseburg Lumber Company,

and the remainder of the agreement was transferred to U.S. Timberlands. The agreement provides access to approximately 50,000 acres of public lands and 50,000 acres of private land.

Applications for rights-of way have been received and processed at a relatively low but consistent rate. New authorizations are predominantly for commercial use of existing roads to haul timber and other forest products. Some have been for access to private residences or utility purposes. Several have been for access to privately owned communication sites.

## **Roads**

The westside Transportation Management Plan was developed by staff from six O&C districts and signed by the district managers. Through the TMP, transportation management objectives are developed for each road segment. The eastside Transportation Management Plan is expected to be completed by eastside districts, including Spokane District, by the end of 1999. This plan will also have transportation management objectives.

## **Energy and Minerals**

There were no plans of operations submitted for FY96-98 and no mining notices were received. There are no mining claims in the Klamath Falls Resource Area, consequently there were no mining claim inspections conducted. There were no leases of oil, gas or geothermal resources.

## **Realty, Including Land Tenure Adjustments**

Realty actions completed in FY98 included one land sale of 1,600 acres. Over the last three fiscal years (FY96-98), approximately 6,800 acres of public land in disposal Zone 3 were evaluated for sale. Of these lands, 5,640 acres were determined not suitable for disposal by sale or exchange and will be retained in public ownership. The remaining 1,160 were determined to be suitable for disposal only by exchange.

The Resource Management Plan is being amended to address any unintentional encroachments and survey hiatuses on land it manages in Klamath County. A joint plan amendment and environmental assessment (#014-98-02) identifying alternatives for amending the plan and selling about 1.62 acre encumbered with a permanent occupancy lease was completed in FY98. During the public comment period, only one comment was received.

There were no title transfers during FY98 under the Color-of-title Act or the Recreation and Public Purposes Act.

## **Withdrawals**

Appendix J of the RMP/ROD lists 17 recommendations for modifying, continuing or revoking existing withdrawals. These withdrawal recommendations predated the RMP/ROD and are awaiting action by the BLM's Washington Office. Three public water reserve withdrawals were evaluated in FY98. Recommendations to modify Public Water Reserves 15, 107 and 146 were made.

## Hazardous Materials

One unauthorized dumping of waste paint was discovered on public land in the Bly Mountain rural interface area. The site contained over 100 one-gallon containers of oil-based paint; some of the cans were open, spilling their contents. Site cleanup costs exceeded \$5,000.

Household trash dumping is also a routine problem in rural interface areas.

## Coordination and Consultation

Various coordination and consultations are done by resource specialists, managers, and other staff throughout the year with other federal agencies, state and local government, several interest groups, natural resource organizations, and individuals. These are described in the individual sections in this document. The coordination includes releasing and publishing news releases about proposed management, attending and participating in meetings of watershed groups, and seeking input from other federal agencies (such as U.S. Fish and Wildlife regarding wildlife and fisheries) and state agencies (such as Oregon Department of Forestry regarding prescribed fire).

In addition, the resource area participates in a group called Answer People, which includes representatives of several federal agencies, businesses, Chamber of Commerce, and other agencies. This group meets monthly to inform each other of ongoing activities, to provide input on management, and to coordinate any needs.

The Southeast Oregon Resource Advisory Council is another means the resource area has for seeking management guidance and input.

## NEPA Documentation and Planning

Note: National Environmental Policy Act (NEPA)

The resource area addresses site-specific proposed management in environmental assessments, categorical exclusions (actions generally not having any ground disturbance such as rights-of-way), and plan conformances. See Table 17 for a list of these documents prepared by resource staff during FY96-FY98 and through January 1999 for FY99. Proposed projects are identified and discussed at interdisciplinary team meetings held twice a month and attended by representatives of the various resource values on the resource area.

**Table 17. List of NEPA Documents Prepared by Klamath Falls Resource Area, FY96-98**

| <b>Fiscal Year</b> | <b>Categorical Exclusion</b> | <b>Environmental Assessment</b> | <b>Plan Conformance</b> |
|--------------------|------------------------------|---------------------------------|-------------------------|
| 1996               | 15                           | 5                               | 7                       |
| 1997               | 12                           | 6                               | 16                      |

|                |    |   |    |
|----------------|----|---|----|
| 1998           | 23 | 3 | 11 |
| 1999 (to date) | 10 | 9 | 1  |

*Environmental Assessments:* The five environmental assessments initiated in FY96 included two for timber sales/salvage, one on land tenure, one addressing grazing in Four Mile, and one for right-of-way location. The Four Mile EA was finalized during FY98 (see Range Management section for other details on this action). The land sale was canceled.

The five environmental assessments initiated in FY97 included four land tenure actions (Bly Dump Sale and three individual land sales). All four of these actions were pending at the close of FY98.

During FY98, resource area staff initiated three environmental assessments, including one for prescribed burning on elected units in three areas, and another addressing several forest health treatments over a period of a few years. The third EA addressed an amendment to the Klamath Falls Resource Area's Resource Management Plan, as well as sale of 1.62 acres in an encroachment situation.

Environmental assessments are available for public comment for 30 days. The availability of environmental assessments is announced in press releases describing the proposed actions and comment period. Press releases are distributed to local newspapers, as well as radio and television stations.

*Categorical Exclusions:* Among the management activities addressed in categorical exclusions are right-of-way fence construction, use of an existing road, plant research, hazard tree removal, a mountain bike race, plantation brushing, free use permits and sale for rock from a quarry, and precommercial thinning.

*Plan Conformances:* Most plan conformances have been for reissuance of grazing permits.

*Scheduled Environmental Assessments in FY99:* A schedule of proposed environmental assessments is provided on Table 18 at the end of the Annual Program Summary. Approximate locations of these projects are indicated on Figure 2. In addition, plan conformances are proposed for projected juniper management on Swan Lake Rim, in Norcross Springs area, around Upper Midway Reservoir, at Snipps Springs, on Windy Ridge, and in the Harpold area, as well as oak thinning in the Klamath Canyon.

## **Research and Education**

*Research:* Reference sections on Botany and Special Status Species regarding research on survey and manage species; also reference section on Water and Soils for soil monitoring research.

*Education:* Staff of the Klamath Falls Resource Area are very active in many education programs, including several at the local level (see Outreach section of this document).

## **Information Resource Management**

The BLM in Western Oregon made a substantial investment in building a Geographic Information Systems (GIS) as the Resource Management Plans (RMPs) were developed. This information system has allowed BLM to organize and standardize basic resource data across the western Oregon districts. The GIS has now become a day-to-day tool in resource management that allows us to display and

analyze complex resource issues in a fast, efficient manner. In support of the third year evaluation, our GIS efforts have focused on data and analysis to compare the RMP assumptions with the initial years of plan implementation. BLM is now actively updating and enhancing its resource data as conditions change and further field information is gathered. The GIS plays a fundamental role in ecosystem management, allow BLM to track dynamic conditions, analyze complex resource relationships, and take an organized approach for managing resource data.

## **Cadastral Survey**

The Oregon State BLM office provides cadastral support to the resource area. For the past three years, no cadastral surveys were accomplished. Most blocked BLM ownership with timber has been surveyed.

## **Law Enforcement**

There is one full time Ranger in the Klamath Falls Resource Area. The Ranger receives assistance through a Law Enforcement Agreement with the Klamath County Sheriff's Office, which provides a Deputy Sheriff to patrol Public Lands on a half-time basis. The Ranger also works cooperatively with the Lakeview BLM District Ranger and other Law Enforcement agencies, including the Oregon State Police, Lake County Sheriff's Office, Lakeview and Klamath Falls Police Departments, National Park Service, and the U.S. Forest Service. Investigative support is also 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. Law enforcement also works closely and coordinates activities with other BLM District activities.

There were 33 incidents and violations recorded in the Klamath Falls Resource Area in 1998. These included assault on a Federal employee, intimidation of a Federal employee, timber theft, search and rescue operations, vandalism, hazardous materials dumping, commercial and household trash dumping, occupancy trespass, abandoned vehicles, special forest product thefts, arson fire investigations, range and grazing violations, and violations of the Bald Eagle and the Wild Horse and Burro Act. Additionally, Law Enforcement Plans were developed and completed for dedication of Wood River Wetland and for horse adoptions at Klamath County Fair and special events. Security details were also conducted to assist three other districts with dedications and wild horse adoptions.

The Klamath Falls Resource Area Ranger participated in monthly resource officer meetings with local, county, state, and other Federal law enforcement agencies. In 1998, over 1,200 hours were spent on patrol, responding to or conducting investigations on incidents. Also, over 25,000 miles were driven to patrol the resource area.

## **Outreach**

The Klamath Falls Resource Area continued to have an active outreach program in various resources. Among the activities were several involving interagency participation, some slide shows and field trips

on forestry and botany, and outdoor recreational events. Outreach activities are listed below in four categories: interagency, resource area, school, and community).

### *Interagency activities*

**Resources and People (RAP) Career Camp** - Informed high school students and educators about natural resource management. Involved Winema, Modoc and Fremont National Forests; BLM, and private organizations and groups.

**High Desert Learning Center** - Coordinated with staff of High Desert Learning Center (Bend, Oregon) on various education projects in Klamath County, including development of Wood River Wetland interpretive signs.

**Celebrating Wildflowers Photo Contest** - Participated in coordinating contest; also circulated photo display among participating offices (Winema NF, Crater Lake and Lava Beds NP, USFWS, and BLM).

**Wood River Wetland** - Conducted tours at wetland with various groups. Held formal dedication of wetland on June 27.

**TWIST (Teen Women in Science and Technology) Camp** - The resource area assisted Oregon Institute of Technology in teaching 60 in grades 9-12 about natural resources with emphasis on water.

**CAST (Catch a Special Thrill)** - Organized and conducted events for disabled youth during fishing day at Hyatt Lake. Joint project with Medford BLM district to demonstrate fishing skills and provide outdoor recreational opportunity for children with special needs.

**Wilderness Skills and Horse Packing Clinic** - Conducted free clinic to inform public about ways to have low impacts on the land.

### *Resource Area Staff*

**National Fishing Clinic** - Held clinic at Gerber Reservoir for foster children of Klamath County. Focus was fishing skills and fish biology.

**Forestry Education Tour** - Worked with many different agencies presenting talks to Klamath County 6th graders about interrelationships of wildlife and recreation issues with the forest.

**Klamath County Fair** - Supervised a booth and wild horse drawing.

**Klamath-Lake-Modoc Outdoor Recreation Working Group** - Worked with local interest groups and community leaders on ecologic restoration and economic revitalization in the basin.

**Youth to Work Day** - Had a young lady work with computers and administration departments.

**Botany Slide Shows** - Presented two slide shows about non-vascular cryptogam (lichen, moss, and fungi), one to Siskiyou Chapter of the Native Plant Society of Oregon (Ashland, Oregon), and one to Klamath Falls Chapter of the Native Plant Society of Oregon (Klamath Falls, Oregon).

School Programs

**Botany Program** - Made botany presentation to Shasta Elementary School students at Wood River.

**Wood River Program** - Presented programs to various schools at Wood River Wetland about the area's natural resources. Included cutting and planting of willows onsite.

**Wildlife** - Worked with high school student on senior project of monitoring bald eagle roost site.

**Water Quality** - Gave talks about water quality and macro invertebrates at various outdoor schools.

Community Programs

**Forestry and Fire Programs** - Talked with Cub and Tiger Scouts about timber and fire issues; also coordinated a tree planting project for these scouts.

**Natural Resource Careers and Skills**- Talked with Girl Scouts about careers in natural resources, survival skills, and use of maps and a compass.

**Project Learning Tree Workshop** - Presented workshop to teachers in Klamath County with assistance from other agencies.

**Farm Expo** - Participated by assisting in informing public about forestry practices.

**Weed Awareness** - Placed 8x11 weed posters in campgrounds and other public places for public awareness.

**TABLE 18 - SCHEDULE OF PROPOSED ENVIRONMENTAL ASSESSMENTS**  
**BLM - Klamath Falls Resource Area**

Page 1 of 4

| Map Ref.#  | PROJECT TITLE & DESCRIPTION  | LOCATION                          | SPECIAL AREAS AFFECTED                   | STATUS OF ANALYSIS                   | DECISION DATE            |
|--|--|-----------------------------------|--|--------------------------------------|--------------------------|
| <b>Recreation Projects (contact: Scott Senter, 541/885-4141)</b> |  |                                   |  |                                      |                          |
| 1  | GERBER RECREATION SITE ROAD IMPROVEMENT (EA#OR-014-93-10) - Improve roads into the recreation site.                                | Gerber Reservoir recreation site. | Gerber Bald Eagle Management Area (BEMA) | Preparing EA; contingent on funding. | Expected in Summer 1999. |
| 1  | GERBER POTHOLE RECREATION SITE IMPROVEMENTS (EA#-014-94-11) - Build a new day use area, trails, and other recreation improvements. | West side of Gerber Reservoir.    |  | EA done.                             | Expected in Summer 1999. |
| <b>Riparian Areas (contact: Dana Eckard, 541/885-4143)</b>       |  |                                   |  |                                      |                          |
| 2  | CLOVER CREEK ROCK QUARRY RESTORATION (EA#OR-014-99-3) - Removal of rock quarry tailings and restoration of riparian area.          | Clover Creek                      | Riparian reserves.                       | Preparing EA.                        | Expected in Summer 1999. |
| 2  | MINERS CREEK CULVERT REMOVAL (EA#OR-014-99-4) - Removal of culvert, obliteration of road, and recontouring of riparian area.       | Miners Creek                      | Riparian reserves.                       | Preparing EA.                        | Expected in Summer 1999. |

|   |  |                       |      |               |                          |
|---|--|-----------------------|------|---------------|--------------------------|
| 3 | ROCK CREEK ALLOTMENT WATERHOLES (EA#OR-014-99-02) - Construct two small waterholes for livestock and wildlife. | Gerber Reservoir Area | None | Preparing EA. | Expected in Summer 1999. |
|---|--|-----------------------|------|---------------|--------------------------|

**TABLE 18- SCHEDULE OF PROPOSED ENVIRONMENTAL ASSESSMENTS**  
 BLM - KLAMATH FALLS RESOURCE AREA  
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| Map Ref.# | PROJECT TITLE & DESCRIPTION | LOCATION | SPECIAL AREAS AFFECTED | STATUS OF ANALYSIS | DECISION DATE |
|-----------|-----------------------------|----------|------------------------|--------------------|---------------|
|-----------|-----------------------------|----------|------------------------|--------------------|---------------|

**Grazing Actions (contact: Bill Lindsey, 541/885-4140)**

|   |  |  |               |   |   |
|---|--|--|---------------|---|---|
| 4 | FOUR-MILE PROPERTY GRAZING PLAN (EA#OR-014-96-3) - Grazing authorization of lands formally withdrawn by BOR and reverted to BLM. | Upper Klamath River Basin, about 5 miles northwest of Agency Lake. | Riparian Area | EA completed April 1998. FONSI signed 6/17/98. Protest received 10/19/98. | Proposed decision issued 9/25/98. Final expected Winter 1999. |
|---|--|--|---------------|---|---|

**Realty Actions (contact: Tom Cottingham, 541/885-4135)**

|   |  |                        |          |               |                          |
|---|--|------------------------|----------|---------------|--------------------------|
| 5 | BLY DUMP DISPOSAL (EA#OR-014-97-01) - Dispose of Bly Dump (about 70 acres of public lands) through sale to Klamath County. | Southwest of Bly.      | Unknown. | Preparing EA. | Expected in Summer 1999. |
| 6 | BARRETT LAND SALE (EA#OR-014-97-2). Sale of 80 acres.  | North of Lorella.      | None.    | Preparing EA. | Spring 1999              |
| 7 | RAJNUS LAND SALE (EA#OR-014-97-3). Sale of 160 acres.  | South Stukel Mountain. | None.    | Preparing EA. | Spring 1999              |
| 7 | POPE LAND SALE (EA#OR-014-97-5). Sale of 560 acres of isolated public land.  | South Stukel Mountain  | None.    | Preparing EA. | Spring 1999              |

|   |   |                                |      |               |              |
|---|---|--------------------------------|------|---------------|--------------|
| 8 | KENNEDY LAND SALE (EA#OR-014-5). Sale of 240 acres of isolated public land. | West side of Swan Lake Valley. | None | Preparing EA. | Summer 1999. |
|---|---|--------------------------------|------|---------------|--------------|

**TABLE 18 - SCHEDULE OF PROPOSED ENVIRONMENTAL ASSESSMENTS**  
 BLM - KLAMATH FALLS RESOURCE AREA  
 Page 3 of 4

| Map Ref.#   | PROJECT TITLE & DESCRIPTION   | LOCATION  | SPECIAL AREAS AFFECTED | STATUS OF ANALYSIS | DECISION DATE              |
|---|---|---|------------------------|--------------------|----------------------------|
| 9   | RODGERS LAND SALE (EA#OR-014-93-03) - Sale of 120 acres of isolated public lands. | Near Algoma   | None.                  | EA done.           | Expected in Spring 1999.   |
| 10  | RMP LAND TENURE PLAN AMENDMENT AND CAIN DIRECT LAND SALE (1.62 acres)             | Resource area-wide for plan amendment; 8 miles west of Keno, off Highway 66 | None.                  | EA done.           | Expected in early 1999.    |
| 11  | MYERS ROAD RIGHT-OF-WAY   | T. 39 S., R. 14 E., Secs. 15 & 16   | None.                  | EA in preparation. | Expected in December 1998. |
| <b>Wood River Activity (contact: Wedge Watkins, 541/885-4110)</b>           |   |   |                        |                    |                            |
| 12  | WOOD RIVER CHANNEL RESTORATION, Phase 3.  | Wood River  | ACEC                   | Preparing EA.      | Summer 1999.               |
| <b>Timber Sales (contact: Mike Behdolt, 541/885-4118)</b>                   |   |   |                        |                    |                            |
| 13  | BLY MOUNTAIN TIMBER SALE<br>Two to three sales in Bly Mountain landscape area.    | Bly Mountain, Swan Lake Rim and White Line Reservoir                        | None known.            | EA in preparation. | Expected in Spring 1999.   |
| <b>Fuel Treatments (Prescribed Fire) (Contact: Joe Foran, 541/885-4117)</b> |   |   |                        |                    |                            |
| 1   | MILLER CREEK & FROG CAMP, OR-014-99-8   | T. 39 S., R. 13 E., Secs. 12-14, 23, 26                                     | None known.            | Preparing EA.      | 1999                       |

|   |                         |   |            |               |       |
|---|-------------------------|---|------------|---------------|-------|
| 1 | STILES SPRING UNDERBURN | T. 37, S., R.10 E.,<br>Secs. 3,4,10,11,14,<br>&15 | None known | Preparing EA. | 1999. |
|---|-------------------------|---|------------|---------------|-------|

**TABLE 18. SCHEDULE OF PROPOSED ENVIRONMENTAL ASSESSMENTS**  
**BLM - KLAMATH FALLS RESOURCE AREA**

Page 4 of 4

| Map Ref.# | PROJECT TITLE & DESCRIPTION                           | LOCATION  | SPECIAL AREAS AFFECTED | STATUS OF ANALYSIS | DECISION DATE |
|-----------|---|---|------------------------|--------------------|---------------|
| 14        | BARNES VALLEY CANYON AND PITCH LOG GREEK, OR-014-99-7 | T. 38 S., R. 14 E., Secs. 21-25; and T. 39 S., R. 15 E., Secs. 31-32. | ACEC.                  | Preparing EA.      | 1999          |

Include Location Map, Figure 2

# APPENDICES

Appendix A - Glossary

Appendix B - Monitoring Report

Appendix C - Modifications Being Considered for Survey & Manage/Protection Buffer Guidelines

## Appendix A - Glossary

*Note: The Klamath Falls Resource Area's Resource Management Plan provides a more comprehensive glossary for reference purposes.*

**Allowable Sale Quantity (ASQ)** - Estimated gross amount of timber volume, including salvage, that may be sold annually from a specified area over a stated period of time in accordance with the management plan. Formerly referred to as allowable cut.

**Animal Unit Month (AUM)** - Amount of forage required to sustain one cow and calf, or one horse, or five sheep, for one month.

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

**Area of Critical Environmental Concern (ACEC)** - Special land use designation given to an area having important historic, cultural or scenic values, fish and wildlife resources, or other natural systems or processes. These areas require special management attention to protect and prevent irreparable damage to the values supporting their designation, and to protect life and provide safety from natural hazards.

**Best Management Practices (BMPs)** - 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.

**Bureau Assessment Species** - Species on List 2 of the Oregon Natural Heritage Database, or those species on the Oregon List of Sensitive Wildlife Species (OAR 635-100-040), that are identified in BLM Instruction Memo OR-91-57, and are not included as a Federal candidate, state listed, or Bureau sensitive species.

**Bureau Sensitive Species** - Species eligible as Federally listed or candidate, state listed or state candidate (plant) status, or on List 1 in the Oregon Natural Heritage Database, or otherwise approved for this category by the State Director.

**Candidate Species** - Those plants and animals included in Federal Register *Notices of Review* that are being considered for listing as threatened or endangered by the U.S. Fish and Wildlife Service (FWS). There are two categories of primary concern to BLM:

**Category 1** - Taxa for which the FWS 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 FWS has information to indicate that listing is possibly appropriate. Additional information is being collected.

**CEQ** - Council on Environmental Quality; government agency with oversight of the implementation of the National Environmental Policy Act (NEPA).

**Component 1** - Synonym is Survey Strategy 1. A management strategy outlined in the Northwest Forest Plan pertaining to survey and manage species which provides protection for known sites.

**Component 2** - Synonym is Survey Strategy 2. A management strategy outlined in the Northwest Forest Plan pertaining to survey and manage species; provides surveys prior to ground-disturbing activities and manage sites.

**Component 3** - Synonym is Survey Strategy 3. A management strategy outlined in the Northwest Forest Plan pertaining to survey and manage species; provides extensive surveys for these species and manage high-priority sites.

**Component 4** - Synonym is Survey Strategy 4. A management strategy outlined in the Northwest Forest Plan pertaining to survey and manage species; provides general regional surveys to determine necessary levels of protection.

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

**Cumulative Impact** - Impact resulting from identified actions when they are added to other past, present, and reasonably foreseeable future actions, regardless of who undertakes these actions. Such impacts can result from individually minor, but collectively significant actions occurring over a period of time.

**Density Management** - Timber 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 pines, and Douglas-fir). Density management sales are also designed to reduce stand densities, fuel loads, and risk of stand-replacing wildfires.

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

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

**Environmental Assessment (EA)** - A systematic analysis of site-specific activities prepared to comply with NEPA requirements for the purpose of determining whether such activities would significantly affect the quality of the human environment and thereby require an environmental impact statement.

**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 licenses for power projects.

**Federal Land Policy and Management Act of 1976 (FLPMA)** - Law mandating that the Bureau of Land Management manage lands under its jurisdiction for multiple uses.

**General Forest Management Area (GFMA)** - Forest land managed on a regeneration harvest cycle of 60-110 years.

**Hazardous Materials** - Anything that poses a substantive present or potential danger 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.

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

**Late Successional Reserve (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.

**Mineral Estate** - Refers to the ownership of minerals at or beneath the surface of the land.

**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 capture the immediate but scattered mortality (dead and/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.

**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.

**Noxious Plant/Weed** - A plant designated by the U.S. Department of Agriculture, or a state or local weed board, as being injurious to public health, recreation, wildlife, or any public or private property..

**Offered (sold) Volume or Offered (sold) Acres** - Any timber sold during the year by auction or negotiated sales, including modifications to contracts. This is more of a “pulse” check on the district’s success in meeting ASQ goals than it is a socioeconomic indicator, since the volume can get to market over a period of several years. It should be noted that for this Annual Program Summary we are considering “offered” the same as “sold”. Occasionally sales do not sell. They may be reworked and sold later or dropped from the timber sale program. Those sold later will be picked up in the APS tracking process for the year sold. Those dropped will not be tracked in the APS.

**Off Highway Vehicle (OHV)** - Any motorized track or wheeled vehicle designed for cross-country travel over natural terrain.

**Prescribed Fire** - Introduction of fire to an area under regulated conditions for specific management purposes (usually vegetation manipulation).

**Protection Buffer Species** - A management strategy outlined in the Northwest Forest Plan pertaining to this list of species; provides surveys prior to ground-disturbing activities and manage sites.

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

**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

**Resource Management Plan (RMP)** - Land use plan prepared by the Bureau of Land Management under current regulations in accordance with Federal Land Policy and Management Act. Replaces the older generation Management Framework Plans.

**Right-of-Way** - Permit or easement authorizing use of public lands for specified purposes, such as pipelines, roads, telephone lines, electric lines, and reservoirs.

**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 categories: Federally listed threatened or endangered species, species proposed for Federal listing as threatened or endangered, candidate species for Federal listing, State listed species, Bureau sensitive species, Bureau assessment species (see separate definition for each).

**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.

**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 district's annual budget.

**Threatened Species** - 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.

**Understory Reduction** - Timber harvesting done to reduce the density of primarily submerchantable (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.

**Visual Resource** - Visible physical features of a landscape.

**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.

## Appendix B - Monitoring Report Klamath Falls Resource Area

This monitoring report focuses on answering implementation monitoring questions in Appendix K of the Klamath Falls Resource Area’s Resource Management Plan/Record of Decision (RMP/ROD). In a few cases, there are responses to effectiveness and validation monitoring; however, in most cases the three year time period since RMP implementation was initiated is not considered sufficient time to conduct these latter two types of monitoring. Presentation of the this monitoring report follows the same order as that in Appendix K of the Klamath Falls RMP/ROD, with page numbers provided for reference purposes.

Tables 19 and 20 are being prepared as part of the Third Year Evaluation to review the types and extent of projects being monitored.

| <b>Table 19. Summary of Numbers and Types of Project Units Monitored - FY 98</b> |                           |
|--|---------------------------|
| <b>Project Type</b>  | <b>Total # District</b>   |
| Timber Sales   | 1 (Lower Spencer Salvage) |
| Silviculture Projects  | 1 (tree planting)         |
| Riparian Projects  |                           |
| Fish Habitat Projects  | 1 (Wood River)            |
| Wildlife Habitat Projects  | 2                         |
| Prescribed Burns   | 1                         |
| Road Restoration/ Bridge Replacement   | 0                         |
| Other Projects   |                           |

**Table 20. FY-98 Implementation Monitoring Selection Categories**

| <b>Selection Categories From Database</b>  | <b>Number of Project Units Done in FY98</b>                        | <b>Number of Project Units Monitored FY98</b>    | <b>% Monitored</b> |
|--|--|--|--------------------|
| Ground-Disturbing Activities (other than timber sales)   | 12 (2 in Wood River, 4 for Wildlife Program, and 6 for Recreation) | 8 (2 for Wildlife program, and 6 for Recreation) | Recreation- 100%   |
| Projects in Riparian Reserves <sup>1</sup>   | 2  | 1  | 50%                |
| Structures Within Riparian Reserves  | 2  | 1  | 50%                |
| Projects in Late Successional Reserves   | 0  | 0  | 0                  |
| Projects in Adaptive Management Areas  | n/a  | n/a  | n/a                |
| Timber Sales in Watersheds With Less Than 15% Late Successional Forest <sup>2</sup>  | 0  | 0  | 0                  |
| Timber Sales   | 2  | 1  | 50                 |
| Juniper  | 1  | 1  | 100%               |
| Projects in Community Watersheds   | 0  | 0  | 0                  |
| Projects Within or Adjacent to Special Areas   | 0  | 0  | 0                  |
| Projects That Include Or Are Adjacent to Special Habitats  | 3  | 2  | 67%                |
| Projects in VRM II or III Areas  | 7 (Recreation)   | 7 (Recreation)                                   | Recreation - 100%  |
| Projects in Wild & Scenic River Corridors  | 1 (Recreation)   | 1 (Recreation)                                   | Recreation - 100%  |
| Projects in Rural Interface (prescribed fire)  | 1  | 0  | 0%                 |
| Noxious Weed Project (sites)   | 188  | 83   | 44%                |
| Prescribed Burn Projects   | 13   | 6  | 46%                |
| Projects That Required Dust Abatement (1 for Wood River Channel work, and 3 timber sales offered)  | 4  | 4  | 100%               |
| <p>Note: Minimum monitoring requirements 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).<br/> <sup>1</sup> One tree planting unit was within a riparian reserve area. It covered 15 acres of brush that was cut under the Frosty Too Timber Sale contract as a site preparation treatment.<br/> <sup>2</sup> All in compliance with 15% rule (avoided older stands, salvage, thinning)</p> |  |  |                    |

**All Land Use Allocations**  
(RMP/ROD, Appendix K, page K-1)

**Implementation Monitoring**

(Note: Appendix E in the RMP/EIS is the same as Appendix C in the RMP/ROD.)

1. Are surveys for the species listed in Appendix E (RMP/EIS), or Appendix C (RMP/ROD), conducted before ground-disturbing activities? *Answer:* Yes.
2. Are protection buffers being provided for specific rare and locally endemic species and other species in the upland forest matrix? *Answer:* Yes.
3. Are the known sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi, lichens, and arthropod species listed in Appendix E (RMP/EIS) or Appendix C (RMP/ROD) being protected? *Answer:* Yes.
4. Are the known sites of amphibians, mammals, bryophytes, mollusks, vascular plants, fungi, lichens, and arthropod species listed in Appendix E (RMP/EIS) or Appendix C (RMP/ROD) being surveyed? *Answer:* Yes, but the only known sites are those that we have found.
5. Are high priority sites for species management being identified? *Answer:* Yes, especially for the survey and manage species that are widespread in the resource area.
6. Are general regional surveys being conducted to acquire additional information and to determine necessary levels of protection for arthropods, fungi species that were not classed as rare and endemic, bryophytes, and lichens? *Answer:* Yes, resource area surveys include species lists and collections for survey strategy component 3 and 4 species, as well as more common species.

## **Riparian Reserves**

(RMP/ROD, Appendix K, page K-2)

### **Implementation Monitoring**

1. Are watershed analyses being completed before on-the-ground actions are initiated in Riparian Reserves? *Answer:* Yes, watershed analyses are completed for nearly all BLM managed lands west of Highway 97. For lands east of Highway 97, no watershed analyses have been completed. No actions that would require a watershed analysis prior to their implementation have been initiated within Riparian Reserves in this area.
2. Is the width and integrity of the Riparian Reserves being maintained? *Answer:* Yes, the Riparian Reserve widths have been based on the established guidelines. Silvicultural prescriptions within Riparian Reserves have been implemented to meet Watershed Analysis objectives and have met the Aquatic Conservation Strategy objectives.
3. What silvicultural practices are being applied to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy Objectives? *Answer:* 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 in the understory for the purpose of reducing fire risk and enhancing the health of desired overstory trees. Timber sales in 1998 involved silvicultural prescriptions in portions of the upper edges of Riparian Reserves to control stocking levels and to enhance desired large overstory trees.
4. Are management activities in Riparian Reserves consistent with Supplemental Environmental Impact Statement Record of Decision Standards and Guidelines, resource management plan management direction,

and Aquatic Conservation Strategy Objectives? Answer: Silvicultural treatments in Riparian Reserves were consistent with this guidance.

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? Answer: The Gerber boat ramp and the Wood River entrance facilities met these parameters. No other structures were constructed in Riparian Reserves in 1998.
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?  
Answer: There are no mining operations in the Klamath Falls area. A self-contained vault toilet was moved out of the Riparian Reserve area at Gerber Reservoir during 1998.
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? Answer: The addition to the Gerber boat ramp project was designed to alleviate problems with access and shoreline erosion that existed at the site. Existing recreation facilities are being inventoried and monitored to determine whether any changes are needed. The Wood River entrance facilities were designed to address the needs of the public while also meeting the objectives of the Aquatic Conservation Strategy.
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? Answer: No new facilities were constructed in 1998. Existing facilities are being inventoried and monitored to determine if changes are needed.

## **Late Successional Reserves**

(RMP/ROD, Appendix K, page K-4)

1. What is the status of the preparation of assessments and fire plans for Late-Successional Reserves (LSRs)?  
Answer: These are being finalized during FY99.
2. What activities were conducted or authorized within LSRs and how were they compatible with objectives of the LSR plan? Were the activities consistent with SEIS ROD Standards and Guides, the RMP direction, and Regional Ecosystem Office review requirements and the LSR assessment? Answer: No activities occurred since the late-successional reserve assessment is not yet complete.

## **Matrix**

(RMP/ROD, Appendix K, page K-5)

## **Implementation Monitoring**

1. Are suitable numbers of snags, coarse woody debris, and green trees being left, following timber harvest, as called for in the Supplemental Environmental Impact Statement Record of Decision Standards and Guidelines and resource management plan management direction?

Answer: Snags - To date, one RMP timber sale has been completed. The post-treatment stand exam indicated presence of 14 snags per acre greater than 7 inches DBH and over 15 feet tall. The RMP objective was 2.5 snags per acre.

Coarse Woody Debris: On the same sale, the stand exam indicated a coarse woody debris amount of 49 feet of class 1 & 2 logs greater than 16 inches in diameter and over 16 feet long. The RMP and NFP calls for 120 linear feet of this size material. The sale was located in primarily a second-growth stand that had been harvested before, and the average diameter of the stand was around 16" DBH. The stand exam did indicate that there was 147 feet of class 1-5 logs >16" in diameter and over 8 feet long.

Visual observation of a second sale that was qualitatively monitored in 1998 indicated snags levels and coarse woody debris levels well in excess of the RMP objectives. Generally meeting snag and coarse woody debris levels has not been a problem due to the on-going mortality in the KFRA. In many instances, we have been unable to capture the excess mortality that resulted from the 1991-1992 drought and subsequent insect outbreaks. In addition, the high incidence of Indian paint fungus (*Echinodontium tinctorium*) in the resource area results in hundreds of standing nonmerchantable trees both dead and living to provide excellent snag and coarse woody debris recruitment. In many stands, fuels loads are elevated above historic levels and underburns are being scheduled to reduce primarily the smaller diameter fuels.

Green Trees Being Left: The RMP requires that 16 to 25 large green trees per acre be left. This has not been a problem with any of the timber sales to date. The one sale where post treatment stand exams were completed, the following stand distribution was left:

| DBH Range | No. of Trees Left |
|-----------|-------------------|
| 0-6"      | 118               |
| 7-18"     | 71                |
| 19-30"    | 24                |
| >30"      | 5                 |
| Total     | 218               |

Most timber sales in the Klamath Falls Resource Area are designed to leave similar diameter distributions to meet uneven-aged management objectives and to maintain late-successional habitat in the Matrix. On this particular sale, residual basal area average 180 square feet and residual canopy closure average 86 percent. Visual observation of the other timber sale monitored in 1998 indicated similar retention numbers.

2. Are timber sales being designed to meet ecosystem goals for the Matrix?

Answer: See response to Timber Monitoring Section. Yes, all timber sales are designed to meet ecosystem goals for the Matrix. 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 F, Volume II of the RMP. Post treatment monitoring of at least two sales indicates that most BMPs have been addressed in the Environmental Analysis and incorporated into the Timber Sale Contract. In addition, the Environmental Analyses have incorporated the recommendation of the Watershed Analyses from a landscape prospective.

The Lower Spencer Salvage Timber Sale, monitored in 1998, revealed that the sale both met and did not meet three different Standards and Guides. The first observation was “some of the waterbars did not comply with the BMPs, but the team did not see any sediment delivery to streams as a result.” The second observation was that “some sediment was trapped in a waterbar below the road” that ran parallel to a stream in a riparian reserve. The team observed no sediment delivery to the stream. The third observation related to minimizing the risk of natural disturbance adjacent to a 100-acre UMLSR. The KFRA has specific prescriptions for maintaining habitat around these areas, and so treatments are limited adjacent to them to minimize impacts. However, some of the surrounding stands are overstocked and have high fuel loads, and the mortality salvage only treatment did not reduce these levels.

3. Are late-successional stands being retained in fifth-field watersheds in which federal forest lands have 15 percent or less late-successional forest? Answer: For all three Watershed Analyses, an analysis was done to determine the amount of Late Successional Forest in the watershed. 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 percent. Further direction in the Third Year Evaluation has required that the Topsy/Pokegama/Hamaker Landscape Analysis Area be analyzed at the fifth field watershed level which means four different watersheds. This analysis is presently being completed for each watershed.

One unique feature for the KFRA, as indicated by post treatment monitoring done to date, is that many of the stands after treatment still contain late-successional habitat characteristics. As a result, the resource area has met two objectives related primarily to eastside forests. These being, first, to treat overstocked stands for forest health reasons to avoid catastrophic fire and/or insect events and the second, to maintain late-successional habitat or at least limit the amount of time before the stands grows back into late successional habitat. So even in fifth-field watersheds where late successional habitat may be below 15 percent, the resource area could conceivably in future years propose light understory thinnings in late-successional stands for forest health reasons and to the benefit of the stands.

### **Effectiveness and Validation**

Is forest health being addressed? Answer: Forest health is being addressed from the Watershed Analysis level, down through the environmental analysis, and incorporated into the stipulations of the timber sale contracts and other fuel and vegetation treatments. Fuel loads, noxious weeds, stand densities, species composition, and historic conditions are considered by the interdisciplinary team for each treatment. For additional information, see the Timber monitoring section.

### **Air Quality**

(RMP/ROD, Appendix K, pages K-6 and K-24)

1. Were efforts made to minimize the amount of particulate emissions from prescribed burns? Answer: As related to harvest units, logging methods required the yarding of tops and limbs attached. Some of this material was chipped and utilized. That material not in locations suitable to chip were burned early fall to provide for complete and quick consumption. Smoldering is not a problem using this method.

2. Are dust abatement measures used during construction activities and on roads during BLM timber harvest operations and other BLM commodity hauling activities? *Answer:* Yes, dust abatement is required in timber sale contracts. Where dust abatement is practical it is used on construction projects.
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? *Answer:* Ongoing process, new BLM prescribed fire reporting system estimates particulate production to assess impacts. Discussions are ongoing to develop an emissions trade off model similar to the one developed for northeastern Oregon.

## **Water and Soils**

(RMP/ROD, Appendix K, page K-8)

### **Implementation Monitoring**

1. Are site-specific Best Management Practices identified as applicable during interdisciplinary review carried forward into project design and execution? *Answer:* Yes. Also see #2 under Matrix.
2. Are the prescribed actions, programs and interagency coordination efforts called for in the Supplemental Environmental Impact Statement Record of Decision Standards and Guidelines and resource management plan management direction being conducted? *Answer:* The intent of all actions, programs, and coordination efforts is to meet or exceed the direction of the management plans. Specific activities are addressed throughout this summary document.
3. What watershed analyses have been or are being performed? Are watershed analyses being performed prior to management activities in Key Watersheds? *Answer:* Watershed analyses have been completed for all three Key Watersheds in the Klamath Falls Resource Area (Spencer, Clover, and Jenny creeks).
4. What is the status of identification of in-stream flow needs for the maintenance of channel conditions, aquatic habitat, and riparian resources? *Answer:* Instream flow needs are necessary for the Klamath River. An instream flow assessment is planned for FY99.
5. What watershed restoration projects are being developed and implemented? *Answer:* The Wood River Wetland is in the Third Phase of a watershed restoration project. Projects are being developed to address fish passage, road reduction and improvement, and sediment reduction.
6. What fuel treatment and fire suppression strategies have been developed to meet Aquatic Conservation Strategy Objectives? *Answer:* In FY96 and 97, the resource area thinned within the riparian areas of the Frosty 1 and 2 timber sales. This was done to provide protection from wildfire and also to improve forest health and meet the objectives of the Aquatic Conservation Strategy. FY99 plans include Precommercial thinning and piling and burning approximately 200 acres within the Spencer Creek riparian reserve area. This is being done to protect the riparian area and improve forest health. This work will be done through a work arrangement with the Rogue Valley Institute.

7. What is the status of development of road or transportation management plans to meet Aquatic Conservation Strategy Objectives? *Answer:* A transportation management plan has been completed for lands on the west side of the resource area, and one for lands on the east side is expected to be completed by the end of 1999.
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? *Answer:* See number 7 above.
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? *Answer:* Road maintenance identified in watershed analysis is being addressed. One example is the Topsy Road. Projects to alleviate problems with fish passage are planned for 1999 and beyond. These projects will also address road obliteration and the reshaping of stream channels.
10. What is the status of reviews of ongoing research in Key Watersheds to insure that significant risk to the watershed does not exist? *Answer:* Monitoring of vegetation and soils compaction impacts are being conducted on grazing and forest harvest activities.
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? *Answer:* Evaluation of effects is being completed on a site-by-site basis as projects are proposed. Existing facilities will be evaluated during 1999 and future years.
12. What is the status of cooperation with other agencies in the development of watershed-based Research 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? *Answer:* Currently, there are no research management plans proposed. Resource concerns on private and public lands west of Highway 97 are continuing to be 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.
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? *Answer:* The question 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 in a forest stand over time. Use of a mechanical harvester 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 is becoming more and more common and is the most economical choice for density-management treatment of forest stands, the resource area has begun measuring the areal extent of soil disturbance and changes in soil bulk density in timber sales to evaluate soil health.

Preliminary findings from monitoring done in 1998 on one timber sale suggest that detrimental soil compaction, as defined by regional standards and guidelines, may have occurred. However, further monitoring of mechanical harvester use is needed to test this preliminary finding. The resource area intends to monitor future timber sales (one per year) using quantitative methods in order to accumulate more data from which conclusive findings about the extent and degree of soil compaction associated with use of a mechanical harvester can be made. A copy of the 1998 soil monitoring report detailing the methods and results of the monitoring study can be obtained at the resource area office.

## **Wildlife Habitat**

(RMP/ROD, Appendix K, page K-9)

### **Implementation**

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 functions in harvested areas as called for in the SEIS/ROD Standard and guidelines and resource management plan management direction? Answer: Yes. Stand exams both before and after harvest show abundant snags and coarse woody debris. Prescriptions leave an adequate number of green trees of various sizes.
2. Are special habitats being identified and protected? Answer: 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 design phase of the activities and protected using the Best Management Practices identified in the RMP. Other habitats, such as meadows important to great gray owls, are identified during surveys and buffers are established. Yellow rail, spotted frog, goshawk, and great gray owl habitats have been identified. Salvage harvests have been beneficial in protecting special habitats from wild fire.

Fifteen unmapped Late Successional Reserves (LSRs) have been established. Prior to timber sales or other management actions, LSR boundaries are posted and painted. A draft LSR assessment, to be completed in April of 1999, will evaluate the condition of each LSR and provide recommendations for enhancement where needed.

3. What is the status of designing and implementing wildlife restoration projects? Answer: In 1996, a juniper management program was created to maintain future nest trees for bald eagles and improve deer winter range habitat. The project was designed to restore historic conditions on habitats by removing encroaching juniper from around ponderosa pine to allow growth and development of the pine for eagles. Juniper is being thinned or removed in big game winter ranges where the shrub communities have been reduced by the number or density of juniper. On these important areas for big game, bitterbrush is being planted after

the area has been treated. The project area is east of Klamath Falls and is an ongoing project.

Another wildlife restoration project was planting of 60 acres of bitterbrush, 30 acres each in 1997 and 1998. Brixner Junior High School and Oregon Hunter's Association, along with the Oregon Department of Fish and Wildlife, assisted in these projects.

In addition areas of dense oak stands are thinned and burned to promote an oak savanna type stand with large trees, good mast crops, and important habitat for woodpeckers, deer, and turkeys. To date, approximately 100 acres of this type of treatment have been treated under a contract.

4. What is the status of designing and constructing wildlife interpretive and other user-enhancement facilities? *Answer:* Work is underway to establish the Wood River wetland area as an interpretive site. Informational signs and trails are continuously being installed to inform the public about wetland habitat. A variety of different programs presented to the public and school groups on wetlands and the restoration project (see Outreach section of this document).

In the Gerber reservoir area, a watchable wildlife brochure was produced to inform the public about the area and the wildlife that live there. The brochure has been given to visitor centers and other agencies for distribution to the public.

Spencer Creek Education site, a piece of land west of Klamath Falls, has been designated as an environmental educational site. At this site Oregon Extension Service annually plans three days to teach sixth graders in the county and city schools about the importance of the forest ecosystem. Last year the site was evaluated and hazard trees were cut.

Plans are to continue improving these sites and promoting awareness of natural resources. One example is a brochure being planned for Klamath River Canyon and Wood River to inform the public of wildlife and their importance in these areas. Also, education talks will continue to inform the public about what the BLM does for wildlife and their habitat.

5. Are elk herds on BLM-administered lands stable or increasing? *Answer:* The elk population in the resource area continues to grow. The BLM, Rocky Mountain Elk Foundation, and Oregon Hunters Association all participated in a radio telemetry study in the Pokegama area. The BLM continues to use this information in designing on the ground activities and the timing of activities in order to avoid the critical areas and use periods.

The BLM cooperates with ODFW on elk management by reporting elk concentrations, coordinating survey flights, if possible, and seeking out their input on major timber sales. Other elk management activities fall under the category of general big game management such as timber sale design, roadside buffers and road closures.

The resource area continues to have seasonal road closures as a means of reducing impact on wildlife, especially at critical habitat times of the year. Road closures are accomplished by gates and physical blocks to road obliteration. Most road closures are completed when the area is entered for a timber sale. To monitor the condition of road closures, BLM has enlisted the help of volunteers from the Oregon Hunters Association. These individuals check on gates and report if closures are effective, and repair or make recommendations on how to

make closures more effective. The most effective part of this relationship is that a lot of this volunteer monitoring occurs on weekends, and the volunteers are able to talk with the public to explain the purpose of the closures.

Habitat improvement activities are also designed around big game winter ranges. Prescribed fire is done to maintain and rejuvenate chaining areas. Juniper management was conducted on areas where the juniper has severely reduced the shrub community. Bitterbrush was planted on some areas that had been manually treated or burned.

6. Are range conditions stable or is there obvious competition between resources? Answer: Range conditions were evaluated in 1997 and 1998 by conducting the Ecological Site Inventory (ESI) on most range lands on the eastside of the resource area. The ESI showed the range conditions are in good to excellent shape. Cole browse transects also indicate that forage conditions are in good shape.

Additional monitoring surveys are conducted annually. Use mapping is done on appropriate pastures, trend plots are read and photos taken on a periodic basis, and riparian surveys are conducted in pastures containing special status species.

7. Are facilities or improvements functional and providing desired management results? Answer: Currently, 9 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 very plentiful. In the past, maintenance of these water sources was through a challenge cost share with the Oregon Department of Fish and Wildlife.

In the Gerber area, approximately 96 goose boxes are maintained with help from Oregon Hunters Association and Girl Scouts. These goose boxes, as well as approximately 12 wood duck boxes (also in the Gerber area), have been GPSed and mapped.

8. Is BLM protecting special habitats as provided for in the resource management plan? Answer: 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 design phase of the activities and protected using the Best Management Practices identified in the RMP. Other habitats such as meadows important to great gray owls are identified during surveys and buffers are established.

District Designated Reserve Buffers (DDRBs) have been established around all spotted owl nest cores, per RMP guidance. The need for special spotted owl habitat silvicultural prescriptions within these DDRBs is evaluated during timber sale planning.

Site-specific examples are the North Miners Salvage Sale (120 acres) and Johnson Too Timber Sale (300 acres) where a specific silvicultural prescription was implemented to protect and improve owl habitat. In 1998, both the Johnson Too and Miner's Creek spotted owl pairs moved from LSRs to the buffer areas where these salvage and habitat treatments occurred over the previous three years. Both of these spotted owl pairs nested.

9. Is the average width of undisturbed buffers retained following timber harvest and site preparation activities as specified in the resource management plan? Answer: Yes. Buffers

are established according to RMP guidelines. Buffers are checked during the post timber sale review on 20 percent of the sales reviewed. For specific information on riparian reserves, see K-2 (2 and 3).

## **Fish Habitat**

(RMP/ROD, Appendix K, page K-10)

1. Are at-risk fish species and stocks being identified? *Answer:* Shortnose and Lost River suckers are being monitored annually in streams in the Gerber area and Wood River Wetland. Historic bull trout habitat has been identified, but surveys done to date have not found any bull trout.
2. Are fish habitat restoration and enhancement activities being designed and implemented which contribute to attainment of Aquatic Conservation Objectives? *Answer:* Riparian reserves and buffers around springs and meadows have been established to reduce impacts to meet ACS objectives. Also, the Wood River restoration projects that were implemented in FY96-98 are helping to meet Aquatic Conservation Objectives.
3. Are potential adverse impacts to fish habitat and fish stocks being identified? *Answer:* Stream habitat surveys have been conducted on the westside of the resource area. To date, 76 miles of Proper Functioning Condition surveys have been completed on the resource area. Section 7 consultation on shortnose suckers for the Gerber area is coordinated annually.
4. Are habitat improvement projects and opportunities being identified? *Answer:* Annual stream surveys have identified miles for habitat improvement. Among some improvement projects and opportunities are the Barnes Valley ford crossing, which needs to be improved for sucker spawning. There are also culverts identified for replacement to improve additional access to spawning habitat. Some riparian areas in the Gerber area have been fenced to improve habitat, and one additional fencing project is planned. The resource area plans to purchase fish screens for Wood River Wetland pumps.
5. Are fish populations adequate to provide present and expected future recreational needs? *Answer:* Resident warm water fish populations in Gerber Reservoir are showing an increase since the 1992 drought period. Because Gerber Reservoir is habitat for the endangered sucker, fish stocking is not done there. However, other reservoirs on the eastside are being stocked by Oregon Department of Fish and Wildlife. A fish habitat enhancement project on the resource area is rechanneling of Wood River.

## **Special Status and Supplemental Environmental Impact Statement Special Attention Species Habitat**

(RMP/ROD, Appendix K, page K-11)

### **Implementation Monitoring**

#### ***For Wildlife***

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

Answers: The Klamath Falls Resource Area has consulted with Oregon Department of Fish and Wildlife and the U.S. Fish and Wildlife Service on various management projects. See Question 3 for more detailed information and the APS text summarizing management accomplishments for special status species and SEIS Special Attention Species. Also see below for responses by individual species and status categories.

### ***Endangered, Threatened and Proposed***

Northern Spotted Owl: Thirteen historic sites are being monitored for occupancy and reproductive success along with two years of surveys being conducted prior to any ground disturbance in areas of potential spotted owl habitat. See APS text under wildlife for details.

The resource area maintains spotted owl cores (unmapped LSRs) within matrix land. Designated District Reserve Buffers (DDRB's) are designed to protect and enhance conditions of late-successional and old growth forest stands surrounding or adjacent to unmapped LSR's. No habitat modification or tree falling occurs within .25 mile of active nest sites from approximately March 1- September 30.

Bald Eagle: Aerial surveys are conducted annually, in cooperation with The Oregon Eagle Foundation, on known eagle territories to determine occupancy, new nest sites, nesting activity, and reproductive success. Ground surveys are used in areas that aerial surveys are not conducted or nesting status could not be determined during aerial flights. The resource area also participates in annual mid-winter counts. See APS text under wildlife for details.

There are 30-acre buffers provided for each nest site and management activities are restricted within 0.25 mile (or 0.50 mile) line of sight for occupied territories from January 1 - August 31. All forest management is consistent with the Pacific Bald Eagle Recovery Plan.

Canada Lynx: The resource area set up and monitored forest carnivore photo stations in cooperation with Oregon Department of Fish and Wildlife on BLM and Forest Service lands from December 1997- March 1998. In December 1998, photo stations were setup and monitored on resource area lands. To date, no lynx have been detected. See APS text under wildlife for details

### ***Protection Buffer Species***

Great Gray Owls: To date, two years of protocol surveys have been completed prior to any ground-disturbing activity. Four areas have had male detections, but at the end of 1998 surveys no great gray owl nest location had been found on BLM-administered lands in the Klamath Falls Resource Area. One nesting attempt was documented on private lands adjacent to the resource area. See APS text under wildlife for details.

Buffer management strategies are currently being developed in coordination with the Regional Ecosystem Office. When nest areas are located, the resource area will comply with the standards and guidelines set forth by the Northwest Forest Plan.

### ***Survey and Manage Species***

Terrestrial and Aquatic Mollusks: In the spring of 1998, Survey and Manage terrestrial mollusk surveys were initiated for three planned timber harvest areas. These surveys targeted mollusk species that the resource area may have potential habitat to support. One spring and two fall surveys were conducted in potential habitat areas. The second survey is expected to be completed in 1999, prior to the sale of units having the S&M mollusk species.. Two of the three survey areas documented the presence of *Prophysaon coeruleum* (blue gray tail-dropper). See APS text under wildlife details

There was no potential habitat for S&M aquatic mollusk species in any of the resource area's FY99 timber sales. Therefore, no aquatic mollusk surveys were conducted in these areas. However, three species of aquatic mollusks were documented from three non-project areas during contract surveys. Management recommendations and strategies are currently being developed for known sites.

### Bureau Sensitive Species

Northern Goshawk: Known sites are monitored to locate current activity centers and nest sites. Also, surveys are conducted for nesting goshawks in suitable habitat in all areas prior to ground disturbing management. The RMP provides for 30-acre buffers around historic and future activity centers. See APS text under wildlife for details.

2. Are the actions identified in plans to recover species being implemented in a timely manner?  
Answer: Recovery plans are met or exceeded.
3. What coordination with other agencies has occurred in the management of special status species? Answer: All major ground-disturbing activities involve discussions with the USFWS concerning special status species. This may consist of a verbal discussion, or range up to and include a formal biological assessment. As identified below, the resource area also has additional agreements or cooperative efforts with other agencies on specific species.

### **Endangered, Threatened, and Proposed Species**

Northern Spotted Owl - The KFRA worked cooperatively with the Winema National Forest, Weyerhaeuser, U.S. Timberlands, and Boise Cascade to monitor known breeding sites and conduct surveys in proposed timber sale areas. (See APS text under wildlife for details).

Bald Eagle - The Oregon Eagle Foundation leads the annual cooperative effort to monitor the occupancy and production state wide.

### **Bureau Sensitive Species**

Spotted Frog - The resource area participated in cooperative efforts with Winema NF, USFWS and ODFW to inventory and monitor populations of spotted frogs and other amphibians. Marc Hayes of Portland State University led this cooperative work.

Yellow Rail - Participated in a Challenge Cost Share Project with The Nature Conservancy, Winema National Forest, and Oregon Department of Fish and Wildlife to support a study of the largest population of breeding yellow rails in Oregon (See APS text under wildlife for details).

*Neotropical migratory birds* - Participated in a Challenge Cost Share Project with Pacific Southwest Research of the U.S. Forest Service, Point Reyes Bird Observatory, PacifiCorp, and the Winema National Forest for collection of data on demographics, migration, and baseline presence/absence information on neotropical migratory birds on BLM, PacifiCorp and National Forest Lands in the Upper Klamath River Basin (See APS text under wildlife for details).

*Townsend's big-eared bat* - Participated in a cooperative agreement with Southern Oregon University (SOU) to provide information on the status of the maternity colony at Salt Caves and to provide recommendations regarding restricted access to the caves. SOU also tested a bat monitoring protocol of all forest bats on KFRA lands (See APS text under wildlife for details).

4. What land acquisitions occurred or are underway, to facilitate the management and recovery of special status species? *Answer:* None identified.
5. What site-specific plans for the recovery of special status species were or are being developed? *Answer:* None.
6. What is the status of analysis which ascertains species requirements or enhances the recovery or survival of a species? *Answer:* In 1993, the U.S. Fish and Wildlife recovery plan of the shortnose and Lost River suckers was developed. In FY96-98, the resource area implemented projects to improve water quality and riparian habitat at Wood River Wetland. There has been consultation over the past five years in the Gerber area on grazing management as it relates to suckers. A rangeland monitoring system is in place to meet the requirements of the biological opinion and land use plan.
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? *Answer:* The habitat silvicultural prescription has improved stand conditions for the long-term maintenance of suitable spotted owl nesting and foraging habitat and also decreased fire risk. Implementing Best Management Practices as identified in the RMP has also improved habitat.

### ***For Plant Species***

1. Are special status species being addressed in deciding whether or not to go forward with forest management and other actions? During forest management and other actions that may disturb special status species, are steps taken to adequately mitigate disturbances? *Answer:* Yes, through the interdisciplinary team process.
2. Are the actions identified in plans to recover species being implemented in a timely manner? *Answer:* For plant species there are no federally listed species known to occur on resource area lands, and there are no recovery plans. However, several special status species in other categories have had Conservation Strategies written, and the recommendations in those documents are being pursued.
3. What coordination with other agencies has occurred in the management of special status species? *Answer:* Two of the Conservation Strategies that have been written for special status plant species were produced by the Oregon Department of Agriculture (ODA) through a Challenge Cost Share (CCS) agreement. A current project to reintroduce a special status plant species to former habitat on

federal lands is also in cooperation with ODA through a CCS agreement. We also assist the Nature Conservancy (TNC) with the monitoring of environmental conditions at a TNC preserve that contains a federally listed plant species, in order to help them determine the timing of management actions.

4. What land acquisitions occurred or are under way, to facilitate the management and recovery of special status species? *Answer:* None for special status plant species. However, the Conservation Strategy for Columbia cress (*Rorippa columbiae*) recommends acquisition of private lands supporting a significant percentage of the known population within the resource area.
5. What site-specific plans for the recovery of special status species were or are being developed? *Answer:* A CCS project in cooperation with Oregon Department of Agriculture and Oregon State University to begin in FY1999 will test various field propagation techniques to reintroduce a special status plant species (*Perideridia erythorrhiza*) to former habitat on federal lands.
6. What is the status of analysis which ascertains species requirements or enhances the recovery or survival of a species? *Answer:* Three conservation strategies (CS) have been prepared for special status plant species that occur on the resource area. The species are Bellinger's meadowfoam (*Limnanthes floccosa* ssp. *bellingermana*), Columbia cress (*Rorippa columbiae*), and red-root yampah (*Perideridia erythorrhiza*). The Conservation Strategy reviews the species' distribution throughout its ranges, the status and trend of each population (if known), and makes recommendations for conservation and/or recovery of the species.
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? *Answer:* The fences at the Four Mile property have been repaired such that they are effective in controlling the movements of livestock. The southwest portion of this property is potential habitat for red-root yampah and contains the BLM site included in the reintroduction study. Exclusion of livestock for a period of time, and limited season of use thereafter, will help restore the community structure and species composition of this site.

## Special Areas

(RMP/ROD, Appendix K, page K-13)

### Implementation Monitoring

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? *Answer:* Yes.
2. What is the status of the preparation, revision, and implementation of areas of critical environmental concern management plans? *Answer:* The Wood River Wetland ACEC was designated through its own RMP/EIS, which is complete. The construction phase of this plan is nearly complete, and implementation of the desired hydrological regime began in FY1998. No other plans for ACECs have been initiated. Other planning priorities have limited the ability of the RA to write these plans. These other priorities include watershed analyses and Late Successional Reserve assessments required under the Northwest Forest Plan. The Klamath River Wild and Scenic River Plan that is expected to begin in FY00 will be developed to serve as the ACEC plan (see Recreation section).
3. What environmental education and research initiatives and programs are occurring in the research natural areas and environmental education areas? *Answer:* No research or education

activities have occurred within our single RNA, but we are seeking support for monitoring of the shrub community before and after a proposed prescribed burn in the area that may include a portion of the RNA. The Clover Creek Environmental Education Area is the site of the annual forestry field school for sixth graders in Klamath County.

4. Are existing BLM actions and BLM authorized actions and uses not consistent with management direction for special areas being eliminated or relocated? *Answer:* Yes. A fence has been constructed around the Surveyor Old Growth Education Area to excluded livestock that may affect the understory component of the old growth community. Most of the boundary of the Old Baldy RNA has be marked and located with a GPS to exclude areas affected by past timber sales and future timber sales from the area. A fence has been constructed around the Tunnel Creek Special Botanical Area to control livestock use.
5. Are actions being identified which are needed to maintain or restore the important values of the special areas? Are the actions being implemented? *Answer:* Yes. Fire is being reintroduced into some of these areas to restore its role as an ecosystem process. Yainax Butte ACEC supports a large population of a special status plant thought to be fire dependent. Old Baldy RNA was designated to represent a shrub plant community that is maintained by periodic fire. Fuel loads in the Klamath River Canyon ACEC need to be reduced with prescribed fire to decrease the risk of a catastrophic fire, and prescribed fire will restore the species composition and structure of the native plant communities.

## **Cultural Resources Including American Indian Values**

(RMP/ROD, Appendix K, page K-14)

### **Implementation**

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 my disturb cultural resources, are steps taken to adequately mitigate disturbances? *Answer:* Generally, cultural resource concerns are being addressed prior to project activities associated with forest management and other actions. When cultural resources occur within project areas, steps, such as flagging and demarcating sites, are taken to ensure that properties are protected. Project leaders are made aware of the sites and advised to avoid them. Difficulties can be encountered when significant sites are discovered in areas where no cultural materials were discovered during survey. Some difficulties have been encountered within the juniper woodland management program and prescribed burn program due to the numerous projects and need for increased coordination and support.
2. What mechanisms have been developed to describe past landscapes and the role of humans in shaping those landscapes? *Answer:* Few formalized mechanisms have been developed within the cultural program to investigate the role of humans in shaping past landscapes. Within the Klamath River Canyon, some work has been performed along this avenue of research by Joanne Mack (Professor at University of Notre Dame) and Don Todt (City of Ashland, Parks and Recreation). Also, past landscape usage was investigated during development of Topsy/Pokegama Landscape Analysis and the Spencer Creek Watershed Analysis.
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? *Answer:* Discussion is being initiated to develop a district wide MOU with the Klamath Tribes. A site-specific MOU may be developed with the Klamath Tribes for cultural sites encountered during Wood River construction activities. The resource area archaeologist meets monthly with the Klamath Tribes to discuss various projects and issues.

4. What public education and interpretive programs were developed to promote the appreciation of cultural resources? *Answer:* Numerous lectures and slide shows have been presented at high schools, grade schools, and Oregon Institute of Technology. A summer field school was held cooperatively with Southern Oregon University. Formal training in archaeological survey techniques has been offered in two separate week-long training sessions. Textbooks on Oregon's Past have been distributed to grade schools as instruction tools for promoting greater archaeological appreciation and relevance. Volunteers are actively encouraged to participate in field survey and other work.

## **Visual Resources**

(RMP/ROD, Appendix K, page K-15)

### **Implementation**

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? *Answer:* To date, there have been no problems in managing for VRM classes. The contrast rating system or other estimates of visual resource changes are made during project planning. Mitigation measures and design features are included during project planning for projects such as timber sales and a proposed pump storage hydroelectric powerplants.

Timber sales in the resource area typically propose light harvest or thinning, removing approximately 20 percent of the timber stands. A variety of age, size class and species are typically retained. In VRM Class II areas or other sensitive areas, additional design features and mitigation are included during project planning. Similar measures are applied for small scale projects, such as remote weather stations, and range and wildlife projects.

## **Wild & Scenic Rivers**

(RMP/ROD, Appendix K, page K-16)

### **Implementation**

1. Are BLM actions and BLM-authorized actions consistent with protection of the outstandingly remarkable values of designated or suitable rivers? *Answer:* Yes, no timber harvest has occurred within the Wild and Scenic corridor. "Gap" fencing has occurred along the canyon rim to reduce or eliminate permitted range cattle grazing in riparian areas. VRM issues are addressed during project planning. Cultural resources uncovered during high water flows have been protected. Fish, wildlife, recreation and cultural resource monitoring has taken place on a regular basis. The resource area has a signed memorandum of understanding with Oregon State Parks on joint management of the Wild and Scenic river/State Scenic Waterway. We anticipate beginning the initial steps in the development of a Wild and Scenic River plan in FY00, in conjunction with the State of Oregon and PacifiCorp. PacifiCorp, which has extensive landholdings along the Klamath River, expects to file a letter of intent with the Federal Energy Regulating Commission (FERC) indicating it intends to file for a new license application for the Klamath Projects in October 2000.

2. Are existing plans being revisited to conform to Aquatic Conservation Strategy Objectives? Are revised plans being implemented? *Answer:* The Upper Klamath Wild & Scenic River is being managed under a Recreation Area Management Plan completed in 1983. As an interim measure until a new River Management Plan is completed, management actions are designed and implemented to conform to Aquatic Conservation Strategy objectives. Roads have been resurfaced to minimize sediment run-off into the river, and several access roads and ways have been closed to motorized vehicles to reduce erosion.
3. Do actions and plans address maintenance or enhancement of the outstandingly remarkable values? *Answer:* Various actions have been implemented to maintain or enhance the following outstandingly remarkable values:

*Recreation:* In meetings with the utility company that operates upstream hydropower plants and controls the daily waterflows, BLM has advocated for consistent water flows that are adequate for white water boating.

*Cultural:* Work was done to protect and stabilize human remains eroding from a river bank. See the APS text under Cultural Resources for more details.

*Wildlife:* The canyon has been surveyed and monitored for Federally listed, Threatened, and Endangered species, including bald eagle, northern spotted owl, and northern goshawk. See the APS text under Wildlife for more details.

## **Rural Interface Areas**

(RMP/ROD, Appendix K, page K-17)

### **Implementation**

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? *Answer:* Management actions in rural interface area are developed in a manner to avoid or minimize impacts to residents, property and related values.

## **Socioeconomics**

(RMP/ROD, Appendix K, page K-18)

### **Implementation**

1. What strategies and programs have been developed, through coordination with state and local governments, to support local economies and enhance local communities? *Answer:* Since 1991, the resource area has been participating in a unique partnership of government and private recreation and tourism providers: Klamath/Lake/Modoc Outdoor Recreation Working Group. For FY99, there has been \$5,000 provided to produce a series of recreation activity brochures, highway rest stop displays, and tear-off sheet maps for visitors to the southern Oregon, northern California region. The group meets approximately every two months, sharing information on projects and events, exploring opportunities for partnerships and coordination, and promotion of local tourism. Other outcomes of this group include a detailed tourism marketing analysis, promotion of National Scenic Byways, and a spin-off group of front line tourist contacts that meets monthly to discuss and share regional

recreation/tourism event (Answer People). Several recreation pipeline projects are expected to enhance tourism, including Wood River Wetland and Hamaker Mountain Sno park.

2. Are resource management plan implementation strategies being identified that support local economies? *Answer:* Recreation facilities within such areas including the upper Klamath River and several campgrounds (Surveyor, Gerber and Topsy) are receiving infrastructure enhancements to improve visitor experiences and meet user expectations. Additional enhancements such as new trails, designated Backcountry by-ways, interpretive displays, and brochures will be developed as funding allows.
3. What is the status of planning and developing amenities that enhance local communities, such as recreation and wildlife viewing facilities? *Answer:* Reference #2 above, the sections addressing Recreation and Wildlife, and the Wood River Wetland area accomplishments in this document.

## **Recreation**

(RMP/ROD, Appendix K, page K-19)

### **Implementation**

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

*Answer:*

*Pacific Crest National Scenic Trail* - To be coordinated by Medford BLM District.

*Klamath River Complex SRMA* - A memorandum of understanding was recently signed with Oregon State Parks on joint management of the Wild and Scenic River/State Scenic Waterway. The initial steps in development of a Wild and Scenic River Plan is expected to begin in FY000, in coordination with the State of Oregon and Pacific Power, a large private landowner along the river. The wild and scenic river plan will incorporate recreation management planning.

*Hamaker Mountain SRMA* - Recreation analysis of issues and projects was completed during the Topsy/Pokegama Landscape Analysis (OR#014-98-01). Further project planning is ongoing for future recreation project developments.

*Stukel Mountain* - No recreation planning or watershed analysis has occurred. However, a local county advisory group (Stukel Road Task Force) has completed a preliminary assessment of recreation issues for the area. This information will be incorporated into future planning and project implementation.

Also, site-specific planning for ongoing recreation pipeline restoration funding projects is ongoing at several facilities, including Gerber North campground, Stateline recreation site, and Hamaker Mountain.

## **Timber Resources**

(RMP/ROD, Appendix K, page K-20)

### **Implementation**

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 Supplemental Environmental Impact Statement Record of Decision Standards and Guidelines and resource management plan management objectives?

*Answer:* The amount of volume and number of acres treated is provided in Tables S-1. The decadal projections in Table S-1 are based on 9.33 years, because the KFRA was signed on June 2, 1995. Approximately 22 MMBF (40 percent of the decadal projection) and 8,674 acres (97 percent of the decadal projection) have been treated. Table 21 compares project volume to actual volume and acres harvested to date.

| <b>Table 21. Comparison of Harvest Volume and Acres (Projected Versus Actual)</b> |                               |                           |                        |                     |
|---|-------------------------------|---------------------------|------------------------|---------------------|
| <b>Harvest Method</b>   | <b>Projected Vol.<br/>MBF</b> | <b>Actual Vol<br/>MBF</b> | <b>Projected Acres</b> | <b>Actual Acres</b> |
| <b>Westside</b>   |                               |                           |                        |                     |
| Density Management  | 16,985                        | 10,202                    | 2757                   | 3,000               |
| Selective Cutting   |                               | 2,771                     |                        | 0 (Mods)            |
| Patch Cuts  |                               | 818                       |                        | 72                  |
| Small Sales   |                               | 47                        |                        |                     |
| Regeneration Harvests   | 2,687                         | 0                         | 436                    | 0                   |
| Mortality Salvage   | 0                             | 8,224                     | 0                      | 5,600               |
| R/W Clearcut  | 0                             | 4                         | 0                      | 2                   |
| <b>Totals</b>   | <b>19,672</b>                 | <b>22,066</b>             | <b>3,193</b>           | <b>8,674</b>        |
| <b>Eastside</b>   |                               |                           |                        |                     |
| Density Mgt./Comm.<br>Thinning./Uneven-<br>aged Mgt/small sales                   | 1,183                         | 599                       | 896                    | 239                 |
| Regeneration Harvests   | 145                           | 0                         | 110                    | 0                   |
| Mortality Salvage   | 0                             | 1,064                     | 0                      | 1,000               |
| <b>Totals</b>   | <b>1,328</b>                  | <b>1,663</b>              | <b>1,006</b>           | <b>1,239</b>        |

The large discrepancy between projected versus actual acres treated is the result of a combination of factors. No regeneration harvests were planned in the first 3.33 years of the RMP implementation. Under the RMP, approximately 131 acres were planned per year (Table 13). There are two primary reasons for no regeneration harvests to date. First, there has been a higher priority to thin the numerous overstocked middle-aged stands (30 to 80 years old) to improve the resiliency of these stands. Because of the high densities in these stands, many of the residual old-growth and second growth pines within them are at increased risk to insect attacks and stand replacing fires. As a result, harvest treatments have been concentrated in these high risk stands. Second, many of the older stands (80+ years) continue to experience single tree and small clump mortality from primarily bark beetles.

This mortality is scattered across most of the westside. Much of the on-going mortality is in excess of the projections in the Trim Plus analysis and in excess of snag recruitment needs. Therefore, the Klamath Falls Resource Area chose to offer and/or negotiated five mortality salvage type sales to capture the on-going excess mortality. Approximately 5,600 acres have received a mortality salvage treatment thus far. The treatments have varied from removal of a single tree per acre up to a small one to three acre patch cut in a heavy windthrow area. Approximately 8 MMBF of timber has been mortality salvaged, to date, which amounts to removal of about 1.5 MBF to 2.0 MBF per acre. In contrast, a

regeneration harvest is likely to average 15 MBF to 30 MBF per acre. A formal monitoring exercise was completed on one of the mortality salvage sales; one of the beneficial impacts documented and submitted by the review team was maintenance of late-successional habitat characteristics upon completion of the treatment. The impacts of treating more acres with a lighter harvest level such as a mortality salvage versus treating less acres with a higher harvest level (regeneration harvests) will be addressed during the Third Year Evaluation.

Four density management/selective cutting sales have been offered through September 1998. These sales amount to approximately 3,072 acres and 10.9 MMBF. Average volume per acre removed has been about 3.4 MBF, varying from 5.3 MBF/acre on Too Frosty Timber Sale to 2.2 MBF/acre on Grenada East Timber Sale. The RMP projected treating approximately 828 acres per year (2,757 acres to date) using density management/commercial thinning/uneven-aged management prescriptions and removing approximately 6.1 MBF/acre. There has been some differences between the actual amount of volume removed and projected amounts on a per acre basis.

One reason for this situation is that sales proposed to date have been in younger, higher risk stands that have lower volumes per acre. These stands are primarily lower elevation stands that are experiencing higher mortality rates. Another reason is the conservative approach in implementing the 16 to 25 large green trees per acre standard and guide. Realizing that much of the Klamath Falls Resource Area is experiencing forest health related problems from drought and past harvesting practices, resource area staff have focused uneven-aged management treatments on treating the understory components of the stands (trees 3" to 16" DBH). For example, most old growth residual trees have been left, and harvest has been concentrated on treating the understory beneath them to improve the resiliency of older trees and reduce fire hazards. As a result, the volume per acre projected in the RMP is not being achieved. However, similar to the benefits of mortality salvage, post-treatment monitoring of the resource impacts appear less than originally analyzed and the residual habitat after the harvest is continuing to provide habitat for species dependent on late-successional characteristics.

In summary, the acres treated exceed those projected in the RMP, primarily due to mortality salvage type harvest treatments that treat a large number of acres but with a lighter treatment. The impacts of treating more acres with a lighter treatment will be addressed in the Third Year Evaluation. Initial post-harvest monitoring results indicate that late-successional habitat characteristics have been retained in many of the treated areas.

Additionally, post-harvest monitoring of two known pairs of northern spotted owls has revealed that the owls actually nested in harvested areas and are continuing to use these harvested areas for nesting, roosting, and foraging habitat.

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? *Answer:* Completed silvicultural treatments are shown in Table S-1 of this 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 considered forest health practices. In each prescription, retention and maintenance of particularly pine species was emphasized to help increase the pine species composition levels into a historic range. Even in the mortality salvage sales, some thinning was done around the larger old growth for enhancement purposes. Elevated fuel level concerns were primarily addressed in the density management sale prescriptions. All prescriptions were designed to leave harvested stands with reduced fuel loads, lower stand replacing fire risk, and in a condition where follow-up underburns could be implemented in the stand.

## **Effectiveness and Validation Monitoring**

Is the long-term health and productivity of the forest ecosystem being protected in the Matrix?

*Answer:* To date, most timber sales have maintained the long-term health of most of the forest ecosystem. As stated above, late-successional habitat is being maintained in many stands after treatment. Annual monitoring indicates late-successional species are using the stands after treatment.

In regards to soils, initial soil monitoring plots (see Water and Soils section) indicates that detrimental soil disturbance may be occurring above analyzed impacts. Additional monitoring is needed to confirm initial findings. Only one sale has been quantitatively monitored to date. Much of the soil monitoring impact centers around the use of mechanical harvesters on density management sales.

Historically, submerchantable material was treated primarily with precommercial thinning contracts. The submerchantable material was thinned and the slash was left in the stands, which elevated the fire risk for years. In contrast, KFRA density management sales have been written to thin both the submerchantable and sawlog material simultaneously. The benefits of using this method is less entries into the stand, reduce fuel loads and ladder fuel arrangements, savings in subsequent precommercial contracting prices, and increased vigor of the understory. The disadvantage is primarily increased detrimental soil disturbance caused by the mechanical harvester. Additional sales need to be monitored to collect more quantitative data.

## **Special Forest/Natural Products**

### **Implementation Monitoring**

1. Is the sustainability and protection of special forest/natural product resources ensured prior to selling special forest products? *Answer:* To date this has not been an issue because the demand has been primarily on special/natural products, which can be readily found (see Tables 15 and 16 in the Special Forest Products section). Permits have been issued primarily for wood products/firewood, juniper boughs, Christmas trees, mushrooms, and transplants. The only permit request denied to date has been the cutting of incense cedar boughs. The primary reason for this has been the on-going mortality of incense cedar in many stands south of Highway 66.
2. What is the status of the development and implementation of specific guidelines for the management of individual special forest/natural products? *Answer:* The Lakeview District Office received from the Oregon State Office an updated Handbook 5400-2 addressing

Special Forest Products in June of 1995. In addition, the Lakeview District individually develops specific harvesting guidelines for products to ensure sustainability and permit compliance. For example, for bough harvest, permittees are asked 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. All permit issuances consider weather conditions to minimize road damage and fire risk.

### **Effectiveness and Validation Monitoring**

1. Are special forest products being harvested at a sustainable level? *Answer:* Yes. See response above and Tables 15 and 16 in the Special Forest Products section. The demand for special forest products in the Klamath Falls Resource Area is significantly less than the annual production. The one exception may be the amount of firewood that can be provided. Historically, firewood was obtained from landings where harvesting operations had just been completed. Recent timber sale contract stipulations require higher utilization standards including removal of all log material from landings in the form of chips, poles, cull logs, or sawlogs. In addition, larger cull logs are required to remain in the stands for coarse woody debris structure. As a result, less firewood is available from timber sale operations. However, much of the resource area's firewood demands has been met by the cutting of excess junipers on east-side lands.

### **Grazing Management**

(RMP/ROD, Appendix K, page K-22)

### **Implementation Monitoring**

1. Are allotments and herd management area goals and objectives being achieved with current management as specified on a allotment specific basis? *Answer:* Generally yes, on a priority allotment basis. This means that allotments in the "I" and "M" categories, that are identified for livestock use reductions in the RMP, are under section 7 consultation, containing 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. Lower priority "C" allotments are generally also meeting the minimal objectives set for these areas. The currently ongoing process of assessing all allotments 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 is scheduled to extend over the period 1999 to 2008.
2. Are the appropriate standards and guidelines, applicable to livestock and wild horse grazing, being correctly applied and followed? *Answer:* See response to #1 above.
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? *Answer:* 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 will be reviewed to ensure consistency.

## Effectiveness and Validation Monitoring

1. Are current grazing systems and levels effectively enhancing riparian and wetland sites as emphasized in this Proposed Resource Management Plan and the Aquatic Conservation Strategy Objectives? *Answer:* Monitoring data collected to date, including quantitative and qualitative, has affirmed that grazing use in important riparian/wetland areas is consistent with or moving significantly towards meeting the listed objectives and the LUP.
2. Are current grazing levels within the sustained yield capacity of the lands potential? *Answer:* Monitoring data collected, to date, on priority allotments has affirmed that grazing use is within the capacity of the lands potential. The Standards and Guides Assessments scheduled for the next 10 years will address this issue on an allotment basis. It is a work in progress.
3. (Are) Rangeland improvement projects consistent with meeting the objectives of all resources addressed in the Proposed Resource Management Plan as well as the Aquatic Conservation Strategy and Late-Successional/District Designated Reserve objectives? *Answer:* Rangeland improvement projects are believed to be meeting, or making significant progress towards meeting, all of the objectives in the LUP. Also see the answer to the first #3 above.

## Noxious Weeds

### Implementation Monitoring

1. Are noxious weed control methods compatible with Aquatic Conservation Strategy Objectives? *Answer:* Yes. Herbicides are applied in strict accordance with EPA approved label instructions, which include guidelines and/or restrictions for application in or near aquatic environments. Therefore, water quality objectives in the Aquatic Conservation Strategy are not violated. Control of noxious weeds on public lands would promote attainment of biodiversity and ecological process objectives of the Aquatic Conservation Strategy by eliminating non-native species that may exclude components of the native plant community and interfere with ecological processes within watersheds.

## Fire/Fuels Management

1. Have analysis and planning been completed to allow some natural fires to burn under prescribed conditions? *Answer:* EA # OR014-94-09 (tiered to RMP) discussed the use of natural fire in random selected areas. The RMP discussed operation of the Bumpheads Conditional Suppression Area (CSA). Both methods permit the use of fire under “natural conditions.” Late-successional reserve and riparian reserve plans have not been completed to allow the use of fire in these areas.
2. Do wildfire suppression plans emphasize maintaining late-successional habitat? *Answer:* The Lakeview Fire Management Plan (1998 version) emphasizes maintenance of late-successional reserve habitat.
3. Are Wildfire Situation Analyses being prepared for wildfires that escape initial attack? *Answer:* Wildfire Situation Analyses are completed for wildfires that escape initial attack.

4. What is the status of the interdisciplinary team preparation and implementation of fuel hazard reduction plans? *Answer:* EA # OR014-94-09 provides the basis for fuels and fire management on all lands within the RA. Special areas ( LSR and RR ) will have plans developed prior to implementation as required by RMP, the IDT will develop as needed.

## **Appendix C**

### **Modifications Being Considered**

### **For Survey & Manage/Protection Buffer Guidelines**

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

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

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

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

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

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