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

Lakeview District Office  
HC10 Box 337, 301 South G. Street  
Lakeview, Oregon 97630

# Draft-Upper Klamath River Management Plan Environmental Impact Statement and Resource Management Plan Amendments

*Volume 1 - Chapters*



## Draft-Upper Klamath River Management Plan/Environmental Impact Statement and Resource Management Plan Amendments — *Volume 1 - Chapters*

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Lakeview District Office  
HC10 Box 337, 301 South G. Street  
Lakeview, Oregon 97630

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# List of Abbreviations and Acronyms

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

**BLM/OR/WA/PL-02/038+1792**

ACEC	- Area of Critical Environmental Concern	NOAA	- National Oceanic Atmospheric Administration
ACS	- Aquatic Conservation Strategy	NOI	- Notice of Intent
AUM	- Animal Unit Month	NPS	- National Park Service
BLM	- Bureau of Land Management	NRCS	- Natural Resources Conservation Service
BMP	- Best management practice	NRHP	- National Register of Historic Places
CA	- Conservation Agreement	NRI	- Natural Resources Inventory
CAA	- <i>Clean Air Act</i>	O&C	- <i>Oregon &amp; California Lands Act</i>
CDFG	- California Department of Fish and Game	ODA	- Oregon Department of Agriculture
CEQ	- Council on Environmental Quality	ODEQ	- Oregon Department of Environmental Quality
CFR	- Code of Federal Regulations	ODF	- Oregon Department of Forestry
CFS	- Cubic Feet per Second	ODFW	- Oregon Department of Fish and Wildlife
COE	- Corps of Engineers (Corps)	ODOT	- Oregon Department of Transportation
CSWRCB	- California State Water Resources Control Board	ODSL	- Oregon Division of State Lands
CWA	- <i>Clean Water Act</i>	OHV	- Off-Highway Vehicle (also known as Off-Road Vehicle)
CWD	- Coarse Woody Debris	ONHP	- Oregon Natural Heritage Program
DEQ	- Department of Environmental Quality	OPRD	- Oregon Parks and Recreation Department
DSL	- Division of State Lands	ORV	- Outstandingly Remarkable Value
EA	- Environmental Assessment	OWRD	- Oregon Water Resources Department
EIS	- Environmental Impact Statement	PAC	- Provincial Advisory Council
EPA	- Environmental Protection Agency	PDF	- Project Design Feature
ESA	- <i>Endangered Species Act</i>	PFC	- Proper Functioning Condition
ESU	- Evolutionary Significant Unit	PFW	- Partners for Wildlife
FACA	- <i>Federal Advisory Committee Act</i>	PRIA	- <i>Public Rangelands Improvement Act</i>
FERC	- Federal Energy Regulatory Commission	RC&D	- Resource Conservation and Development
FLPMA	- <i>Federal Land Policy and Management Act</i>	RIEC	- Regional Interagency Executive Committee
FONSI	- Finding of No Significant Impact	REO	- Regional Ecosystem Office
FTZ	- Fuel Treatment Zones	RMP	- Resource Management Plan
GIS	- Geographic Information System	RM	- River Mile
HABS/HAER	- Historic American Buildings Survey/ Historic American Engineering Record	ROD	- Record of Decision
HCP	- Habitat Conservation Plan	ROS	- Recreation Opportunity Spectrum
IAC	- Intergovernmental Advisory Committee	RRMP	- Redding Resource Management Plan
IBLA	- Interior Board of Land Appeals	SONCC	- Southern Oregon/Northern California Coastal
ICBEMP	- Interior Columbia Basin Ecosystem Management Project	SHPO	- State Historic Preservation Office
JITW	- Jobs in the Woods	SMA	- Special Management Area
KFRA	- Klamath Falls Resource Area	SRMA	- Special Recreation Management Area
KFRMP	- Klamath Falls (Resource Area) Resource Management Plan	SWCD	- Soil and Water Conservation District
KPAC	- Klamath Provincial Advisory Committee	T&E	- Threatened and Endangered
LAC	- Limits of Acceptable Change	TES	- Threatened, Endangered, and Sensitive (Species)
LCDC	- Land Conservation and Development Commission	TMDL	- Total Maximum Daily Load
LSR	- Late-Successional Reserve	TNC	- The Nature Conservancy
LUP	- Land Use Plan	USBR	- U.S. Bureau of Reclamation
MOA	- Memorandum of Agreement	USDA	- United States Department of Agriculture
MOU	- Memorandum of Understanding	USDI	- United States Department of Interior
NCA	- National Conservation Area	USFS	- United States Forest Service
NEPA	- <i>National Environmental Protection Act</i>	USFWS	- United States Fish and Wildlife Service
NFMA	- <i>National Forest Management Act</i>	USGS	- United States Geological Survey
NFP	- Northwest Forest Plan	VRM	- Visual Resource Management
NHPA	- <i>National Historic Preservation Act</i>	WQS	- Water Quality Standards
NMFS	- National Marine Fisheries Service	WSR	- Wild and Scenic River
NOA	- Notice of Availability	WSRA	- <i>Wild and Scenic Rivers Act</i>
		WQRP	- Water Quality Restoration Plan



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Klamath Falls Resource Area

2795 Anderson Avenue, Building 25

Klamath Falls, Oregon 97603-7891

Phone: (541)883-6916 | Fax: (541)884-2097

E-Mail Address: [Username@kfra.or.blm](mailto:Username@kfra.or.blm)

Website: <http://www.or.blm.gov/Lakeview/kfra/index.htm>

IN REPLY REFER TO:

1610 (014)

February 26, 2003

Dear Interested Party:

Enclosed for your review and comment is the Draft Upper Klamath River Management Plan and Environmental Impact Statement (EIS) and Resource Management Plan Amendments. This document outlines management options and environmental consequences for managing lands administered by the Bureau of Land Management (BLM) in southern Oregon and northern California along the upper Klamath River system. This EIS will amend both the BLM Redding (California) and the Klamath Falls Resource Area (Oregon) Resource Management Plans. It also proposes classification and rules affecting all non-federal lands within the designated Oregon's State Scenic Waterway.

There are four resource management alternatives proposed in this DEIS. The alternatives were designed to provide different management actions that protect, maintain, restore and/or enhance river values, resources, and ecological processes while providing opportunities for the public to enjoy this unique area. In compliance with Code of Federal Regulations (CFR) § 1610.4-7, Alternative 3 was identified as the preferred alternative. Although a preferred alternative is identified, it is recognized that parts of the other alternatives would also meet management goals or possibly new information will be identified that could change the preferred alternative. As a result, dialogue and comments received on this draft plan will be heavily relied upon in the formulation of the Proposed Final Upper Klamath River Management Plan/Environmental Impact Statement.

Written comments should be sent to Larry Frazier, Project Team leader, Bureau of Land Management, 2795 Anderson Avenue, Building 25, Klamath Falls, Oregon, or via email ([krmp@or.blm.gov](mailto:krmp@or.blm.gov)). All written comments will be fully considered and evaluated in the preparation of the final Upper Klamath River Plan and EIS.

Your review and comments are requested at this time to ensure that your interests are adequately considered in the planning process. A 90-day public comment period is being provided for review of this document. Public meetings will be held in Klamath Falls, Oregon, and Yreka and Copco, California, during the comment period. Additional meetings may be held in other locations if there is sufficient interest. The comment period closing date and specific dates and locations of public meetings will be announced through the local news media, news letters, and the BLM website ([www.or.blm.gov/Lakeview/kfra/index.htm](http://www.or.blm.gov/Lakeview/kfra/index.htm)).

Written comments on the State Scenic Waterway portion of the plan (Chapter 3) should be sent to Jan Houck, Program Coordinator, Oregon State Parks and Recreation Department, 20300 Empire Avenue, Suite B-1, Bend, Oregon, or via email ([jan.houck@state.or.us](mailto:jan.houck@state.or.us)).

Comment letters to the BLM, including names and street addresses of respondents, will be available for public review at the Klamath Falls Resource Area office during regular business hours 8:00 a.m. to 5:00 p.m., Monday through Friday, except holidays, and may be published as part of the Final EIS. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review, or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comments. Such requests will be honored to the extent allowed by law. Anonymous comments will be considered. All submissions from organizations and businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be available for public inspection in their entirety.

We appreciate your help in this planning effort and look forward to your continued interest and participation. For additional information or clarification regarding this document or the planning process, please contact Larry Frazier or Don Hoffheins at (541) 883-6916.

Sincerely,

A handwritten signature in black ink that reads "Teresa A. Raml". The signature is written in a cursive style with a large initial 'T' and 'R'.

Teresa A. Raml, Manager  
Klamath Falls Resource Area

# DRAFT UPPER KLAMATH RIVER MANAGEMENT PLAN / ENVIRONMENTAL IMPACT STATEMENT and RESOURCE MANAGEMENT PLAN AMENDMENTS

## Klamath Falls Resource Area Field Manager Recommendation

I recommend release of the Draft Upper Klamath River Management Plan Environmental Impact Statement and Resource Management Plan Amendments for public review and comment. It has been prepared following direction in BLM Handbook H-1601-1 (Land Use Planning) and BLM Manual 8351 (Wild and Scenic Rivers). The Draft River Plan addresses issues raised by the public, and proposes land use allocations and management actions for Bureau administered lands and resources that would protect or enhance river values throughout the Upper Klamath River.



Teresa A. Raml, Field Manager

## Redding Resource Area Field Manager Recommendation

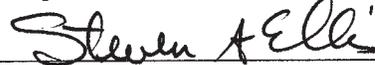
I recommend the release the Draft Upper Klamath River Management Plan Environmental Impact Statement and Resource Management Plan Amendments for public review and comment.



Charles M. Schultz, Field Manager

## Lakeview District Manager Concurrence

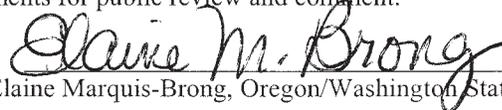
I concur with the recommendation to release the Draft Upper Klamath River Management Plan Environmental Impact Statement and Resource Management Plan Amendments for public review and comment.



Steven A. Ellis, Lakeview District Manager

## Oregon/Washington State Director Concurrence

I concur with the recommendation to release the Draft Upper Klamath River Management Plan Environmental Impact Statement and Resource Management Plan Amendments for public review and comment.



Elaine Marquis-Brong, Oregon/Washington State Director

## California State Director Concurrence

I concur with the recommendation to release the Draft Upper Klamath River Management Plan Environmental Impact Statement and Resource Management Plan Amendments for public review and comment.



Mike Pool, California State Director

## Oregon State Parks and Recreation Concurrence

I concur with the recommendation to release the Draft Upper Klamath River Management Plan Environmental Impact Statement and Resource Management Plan Amendments for public review and comment.



Michael Carrier, Oregon Parks and Recreation Director



# **Summary**

## **Draft Upper Klamath River Management Plan**

### **Environmental Impact Statement And Resource Management Plan Amendments**





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# **Summary – Draft Upper Klamath River Management Plan/Environmental Impact Statement and Resource Management Plan Amendments**

## **Chapter 1 - Introduction**

### **Background**

This Draft Environmental Impact Statement (EIS) refers specifically to a planning area on the upper Klamath River. The upper portion of the Klamath River is the stretch between Lake Ewauna, at Klamath Falls, Oregon, south to Irongate Dam in California. The lower Klamath River section is from Irongate Dam to the Pacific Ocean.

Management of this river corridor is quite complex, owing to its unique combination of private and public land ownership, and multiple land use management designations covering portions of two states.

Numerous factors affect management efforts for the area, the greatest of these being the presence of J.C. Boyle Powerhouse that uses river water diverted at J.C. Boyle Dam to generate electricity for a public utility. Other factors include public use for recreation, especially for a local whitewater rafting industry, the success of which is directly tied to water releases from the dam. Specific designations have been applied to parts of the upper Klamath River that by law require special management plans be developed.

The BLM's Klamath Falls Resource Area (Oregon) and the Redding Field Office (California) staff contributed to the creation of this plan, as well as the Oregon Parks and Recreation Department employees.

### **Purpose and Need, and Decisions to be Made**

This planning effort is being undertaken because the current recreation plan, completed in 1983 by the BLM Medford District, is outdated. There are now overlapping jurisdictions and designations that did not exist 20 years ago. The *Wild and Scenic Rivers Act* and administrative guidance for implementing management of the Area of Critical Environmental Concern require preparation on management plans.

This DEIS is *not a decision document*. Its primary purpose is to disclose the environmental consequences that could occur through implementation of the alternatives being considered. However, decisions will be based on the analysis disclosed here.

A Record of Decision (ROD), or numerous RODs, will be signed by the state directors of Oregon/Washington and California State BLM offices. In addition, the Governor of Oregon will review the document and make a decision on adoption of administrative rules for the State Scenic Waterway.

There are two types of decisions that the BLM can make related to this plan – land use decisions and implementation level decisions. Land use decisions establish the type of appropriate management needed for the land. Implementation decisions prescribe specific actions that should be taken with respect to those lands.

When this planning effort is complete, there will be one Upper Klamath River Management Plan (henceforth called the River Plan) and Final Environmental Impact Statement that will guide and coordinate all federal and state land management activities along the river. This new River Plan would amend the current BLM resource management plans and will be completed in 2004.

For this DEIS, Alternative 3 has been identified as the “Preferred” Alternative. The analysis presented in this DEIS will be used by BLM State Directors for Oregon/Washington and California to decide on a final plan, which will be documented in one or more Records of Decision.

The River Plan also reviews classification and rules affecting all non-federal lands within the designated Oregon’s State Scenic Waterway. The classification and rules are in Chapter 3 of the DEIS.

## **The Planning Area**

The area covered by the plan is within Klamath County, Oregon, and Siskiyou County, California, and is located about 25 miles southwest of Klamath Falls, Oregon.

The planning area for the River Plan extends about 20 miles from the J.C. Boyle Dam in Oregon (owned by PacifiCorp), southwest to the slackwater of Copco Reservoir in northern California (see Map 1).

The Oregon portion of the planning area is about 15 miles long and encompasses approximately 6,000 acres of public BLM-administered lands. The California portion is about five miles long and covers approximately 200 acres of public BLM-administered lands.

The river is divided into three sections within the planning area, Segments 1, 2, and 3, which extend north to south along the river corridor. Segments 1 and 2 are in Oregon, and Segment 3 is in California.

## **Existing Management Direction**

The River Plan, while based on input from a variety of sources, both scientific and opinion-based, must also conform to existing laws and plans, on both the federal and state level.

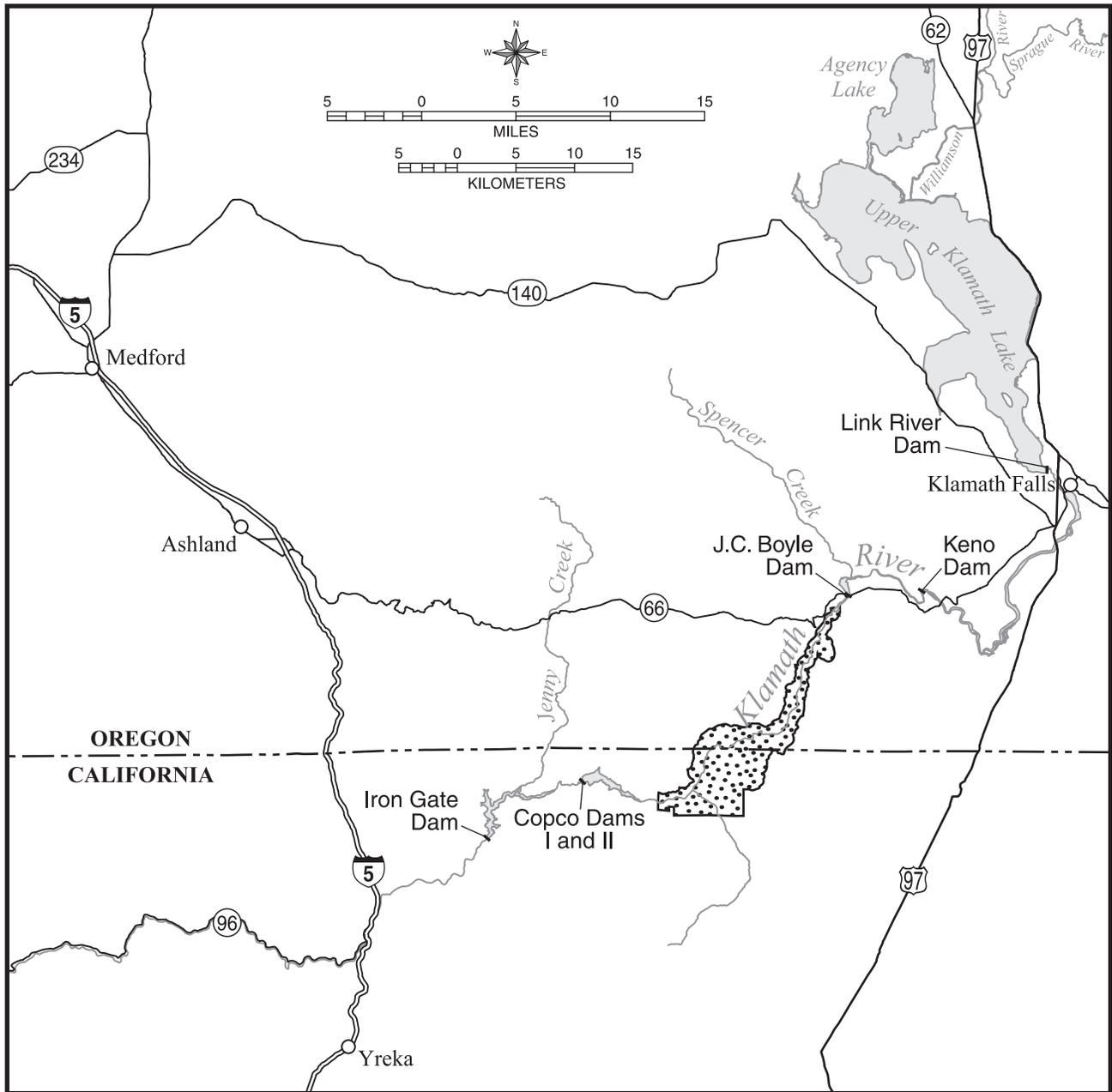
### **Federal and State Laws**

The Klamath Falls Resource Area is responsible for determining if the River Plan conforms to applicable state and federal law, and will make this determination in a subsequent ROD.

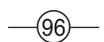
### **Designations within the Planning Area**

#### ***Oregon Scenic Waterway***

The Oregon Scenic Waterways System was created by ballot initiative in 1970. Scenic waterways are defined as including the designated river and related adjacent lands within 0.25 mile of the bank on either side of the river. In 1988 an 11-mile section (located in Segment 2) of the Klamath River in Oregon was designated a State Scenic Waterway.



**Legend**

-  Planning Area
-  Interstate
-  US Highway
-  State Highway



**U.S. DEPARTMENT OF THE INTERIOR  
Bureau of Land Management**

**OREGON  
LAKEVIEW DISTRICT  
Klamath Falls Resource Area  
CALIFORNIA  
REDDING FIELD OFFICE**

**Draft Upper Klamath River  
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Plan Amendments**

2003



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D12-05-01: MW-061702  
Oregon State Office

**Map 1:** Upper Klamath River, Regional Transportation, and Major Population Centers

### ***National Wild and Scenic River Designation***

In 1994, the Klamath River from J.C. Boyle Dam Powerhouse to the California/Oregon border (including a 0.25-mile corridor on either side) was designated a wild and scenic river under the *Wild and Scenic Rivers Act* (1968).

### ***Upper Klamath River Area of Critical Environmental Concern***

The BLM has designated an Area of Critical Environmental Concern (ACEC) in the Klamath River Canyon, from J.C. Boyle Powerhouse to the Oregon and California state line, extending from rim-to-rim.

## **Management Goals for the Plan**

Overall management goals of the River Plan are:

- Maintain and restore river-related scenic and natural resources
- Provide diverse recreational experiences.
- Promote visitor understanding and enjoyment
- Protect and enhance cultural resources

## **Public Involvement and Scoping**

Scoping is the process of determining the scope of the environmental analysis to be completed.

The scoping process for the River Plan was initiated in late 2000, and involved a variety of outreach methods; including meetings with relevant committees, organizations, government entities, and the public; consultations with the Tribes; news releases; and scoping documents mailed to people or businesses on a project mailing list.

## **Identification of Issues**

By the end of the initial scoping period on January 31, 2001, the BLM had received 36 written responses. Comments from these letters have been consolidated into 57 different public issue statements, addressing 15 topics.

In addition, PacifiCorp sent a letter (dated May 2, 2001) requesting that about 6,000 acres of their private lands located within the planning area be considered in the River Plan for possible land tenure adjustments. PacifiCorp is considering several management options for these lands that are surplus to their needs for power production. PacifiCorp requested the BLM to consider their lands for exchange for other BLM lands, or purchase, or that BLM and PacifiCorp enter into a mutually beneficial land management arrangement of these lands. PacifiCorp and BLM natural resource specialists have cooperated to gather resource information on PacifiCorp lands for inclusion in the plan.

The analysis and potential projects developed as part of this planning effort may be used by PacifiCorp to help determine desired long-term management of the lands, and potentially identify offsite mitigation opportunities for the FERC relicensing process.

### **Wild and Scenic River and ACEC Values as They Apply to the Issues**

The BLM has developed a set of criteria to determine outstandingly remarkable values during the eligibility process for inclusion into the national wild and scenic river system. Values identified in the "Final Eligibility and Suitability Report for the Klamath Wild and Scenic River Study" (1990) and in the National Park Service's "Klamath Wild and Scenic River

Eligibility Report and Environmental Assessment” (August 1994) were used to support the designation of the river found in Segment 2 of the planning area. These values are: wildlife, fish, prehistoric, historic, scenic quality, and Native American traditional use. The BLM’s resource management planning process also stipulates identification of values that need to receive special management emphasis for designation of an ACEC.

Protection and enhancement of wild and scenic river and ACEC values within the planning area are the primary objectives of this plan. The wild and scenic river outstandingly remarkable values appear below with an asterisk (\*).

### **Scenic Quality \***

The river’s scenic quality is one of its outstandingly remarkable values. How to best maintain or enhance scenic qualities is a management concern, including consideration of new facilities, fuel treatments, prescribed fire, utility development, and roads.

### **Recreation Activities\***

With respect to recreation on the river, two issues relating primarily to whitewater rafting are of great importance: recreational carrying capacity and river flows.

There is also concern about the management of other recreational uses within the river corridor, such as fishing, hiking, and off-highway vehicle (OHV) use.

### **Recreation Facilities**

The improvement or construction of recreational facilities along the river is also an issue. Facilities may need to be removed or relocated to reduce impacts on other resources. Proposed trails, cultural resources, fish habitat, and vandalism are all pertinent issues.

### **Roads and Access**

There are numerous roads on public land within the river canyon, and OHV use has resulted in increased erosion and sedimentation into the river, as well as damage to significant prehistoric and historic sites, and Native American traditional use areas. These concerns need to be balanced with public OHV use, the ultimate goal being to provide for this type of recreational use while protecting resources.

### **Cultural Resources/Prehistoric Sites**

The river canyon contains many cultural sites, some of which receive intensive recreation use, and have endured resulting damage. This plan would aim to reduce vandalism and increase public awareness to prevent further damage to sensitive cultural areas.

### **Native American Traditional Uses\***

Native Americans have used the river canyon for thousands of years, and the area has spiritual significance for tribal members. Current roads and access have led to OHV damage in Native American traditional use areas. This plan will address OHV issues, as well as forest health management and prescribed fire practices as a means of maintaining traditional food-gathering sites.

### **Historic Sites\***

Historic sites are rapidly deteriorating and have been vandalized; this has raised concerns about how to protect and manage these structures.

## **Watershed Values**

Different sections of the upper Klamath River have been listed as “water quality limited,” in accordance with Section 303(d) of the *Clean Water Act*. The listings are because of the impacts of nutrients, low dissolved oxygen and elevated stream temperatures on beneficial uses, such as fish habitat.

Water quality also affects other values, such as recreation, for which the river was designated a State of Oregon scenic waterway, and national wild and scenic river. This plan identifies possible ways of protecting and enhancing water quality within the planning corridor in support of other resource values.

Erosion caused by roads, water flows, lack of riparian vegetation, and impaired watershed processes has contributed to limited water quality.

## **Wildlife\***

There are threatened and endangered species that use the river corridor. Habitat for these species would be evaluated to determine the types of management needed.

## **Fisheries\***

Fisheries is one of the outstandingly remarkable values that earned the Klamath River its designation as a national wild and scenic river. In addition, the river has been classified by the states of Oregon and California as a wild trout fishery. The planning area is also within the historic range of the threatened and endangered coho salmon.

There are recreational trout fishing concerns surrounding the lack of large fish in the river. Daily fluctuating flows from the J.C. Boyle Powerhouse may be a factor.

## **Fire and Fuels**

This plan addresses the need for effective fuel reduction treatments and the potential loss of scenic characteristics from wildfire.

## **Vegetation and Biological Diversity**

This plan evaluates how vegetation (including wildlife and fish habitat, and Native American traditional use food-gathering areas) would be managed. This includes control or eradication of exotic or noxious species.

## **Air Quality**

Prescribed fires could affect air quality within and outside of the planning area. A smoke management plan will be included in the final River Plan/EIS.

## **Socioeconomics**

Potential management actions could affect the local economy, such as individuals, businesses, outfitters, minority and low-income populations, and tribes. These factors will be analyzed and considered in the plan.

## **PacifiCorp’s Power Generating Facilities**

PacifiCorp operates a series of hydroelectric power generation facilities on the upper Klamath River. The River Plan identifies the effect these operations have on river resources and values.

## **Land Tenure**

As the major private landowner in the planning area, PacifiCorp has requested that the BLM explore possible land tenure adjustments in the development of the River Plan. Adjustments could include land trade, acquisition, or mutually beneficial land management arrangements.

## **Private Land**

The plan addresses the State of Oregon's Administrative Rules for private land in the Scenic Waterway portion (located in Segment 2) of the planning area (see Chapter 3). The effects on adjacent private land from BLM proposed actions are also addressed.

There are management concerns regarding how the federal government can ensure adequate recreational access to the river if it does not administer the land. Other potential impacts on private land adjacent to BLM administered land are also addressed.

## **Grazing**

Livestock grazing effects on rangeland health, recreation, cultural, riparian, and wildlife habitat issues are analyzed.

## **Cumulative Impacts**

The cumulative impacts of management actions proposed or recommended within the planning area, plus other actions on public and private land not a part of this plan, are also considered in this DEIS.

## **Chapter 2 – Affected Environment**

### **General Setting and Access**

The Klamath River lies within the High Cascades Physiographic Province and borders the Basin and Range Province on the west. Topography varies from flat to gently sloping along the river benches to some almost vertical canyon walls. The canyon rim rises 1,000 feet above the river. Precipitation is 15-20 inches, coming mostly in fall, winter, and spring. Temperatures range from low 20s in winter to high 80s-90s in summer. Canyon air quality is generally good, thanks to the planning area's location far from urban and industrialized areas.

Geological characteristics include volcanic flows, cinder cones, and fault patterns. Seismic activity is low in the planning area. No economically valuable mineral deposits are known to exist in the area.

The upper Klamath River is readily accessible from the four major population centers in southern Oregon and northern California. The main transportation route to the river is State Highway 66 (Green Springs Highway), which runs east/west between U.S. Highway 97 in the Klamath Basin, and Interstate 5, in the Rogue River Valley (see Map 1).

### **Scenic Resources**

The visual quality of a landscape is based on landscape character. The stronger the influence of form, line, color, and texture, the more interesting the landscape; the more visual variety in a landscape, the more aesthetically pleasing it is. An assessment of landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications is used to classify the scenic quality of the area. During the rating process, each of these factors is ranked on a comparative basis with similar features within the planning area. A visual resource management (VRM) class rating is then made to manage the quality of the visual environment and to reduce the visual impact of development activities (BLM Handbook H-8410-1).

The upper Klamath River Canyon was evaluated by the BLM in 1977 and 1981 and received a "Scenic Quality Class A" evaluation – the highest scenic quality classification possible.

### **Recreation**

The planning area is host to 10,000 visitors annually. Major recreational activities within the planning area include whitewater boating, fishing, hunting, and camping. Additional activities include sightseeing, hiking, photography, picnicking, wildlife observation, driving for pleasure (OHV use limited to designated roads and trails), trapping, and horseback riding.

#### **Whitewater Boating**

One of the unique features of the upper Klamath River is the extended season for whitewater boating opportunities provided as a result of year-round releases from the J.C. Boyle Dam/Powerhouse system. Most river systems in the Pacific Northwest are raftable only during high spring flows.

The primary rafting season on the upper Klamath River extends from Memorial Day through Labor Day, which makes it one of the few rivers in the northwest that can be floated throughout the summer.

Since the summer of 1998, PacifiCorp has varied the water release schedule to include more releases that start later in the day, starting the release as late as 2-4 p.m. This change in scheduling reflects changing market conditions for wholesale electric power, as well as anticipated regional electric power shortages during summer heat waves.

This shift in water release start times has impacted whitewater boating opportunities by either forcing boaters to launch their trips later in the day, or to cancel or postpone their trips due to the timing of the water release.

## **Recreation Sites and Facilities**

Public recreation sites and facilities are located throughout the planning area. The remote river canyon offers campers a semi-primitive experience with several day use sites.

Camping facilities are provided at Topsy Recreation area, Klamath River Campground, and five additional fire-safe sites are available along the river's edge. There are several primitive campsites at Frain Ranch (PacifiCorp lands).

PacifiCorp offers fishing and day use access at six locations in the California section of the river and allows dispersed camping in the Frain Ranch Area.

## **Fishing**

The upper Klamath River within the planning area is managed as a wild trout river in both Oregon and California. The river provides an excellent trout fishery and is among one of the better flyfishing rivers in Oregon.

## **Hunting**

Hunting occurs primarily on open benches along the river and in draws along the canyon rim. Game includes black-tailed deer, silver-gray squirrels, mountain and valley quail, and turkey. Additional recreational hunting occurs in spring and early summer for ground squirrels and marmots.

## **Roads and Access**

Public access to the planning area is currently on the Topsy and J.C. Boyle Powerhouse roads. These roads provide the majority of access in the planning area. There are some other roads that cross private land, where the discretion of the landowner determines access.

## **Cultural Resources/Traditional Use**

Cultural resources within the planning area are divided into three categories (1) prehistoric, (2) historic, and (3) current Native American traditional use.

There are about 100 known prehistoric sites in the upper Klamath River canyon. There are fishing, gathering, and hunting camps, and pit house villages (pit houses are circular depressions reflecting a semi-subterranean prehistoric house structure).

The area was home to a variety of cultural groups at different times, including the Shasta Nation of northern California, the Modoc and Klamath Tribes of the Klamath Basin, the Takelma of the upper Rogue River, and possibly the Pit River Indians of northeastern California.

Europeans have used the upper Klamath River Canyon extensively since the 1850s, settling on terraces and flood plains along the river and several meadow areas. There are numerous

historic ranches that have structures still standing that were constructed between the late 1800's and early 1900's.

Today, members of the Klamath Tribe and the Shasta Nation continue to use the canyon for spiritual purposes, hunting, fishing, gathering, and other cultural activities. Many of the traditional use areas can be considered traditional cultural properties.

## Vegetation and Soils

### Special Status Plant Species

There are no documented sites of federally listed threatened or endangered plants in the planning area. Limited surveys have been conducted, but there have been no systematic surveys covering the entire planning area. Species of special concern that have been documented in the planning area include the mountain lady slipper orchid (*Cypripedium montanum*), Greene's mariposa lily (*Calochortus greenii*), Bolander's sunflower (*Helianthus bolanderi*), red-root yampah (*Perideridia erythrorhiza*), Howell's false-caraway (*Perideridia howellii*), and Lemmon's catchfly (*Silene lemmonii*).

### Noxious Weeds

Noxious weeds are plant species designated under federal, state, or local laws and ordinances that cause economic loss and/or harm the environment.

Populations of Russian knapweed (*Acroptilon repens*), yellow starthistle (*Centuarea solstitialis*), poison hemlock (*Conium maculatum*), Scotch broom (*Cytisus scoparius*), St. John's wort (*Hypericum perforatum*), yellow toadflax (*Linaria vulgaris*), Himalayan blackberry (*Rubus discolor*), and puncture vine (*Tribulus terrestris*) have been documented and mapped within the planning area through incidental surveys by BLM staff and university researchers.

### Plant Communities

The planning area contains a mixture of the following vegetation types. The following table (Table S-1) lists plant communities and the approximate percent coverage in the planning area.

**Table S-1. Plant Communities of the Planning Area**

Vegetation Community Type	Percent of Planning Area
Conifer forest and woodland	43
Oak woodlands	27
Juniper woodland	1
Mixed shrub	17
Rabbitbrush/Sagebrush	4
Dry meadow	4
Riparian communities	2
Irrigated meadow	2

## **Soils**

The primary soil series in the Oregon portion of the planning area are the Bogus, Greystoke, McMullin, and Skookum series. Descriptions of the soils can be found in the “Soil Survey of Jackson County Area, Oregon” (USDA-SCS 1993).

Soils within the Oregon portion of the planning area generally have slow infiltration rates when wet. This is a consequence of moderately high proportions of clay, especially in subsurface horizons. Despite the potential for surface runoff, most soils in the planning area have a low susceptibility to sheet and rill erosion of surface horizons. This is due to the high proportion of coarse fragments on the soil surface.

The primary soil series in the California portion of the planning area are the Bogus, Jenny, Lassen-Kuck complex, Lithic Haploxerolls-Rock outcrop complex, and Medford. Descriptions can be found in the “Soil Survey of Central Siskiyou County California Central Part” (USDA-SCS 1983).

Soils within the California portion of the planning area generally have slow infiltration rates when wet (for the same reasons as the soils within the Oregon portion).

## **Terrestrial Species and Habitat Management**

### **Birds**

There are 197 species of birds within the planning area, some year-round residents, others seasonal or migratory.

Some important species include: bald eagle (Threatened), golden eagle, osprey, peregrine falcon (Oregon State Sensitive), prairie falcon, red-tailed hawk, American kestrel, sharp-shinned hawk, Coopers hawk, great horned owl, long-eared owl, western screech owl, northern goshawk (Oregon State Sensitive Species), northern pygmy owl (Oregon State Sensitive Species), northern spotted owl (endangered), wild turkey, redlegged partridge, warbling vireo, yellow warbler, lazuli bunting, lesser goldfinch, and Wilson’s warbler.

### **Mammals**

The canyon provides habitat to support a great variety and abundance of mammals.

A partial listing of species is: silver-gray squirrel, beaver, muskrat, wild pigs, Townsend’s big-eared bat, Raccoon, river otter, mink, long- and short-tailed weasel, ringtail (Oregon State Sensitive Species), coyote, gray fox, bobcat, mountain lion, Roosevelt elk, black bear, cougar, blacktailed deer, and mule deer.

### **Herptiles**

Eighteen species of reptiles and amphibians (collectively referred to as herptiles) have been identified in the planning area: western rattlesnake, common and western terrestrial garter snake, gopher snake, striped whipsnake, rubber boa, ringneck snake, yellow-bellied racer, western fence lizard, southern alligator lizard, sagebrush lizard, western skunk, western toad (Oregon State Sensitive Species), Pacific tree frog, California mountain king snake (Oregon State Sensitive Species), sharptail snake (Oregon State Sensitive Species), northern sagebrush lizard (Oregon State Sensitive Species), and western pond turtle (Oregon State Sensitive Species).

## **Watershed Values**

Watershed values are a key component in shaping animal and plant communities in the planning area, and in providing recreational opportunities. The Klamath River fills many roles relating to human and wildlife needs.

### **Beneficial Uses**

Among those roles are “beneficial uses,” as determined by Oregon Department of Environmental Quality. Established beneficial uses for the upper Klamath River in Oregon include public and private domestic water supply; industrial water supply; irrigation; livestock watering; salmonid rearing and spawning; resident fish and aquatic life; wildlife and hunting; fishing, boating, and water contact recreation; and aesthetic quality.

The North Coast Regional Water Quality Control Board has established beneficial uses for the California portion of the Klamath. Broad categories include water supply, recreation, fish and wildlife, power generation, and scientific study.

### **Energy Generation and Transmission**

The planning area includes the portion of the Klamath River between two hydroelectric facilities: J.C. Boyle Dam in Oregon and Copco 1 Reservoir in California. The J.C. Boyle Dam 88-megawatt power generation plant is 4.3 river miles below the dam. This facility has turbine generators that supply power during high use (peak) periods.

### **Water Rights**

Water use in the Klamath River Basin upstream from, and within, the planning area affects streamflows in the Klamath River. An adjudication process now being conducted by the Oregon Water Resources Department (OWRD) will determine surface water rights associated with the designated wild and scenic river. This process will establish water right claims submitted by BLM.

#### *Klamath River Instream Flows*

Within Segments 1 and 2, PacifiCorp is licensed to divert up to 2,500 cfs of Klamath River water to generate hydroelectric power. The utility also has two permits that allow a small diversion from the dam for irrigation, stock and domestic use.

The BLM has filed a claim for instream flows in Segment 2 of the planning area based on the *Wild and Scenic Rivers Act* of 1968. In the Act, Congress expressly reserved water for flow-dependent outstandingly remarkable values. Flows were claimed (Federal Reserve Claim 376, 1999) for three outstandingly remarkable values: fisheries (625 cfs from April 1 through June 15, and 525 cfs for the rest of the year) and recreation (whitewater rafting, 1,500 cfs between Memorial Day and September 30) (see Table 2-12). The BLM water right claim on the River is pending in the Klamath Basin Adjudication.

#### *Other Water Rights*

Other entities also have water claims and/or rights on the Klamath River, including the Oregon Department of Parks and Recreation, the Bureau of Indian Affairs (on behalf of the Klamath Tribes), the Oregon Department of Forestry, and private landowners. The Klamath River Basin Compact also provides guidance, along with other applicable laws, for water rights administration in the Klamath Basin (see River Plan for further details).

The Oregon Department of Forestry has a permit to use up to 10,000 gallons of water daily for dust abatement on an unnamed tributary in Segment 2.

## **Streamflows**

The upstream end of the Klamath River drainage encompasses about 4,080 square miles of surrounding land. Snowmelt in this drainage area flows mostly to Upper Klamath Lake, which creates late winter and spring naturally occurring peak flows to the Klamath River.

Summer flows come from the Link River Dam (on Upper Klamath Lake), and groundwater discharges. Elevated flows in fall are caused by return flow from irrigated areas south and west of Klamath Falls.

The other primary cause of streamflow variance is the operation of the J.C. Boyle hydroelectric facilities. Flow varies according to water availability, instream flow requirements for salmon (listed under the Endangered Species Act) downstream from Iron Gate Dam, and PacifiCorp's FERC license.

Flows in Segment 1 are not subject to the daily fluctuations that occur in Segments 2 and 3 from powerhouse operations.

Energy demand (and subsequent hydroelectric plant use) can determine the amount of flow in the river. When daily average natural river flows are less than around 3,300 cfs, the facility can increase flows to produce power during peak energy demand periods which is called "peaking". On days when the J.C. Boyle complex is operated for peaking power, stage (change in river surface elevation) can be raised or lowered about 2.2 feet over a 6-hour period.

## **Water Quality**

Water quality, which as previously mentioned, is designated "water quality limited" under terms of the *Clean Water Act*, is affected by upstream point and nonpoint pollutant sources in the area.

Some examples of characteristics that limit water quality in the planning area are high algal content, high pH, temperature, chlorophyll-a, and dissolved oxygen. These may detrimentally affect beneficial uses and outstandingly remarkable values (including fisheries, recreation, and wildlife).

## **Stream channel morphology**

Stream channel morphology, that is, width, depth, substrate, and channel gradient, etc., is affected by natural flows and releases from J.C. Boyle facilities.

Increased discharge and/or decreased sediment (gravel) supply can cause channel widening, incision and bed armoring.

## **Aquatic Species/Habitat**

The dams on the Klamath River have affected fish species distribution throughout the Klamath Basin. Historically, the Klamath River was a passageway for anadromous fish, salmon, steelhead, and Pacific lamprey as they migrated to various tributaries of the Klamath River and Upper Klamath Lake (ODFW 1997). These fish runs were halted in 1910 by the construction of Copco I Dam, completed in 1917, which permanently blocked fish passage (City of Klamath Falls 1986). Five more dams were built on the upper Klamath River; Copco II and Irongate are located in California, and Link River, Keno, and J.C. Boyle Dams are located in Oregon (PacifiCorp 2000). J.C. Boyle, Keno, and Link River Dams have fish ladders intended for trout migration, each varying in function. Only J.C. Boyle Dam has a screening facility to prevent entrainment of fish into the power diversion canal.

The hydroelectric project on the upper Klamath River will be assessed for reintroduction of anadromous species through the hydroelectric facilities as part of the Federal Energy Regulatory Commission relicensing process.

The upper Klamath River is inhabited by 10 known native fish species. Three species of note are: redband trout – the primary game fish in the Klamath River, Lost River sucker – (state and federally listed endangered species), and shortnose sucker – (state and federally listed endangered species).

Other native species are Klamath smallscale sucker, blue and tui chub, Klamath specked dace, sculpin species, and lamprey species.

At least fourteen exotic species occur in the river and reservoirs. Yellow perch, fathead minnows, Sacramento perch, and golden shiner typically favor slower water habitats including slackwater shoals close to Copco Reservoir, and generally are not found in swift flowing portions of the river (USDI-BLM 1990). Although not documented by fisheries specialists, there have been at least two reports of white sturgeon in the planning area. White sturgeon was planted in Upper Klamath Lake in 1956 (ODFW 1997). Brown trout, planted in Copco Reservoir, inhabit and migrate through the California reach to spawn in Shovel Creek (CDFG 2000). Steelhead, planted into Copco Reservoir 1971-1981 (excepting 1975, 1977, and 1978) has been reported from the California portion of the Klamath in the past.

## **Range Resources**

Cattle, wildlife, and a small herd of wild horses currently compete for forage in the planning area. U.S. Timberlands, PacifiCorp, and BLM-administered lands are used for grazing in and around the planning area. Hay production is also common on privately-owned (PacifiCorp) meadows in the planning area in California.

Grazing has affected the natural vegetative composition throughout much of the planning area. Factors causing this change include early spring grazing, historical burning, natural erosion, trampling and soil compaction by livestock, and repeated livestock use. These conditions favor the weedy annual species that easily take over the native perennial plants and grasses (see the Noxious Weeds section for more information).

Two studies, one by the Medford District BLM in 1981 and the other for the proposed Salt Caves Hydroelectric Project by the City Of Klamath Falls in 1984 and 1986 determined the rangelands to be in poor condition. However, the “Edge Creek Rangeland Health Standards Assessment” concluded that current BLM management (grazing and nongrazing) practices were making significant progress toward meeting rangeland standards. Present day livestock use was not considered a factor in the suppressed conditions, nor was it found to be slowing down gradual improvements.

Two BLM grazing allotments exist within the planning area; Edge Creek Allotment (#0102) and Laubacher Lease Allotment (#0155), and grazing occurs on private lands.

**Private Lands** - Within the planning area, about 95 percent of grazing use takes place on privately owned land, primarily the property of PacifiCorp.

## **Wild Horses**

A very small portion (<5 percent) of the Pokegama Wild Horse Herd Management Area is located within the planning area north of the Klamath River. The total herd management area is bounded by Copco Reservoir and the Klamath River on the south and east, Jenny Creek on the west, and State Highway 66 on the north. With the exception of State Highway 66, these natural boundaries appear to be physical barriers to movement of wild horses and, therefore,

to habitat expansion. There other wild horses that drift occasionally from the adjacent Gavin Peak Herd Management Area, which lies to the south and east of the planning area. There are currently estimated to be 35–45 horses residing in the herd management area. The Gavin Peak herd, administered by the USFS Gooseneck Ranger District, has minimal influence on the planning area.

## **Wildfire Management**

Lightning occurrence in the Klamath River Canyon caused 20 lightning ignitions from 1990 to 1999. The fire return interval for the conifer forest/woodland type is every 10 to 20 years. The estimated fire return interval for oak woodlands in this type of canyon terrain is 5 to 15 years.

Exclusion of natural fire in the Klamath Canyon has resulted in high fuel loading and created conditions where the potential for wildfire occurrence is increased.

## **Air Quality**

Air quality and visibility are important qualities with respect to the River Plan, because of the role they play in maintaining scenic values in the Klamath River Canyon. The Klamath River Basin enjoys relatively clean air.

Area sources of air pollution are industrial plants, highways, urban areas, and smoke from wildfires or prescribed burns. The steep-sided topography of the river canyon can trap air until winds move it out. Smoke and dust generated outside the planning area can accumulate in the canyon, causing haze.

## **Land Tenure**

PacifiCorp is the major private landowner in the planning area. PacifiCorp has requested, in writing, that BLM explore the possibility of land tenure adjustments during the development of the EIS.

PacifiCorp has submitted a map to the BLM that identifies parcels of their land in Oregon and California to be considered for possible land trade, acquisition, or a mutually beneficial land management arrangement.

## **Socioeconomics**

Three counties, Jackson and Klamath Counties in Oregon, and Siskiyou County in California, are in the vicinity of the planning area. Total area population (2000 Census): 289,345, Jackson County: 181,269, Klamath County: 63,775, and Siskiyou County: 43,301.

Major population centers are Ashland (population 20,085), Klamath Falls (population 40,000 including surrounding county urban area), Medford (population 62,030), and Yreka (population 7,500).

The major sources of income are agriculture, government, and tourism. The Oregon Employment Department in its 1999 annual employment report, estimated civilian labor force in Jackson County to be 89,160 and 28,760 in Klamath County. The California Employment Development Department estimated civilian labor force in Siskiyou County to be 17,760, and trade (3,280). Unemployment rates in the individual counties were: Jackson, 6.6 percent; Klamath, 8.7 percent; and Siskiyou, 9.5 percent.

## **Description of Potential Area of Critical Environmental Concern**

An ACEC designation highlights an area where BLM special management attention is needed to protect and prevent irreparable damage to important historic, cultural, and scenic values; fish or wildlife resources; or other natural systems or processes; or to protect human life and safety from natural hazards (BLM Regulations, 43 CFR 1610).

An ACEC has been designated in the Klamath River Canyon from rim to rim extending from J.C. Boyle Powerhouse to the Oregon/California state line (Segment 2). The values for which the ACEC was designated were for fish, wildlife, cultural, and scenic qualities.

This plan will also evaluate extending the existing ACEC to Segment 1 (below J.C. Boyle Dam to the powerhouse) of the planning area. To be considered as a potential ACEC, an analysis and evaluation report must consider the relevance and importance of resource values identified within the area which has been nominated as an ACEC. The report can be found in Appendix I of the River Plan.

## Chapter 3 – Oregon Scenic Waterways Administrative Rules

The Oregon Scenic Waterways System was created by ballot initiative in 1970. Scenic waterways are defined as including the designated river and related adjacent lands within 0.25 mile of the bank on either side of the river.

The *Oregon Scenic Waterway Act* describes conditions under which activity can occur within the corridor of a state scenic waterway. The Act specifies the development of a management plan, in coordination with other state and local agencies.

The goal of the Scenic Waterway management planning process is to maintain the scenic “status quo” of a designated area without turning back the clock on existing land uses.

Scenic waterway management plans (administrative rules) are developed to protect or enhance the aesthetic and scenic values of scenic waterways, while allowing compatible agriculture, forestry and other land uses.

### Existing Condition

The Klamath River from the J.C. Boyle Powerhouse to the Oregon-California state line was designated a scenic waterway in 1988. Ownership within this corridor is 75 percent BLM, 23 percent private, and 2 percent State of Oregon.

Klamath County has zoned the private lands within the scenic waterway corridor as “forestry.”

To date, uses in the canyon have been primarily recreation, range, and timber management.

### Classification for the Klamath River Scenic Waterway

The Oregon Parks and Recreation Department established a classification of “Scenic” for the entire 11-mile segment of the Klamath River Scenic Waterway. The management goal of this classification is to allow existing uses while protecting the scenic character of the river.

### Land Management Rules for the Klamath River Scenic Waterway

This Scenic River area shall be administered consistent with the standards set by Oregon Administrative Rules 736-040-0035 and Oregon Administrative Rules 736-040-0040(1)(b)(B). In addition to these standards, all new development in resource zones (i.e., forest-related dwellings) shall comply with Klamath County land use regulations.

The following land management rules are addressed in the River Plan DEIS:

- New structures and associated improvements shall be totally screened from view from the river by topography and/or vegetation.
- If inadequate topographic or vegetative screening exists on the site, the structure or improvement may be permitted if native vegetation can be established to provide total screening of the proposed structure or improvement within a reasonable time (4-5 years).

- Commercial public service facilities, including resorts, motels, lodges, and trailer parks that are visible from the river shall not be permitted.
- New mining operations, except recreational placer mining and recreational prospecting, as those terms are defined and used in Oregon Revised Statutes 390.835, and similar improvements, shall be permitted only when they are totally screened from view from the river by topography and/or vegetation.
- New roads may be permitted only when totally screened from view from the river by topography and/or vegetation. The condition of “total screening,” as used in this rule, shall consist of adequate topography and/or density and mixture of native evergreen and deciduous vegetation to totally (100 percent) obscure the new road.
- Where existing roads are visible from the river, major extensions, realignments, or upgrades to existing roads shall be totally screened from view from the river.
- Visible tree harvest or other vegetation management may be permitted provided that:
  - The operation complies with relevant *Forest Practices Act* rules
  - Harvest and management methods with low visual impact are used
  - Harvest or vegetation management is designed to enhance the scenic view within a reasonable time (5-10 years). Within this paragraph, “enhance” means to benefit forest ecosystem function and vegetative health by optimizing forest stand densities and vegetative composition, fostering forest landscape diversity and promoting sustainable forest values.
- Improvements needed for public recreation use or resource protection may be visible from the river, but shall be primitive in character and designed to blend with the natural character of the landscape.
- Proposed utility facilities shall share existing utility corridors, minimize any ground and vegetation disturbance, and employ non-visible alternatives when reasonably possible.
- Whenever standards of Oregon Administrative Rules 736-040-0035 are more restrictive than Klamath County’s land use and development ordinances, scenic waterway regulations shall apply.

## Chapter 4 – Resource Issues and Alternatives

This River Plan presents four alternatives for managing the canyon, based on data analysis and input from various sources, including residents, landowners, and the general public.

The first step in developing alternatives involved interdisciplinary team identification of desired future conditions (listed in the EIS as resource goals). The team then developed a set of management actions that are important in managing the type of resources in the Klamath River canyon. Four different themes were considered that would help to meet planning objectives and resolve conflicts that had been identified for the area.

### Overview of Proposed Alternatives

#### Alternative 1 – Existing Management/“No Action”

This alternative is named “no action” although actions are proposed. Existing management policies would remain in place and implementation of actions would take place based on direction in the BLM Klamath Falls Resource Area and Redding Resource Management Plans. However, no action is proposed to modify any of the existing direction.

The goal of this alternative would be to maintain the existing wild and scenic river (scenic classification) outstandingly remarkable values and ACEC values.

#### Alternative 2 – Improvement of Resources and Opportunities

This alternative was developed in response to direction in the *Wild and Scenic Rivers Act*. This option advocates policies that would maintain and enhance the river’s “wild and scenic” status, and “the values which caused it to be included, without...limiting other uses that do not substantially interfere with public use and enjoyment of these values.”

The goal of this alternative would be not just to maintain, but to enhance where possible the area’s outstandingly remarkable values, while resolving resource management conflicts that might occur.

#### Alternative 3 (Preferred Alternative) – Natural Resource Enhancement/Restoration

This alternative proposes that the BLM manage the river canyon in a more natural condition.

The goal of this alternative is to maintain and enhance all outstandingly remarkable values, while placing emphasis on restoration and enhancement of natural resources.

#### Alternative 4 – Expand Human Use Opportunities

This alternative emphasizes recreation more heavily than the other three options.

The goal of this alternative is to maintain and enhance all outstandingly remarkable values, while placing emphasis on management that contributes to human use of the river corridor. This use should not conflict significantly with management of other values and resources.

### Description of Alternatives by Resource Topic

Table S-2 provides an abbreviated summary of resource actions proposed for BLM lands with each alternative. Proposed actions are also listed for PacifiCorp land (at the request of PacifiCorp), but are only made as recommendations. Decisions on this plan will only be made for BLM-administered land. For a complete review of the specific actions by alternative refer to Appendix H in the draft River Plan.

**Table S-2. Comparison of Management Actions by Alternatives**

	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>
<b>Scenic Quality</b>	<ul style="list-style-type: none"> <li>• Management on a project-by-project basis; focus vegetation treatments around recreation sites to protect scenic values. Treatments done by prescribed fire, mechanical and hand.</li> </ul>	<ul style="list-style-type: none"> <li>• Management to maintain or enhance visual/scenic resources and mitigate past damage; vegetation treatments to decrease wildfire potential. Treatments done by prescribed fire, mechanical or hand methods.</li> </ul>	<ul style="list-style-type: none"> <li>• Management to restore/improve damage caused by human activity; aggressive vegetation treatments to reduce fuel loads by using prescribed fire, mechanical and hand treatments.</li> </ul>	<ul style="list-style-type: none"> <li>• Management using landscaping and design to blend projects with existing visual resources; projects undertaken in areas of greatest human use; fuel treatments around facilities, trails, and roads using prescribed fire, mechanical and hand methods.</li> </ul>
<b>Recreation</b>	<p>Setting is semi-primitive motorized; OHV use allowed on designated roads; law enforcement sporadic; minimal road maintenance; river flows not changed - but timing is questionable for whitewater rafting</p> <ul style="list-style-type: none"> <li>• 1 developed campground – Topsy (BLM) (15 campsites)</li> <li>• 4 dispersed camps (11–14 sites)</li> <li>• 8 day use sites</li> <li>• 18 miles of non-motorized trails</li> <li>• 22 miles of designated OHV routes</li> </ul>	<p>Setting is semi-primitive motorized; OHV use on designated routes only; increase in developed recreation sites and trails; roads and trails maintained; law enforcement increased; recreation releases mimic conditions during wild and scenic designation to maintain whitewater rafting</p> <ul style="list-style-type: none"> <li>• 2 campgrounds – Topsy (BLM), Shovel Creek (PacifiCorp)</li> <li>• 5 dispersed camps (15–20 sites)</li> <li>• 17 day use sites</li> <li>• 29 miles of non-motorized trails</li> <li>• 2 bridges (J.C. Boyle Dam and Klamath River Campground)</li> <li>• 50 miles of designated OHV routes</li> </ul>	<p>Setting is more “rustic” than Alternatives 2 and 4; recreation facilities could be closed or relocated; commercial rafting reduced; law enforcement would remain the same; river flows do not favor recreation (objective is improving fish habitat)</p> <ul style="list-style-type: none"> <li>• 1 campground– Topsy (BLM) (15 campsites)</li> <li>• 5 dispersed camps (11–13 sites)</li> <li>• 6 day use sites</li> <li>• 16 miles of non-motorized trails</li> <li>• 22 miles of designated OHV routes</li> </ul>	<p>Setting is more developed than other alternatives to allow for significantly higher use levels; roads managed for easy access for all vehicle types; law enforcement increased; recreation releases to maximize whitewater rafting opportunities</p> <ul style="list-style-type: none"> <li>• 5 campgrounds– Topsy (BLM), Turtle (BLM), Klamath River (BLM), Lower Frain (PacifiCorp), Shovel Creek (PacifiCorp) -- (41–52 campsites)</li> <li>• 8 dispersed camps (22–32 sites)</li> <li>• 18–21 day use sites</li> <li>• 31 miles of non-motorized trails</li> <li>• 2 bridges (J.C. Boyle Dam and Klamath River Campground)</li> <li>• 50 miles of designated OHV routes</li> </ul>

	Alternative 1	Alternative 2	Alternative 3	Alternative 4																																																																																																																																																																								
<b>Roads Treatments</b>																																																																																																																																																																												
	<ul style="list-style-type: none"> <li>Limited road treatments; resurfacing of some roads; relocating, decommissioning, and obliterating of other roads; stream crossings improved to enhance habitat; roads extensive spot improvements; roads passable by high clearance 4WD; winter access limited.</li> </ul>	<ul style="list-style-type: none"> <li>More extensive road treatments than Alternative 1; stream crossings improved to enhance habitat; some roads relocated; extensive spot improvements; roads passable by high clearance 4WD; winter access limited.</li> </ul>	<ul style="list-style-type: none"> <li>Extensive spot road improvements; stream crossings improved to enhance habitat; road mileage reduced over time; some roads relocated; roads passable by high clearance 4WD; winter access limited.</li> </ul>	<ul style="list-style-type: none"> <li>Road treatments include resurfacing and relocation; stream crossings improved to enhance access; road mileage could increase; roads passable by standard low clearance passenger vehicles year-round.</li> </ul>																																																																																																																																																																								
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**Alternative 1**

**Alternative 2**

**Alternative 3**

**Alternative 4**

**Cultural Resources and Native American Traditional Use**

- Cultural resources protected through documenting of historical sites; no historic structure restoration or public outreach would be pursued.
- Cultural resources protected through outreach, education, and partnerships with Tribes. Historic structures stabilized and rehabilitated; law enforcement would increase.
- Cultural resources protected from erosion, recreation, and project impacts; rehabilitate historic structures; enhance traditional use areas; discourage outreach and excavation as tools.
- Cultural resources protected through management of cultural sites; excavation used for mitigation and research; structures restored; outreach would promote education and discourage vandalism; law enforcement would increase.

<u>Prehistoric sites</u>	<u># Treated</u>						
Capped:	1	Capped:	1	Capped:	0	Capped:	2
Fenced:	0	Fenced:	2	Fenced:	0	Fenced:	0
Access controlled sites:	0	Access controlled sites:	1	Access controlled sites:	3	Access controlled sites:	3
Establish caretaker:	0						

<u>Historic sites</u>	<u>Historic sites</u>	<u>Historic sites</u>	<u>Historic sites</u>
Documented:	10	Documented:	10
Stabilized:	0	Stabilized:	2
Rehabilitated:	0	Rehabilitated:	4

- Class III Inventory on unsurveyed BLM lands only
- Class III Inventory same as Alternative 1, plus resurvey of BLM lands not meeting Class III standards
- Class III Inventory same as Alternative 2, plus survey unsurveyed high probability areas on PacificCorp lands
- Class III Inventory same as Alternative 2

**Vegetation**

- Treatments include fuel reduction in conifer forest and oak woodlands; some riparian management; no changes in meadow treatments
- Treatments include conifer forests and oak woodlands actions to enhance ACEC values; shrubfields treated for big game forage; some meadow management; inventory of special status species; interpretive signs posted
- Treatments include conifer forests and oak woodlands actions to approach more historically natural condition; increased management of shrubfields and meadows; prescribed fire used as needed; inventory of special status species
- Treatments include conifer forests and oak woodlands actions to improve health and condition around high recreation use areas; interpretive signs and brochures placed in high use areas

**Alternative 1**

**Alternative 3**

**Alternative 2**

**Alternative 4**

Vegetation Treatments (acres/decade)

	<u>BLM</u>	<u>PC</u>	<u>BLM</u>	<u>PC</u>	<u>BLM</u>	<u>PC</u>	<u>BLM</u>	<u>PC</u>
Plant Community	557	0	1,238	305	1,638	925	1,277	429
Conifer forests:	115	0	115	99	286	115	115	72
Dense Oak:	299	0	608	372	723	631	608	520
Open Oak:	0	0	0	0	0	0	0	5
Juniper:	130	0	538	367	700	644	538	537
Mixed shrub:	0	0	12	3	52	203	114	65
Rabbit/sagebrush:	63	0	215	46	215	103	215	46
Dry meadow:	7	0	52	166	62	245	9	22
Riparian:	0	0	0	374	0	374	0	0
Irrigated meadow:								
<b>Total:</b>	<b>1,171</b>	<b>0</b>	<b>2,778</b>	<b>1,732</b>	<b>3,676</b>	<b>3,240</b>	<b>2,884</b>	<b>1,696</b>
<b>Total for Alternative</b>	<b>1,171</b>		<b>4,510</b>		<b>6,916</b>		<b>4,580</b>	

(PC = Recommended for PacifiCorp Lands)

**Terrestrial Species**

- Emphasis on current wildlife management activities, including prescribed fire would continue; existing seasonal road closures would continue
- Emphasis on managing big-game and high-profile special status species; improve habitat for all vegetation; nesting structures installed; existing seasonal road closures would continue
- Emphasis on restoring habitat, inventory and monitoring of special status species maximized; human use de-emphasized; seasonal road closures would increase
- Emphasis on managing wildlife populations and habitats for visibility to public users; surveys and monitoring only as required; seasonal road closures slight increase

**Watershed Values**

Segment 1

Give emphasis to securing in stream flows for favorable channel conditions and fish passage; no action on ramp rate or peak flows

Segment 1

Increased baseflows; reduced ramp rate

Segment 1

Increased baseflows with seasonal variation; reduced ramp rate during flood peaks; “geomorphic flows” or “pulse flows” would be released

Segment 1

Increased baseflows; reduced ramp rate



**Alternative 1**

**Alternative 3**

**Alternative 2**

**Alternative 4**

**Fire and Fuels**

- Emphasis on minimal fuel treatment; random prescribed burn unit selections

- Emphasis on mechanical treatments; some random prescribed burn unit selections

- Emphasis on prescribed fire, however extensive mechanical and hand treatments needed during first decade

- Emphasis on hand and mechanical treatment near recreation sites and roads first

**Land Tenure**

- Retain and acquire land within Alternative 1 project planning boundary. Continue existing agreements with PacifiCorp and other private land owners
- Total acres potentially affected in this alternative = 11,880

- Retain and acquire land within Alternative 2 project planning boundary. Use land tenure adjustments or establish long-term cooperative management agreement with PacifiCorp to manage resources
- Total acres potentially affected in this alternative = 13,999 (additional acres mostly in California)

- Retain and acquire land within Alternative 3 project planning boundary. Use land tenure adjustments or establish long-term cooperative management agreement with PacifiCorp to manage resources
- Total acres potentially affected in this alternative = 20,482 (additional acres above Alternative 2 all in California)

- Retain and acquire land within Alternative 4 project planning boundary. Use land tenure adjustments or establish long-term cooperative management agreement with PacifiCorp to manage resources
- Total acres potentially affected in this alternative = 17,340 (additional acres above Alternative 2 all in California)

**Private Land**

- Oregon Parks and Recreation Department implements scenic classification and administrative rules for Scenic River Area for the entire 11-mile segment of the Klamath River Scenic Waterway

- Oregon Parks and Recreation Department implements scenic classification and administrative rules for an Scenic River Area for the entire 11-mile segment of the Klamath River Scenic Waterway

- Oregon Parks and Recreation Department implements scenic classification and administrative rules for an Scenic River Area for the entire 11-mile segment of the Klamath River Scenic Waterway

- Oregon Parks and Recreation Department implements scenic classification and administrative rules for an Scenic River Area for the entire 11-mile segment of the Klamath River Scenic Waterway

**Special Areas**

- None proposed

- Propose extending Area Critical Environmental Concern to river Segment 1

- Propose extending Area Critical Environmental Concern to river Segment 1

- Propose extending Area Critical Environmental Concern to river Segment 1

**Socioeconomics**

- No specific management actions are proposed for socioeconomics; however, other proposed management actions could have an effect on local and regional economy. The analysis considers impacts to individuals, businesses (including permitted outfitters), Tribes, minority populations, and low-income populations.

## **Chapter 5 – Environmental Consequences**

The potential environmental consequences from implementation of the management alternatives proposed in the River Plan, are summarized in the following section (see Table S-3). The interdisciplinary team has made the assumption that actions that are only recommended for implementation on PacifiCorp land, would occur. This allowed a more complete assessment on impacts to natural and social resources, in general, but more importantly allowed them to consider the potential cumulative impacts of management in the Klamath River canyon.

**Table S-3. Comparison of Resource Impacts**

	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>
<b>Scenic Quality</b>	<ul style="list-style-type: none"> <li>• Minor scenic quality improvement (long-term) through some vegetation treatments</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate scenic quality improvements (long-term) through vegetation treatments</li> </ul>	<ul style="list-style-type: none"> <li>• The greatest scenic quality improvements (long-term) occur through vegetation treatments</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate scenic quality improvements (long-term) through vegetation treatments</li> </ul>
<b>Recreation</b>	<ul style="list-style-type: none"> <li>• Recreation use would remain at present levels, and increase slightly over time</li> <li>• No new campgrounds or day use facilities would be constructed, existing facilities would be maintained or upgraded</li> <li>• OHV use limited to designated roads</li> <li>• River Segment 1 fishing access would remain primitive</li> <li>• Non-motorized recreation trails (18 miles) would be provided</li> <li>• Fishing opportunities should remain stable</li> <li>• Conflicts between recreation use and cultural sites impacts would continue</li> </ul>	<ul style="list-style-type: none"> <li>• Recreation use would remain near present levels and increase slightly over time</li> <li>• Public access would be improved over Alternatives 1 and 3</li> <li>• There would be more developed camping, day-use, interpretive facilities, non-motorized trails, and designated OHV routes than Alternative 1 and reduced conflicts with cultural sites when compared to Alternative 1 and 4</li> <li>• Increased kayaking opportunities in river Segment 1 when compared to Alternatives 1 and 3.</li> <li>• Interpretive/environmental education efforts would increase when compared to Alternative 1 and 3</li> <li>• Greater restrictions on OHV use would be implemented via designated routes and some road closures when compared to Alternatives 1 and 3</li> <li>• Increased law enforcement and management presence when compared to Alternatives 1 and 3</li> </ul>	<ul style="list-style-type: none"> <li>• Recreation use would remain near present levels</li> <li>• Developed camping and day use opportunities would be reduced from levels under Alternative 1</li> <li>• OHV use would be the most restricted under this alternative, with the most extensive road closures</li> <li>• Fishing access would remain similar to Alternative 1</li> <li>• Non-motorized trails would be provided, but at reduced levels from the other alternatives</li> <li>• Year-round kayaking opportunities would be improved compared to the other alternatives</li> <li>• Whitewater boating opportunities would be greatly reduced</li> <li>• Interpretive/environmental education efforts would be at a lower level than Alternatives 2 and 4, but higher than Alternative 1</li> <li>• Law enforcement and management presence would be similar to Alternative 1</li> </ul>	<ul style="list-style-type: none"> <li>• Recreation use would increase significantly</li> <li>• This alternative would manage recreation use for roaded natural recreation opportunity spectrum (ROS) experiences</li> <li>• This alternative provides the greatest amount of developed camping, day-use, interpretive facilities, and hiking trails of all the proposed alternatives</li> <li>• The greatest amount of OHV opportunities on improved roads would be available under this alternative</li> <li>• Motorized travel and OHV use would increase, potentially increasing long-term resource damage</li> <li>• Law enforcement and management presence would increase</li> <li>• Boating and kayaking opportunities would show the greatest improvement</li> <li>• Road conditions would improve the most, reducing opportunities for semi-primitive motorized</li> </ul>

Alternative 1	Alternative 2	Alternative 3	Alternative 4
<ul style="list-style-type: none"> <li>• This alternative would have more roads open for public use when compared to Alternatives 2 and 3</li> <li>• Road improvements in this alternative focus only on significant problem areas</li> </ul>	<ul style="list-style-type: none"> <li>• Increased developed recreational fishing opportunities when compared to Alternatives 1 and 3</li> <li>• This alternative would have more roads open for public use when compared to Alternative 3 but less when compared to Alternatives 1 and 4</li> <li>• Increased road maintenance over Alternative 1 levels could lead to increased use of recreation sites</li> </ul>	<ul style="list-style-type: none"> <li>• This alternative would have the lowest number of roads open for public use when compared to the other alternatives</li> <li>• Road improvements in this alternative focus on preventing erosion and impacts to riparian areas</li> </ul>	<ul style="list-style-type: none"> <li>• touring and solitude</li> <li>• This alternative provides the greatest level of interpretive/environmental education efforts</li> <li>• This alternative would provide the greatest enhancement of cultural resource displays, brochures, etc</li> <li>• This alternative would enhance wildlife viewing at recreational sites more than other alternatives</li> <li>• Recreational fishing access opportunities would increase the most</li> </ul>
<b>Roads/Access</b>			
<ul style="list-style-type: none"> <li>• Negative impacts to pre-historic and historic sites could occur under this alternative from recreational activities and location of recreation facilities</li> <li>• Increased vegetation and road treatments would have the least initial disturbance, followed by decreased human activity</li> </ul>	<ul style="list-style-type: none"> <li>• The greatest positive benefits and protection of pre-historic and historic sites would occur under Alternatives 2 and 4 from recreational activities and location of recreation facilities</li> <li>• Increased vegetation and road treatments would moderate initial disturbance, followed by decreased</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate positive impacts would occur to pre-historic and historic sites under this alternative when compared to Alternative 1</li> <li>• Increased vegetation and road treatments would have the greatest initial disturbance, followed by decreased human activity.</li> <li>• More cultural surveys would occur</li> </ul>	<ul style="list-style-type: none"> <li>• The greatest positive benefits and protection of pre-historic and historic sites would occur under Alternatives 2 and 4 from recreational activities and location of recreation facilities</li> <li>• Increased vegetation and road treatments would moderate initial disturbance, followed by decreased</li> </ul>
<b>Cultural Resources and Native American Traditional Use</b>			

Alternative 1	Alternative 2	Alternative 3	Alternative 4
<p>human activity</p> <ul style="list-style-type: none"> <li>• More cultural surveys would occur with this Alternatives than Alternative 1, thereby increasing the knowledge of past Native American use</li> <li>• Increased law enforcement and patrols would decrease potential recreation activity impacts to pre-historic and historic sites when compared to Alternatives 1 and 3</li> </ul> <p><b>Vegetation</b></p> <ul style="list-style-type: none"> <li>• The smallest amount of vegetative treatment of all the alternatives, therefore, the least positive impact on vegetation health and reduction of fuel loads and risk of wildfire</li> <li>• Potential for introduction of noxious weeds remains at current levels</li> </ul>	<p>human activity</p> <ul style="list-style-type: none"> <li>• More cultural surveys would occur with this Alternatives than Alternative 1, thereby increasing the knowledge of past Native American use</li> <li>• Increased law enforcement and patrols would decrease potential recreation activity impacts to pre-historic and historic sites when compared to Alternatives 1 and 3</li> </ul> <ul style="list-style-type: none"> <li>• Moderate level of vegetative treatment, than Alternative 1</li> <li>• Reduction of fuel loads and wildfire risk is moderate</li> <li>• Noxious weed introduction could increase over Alternative 1 levels</li> </ul>	<p>with this alternatives than Alternatives 1 and 2, thereby increasing the knowledge of past Native American use</p> <ul style="list-style-type: none"> <li>• Increased law enforcement and patrols would decrease potential recreation activity impacts to pre-historic and historic sites when compared to Alternatives 1 and 3.</li> <li>• The greatest amount of cultural surveys would occur with this alternative thereby increasing the knowledge of past Native American use</li> </ul> <ul style="list-style-type: none"> <li>• Vegetation treatments would be the highest in this alternative with the greatest positive impacts to vegetation health and diversity</li> <li>• Benefits are highest from reducing fuel loads and fire risk reduction compared to other alternatives</li> <li>• Short-term disturbances from vegetation treatments under this alternative would give noxious weed the most competitive advantage; however, long term management would produce more historically similar plant communities</li> </ul>	<p>human activity</p> <ul style="list-style-type: none"> <li>• Increased law enforcement and patrols would decrease potential recreation activity impacts to pre-historic and historic sites when compared to Alternatives 1 and 3.</li> <li>• The greatest amount of cultural surveys would occur with this alternative thereby increasing the knowledge of past Native American use</li> </ul> <ul style="list-style-type: none"> <li>• Moderate level of vegetation treatments focused near recreation sites with greater positive impacts to vegetation health and diversity than Alternative 1</li> <li>• Positive impacts to fuel reduction and risk reduction of wildfire are greater than Alternative 1 but less than Alternative 3</li> <li>• Areas of vegetation treatment, which can temporarily increase risk of noxious weed invasion, would be larger than Alternative 1, smaller than Alternative 3, and similar to Alternative 2</li> </ul>
<p><b>Soils</b></p> <ul style="list-style-type: none"> <li>• Minimal short-term negative impacts to soil resources from vegetation treatments</li> <li>• Greatest potential long-term negative impacts from erosion due</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate short-term negative impacts to soil resources from vegetation treatments</li> <li>• Potential long-term negative impacts from erosion due to risk of</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate short-term negative impacts to soil resources from vegetation treatments</li> <li>• Potential long-term negative impacts from erosion due to risk of</li> </ul>	<ul style="list-style-type: none"> <li>• Moderate short-term negative impacts to soil resources from vegetation treatments</li> <li>• Potential long-term negative impacts from erosion due to risk of</li> </ul>



Alternative 1	Alternative 2	Alternative 3	Alternative 4
<p>action, except as regarding minimum flows</p> <ul style="list-style-type: none"> <li>No Changes in recreation releases</li> <li>No flow changes anticipated unless as a result of the FERC relicensing process</li> <li>Adjudicated water rights secured for recreation and fisheries instream flows</li> </ul>	<ul style="list-style-type: none"> <li>Schedule powerhouse releases would resemble timing, volume and duration that occurred at the time of Wild and Scenic designation</li> <li>Instream flows revised as necessary, through the FERC relicensing process and other studies</li> <li>Adjudicated water rights secured for recreation and fisheries instream flows</li> </ul>	<ul style="list-style-type: none"> <li>Daily flow fluctuation: No releases would be made to support whitewater recreation</li> <li>Instream flows revised as necessary, through the FERC relicensing process and other studies</li> <li>Adjudicated water rights secured for recreation and fisheries instream flows</li> </ul>	<ul style="list-style-type: none"> <li>Daily flow fluctuation: No action, except as regarding minimum flows and ramp rates</li> <li>Scheduled powerhouse releases would enhance whitewater opportunities</li> <li>Instream flows revised as necessary, through the FERC relicensing process and other studies</li> <li>Adjudicated water rights secured for recreation and fisheries instream flows</li> </ul>
<p>Water Quality:</p>	<ul style="list-style-type: none"> <li>Fluctuations in temperature downstream from powerhouse would be slightly reduced</li> <li>Sediment delivery to tributary streams would decrease, but not as much as in other alternatives</li> <li>Minor effects to stream shading along tributaries</li> </ul>	<ul style="list-style-type: none"> <li>Some warming in downstream portion of Segment 1 due to releasing additional water from reservoir</li> <li>Temperature gradient at the powerhouse and daily temperature fluctuations would be greatly reduced</li> <li>Daily minimum water temperatures in Segments 2 and 3 would increase</li> <li>Reduction in warming rate downstream from powerhouse</li> <li>Water temperatures could increase slightly short-term, due to vegetative actions along mainstem river</li> <li>Water quality in fish-bearing and other streams would improve</li> <li>Sediment delivery to tributary streams would decrease</li> <li>In Shovel and Negro Creeks, summer water temperatures would decrease, and water chemistry could improve due to reduced</li> </ul>	<ul style="list-style-type: none"> <li>Fluctuations in temperature downstream from powerhouse would be slightly reduced</li> <li>Warming rates would decrease, but not as much as in Alternatives 2 and 3</li> <li>Water quality in fish-bearing would be maintained or improve slightly</li> <li>Water quality in some small streams could be affected by road improvements and road use</li> <li>In Shovel and Negro Creeks, summer water temperatures could decrease and water chemistry could improve</li> </ul>
<ul style="list-style-type: none"> <li>Some warming in downstream portion of Segment 1 due to releasing additional water from reservoir</li> <li>Reductions in warming downstream from the powerhouse would be the greatest in this alternative</li> <li>Mainstem water chemistry could improve long-term</li> <li>Water quality in fish-bearing and other streams would improve</li> <li>Sediment delivery to streams would be reduced, more than compared to other alternatives</li> <li>Stream shading would be reduced in the short-term with minor increases in water temperature short-term, due to vegetative actions along mainstem river, more than Alternatives 1 and 4</li> <li>In Shovel and Negro Creeks, summer water temperatures would decrease and water chemistry could improve due to reduced</li> </ul>	<ul style="list-style-type: none"> <li>Daily minimum water temperatures in Segments 2 and 3 would increase</li> <li>Reduction in warming rate downstream from powerhouse</li> <li>Water temperatures could increase slightly short-term, due to vegetative actions along mainstem river</li> <li>Water quality in fish-bearing and other streams would improve</li> <li>Sediment delivery to tributary streams would decrease</li> <li>In Shovel and Negro Creeks, summer water temperatures would decrease, and water chemistry could improve due to reduced</li> </ul>	<ul style="list-style-type: none"> <li>Some warming in downstream portion of Segment 1 due to releasing additional water from reservoir</li> <li>Reductions in warming downstream from the powerhouse would be the greatest in this alternative</li> <li>Mainstem water chemistry could improve long-term</li> <li>Water quality in fish-bearing and other streams would improve</li> <li>Sediment delivery to streams would be reduced, more than compared to other alternatives</li> <li>Stream shading would be reduced in the short-term with minor increases in water temperature short-term, due to vegetative actions along mainstem river, more than Alternatives 1 and 4</li> <li>In Shovel and Negro Creeks, summer water temperatures would decrease and water chemistry could improve due to reduced</li> </ul>	<ul style="list-style-type: none"> <li>Fluctuations in temperature downstream from powerhouse would be slightly reduced</li> <li>Warming rates would decrease, but not as much as in Alternatives 2 and 3</li> <li>Water quality in fish-bearing would be maintained or improve slightly</li> <li>Water quality in some small streams could be affected by road improvements and road use</li> <li>In Shovel and Negro Creeks, summer water temperatures could decrease and water chemistry could improve</li> </ul>

Alternative 1	Alternative 2	Alternative 3	Alternative 4
<p>ACS Values - Riparian Reserves:</p> <ul style="list-style-type: none"> <li>• This alternative is the least likely to maintain or restore riparian reserve functionality</li> </ul>	<p>irrigation withdrawals and instream restoration</p> <ul style="list-style-type: none"> <li>• Actions proposed under this alternative would have a relatively high likelihood of maintaining or restoring riparian reserve functionality</li> </ul>	<p>irrigation withdrawals and instream restoration</p> <ul style="list-style-type: none"> <li>• Actions proposed under this alternative have the highest likelihood of supporting the functionality of riparian reserves</li> </ul>	<ul style="list-style-type: none"> <li>• Actions proposed under this alternative would have a moderate likelihood of maintaining or restoring riparian reserve functionality</li> </ul>
<p><b>Aquatic Species</b></p> <ul style="list-style-type: none"> <li>• This alternative provides the least enhancement and protection to aquatic resources</li> <li>• Fish stranding would continue due to flow fluctuations from the hydro-electric facilities</li> <li>• Increased risk of catastrophic fire in aquatic and riparian habitat areas</li> </ul>	<ul style="list-style-type: none"> <li>• This alternative would have greater beneficial effects to aquatic species and habitats than Alternative 1 and 4, but not as great as Alternative 3</li> <li>• Fish stranding would be expected to decrease due to changes in flow fluctuations and instream projects when compared to Alternatives 1 and 4</li> <li>• Enhancement of mainstem channels would improve habitat for trout when compared to Alternative 1</li> <li>• Proposed new and expanded recreational facilities would have greater negative impact on aquatic species than Alternatives 1 and 3</li> <li>• Decreased risk of catastrophic fire in aquatic and riparian habitat areas when compared to Alternative 1</li> </ul>	<ul style="list-style-type: none"> <li>• This alternative would provide greater beneficial effects to aquatic species and habitats than all other alternatives</li> <li>• Long-term beneficial effects would be expected from all proposed instream structures</li> <li>• The greatest reduction in fish stranding would occur in this alternative</li> <li>• Greatest reduction of risk for catastrophic fire in aquatic and riparian habitat areas in this alternative</li> </ul>	<ul style="list-style-type: none"> <li>• This alternative would have greater beneficial effects to aquatic species and habitats than Alternative 1, but not as great as Alternative 3</li> <li>• Enhancement of mainstem channels would improve habitat for trout when compared to Alternative 1</li> <li>• Proposed new and expanded recreational facilities would have greater negative impact on aquatic species than Alternatives 1 and 3</li> <li>• Decreased risk of catastrophic fire in aquatic and riparian habitat areas when compared to Alternative 1</li> </ul>

**Alternative 1**

**Alternative 3**

**Alternative 2**

**Alternative 4**

**Livestock Grazing**

- Grazing would continue at present levels
- There would be a positive economic effect compared to other alternatives, as a result of continued grazing
- This alternative would eliminate all grazing in the planning area except for adaptive management vegetation control
- This alternative would have the greatest negative economic impact to grazing
- This alternative would have few reductions in livestock grazing when compared to Alternative 1
- There would be minimal changes in economic effects from grazing reduction
- This alternative would have moderate reductions in livestock grazing when compared to Alternative 1
- There would be moderate negative economic effects from grazing reduction

**Wild Horses**

- There are no impacts to wild horses from proposed actions
- There are no impacts to wild horses from proposed actions
- There are no impacts to wild horses from proposed actions

**Land Tenure**

- Potentially the least number of acres of private land acquired in this alternative
- Oregon and California would lose tax revenue; amount paid under PILT program would not equal tax receipts
- Potentially more acres of private land acquired than Alternative 1
- Oregon and California would lose tax revenue; amount paid under PILT program would not equal tax receipts
- Acquisition of private lands would ensure that these natural resources would continue to be maintained or enhanced
- Potentially the most acres of private land acquired in this Alternative
- Oregon and California would lose tax revenue; amount paid under PILT program would not equal tax receipts
- Acquisition of private lands would ensure that the greatest area of natural resources would continue to be maintained or enhanced
- Potentially more acres of private land acquired than Alternatives 1 and 2
- Oregon and California would lose tax revenue; amount paid under PILT program would not equal tax receipts
- Acquisition of private lands would ensure that a large area of natural resources would continue to be maintained or enhanced

**Private Land**

- Minimal if any impacts to private land
- Minimal if any impacts to private land within the Scenic Waterway from either State Administrative Rule implementation (mostly PacifiCorp “industrial” use)
- Minimal if any impacts to private land within the Scenic Waterway from either State Administrative Rule implementation (mostly PacifiCorp “industrial” use)
- Minimal if any impacts to private land within the Scenic Waterway from either State Administrative Rule implementation (mostly PacifiCorp “industrial” use)

	<b>Alternative 1</b>	<b>Alternative 2</b>	<b>Alternative 3</b>	<b>Alternative 4</b>
		<ul style="list-style-type: none"> <li>• If recommendations are adopted, PacifiCorp affected mostly by recreation site development, road improvements and vegetation treatments</li> </ul>	<ul style="list-style-type: none"> <li>• If recommendations are adopted, PacifiCorp affected mostly by eliminated grazing, irrigation changes, meadow management, road improvements and road closures, and vegetation treatments</li> </ul>	<ul style="list-style-type: none"> <li>• If recommendations are adopted, PacifiCorp affected mostly by recreation site development, reduced grazing, road improvements and road closures, and vegetation treatments</li> </ul>
<b>Special Areas</b>	<ul style="list-style-type: none"> <li>• No change</li> </ul>	<ul style="list-style-type: none"> <li>• Extend existing ACEC to Segment 1</li> </ul>	<ul style="list-style-type: none"> <li>• Extend existing ACEC to Segment 1</li> </ul>	<ul style="list-style-type: none"> <li>• Extend existing ACEC to Segment 1</li> </ul>

## Chapter 6 – Coordination and Consultation

The Draft Upper Klamath River Management Plan/EIS (henceforth called the River Plan) was prepared by an interdisciplinary team of resource specialists from the BLM, Lakeview District, Klamath Falls Resource Area Office with cooperation from the BLM, Redding Field Office and the Oregon Parks and Recreation Department. The official start of the preparation of the River Plan was initiated with the publishing of a “Notice of Intent” to prepare a Draft Environmental Impact Statement in the *Federal Register* on November 27, 2000. This notice also included an invitation to the public to suggest issues to be addressed in the River Plan and to provide comments concerning the management of the public lands. The planning process began in earnest in early 2001 with scoping meetings with the public, local governments, and organizations.

The River Plan is quite complex and requires extra coordination due to the fact that the planning area covers portions of two states. Multiple federal, state, and local government agencies were coordinated with to ensure that regulations would be adhered to during the preparation of this plan. In addition, PacifiCorp coordinated with the BLM in sharing natural resource information on their lands that are considered in the River Plan.

### Coordination

The BLM is coordinated with the following federal, state, and county agencies or committees: U.S. Fish and Wildlife Service, U.S. Forest Service, Environmental Protection Agency, Bureau of Reclamation, and National Resource Conservation Service, the Regional Interagency Executive Committee, Klamath Provincial Advisory Committee, Klamath Basin Ecosystem Restoration Office, Oregon Department of Forestry, Oregon Department of Fish and Wildlife, Oregon Department of Agriculture, Oregon Water Resources Department, Oregon Division of State Lands, Oregon State Marine Board, Oregon Parks and Recreation Department, State Historic Preservation Office (California and Oregon), Oregon Department of Environmental Quality, California Department of Fish and Game, California Department of Environmental Quality, California Departments of Forestry, California Water Resources Control Board, and the Klamath and Siskiyou Counties.

For more detailed information regarding the agencies BLM has coordinated with, see Chapter 6 in the DEIS.

### Consultation

**US Fish and Wildlife Service** – The 1973 Endangered Species Act identified on a National List, any plant, animal or fish that is in danger of extinction throughout all or a significant portion of its range. Species that are threatened, proposed and candidate status have a consultation process for projects with the USFWS, which administers the National List. A Biological Opinion (BO) will be prepared on the final preferred alternative that will make a determination on endangered fish or wildlife species and habitat. This opinion evaluates the potential impacts to species from a specific project and provides recommendations for protection of the viability of the species. To date, consultation with the USFWS has been informal through discussions with BLM staff.

**Tribes** - The Lakeview District is in the process of developing a Memorandum of Understanding (MOU) between the BLM and the Klamath Tribes. It is anticipated the MOU will be finalized in FY 2003. The KFRA has consulted with the Klamath Tribes on the Klamath River Management Plan/EIS. Government-to-government meetings have been held that have included presentations to the Tribal Council. Regular updates have been given to the Tribes Cultural and Heritage Resource specialists during bi-monthly meetings.

Government-to-government consultation meetings were also held with various Tribes in California. The KFRA has consulted with the Shasta Nation (both Oregon and California groups), Hupa, Karuk, and Yurok Tribes regarding the proposed River Plan.

## Chapter 7 – Implementation and Monitoring

### Implementation

A detailed implementation time schedule will be developed in the FEIS. For the River Plan/DEIS, it was assumed that actions identified in Appendix H would be implemented in ten years with annual maintenance needed there after. The life span of this plan is estimated to be twenty years.

The total cost estimates for implementing the specific actions for each alternative are displayed in Table S-4. BLM has prepared cost estimates for the recommended actions that occur on PacifiCorp lands. This was done to abide by PacifiCorp's written request to consider their lands in this River Plan/DEIS.

There were common assumptions made when developing the cost estimates for implementing each alternative.

Cost estimates were based on contracting all work to complete the specific actions.

No cost estimates were made for land tenure acquisitions.

Maintenance costs were determined to be critical after the ten-year implementation period. Maintenance costs were determined by estimating 10% of the total cost per alternative per year. Maintenance costs are for recreation facilities, roads, and vegetation treatments.

### Monitoring

BLM is required to monitor land use plan decisions (43 CFR 1610.4-9) and to adopt a monitoring program for any mitigation incorporated into decisions based on environmental impact statements (40 CFR 1505.2[c]). In addition, protection and enhancement of outstandingly remarkable river values is a mandate of the Wild and Scenic Rivers Act. In order to verify the trend of river resource conditions and to guide future management decisions, it is desirable to systematically sample public land, file the data in an organized fashion, and provide for periodic evaluation of the information obtained.

The monitoring plan identifies three levels of monitoring that could be conducted. These monitoring levels are described for each monitoring action and alternative (see Appendix M). The following reviews the three levels of monitoring that could be completed after projects implementation.

*Implementation Monitoring* — When determining whether a course of action is having the desired effects, the first step to take is implementation monitoring. This type of monitoring answers the question: “Were the actions detailed in the Record of Decision accomplished as designed?” Implementation monitoring will be conducted on each mitigation measure incorporated into the Klamath River Management Plan, and disclosure of accomplished actions will be documented in achievement reports. For many mitigation measures, such as standard Best Management Practices, the only monitoring necessary would be implementation monitoring.

**Effectiveness Monitoring** — If more monitoring information is desired, the second phase of monitoring is to determine whether the actions documented in the implementation phase of monitoring are having any effect. This phase answers the question: “Did the actions accomplished meet the objectives in the Record of Decision?” Thus, effectiveness monitoring includes obtaining field observations that meet approved protocol, and evaluating the data gathered to determine whether conditions remain within the bounds and intent of Plan direction.

**Validation Monitoring** — The validation phase of monitoring seeks to resolve whether the course of action is having the desired effects. Validation answers the question: “Were the initial assumptions used to develop the Klamath River Management Plan correct?” The validation phase also forms the background for adaptive management, and would become the initial data set for the next round of decision making.

**Table S-4. Summary of Implementation, Monitoring, and Annual Maintenance Costs**

Management Actions	Alternative 1		Alternative 2		Alternative 3		Alternative 4	
	BLM	PC*	BLM	PC*	BLM	PC*	BLM	PC*
<b>Implementation Cost/Decade**</b>	\$ 1,106	\$ 267	\$2,978	\$4,531	\$4,062	\$11,030	\$4,326	\$4,072
<b>Monitoring Activities Cost/Decade***</b>	384	N/A	857	N/A	765	N/A	796	N/A
<b>Total Cost/Decade</b>	\$1,490	\$ 267	\$3,835	\$4,531	\$4,827	\$11,030	\$5,122	\$4,072
<b>Annual Maintenance after first decade (the implementation period)</b>	105	27	298	453	400	400****	433	407

\* PC = PacifiCorp (Costs are estimated using the same method as for BLM land. Private landowners may be able to accomplish work at a different rate.)  
 \*\* All cost totals are in \$1,000 and displayed for a ten year time period  
 \*\* Monitoring costs calculated only for BLM lands for a ten year time period  
 \*\*\* Annual maintenance costs based on less than 10% factor

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# Chapter 1 – Introduction



*Chapter 1 – Klamath River Drainage in California*



# Chapter 1 – Introduction

## About this Document

The Klamath Falls Resource Area (KFRA) has initiated the planning process to develop the “Draft Upper Klamath River Management Plan/ Environmental Impact Statement and Resource Management Plan Amendments” (hereinafter referred to as the River Plan/DEIS). This document was prepared to provide you, the reader, an opportunity to review the information and analysis that the Bureau of Land Management (BLM) has in relation to this topic. This document is intended to comply with the Council on Environmental Quality’s Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act of 1969 (40 Code of Federal Regulations (CFR) Parts 1500-1508). Planning guidance also comes from land use planning requirements established by Sections 201 and 202 of the Federal Land Policy and Management Act of 1976 (FLPMA, 43 U.S.C. 1711) and the regulations in 43 CFR 1600.

Resource management and planning are complex tasks. Resource management is based on both biological and social sciences and there is a lot of technical “jargon” that comes with those sciences. A document of this scope does by necessity include many of the related technical terms. The BLM has tried to use common language, but when that is not easily accomplished, specific terms are explained, typically when first mentioned, and in the Glossary that appears in Appendix A. In order to reduce some length of the document we have also used abbreviations or “acronyms” that are made up of the initial letters of the words in the title. A list of Common Acronyms is included on the back cover.

If you find that some sections are unclear and you need a fuller explanation, we encourage you to contact any one of the BLM “resource experts” (see Appendix B for a List of Preparers) through our Receptionist at 541-883-6916.

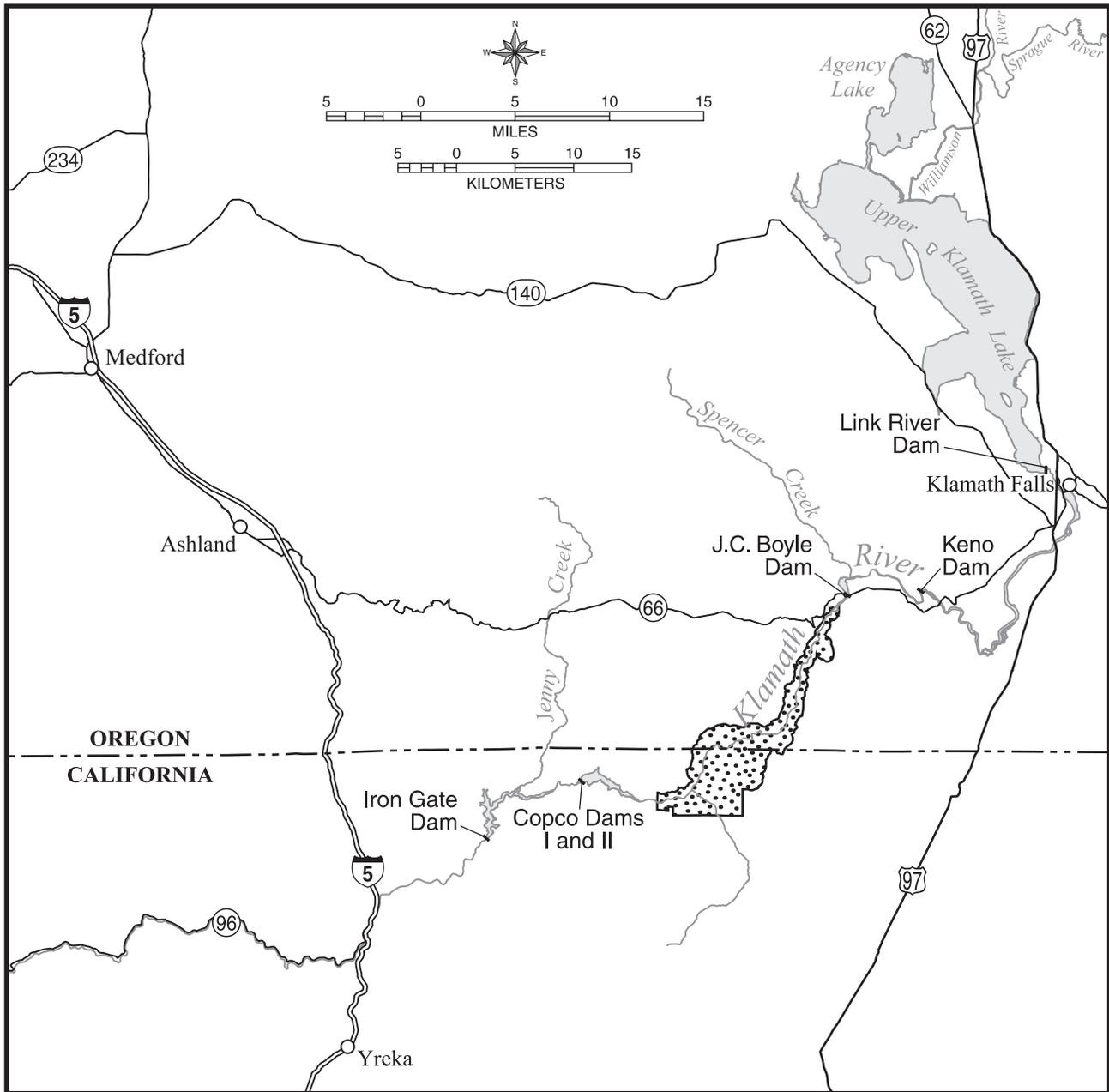
## Background

The Klamath River has been and continues to be an important feature in the ecosystem of southern Oregon and northern California. Ownership and management of lands surrounding the Klamath River is highly varied.

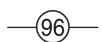
The Klamath River begins in Lake Ewauna, just south of the city of Klamath Falls, Oregon (see Map 1), and flows southwesterly into California and then west to the Pacific Ocean. From the river’s beginning to Irongate Dam in California, it is commonly known as the upper Klamath River. The section from Irongate Dam to the Pacific Ocean, it is known as the lower Klamath River.

The state of Oregon designated an 11-mile segment of the Klamath River as a State Scenic Waterway in 1988. The same 11-mile section of the Klamath River within Oregon was designated as a Wild and Scenic River with the classification of “Scenic,” under Section 2 (a)(ii) of the *Wild and Scenic Rivers Act* (see Map 2).

This designation was made by the Secretary of the Interior, at the request of Oregon’s governor in 1994. The *Wild and Scenic Rivers Act* requires that a management plan be developed to protect and enhance the outstandingly remarkable values for which the river was designated (see Map 2).



**Legend**

-  Planning Area
-  Interstate
-  US Highway
-  State Highway



**U.S. DEPARTMENT OF THE INTERIOR  
Bureau of Land Management**

**OREGON  
LAKEVIEW DISTRICT  
Klamath Falls Resource Area  
CALIFORNIA  
REDDING FIELD OFFICE**

**Draft Upper Klamath River  
Management Plan/EIS  
and Resource Management  
Plan Amendments  
2003**



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D12-05-01: MW-061702  
Oregon State Office

**Map 1:** Upper Klamath River, Regional Transportation, and Major Population Centers

The 1995 “Klamath Falls Resource Area Record of Decision and Resource Management Plan and Rangeland Program Summary” (RMP) identified an Area of Critical Environmental Concern (ACEC) for the full river canyon (rim-to-rim) for the designated 11-mile section of the river (see Map 2). An ACEC is a type of special land use designation designed to protect areas with important resource values that are in need of special management. The RMP provides direction to “Develop site-specific management plans . . .” for these special areas. Table 1-1 summarizes by year the significant actions related to the Klamath River designations within the planning area. The River Plan /DEIS will address requirements for each of these designations. Because of the long distance from Redding to the river, and nearer proximity to Klamath Falls, the Klamath Falls Resource Area manages recreation use on BLM lands along the section of the Klamath River in northern California.

The River Plan/DEIS is being prepared by Klamath Falls Resource Area staff, with input and review from Redding Field Office staff. In addition, Oregon Parks and Recreation has provided draft administrative rules for scenic waterways and review for this document, relating to the State of Oregon’s Scenic Waterway designation.

## **The Planning Area**

The planning area for the proposed Upper Klamath River Management Plan (River Plan) is from the J.C. Boyle Dam (in Oregon) southwest to the slackwater of Copco Reservoir in California.

The Oregon portion of the plan is about 15 miles long and encompasses about 6,000 acres of public lands; the California river segment is about five miles long and encompasses about 200 acres of public lands.

The proposed project is within Klamath County, Oregon, and Siskiyou County, California, and is located about 25 miles southwest of Klamath Falls, Oregon.

The “Final Eligibility and Sustainability Report for the Upper Klamath Wild and Scenic River Study (1990),” divided the river into three segments and analyzed the outstandingly remarkable values for each river segment.

The proposed planning area for this plan includes the river segments, plus some surrounding landscape, including the (ACEC) designated under the “Klamath Falls Resource Area Resource Management Plan” (KFRA/FEIS) (1995). For the purposes of this planning effort, the planning area is similarly divided into three segments described below (see Map 2 and Table 1-2).

### **Segment 1 (Oregon)**

This segment was found to be neither eligible nor suitable for inclusion into the wild and scenic river system. However, this segment does possess recreation, wildlife, fishery, and visual quality aspects that need to be considered in the overall planning of the river system.

### **Segment 2 (Oregon)**

The outstandingly remarkable values identified for this segment are recreation, wildlife, fish, prehistoric, historic, scenic, and Native American traditional use. A 0.25-mile boundary on each side of the river was designated a State of Oregon scenic waterway in 1988 and a national wild and scenic river in 1994.

The values for which this segment was designated a wild and scenic river need to be protected or enhanced when considering land management practices or resource activities.

**Table 1-1. – Significant Actions Related to the Klamath River Designations**

Year	Significant Actions
1969	The <i>Oregon Scenic Waterways Act</i> ( <i>Oregon Revised Statutes 390.805 to 390.925</i> ), administered under the authority of the Oregon State Parks and Recreation Department, is a statewide law for river conservation that was established by a vote in 1969. The Oregon Scenic Waterways System was established through the act.
1983	The BLM developed guidance for management of recreation resources in the recreation area management plan for the Klamath River Special Recreation Management Area.
1988	In October 1988, the <i>Oregon Omnibus Rivers Act</i> directed the BLM to complete an eligibility and suitability report for the Upper Klamath Wild and Scenic River for possible inclusion into the national wild and scenic rivers system. This report was completed in 1990.
1988	In November 1988, Ballot Measure 7 was passed in Oregon, adding, among other rivers, the upper Klamath River (from the J.C. Boyle Dam Powerhouse southwest to the Oregon/California state line and 0.25 mile in width from the ordinary high water mark on each bank) to the Oregon Scenic Waterways System. The Oregon State Parks and Recreation Department has primary administrative responsibility for Oregon scenic waterways and explicit authority to regulate land use. The department has adopted general rules of land management applicable to all scenic waterways. Specific rules are adopted for individual scenic waterways.
1990	The BLM “Eligibility and Suitability Report for the Upper Klamath Wild and Scenic River” was sent to Congress. This study report recommended that segments of the upper Klamath River be included into the national wild and scenic river system. This report identified an 11-mile segment in Oregon and five-mile segment in California as eligible and suitable for inclusion into the national wild and scenic river system.
1994	In response to a request by Oregon Governor Barbara Roberts to designate the Klamath River under Section 2(a)(ii) of the <i>National Wild and Scenic Rivers Act</i> , the National Park Service undertook the “Klamath Wild and Scenic River Eligibility Report and Environmental Assessment.” The recommendations from this report were forwarded to Interior Secretary Bruce Babbitt. In September 1994, the upper Klamath River (11-mile segment) from the J.C. Boyle Powerhouse southwest to the Oregon/California state line was designated as a state-administered component of the national wild and scenic river system. In order for a river to qualify for the national system through Section 2(a)(ii) of the act, it must first be designated as a component of a state river protection system by, or pursuant to, an act of the legislature of that state.
1995	The federal lands along upper Klamath River are currently managed under the 1995 KFRMP/FEIS. The plan designated an 11-mile segment of the river (rim-to-rim along the river corridor) from J.C. Boyle Powerhouse to the Oregon/California state line as an ACEC.
2002	Oregon State Parks and Recreation Department (OPRD) has approved final classification of the Klamath River Scenic Waterway as a Scenic River. Final land management rules for the Klamath River Scenic Waterway were also approved by OPRD.

**Table 1-2. – Upper Klamath River Segments and Designations**

River Segment	Description	Designations	Miles
Segment 1	From J.C. Boyle to Powerhouse	• None	4
Segment 2	From Powerhouse to Oregon/California state line	<ul style="list-style-type: none"> <li>• Area of Critical Environmental Concern (rim to rim)</li> <li>• Oregon State Scenic Waterway <sup>1</sup></li> <li>• Wild and Scenic River <sup>1</sup></li> </ul>	11
Segment 3	From Oregon/California state line to slackwater of Copco Reservoir	• Found to be eligible and suitable for inclusion into the national Wild and Scenic River System (undesignated and under interim management)	5

<sup>1</sup> 0.25 miles each side of the river.

Some resource values are also significant beyond the 0.25-mile boundaries. The 1995 KFRMP/FEIS designated an ACEC for special management. Therefore, this plan will analyze these values from rim-to-rim within the river canyon.

### Segment 3 (California)

The 1990 “Final Eligibility and Suitability Report for the Upper Klamath Wild and Scenic River Study” (USDI-BLM) found this segment to be eligible and suitable for inclusion into the national wild and scenic river system. Congress has the authority to determine whether this river segment should be included into the national wild and scenic river system; this river segment is under protective management until a decision on designation is made.

This study identified recreation, wildlife, fish, historic, and scenic resources as the outstandingly remarkable values for this segment. These values are to be protected or enhanced when considering land management practices or resource activities. The planning area was expanded to include lands adjacent to the suitable/eligible river (rim-to-rim) in river Segment 3.

## Purpose and Need, and Decisions Related to this Plan

### Purpose and Need

This planning effort is being undertaken because the current recreation plan, completed in 1983 by the BLM Medford District, is outdated. There are now overlapping jurisdictions and designations that did not exist 20 years ago.

In 1994, river Segment 2 (in Oregon) was designated a scenic river under the *Wild and Scenic Rivers Act*. Under Section 3(d)(1) of the act, the federal agency charged with administration of

a component of the national wild and scenic rivers system is required to prepare a comprehensive management plan for the protection of river values. This analysis would result in such a plan.

The KFRMP/FEIS designated river Segment 2 (from rim-to-rim within the river canyon) as an ACEC. Therefore, this plan will also develop a management activity plan to protect the values for which the ACEC was designated.

The Redding Resource Management Plan includes a “Management Action” (page 36) stating the need to, “Amend the existing river management plan for the Klamath River above Copco to reflect the Final Eligibility and Suitability Report for the Upper Klamath Wild and Scenic River Study and the recommendations of the Klamath Falls Resource Area Resource Management Plan.

At the conclusion of this planning effort, there will be one EIS and management plan that will guide and coordinate all land management activities along this upper section of the river. This EIS will amend both the BLM Redding (California) and the Klamath Falls Resource Area (Oregon) Resource Management Plans.

PacifiCorp is beginning the Federal Energy Regulatory Commission (FERC) relicensing process for their Klamath River projects (Big Bend #2082), which include the J.C. Boyle Dam/Powerplant. This plan, scheduled for completion by 2003, will identify some resource concerns that need to be considered during the relicensing process. The BLM intends to submit this plan to PacifiCorp for inclusion in their draft relicensing application to FERC.

The draft PacifiCorp relicensing application will be submitted to FERC in 2004. The current FERC license expires in 2006. The BLM will also send this plan to FERC as supporting documentation to assist in the relicensing of the PacifiCorp power generating facilities on the upper Klamath River. FERC will use this plan to help complete *National Environmental Policy Act* (NEPA) requirements necessary for relicensing.

## Decisions to Be Made

This DEIS is *not a decision document*. Its primary purpose is to disclose the environmental consequences that could occur through implementation of the alternatives being considered. However, decisions will be based on the analysis disclosed here.

For this DEIS, Alternative 3 has been identified as the “Preferred Alternative”. A Record of Decision (ROD) or numerous RODs will be signed by the state directors of Oregon/Washington and California State BLM offices. In addition, the Governor of Oregon will review the document and make a decision on adoption of administrative rules for the State Scenic Waterway.

There are two types of decisions that the BLM can make related to this document – land use plan level decisions and implementation level decisions.

Land use decisions are those that affect land allocations, e.g., establishing the type of management that is appropriate for the land. Implementation decisions are those that allow or prescribe specific management actions that should occur on those lands.

Any subsequent decisions would identify the specific decision to be made, in order to clearly spell out which administrative appeal or protest procedures apply. Proposed land use decisions could be protested under 43 CFR 1610.5-2, while any implementation decisions could be appealed to the Interior Board of Land Appeals under 43 CFR 4.411. The decisions to be made in subsequent documents (typically records of decision) are listed by the type of decisions:

## **Land Use Decisions**

- Whether to amend either or both the Klamath Falls Resource Area Resource Management Plan and the Redding Resource Management Plan
- Whether to extend the existing ACEC
- Whether to extend the existing land allocation for the Upper Klamath River Management Area (Redding RMP) to include additional planning-area lands – area depends on alternative selected
- Whether to pursue acquisition of lands within the planning area, both inside and outside of the existing designated river boundaries

## **Implementation Decisions**

- What actions would be implemented on BLM lands to protect and enhance the outstandingly remarkable values and ACEC values
- What actions would be recommended to PacifiCorp for implementation on their lands, assuming that a long-term management agreement is developed for those lands.

Multiple decisions, based on the analysis in the EIS, would be made to implement specific management actions over a period of years. Some actions may be ready for implementation immediately following the publication of the final EIS and Record of Decision, including various road management actions. Other actions may require more pre-disturbance surveys or consultation with other agencies or other parties and vegetation treatments.

# **Management Direction and Management Goals**

## **Existing Management Direction**

Management direction is found in various federal, state and local laws and management plans.

### **Federal and State Level Legal Authorities**

The KFRA is responsible for determining if the proposed DEIS conforms to state and federal laws. A listing of Legal Authorities (laws) is provided in Appendix C. This determination will be documented in a subsequent Record of Decision(s).

### **Federal Agency Plans**

A number of land use or resource management plans have been developed by the BLM and other federal agencies which relate to or otherwise govern how management is currently carried out within the planning area.

The federal plans listed below have been identified as being applicable to the planning area. This DEIS is tiered to those documents with applicable sections “incorporated by reference”, and, unless otherwise noted, the DEIS is believed to conform to these plans.

Where appropriate, management direction and previous management decisions set forth in these documents are used to support analyses described in this plan. Some documents are incorporated by reference, and are therefore not reproduced in this document.

Pertinent decisions already established by these documents are not being revisited here, but are merely mentioned to give the reader an overview of management direction applicable to the planning area.

- The “Klamath Falls Resource Area Record of Decision and Resource Management Plan and Rangeland Program Summary” (BLM 1995). Appendix D provides relevant direction from this plan.
- The “Redding Resource Management Plan and Record of Decision” (BLM 1993) - The KFRA adjoins the Redding Resource Area along the Oregon and California borders. Appendix D provides relevant direction from this plan.

The two offices operate under a memorandum of understanding that provides for the KFRA to manage the recreation and maintenance activities that occur on BLM lands along the upper Klamath River in California (see Appendix E).

By agreement with the California State Director and the Redding Field Manager, this DEIS includes descriptions and analysis of the California BLM-administered lands. However, a final decision on those lands will be made by the California State Director upon completion of the appropriate planning document(s).

- The appropriation of surface waters within the Klamath Basin is governed by Oregon and California law, and the “Klamath River Basin Compact” (Oregon Revised Statutes 542.620). The Compact became effective in 1957 upon ratification by Oregon and California and acceptance by the U.S. Congress. Article III of the Compact addresses beneficial uses in the Klamath River Basin.
- The “Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl” (BLM-USFS 1994)
- The “National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands” (BLM 2001)
- The “Western Oregon Transportation Management Plan” (BLM 1996, Updated 2002)
- “Klamath Wild and Scenic River Eligibility Report and Environmental Assessment” (National Park Service, 1994)
- “Vegetation Treatment on BLM Lands in Thirteen Western States Final Environmental Impact Statement” (BLM 1991b)
- “Northwest Area Noxious Weed Control Program Final Environmental Impact Statement” (BLM 1985)
- “Supplement to the Northwest Area Noxious Weed Control Program Final Environmental Impact Statement” (BLM 1987)
- “Site-Specific Environmental Assessment Tiered to the 1987 Final Environmental Impact Statement for Rangeland Grasshopper Cooperative Management Program” (USDA-APHIS 1993). This EIS covers the periodic need to control grasshopper outbreaks in various rangeland and agricultural areas. The lead for this type of action

rests with the USDA Animal and Plant Health Inspection Service, but the BLM does cooperate when treatment involves lands under its administration.

- “Rangeland Grasshopper Cooperative Management Program Final Environmental Impact Statement” (APHIS 1987)
- “Wildlife Damage Management in the Roseburg ADC District in Southwestern Oregon” (APHIS 1994). This report covers wildlife damage management activities in the KFRA. USDA-APHIS is the lead agency for this action. The BLM served as a cooperating agency in the preparation of this environmental assessment and decision.
- “Healthy Rangelands” (BLM and USFS 1994; BLM 1995a; 1997a;) and “Standards for Land Health for Lands Administered by the Bureau of Land Management in the States of Oregon and Washington” (BLM 1998a). These plans amend current grazing and other land management direction by applying new standards and guidelines.
- “Public Land Recreation, a Management Strategy for Special Recreation Management Areas in Oregon and Washington” (BLM 1988). This report outlines special management direction for special recreation management areas in Oregon and Washington, including the Klamath River Complex Special Recreation Management Area.
- The “Lost River and Shortnose Sucker Recovery Plan of the Klamath Basin: Lost River sucker (endangered) *Deltistes luxatus*, shortnose sucker (endangered) *Chasmistes brevirostris*” (USFWS 1993). This report outlines recovery strategies for two federally listed species. This direction will be considered common to all alternatives analyzed in this DEIS.
- The “Southern Oregon/Northern California Coastal (SONCC) Coho ESU (Evolutionarily Significant Unit) Recovery Plan” is currently under development. Under Section 4(d) of the Endangered Species Act (ESA), the Secretary of Commerce is required to adopt such regulations deemed necessary and advisable for the conservation of species listed as threatened. National Marine Fisheries Service (NMFS) has issued final ESA 4(d) rules adopting regulations necessary and advisable to conserve 14 listed threatened salmonid ESUs, including the SONCC coho salmon (FR Vol 65, No. 132, Pgs. 42422-42481). Actions that may affect the SONCC coho populations downstream of the planning area will comply with the ESA 4(d) rules under all alternatives.
- The “Final Draft Recovery Plan for the Northern Spotted Owl” (USFWS 1992) outlines recovery strategy for the federally threatened northern spotted owl *Strix occidentalli*. This direction will be considered common to all alternatives analyzed in this DEIS.
- “The Pacific Bald Eagle Recovery Plan” (USFWS 1986)” and “Working Implementation Plan for Bald Eagle Recovery in Oregon and Washington” (Washington Department of Wildlife 1990). This direction will be considered common to all alternatives analyzed in this DEIS.
- A number of activity-level plans have also been completed in recent years that address specific resource management issues within the Klamath River planning area.

They are: the “Salt Caves Management Plan EA#OR-014-01-07”, (BLM 2002), “Klamath Falls Resource Area Fire Management EA#OR-014-94-09” (BLM 1994); “Lakeview District Fire Management Plan” (BLM 1998), “Klamath Falls Resource Area Integrated Weed Control Plan” (BLM 1993), “Pokegma Wildhorse Habitat

Management Area Plan” (Medford BLM 1978); “Wild Horse Management Plan and Environmental Analysis Report for Gavin Peak (and Three Sisters) Herd” (Goosenest Ranger District, Klamath National Forest 1975).

- In addition, numerous (grazing) allotment management plans that have been completed and provide direction (Klamath Falls BLM). An existing process is in place for authorizing temporary nonrenewable livestock grazing use (BLM 1989). All of these documents are considered part of the existing management direction and will be included in the description of this DEIS where appropriate.

## Relationship to the Northwest Forest Plan

The “Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old Growth Forest Related Species within the Range of the Northern Spotted Owl Record of Decision,” known as the Northwest Forest Plan, was established in 1994.

This supplemental impact statement amended USFS and BLM management plans. The Northwest Forest Plan is an ecosystem-based strategy for managing all USFS- or BLM-administered lands within western Washington, Oregon, and northern California. The Northwest Forest Plan covers an area of 24 million acres.

Management direction consists of extensive standards and guidelines, including land allocations that comprise a comprehensive ecosystem management strategy.

Ecosystem management emphasizes the complete ecosystem instead of individual components, and looks at sustainable systems and products that people want and need. It is based on the premise that economic health cannot be sustained without ecological health.

The public lands within the upper Klamath River planning area are inside the Northwest Forest Plan boundary. The building blocks for this strategy are comprised of several land use allocations identified in the 1995 RMP/FEIS. Strategies and components of the Northwest Forest Plan that are applicable in the planning area are as follows:

## Aquatic Conservation Strategy implementation

The Aquatic Conservation Strategy was developed (as part of the 1994 Northwest Forest Plan) to restore and maintain the ecological health of watersheds and aquatic ecosystems contained within them on public lands.

A set of Aquatic Conservation Strategy objectives was developed in the Northwest Forest Plan, to guide the review and implementation of management activities. The components of the Aquatic Conservation Strategy are (1) riparian reserves, (2) key watersheds, (3) watershed analysis, and (4) watershed restoration.

The four components are designed to work together to maintain and restore the productivity and resiliency of riparian and aquatic ecosystems. The following sections review the four components of the Aquatic Conservation Strategy.

*Riparian Reserves:* Under the Aquatic Conservation Strategy, riparian reserves are used to maintain and restore riparian structures and functions, confer benefits to riparian-dependent and associated species, enhance habitat conservation for organisms that are dependent on the transition zone between upslope and riparian areas, improve travel and dispersal corridors for many terrestrial animals and plants, and provide for greater connectivity of the watershed.

*Key Watersheds:* Key watersheds serve as the cornerstones of aquatic species recovery, and special guidelines apply to federal lands within key watersheds. No key watersheds are within the planning area.

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

The “Topsy-Pokegama Landscape Analysis” (USDI-BLM 1996) encompasses the river planning area in Oregon. There has not been a watershed/landscape analysis done in the California portion of the planning area because this area is not a key watershed, and limited public lands exist in the area.

*Watershed Restoration:* As part of the Aquatic Conservation Strategy, watershed restoration is an integral part of a program to aid recovery of fish habitat, riparian habitat, and water quality.

The most important components of watershed restoration are control and prevention of road-related runoff and sediment production, restoration of the condition of riparian vegetation, and restoration of instream habitat complexity. Monitoring is an important component of restoration projects.

## **Relationships and Implications Regarding Klamath Basin Water Issues**

PacifiCorp, the owners of the Klamath Hydroelectric Project (Big Bend #2082) are applying to the Federal Energy Regulatory Commission (FERC) for a new license. The current license was issued in 1956 for 50 years, and will expire in March of 2006. John C. Boyle Dam and power plant are located within the proposed River planning area boundary. The final River Plan will identify resource impacts and mitigations regarding the PacifiCorp operations of their facilities to fish, recreation, cultural, and wildlife resources. These impacts (both negative and positive) need to be considered during the FERC relicensing process. The final River Plan is scheduled to be completed in 2004 before FERC begins an Environmental Impact Statement (EIS) in 2004 on the relicensing of the Klamath Hydroelectric Project #2082. The final River Plan will contain important resource information and provide a basis for alternative development for FERC’s EIS.

All water issues (both quantity and quality) and fisheries (both inland and anadromous fisheries) are controversial in the Klamath Basin. Water and fishery proposed actions are addressed in the River Plan and have no direct or indirect impacts that would influence the Bureau of Reclamation’s Klamath River Anadromous Fish Restoration and Operation Plan or the Environmental Protection Agency/State Total Maximum Daily Load development process.

## **Relationship to State and County Plans**

### **State Comprehensive Outdoor Recreation Plan**

The Statewide Comprehensive Outdoor Recreation Plan (SCORP) provides guidance to federal, state, and local units of government, as well as the private sector, in providing outdoor recreation resource opportunities in the State of Oregon.

The plan allows Oregon to remain qualified for the federal Land and Water Conservation Fund (LWCF). The LWCF program provides grants for the acquisition and development of public outdoor recreation areas and facilities.

The Oregon Parks and Recreation Department will be sent the River Plan to comment on its consistency with their approved plans and policies.

### **Oregon Statewide Plans**

In 1973, Oregon created a statewide program for land use planning. The foundation of this program is a set of 19 statewide planning goals. The goals express the state's policies on land use and on related topics, such as citizen involvement, housing, and natural resources. Oregon's statewide goals are achieved through local comprehensive planning. The local comprehensive plans must be consistent with the statewide planning goals. State law requires each county to have a comprehensive plan and the zoning and land-division ordinances needed to put the plan into effect.

Oregon's statewide planning program is directed by the Land Conservation and Development Commission. BLM employees have met with various state agencies and county employees during the development of the River Plan to ensure that the River Plan compliments the statewide planning goals.

### **Klamath County Plan**

Klamath County has an existing land use plan developed in response to the State of Oregon's requirements. The plan consists of a number of reports, ordinances, and subsequent amendments governing land use practices and policies within the county.

The Klamath County Commissioners have meet with BLM employees to review the issues and alternatives regarding the River Plan. The Commissioners are being provided with an opportunity to review the River Plan and comment on its consistency with their approved plans and policies.

### **Siskiyou County Plan**

Siskiyou County has an existing land use plan developed to the State of California's requirements. The Siskiyou County Supervisors have meet with BLM employees to review the issues and alternatives regarding the River Plan. The Commissioners are being provided with an opportunity to review the River Plan and comment on its consistency with their approved plans and policies.

## **Designations within the Planning Area**

### **Oregon Scenic Waterway (Klamath River Segment)**

The Oregon Scenic Waterways System was created by ballot initiative in 1970. Scenic waterways are defined as including the designated river and related adjacent lands within 0.25 mile of the bank on either side of the river.

The original act designated 496 free-flowing miles in six different rivers. Rivers can be added to the system through ballot initiative or designation by the legislature or governor.

In 1988, Oregon voters passed a second ballot initiative, the "Oregon Rivers Initiative" (Ballot Measure #7), that added 573 river miles to the Oregon Scenic Waterways System, including 11 miles of the upper Klamath River. This segment begins at the J.C. Boyle Powerhouse and goes southwest downstream to the Oregon/California state line (see Map 2). This EIS would also provide a plan to meet the "Oregon Scenic Waterway Management Plan." The State of Oregon requires that a management plan be developed to protect or enhance the aesthetic and scenic values of scenic waterways while allowing compatible agriculture, forestry, and other land uses (Oregon Revised Statutes 390.805 to 390.925).

## **National Wild and Scenic River Designation**

In 1994, the Klamath River from J.C. Boyle Powerhouse to the California/Oregon state line was designated a wild and scenic river. The boundaries of this designation are 0.25 mile on each side of the river (see Map 2). The 1968 *Wild and Scenic Rivers Act* requires that a river management plan be completed to determine how the outstandingly remarkable values for which the river was designated will be managed (Section 3[d][1]). The act specifically requires that the values be maintained or enhanced. The selected alternative of this plan will provide the basis for management of this wild and scenic river.

The BLM has developed a set of criteria to assess outstandingly remarkable values during the eligibility process for inclusion into the national wild and scenic river system. Values identified in the “Final Eligibility and Suitability Report for the Klamath Wild and Scenic River Study” (1990) and in the National Park Service’s “Klamath Wild and Scenic River Eligibility Report and Environmental Assessment” (August 1994) were used to support the designation of wild and scenic river found in Segment 2 of the planning area. These values are: recreation, wildlife, fish, prehistoric, historic, scenic quality, and Native American traditional use.

## **Upper Klamath River Area of Critical Environmental Concern Designation**

The KFRMP/FEIS designated an ACEC in the Klamath River Canyon from rim-to-rim extending from J.C. Boyle Powerhouse to the Oregon and California state line (see Map 2). An ACEC designation highlights an area where special management attention is needed by the BLM to protect and prevent irreparable damage to important historic, cultural, and scenic values; fish or wildlife resources; or other natural systems or processes; or to protect human life and safety from natural hazards (BLM Regulations, 43 CFR part 1610).

The ACEC designation indicates to the public that the BLM not only recognizes the area’s significant values, but has also established special management measures to protect those values. This designation serves as a reminder that the significant values or resources must be accommodated during the BLM’s consideration of subsequent management actions and land use proposals within an ACEC.

The cultural values (both prehistoric and Native American traditional use), scenic values, fish and wildlife (both populations and habitat) resources, and natural processes or systems (both priority plant species and vegetation) were found to be both relevant and important.

Management guidance outlined in the KFRA/FEIS specifies that this area: is not available for planned timber harvest, limits off-highway vehicle use to designated roads, allows no developments to enhance the potential for grazing, limits mineral leasing to no surface occupancy, and allows no hydroelectric development.

The area was to be managed for semi-primitive motorized recreation opportunities. A site-specific management plan for this ACEC will be developed as part of the final River Plan/EIS.

This plan will also evaluate extending the existing ACEC to river segment 1 in the planning area. A report that considers these important and relevant values was completed for river segment 1 (See Appendix I).

To be considered as a potential ACEC and, therefore, further evaluated in resource management plan alternatives, inventory data for the area must be analyzed to determine whether there are areas containing significant resources, values, systems or processes, or hazards. To be a potential ACEC, an area must meet relevance and importance criteria, as established and defined in BLM Regulations, 43 CFR 1610.7-2.

## Management Agreements

There are also memorandums of understanding, as well as agreements with other agencies and private landowners, which provide for cooperative management of the upper Klamath River area. They are as follows:

- The Klamath Falls Resource Area (KFRA) of the Lakeview BLM District administers federally-owned BLM lands within the Klamath River Canyon from J.C. Boyle Dam to Copco Lake, California.

Management of the California section is by memorandum of understanding with the BLM Redding Field Office (see Appendix E). The KFRA manages several recreation sites and issues and monitors special recreation permits for commercial whitewater rafting along this section of the river.

- The Oregon Parks and Recreation Department is a cooperative agency in management of the river and preparation of this river management plan. A cooperative management agreement (1997) was created to help guide and support the writing of this plan, and to manage the Klamath River until a final EIS is completed (see Appendix E).
- An additional memorandum of understanding, affirming a policy of cooperation and coordination among the BLM, landowners, and other public agencies is currently in place. This memorandum involves PacifiCorp, Oregon Department of Fish and Wildlife (ODFW), California Department of Fish and Game, Weyerhaeuser Company (as assigned to U.S. Timberlands Services Company, LLC) and the BLM, and establishes a mechanism for coordinating land management programs and planning among cooperating parties (see Appendix E).
- Due to the large number of commercial whitewater rafting permit requests and concerns regarding the carrying capacity on the upper Klamath River, the BLM issued a moratorium in 1996, freezing the number of river permits issued. This moratorium would be reevaluated after the completion of this river plan.

The existing memorandums of understanding and cooperative management agreements will continue to provide management coordination for the upper Klamath River until a new river management plan is developed to address specific resource concerns. After completion of this plan, all memorandums of understanding or agreements will be analyzed to determine if they need to be revised or terminated.

## Management Goals and Planning Criteria for this Plan

### Management Goals

1) *Maintain and restore river-related scenic and natural resources:* The upper Klamath River and surrounding area contains diverse plant and wildlife communities. Natural form and function of aquatic habitat, riparian areas and uplands shall be maintained and enhanced. Restoration activities shall strive to return habitat to more natural levels of complexity and diversity, while protecting the scenic characteristics of the viewshed.

2) *Provide diverse recreational experiences:* The Klamath River is a valuable recreational resource for visitors to the western United States. The River Plan will provide opportunities for enjoyable recreation experiences within the river's natural and cultural landscapes.

People with diverse interests and expectations will find a broad spectrum of opportunities, from solitude and quiet to group activities.

Appropriate access to the river canyon shall be provided; recreational facilities shall be maintained, enhanced, or designed to ensure protection of natural resource and cultural values.

3) *Promote visitor understanding and enjoyment:* Interpretation and education are valuable in enhancing visitor enjoyment and increasing understanding of the natural resources, processes, and events that help shape the Klamath River Canyon area. Visitors would be encouraged to learn about the cultural history and ecosystem of the area.

4) *Protect and enhance cultural resources:* The planning area has been inhabited for thousands of years, as evidenced by historical and archeological remains. This plan shall reduce recreational use conflicts that could negatively impact cultural and historical resources and, where practical, stabilize or rehabilitate historic sites.

5) *Meet existing state and federal laws, regulations, policies, and management direction:* The planning area encompasses portions of Oregon and California. State and federal laws and regulations shall be adhered to when developing management direction and implementation of future projects.

## **Planning Criteria**

The interdisciplinary team assumed the task of addressing issues raised by the public, as well as internal management concerns and resource needs, to develop a series of management actions that address those issues. Management actions are listed in detail in Chapter 4 as part of the description of alternatives. Individual management actions and alternatives must, to some extent, meet the following criteria:

- Do actions meet laws, regulations, policy and existing management direction?
- Do the actions within the boundaries of the river corridor protect and enhance the outstandingly remarkable values?
- Are actions consistent with the Scenic classification of the river?
- Do actions that are considered water resources projects under Section 7 of the *Wild and Scenic Rivers Act* have a direct and adverse impact on the values for which the river was designated Scenic.
- Do the actions within the boundaries of the river corridor protect and enhance the ACEC values?

*Additional Considerations:* All proposed actions will be evaluated against the above criteria. If a proposed action meets these criteria, the BLM will apply additional considerations to (1) minimize an impact by locating facilities outside the river corridor if there is a feasible alternative; (2) designing facilities or actions to minimize or mitigate impacts to the river; and (3) avoiding, minimizing, or otherwise mitigating negative impacts to visitor experience.

# The Planning Process

The planning process used for this project meets the intent of NEPA as amended, and the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the NEPA (1992). Some of the steps in this process are described below.

## Cooperation and Coordination

The BLM is committed to a community-based planning process that respectfully considers the diverse opinions and needs of local, regional, and national interests. It is vital that a variety of stakeholders are represented, to help identify issues, develop a range of alternatives, and offer input about how the plan should be implemented.

This approach, which ideally coordinates all interests and jurisdictions efficiently and effectively in the context of an open and sharing public process, presents numerous challenges. The collaborative planning framework described below offers such an opportunity.

The collaborative planning process illustrated in Figure B-1 (Appendix B) is designed to allow for inter-governmental and general public interaction to identify issues and complete the planning process.

The Oregon Parks and Recreation Department is a cooperative agency in the preparation of this document, as is the BLM Redding Field Office in California. Memorandums of understanding and cooperative agreements were created to help guide the management of the Klamath River and support the writing of this DEIS. A detailed listing of the BLM River Plan Interdisciplinary Team, the Upper Basin Subcommittee of the Klamath Provincial Advisory Committee, and the Interagency Advisory Committee can be found in Appendix B.

Following is a brief description of the duties of each of the groups working to help complete the DEIS.

*BLM and Multi-Agency Decision Makers:* Federal, state, or other partners that have legal authorities to make decisions over affected lands.

*Interdisciplinary Team:* The interdisciplinary team of BLM resource specialists is primarily responsible for writing the DEIS, based on data and analysis. An interdisciplinary team has been established consisting of a team leader, wildlife, fisheries, botany, forestry, archaeology, recreation, hydrology, fire ecology, and planning specialists.

*Interagency Advisory Committee:* The objective of the interagency advisory committee, comprised of representatives from county, state, and federal agencies, was created to ensure that the project complies with regulatory processes in California and Oregon.

*The Upper Basin Subcommittee of the Klamath Provincial Advisory Committee:* The Klamath Provincial Advisory Committee, a chartered organization, created a subcommittee of its members, called The Upper Basin Subcommittee of the Klamath Provincial Advisory Committee, to help with this DEIS.

This subcommittee was created to provide advice and to assist the interdisciplinary team by gathering information from private river users, local private landowners, and other interested parties, to be used throughout the river planning process.

## **Public Involvement and Scoping**

Scoping is the process of determining the scope of the environmental analysis to be completed, and it can be ongoing throughout the full phase of the analysis. Early in the analysis process, directed by NEPA, the analysis team identifies (1) the issues to be addressed, (2) significant issues to be used in the formulation of alternatives, (3) alternative actions, and (4) the depth and scope of the analysis. The scoping process for the River Plan/EIS was initiated in late 2000, with the following steps:

- Meetings conducted with the Upper Klamath Basin Subcommittee of the Klamath Provincial Advisory Committee
- Government-to-government consultations held with The Klamath Tribes
- Scoping document mailed to 225 people or businesses on a project mailing list
- News releases created and distributed, along with publication of a notice of intent in the Federal Register
- Interagency Advisory Committee meeting conducted
- Public scoping meetings held in Yreka, California and Klamath Falls, Oregon

Subsequent meetings and briefings occurred, including:

- Upper Klamath Basin Subcommittee meetings
- Government-to-government consultations and briefings with the Klamath, Hupa, Karuk, Yurok Tribes and with the Shasta Nation (not a federally recognized tribe)
- Briefings with local and regional organizations, recreation groups, and community groups
- Interagency Advisory Committee meetings
- Briefings with the BLM Oregon State Office, BLM California State Office, Lakeview District, Redding Field Office staffs, and Washington Office staff and directors
- Briefings with the Oregon and California congressional delegate field staffs
- An informational public meeting was held with the landowners and residents of Copco, California

In January 2002, the KFRA initiated streamlining consultation with the U.S. Fish and Wildlife Service (USFWS) regarding potential impacts of actions proposed in this River Plan/EIS on federally listed species or species proposed for listing.

Representatives for the USFWS were designated and sent River Plan/EIS material for review, with requests for their input. The USFWS sent the KFRA a list of species, either federally listed or proposed for listing, which may occur in the planning area. Species known to occur in the planning area are addressed in this DEIS. A biological opinion or concurrence will be requested on the proposed final EIS.

## Identification of Issues

Public scoping meetings were held on January 16, 2001 in Yreka, California, and January 17, 2001 in Klamath Falls, Oregon (refer to the Public Involvement Plan – Appendix F). With the close of the initial scoping period on January 31, 2001, 36 written responses (including comments documented at two scoping meetings) had been received.

A comment letter from PacifiCorp (dated May 2, 2001) requested that approximately 6,000 acres of their private lands located within the planning area be considered in the plan for possible land tenure adjustments. PacifiCorp is considering several management options for these lands that are surplus to their needs for power production. PacifiCorp requested the BLM to consider their lands for exchange for other BLM lands, or purchase, or that BLM and PacifiCorp enter into a mutually beneficial land management arrangement of these lands. PacifiCorp and BLM natural resource specialists have cooperated to gather resource information on PacifiCorp lands for inclusion in the plan.

The analysis and potential projects developed as part of this planning effort may be used by PacifiCorp to help determine desired long-term management of the lands, and potentially identify offsite mitigation opportunities for their FERC relicensing process.

Individual comments within the public scoping letters have been consolidated into 57 different issue statements, addressing 15 topic areas. Comments and additional issues have been obtained throughout the scoping process.

A detailed listing of issues can be found in Appendix G. The list of significant issues recommended by the interdisciplinary team is based upon public and agency comments received. The following is a list of significant issues that have been used to develop alternatives. Issues are discussed in detail in Chapter 4

## Wild and Scenic River and Area of Critical Environmental Concern Values as They Apply to the Issues

Protection and enhancement of these values are the primary objectives of this plan. These values are designated with an asterisk (\*) and specifics about these values and issues are mentioned below.

### Scenic Quality (\*)

One of the outstandingly remarkable values identified is the river's scenic quality. The consideration of new recreational facilities, fuel treatments, prescribed fire, utility development, and roads could impact visual quality. How to best maintain or enhance scenic qualities is a management concern.

### Recreation Activities (\*)

*Recreational Carrying Capacity:* This issue could affect the recreational user's experience within the river canyon. Carrying capacity for whitewater rafting and camping is the major concern, although carrying capacity for other recreational activities (fishing, hiking, off-highway vehicle use, etc.) will also need to be identified.

As mentioned above, due to the many commercial whitewater rafting permit requests received and concerns regarding the carrying capacity on the upper Klamath River, the BLM issued a moratorium in 1996, freezing the number of river permits issued.

This was an effort to reduce potential impacts to other resources. There is also concern regarding the increasing number of other recreation uses within the river corridor. This river plan will evaluate the area's carrying capacity, including the number of permitted rafters, relative to potential impacts on the outstandingly remarkable values.

*River Flows:* A primary recreational use is whitewater rafting below the J.C. Boyle Powerhouse. Whitewater rafting opportunities are dependent upon the timing and amount of river flow released by PacifiCorp. Whitewater rafting, an outstandingly remarkable recreation value, was identified as an issue.

If the timing of river flow is changed substantially, whitewater opportunities could be reduced or changed in ways that would significantly impact recreational opportunities and the local industry that supports them.

Diversity of other recreational activities (both on/off river) is also an issue. Recreational use could also increase the number of access points along the river, causing damage to riparian and upland habitat, and significant cultural sites.

## **Recreation Facilities**

Associated with the recreational carrying capacity issue is the improvement or construction of new recreational facilities along the river. Some of these new projects could affect the integrity of cultural resources and fish habitat.

Proposed trails could lead to increased use within the river corridor. There will be a need to evaluate the potential for removal or relocation of facilities to reduce impacts to other resources. Vandalism of recreational structures is on the rise, and vegetation is being damaged by increased visitor use.

## **Roads and Access**

There are numerous roads on public land within the river canyon, and the BLM has closed a number of these roads using barriers. While the intent was to protect cultural resources and reduce erosion, many closures are no longer effective. There is concern that off-highway vehicle (OHV) activity has led to increased erosion and sedimentation into the river, as well as damage to significant prehistoric and historic sites, and Native American traditional use areas.

Road location has also contributed to increased erosion that could be corrected. These are continuing problems that would need to be evaluated and addressed in the plan. These concerns need to be analyzed and balanced with public interest in OHV and driving for pleasure. The ultimate goal is to provide for this type of recreational use, while protecting critical resources.

## **Cultural Resources/Prehistoric Sites (\*)**

The Klamath River Canyon has many cultural sites. Several of these locations receive intensive recreation use, which has led to damage. The River Plan identifies ways to reduce recreation/cultural use conflicts. A monitoring plan would be developed to help protect against vandalism and looting of significant sites. The interpretation and protection of prehistoric or historic sites would aim to reduce vandalism and increase public awareness to prevent damage from occurring to sensitive cultural areas.

## **Native American Traditional Uses (\*)**

Native Americans have used the river canyon for thousands of years. The canyon is spiritually significant to tribal members. The river canyon is also a source for plant gathering for food and crafts. Roads and access have led to off-highway vehicle damage to Native American traditional use areas. Concerns regarding access for tribal members and conflicts with off-highway vehicle activity would be addressed in this plan. This plan addresses how forest health management practices and prescribed fire could help maintain plant-gathering areas.

## **Historic Sites (\*)**

Historic sites are rapidly deteriorating and have been vandalized, which has raised concerns about how to manage these structures.

## **Watershed Values**

The Klamath River (in the planning area) is listed as “water quality limited” in accordance with Section 303(d) of the *Clean Water Act*. It has been listed because of the impacts of nutrients and elevated stream temperatures on beneficial uses, such as habitat for threatened and endangered fish species.

Water quality also affects values, such as recreation, for which the river was designated a State of Oregon scenic waterway and a national wild and scenic river. This plan identifies possible ways of protecting and enhancing water quality within the planning corridor in support of other resource values. Management concerns about erosion caused by roads, water flows, riparian vegetation, and watershed processes would be addressed in the plan.

## **Wildlife and Fisheries (\*)**

*Wildlife:* There are threatened and endangered (bald eagle), and special status species (western pond turtle, Townsend big-eared bat, and white headed woodpecker, etc.) that use the river corridor. Habitat for these species would be evaluated to determine the type of management needed to protect or enhance the survival of these species. This plan addresses unique wildlife habitat, such as big game winter habitat and oak woodlands. The impacts from wildlife habitat enhancement projects to scenic values and impacts to wildlife from other resource management practices would also be addressed.

*Fisheries:* Fisheries is one of the outstandingly remarkable values that earned the Klamath River its designation as a wild and scenic river. Management concerns deal with the endangered Lost River and shortnose suckers and special status Klamath redband trout that use the river.

The river has been designated as a wild trout fishery. The planning area is also within the historic range of the threatened and endangered coho salmon. There are management concerns regarding the passage of both resident fish and fish that enter the river to swim upstream and spawn.

There are also recreational trout fishing concerns surrounding the lack of large fish within the river. There is evidence that the water peaking (repetitious high flows), which optimizes generation of power from J.C. Boyle Dam, impacts the aquatic habitat for fisheries on the stretches analyzed under this plan. There may be opportunities to improve fish habitat. There is speculation that the variation in water flows (for power generation), or the design of the hydropower project may affect the size of fish.

## **Fire and Fuels**

Heavy fuel loads exist on forested lands in the river canyon. Historically, lightning occurrence has been high in this area, and, given the steep terrain, any fire occurrence could devastate the forest. Past examples are the Big Bend and J.C. Boyle fires (in the 1980s).

This plan addresses needs for effective fuel reduction treatments, and the potential loss of river canyon scenic characteristics to wildfire would be evaluated. This plan evaluates management concerns regarding fuel types and level of treatments necessary to protect or enhance the outstandingly remarkable values.

## **Vegetation and Biological Diversity**

Vegetation manipulation would be considered in this plan when it could maintain or enhance wildlife and fish habitat, scenic quality, or Native American traditional use areas (food gathering). This plan evaluates how the vegetation would be managed, including control or eradication of exotic or noxious weed species.

## **Air Quality**

The plan will likely propose fuel treatment to enhance wildlife habitat and reduce the potential for catastrophic wildfires. Planned prescribed fires need to be consistent with the *Clean Air Act*.

The BLM Klamath Falls Resource Area will be developing a Smoke Management/Air Quality Plan in 2003. This smoke management plan would analyze the river planning area and should identify what effect actions proposed would have on air quality. The smoke management plan would be included in the final River Plan document in 2003.

## **Socioeconomics**

Potential management actions would have an effect on the local and perhaps regional economy. The analysis needs to consider impacts to individuals, businesses (including permitted outfitters), tribes, minority populations, and low-income populations.

## **PacifiCorp's Power Generating Facilities**

PacifiCorp is licensed to operate a series of hydroelectric power generation facilities on the upper Klamath River. The river plan identifies the impacts these operations have on the resource values of the canyon.

## **Land Tenure**

PacifiCorp is the major private landowner in the planning area. PacifiCorp has requested, in writing, that BLM explore the possibility of land tenure adjustments during the development of the EIS.

PacifiCorp has submitted a map to the BLM that identifies parcels of their land to be considered for possible land trade, acquisition, or a mutually beneficial land management arrangement.

In order to address potential impacts associated with recreational use, access, prehistoric and historic sites, Native American traditional uses, and fish and wildlife habitat management on the areas PacifiCorp has identified, the BLM would need to determine the resource values of these lands.

This plan addresses issues surrounding the role the State of Oregon plays in private land management within the Oregon Scenic Waterway. There are management concerns regarding how the federal government can ensure adequate recreational access to the river if it does not administer the land.

## **Private Land Impacts**

This plan addresses the role the State of Oregon has in implementing Administrative Rules within the Oregon Scenic Waterway (See Chapter3).

There are management concerns regarding how the federal government can ensure adequate recreational access to the river if it does not administer the land. Other potential impacts on private land adjacent to BLM administered land are also addressed.

## **Grazing**

Issues regarding livestock grazing would be evaluated for their consistency with the standards for rangeland health, and in concert with recreation, cultural, riparian, and wildlife habitat management concerns.

## **Cumulative Impacts**

Proposed actions could not only affect resources within the canyon, but could also impact the surrounding environment, especially when combined with other management actions on public and private land.