

Agate Lake Resource Management Plan

September 2000

United States Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Lower Columbia Area Office

In cooperation with Jackson County Roads and
Parks Services



Mission Statements

Department of the Interior

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to tribes.

Bureau of Reclamation

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally sound manner in the interest of the American public.

Jackson County Parks

To protect Jackson County's recreational resources and provide a quality County Park system that meets recreation needs and provides recreation opportunities to the citizens and visitors of Jackson County.

Agate Lake Resource Management Plan

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United States Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Lower Columbia Area Office
In cooperation with Jackson County Roads and Parks Services

Agate Lake
Resource Management Plan
Environmental Assessment

Rogue River Basin Project
Talent Division
Medford, Oregon

United States Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Boise, Idaho

Lower Columbia Area Office
Portland, Oregon

In cooperation with
Jackson County
Roads and Parks Services
Medford, Oregon

September 2000

Abbreviations and Acronyms

BIA	U.S. Bureau of Indian Affairs
BLM	Bureau of Land Management
cfs	cubic feet per second
District	Rogue River Valley Irrigation District
EA	environmental assessment
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
HB	House Bill
ITAs	Indian trust assets
JCP	Jackson County Roads and Parks Services
JCS	Jackson County Sheriff
Lake Area Boundary	Agate Dam and Lake and adjacent Reclamation lands
LWCF	Land and Water Conservation Fund
mg/L	milligrams per liter
MID	Medford Irrigation District
NEPA	National Environmental Policy Act
NPS	National Park Service
NWI	National Wetlands Inventory
O&M	operation and maintenance
ODFW	Oregon Department of Fish and Wildlife
OHV	off-highway vehicle
ONHP	Oregon Natural Heritage Program
OPRD	Oregon Parks and Recreation Department
OSMB	Oregon State Marine Board
OSP	Oregon State Police
Project	Rogue River Basin Project
RC&D	resources conservation and development
Reclamation	U.S. Bureau of Reclamation
Register	<i>National Register of Historic Places</i>
RMP	resource management plan
SCORP	Oregon State Comprehensive Outdoor Recreation Plan
Service	U.S. Fish and Wildlife Service
SHPO	Oregon State Historic Preservation Office
Stat.	Statute
study area	Agate Dam and Lake and adjacent Reclamation lands
TCPs	traditional cultural properties
USFS	U.S. Forest Service
µg/L	micrograms per liter
µs/cm	microsiemens per centimeter (units used to measure conductivity of an aqueous solution)
°F	degrees Fahrenheit

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CHAPTER 1

Introduction and Background

Introduction

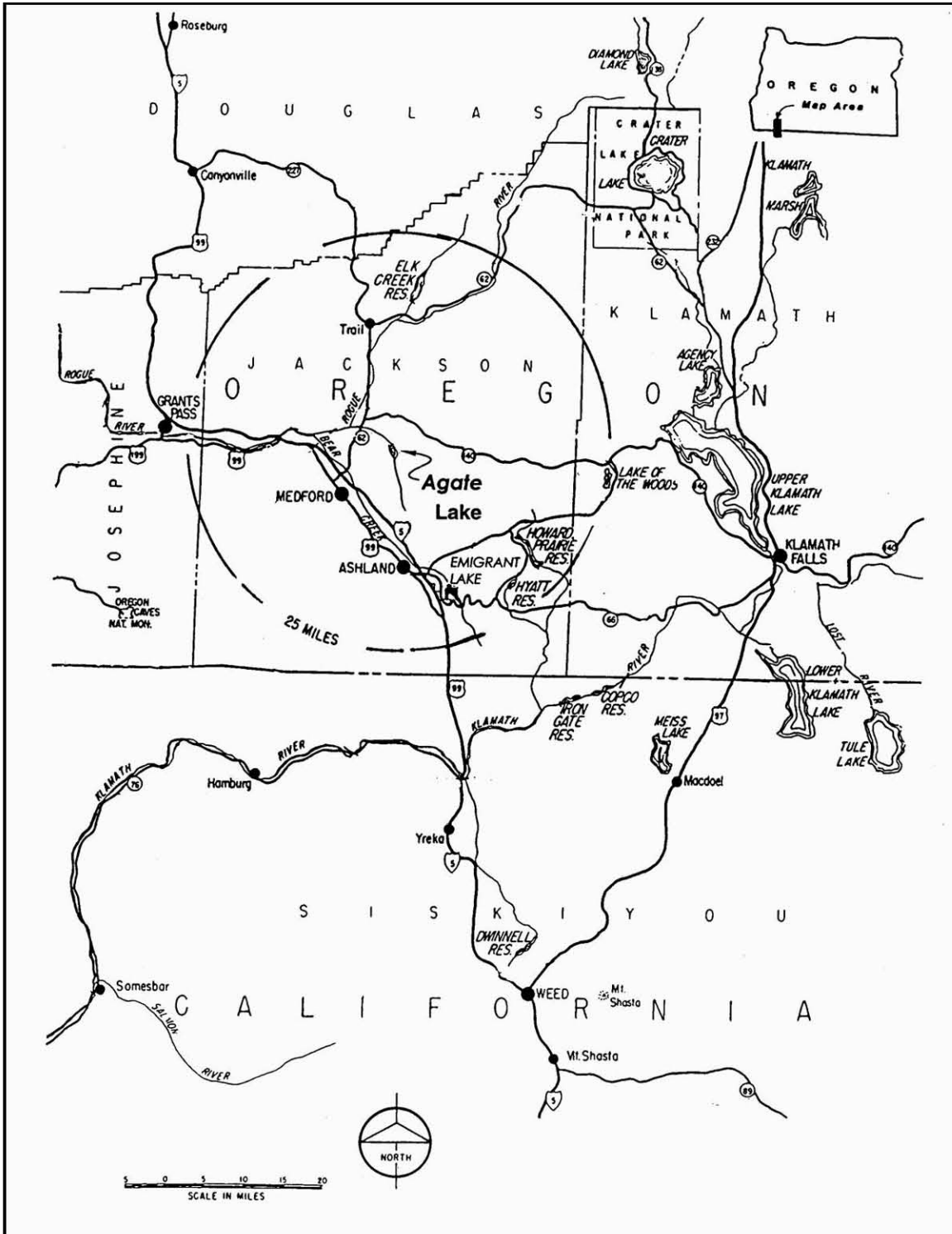
This document is a Resource Management Plan (RMP) for Agate Lake, located in southwestern Oregon near the city of Medford (**Map 1-1, Location Map**). It was prepared by the U.S. Bureau of Reclamation (Reclamation), in cooperation with Jackson County Roads and Parks Services (JCP).

Agate Dam and Lake are part of Reclamation's Talent Division of the Rogue River Project (Project), which was authorized on August 20, 1954, under Public Law 83-606 (68 Statute [Stat.] 752). Agate Dam and Lake were authorized on October 1, 1962, under Public Law 87-727 (76 Stat. 677), and construction was completed in 1966.

On January 17, 1968, Reclamation entered into a 50-year lease agreement with Jackson County (represented by JCP) to administer public outdoor recreation and associated activities on the water and land surface immediately adjacent to the lake (Lake Area Boundary). Before negotiating this agreement, Reclamation constructed minimum basic facilities consisting of an access road, domestic water supply, and a boat ramp. After the agreement was signed, JCP constructed four pit toilets, 15 picnic units, and a parking area. Except for the boat ramp and access road, none of these facilities exist today. All original facilities were vandalized to the point that JCP could no longer afford to operate and maintain them. Therefore, JCP removed all constructed capital improvements.

Uncontrolled public use at Agate Lake in recent years has resulted in numerous public health, safety, and access problems and resource degradation. Drug use; trash dumping; vandalism; and unauthorized off-highway vehicle (OHV) use, camping, fires, and shooting have made the area difficult to manage and less desirable to visit. Consequently, Agate Lake visitation has decreased in recent years, even as the population of Jackson County has grown. Currently, JCP estimates that Agate Lake receives approximately 5,000 visitors annually.

Although JCP prepared a management plan in 1968 pursuant to the lease agreement between the two agencies, it is now outdated and does not reflect the existing resource conditions or visitor



use patterns within the Lake Area Boundary. Therefore, this RMP is intended to direct the management of Agate Lake resources to maximize overall public and resource benefits for the next 10 years. It provides a conceptual framework for conserving, protecting, developing, using, enhancing, and managing Agate Lake resources. This RMP was developed pursuant to Title 28 of Public Law 102-575, (106 Stat. 4690; Reclamation Recreation Management Act of October 30,1992).

Purpose

The purpose of this RMP is to set forth defined management goals, objectives, and actions to guide and direct future resource management actions, activities, and uses at Agate Lake, while not negatively affecting existing, authorized purposes.

The overall objectives that guided the development of the RMP are as follows:

- Determine the most appropriate uses of all Reclamation-administered and JCP-managed recreation lands around Agate Lake, considering the use of adjacent private lands.
- Explore ways to enhance and protect the natural, recreational, aesthetic, and cultural resources.
- Identify long-term programs to address public health and safety, fish and wildlife, and recreation.
- Identify financially feasible opportunities or partnerships to assist JCP in managing recreation facilities.

Additionally, the overall objectives for completing a RMP for Agate Lake are consistent with the objectives identified in Reclamation's *Strategic Plan*. Those objectives include the following:

- Managing and developing resources.
- Protecting the environment.
- Safeguarding the investment.
- Building partnerships.
- Fostering quality management.

Organization of Document

Chapter 1 describes the purpose, scope, and structure of the RMP, as well as the public involvement process and consultation and coordination activities. Chapter 2 describes the natural, recreational, and cultural resources of the Lake Area Boundary, including climate and hydrology, water quality, topography and soils, land use, vegetation, fish and wildlife, special status species, recreation and visual resources, socio-economics, cultural resources, and Indian trust assets and Indian sacred sites. Chapter 3 describes planning issues, opportunities, and constraints identified during the planning process. Chapter 4 describes the RMP, including goals and objectives and specific management actions, and provides a proposed implementation schedule.

Policy

It is Reclamation's policy to seek management assistance from non-Federal public entities in fulfilling its obligation to provide outdoor recreation opportunities. Reclamation and JCP will provide a level of stewardship to protect and enhance the environmental resources of Agate Lake, while providing visitors a variety of outdoor recreation opportunities.

Reclamation and JCP will ensure, to the best of their capabilities and limitations, that the management goals and objectives outlined in this document are accomplished. In balancing public use of Agate Lake with resource protection and enhancement, JCP and Reclamation will adhere to existing Federal and State laws and regulations.

In some instances, Reclamation cannot delegate certain stewardship responsibilities to other entities; therefore, it will continue to actively administer those responsibilities it cannot delegate, such as land use permits, with the exception of recreation-related permits. In other instances, entities other than Reclamation and JCP have primary management responsibility (e.g., county and State entities have certain law enforcement responsibilities, and the Oregon Department of Fish and Wildlife [ODFW] has responsibility for enforcing certain fishing and hunting regulations). Reclamation and JCP will coordinate their planned activities with all other involved entities to ensure that Agate Lake resources are managed properly and for the benefit of its users.

Location

Agate Dam and Lake are located on Dry Creek in southwestern Oregon near the city of Medford. (See **Map 1-2, General Map.**) The Lake Area Boundary, as shown on **map 1-2**, is under the primary jurisdiction of Reclamation and is considered the **study area**.

The study area is within the Rogue River Valley of western Oregon. It is bounded on the east by the Cascade Mountains and on the west by the Coast Range and Siskiyou Mountains. The landscape is dominated by cities and farmlands. The three major metropolitan areas located near the study area are Grants Pass, which is approximately 40 miles west; Medford, which is approximately 11 miles southwest; and Ashland, which is approximately 21 miles south. Several smaller communities, such as White City, Eagle Point, Brownsboro, and Central Point are all located within 15 miles of the study area.

Environmental Assessment

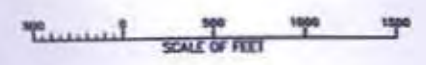
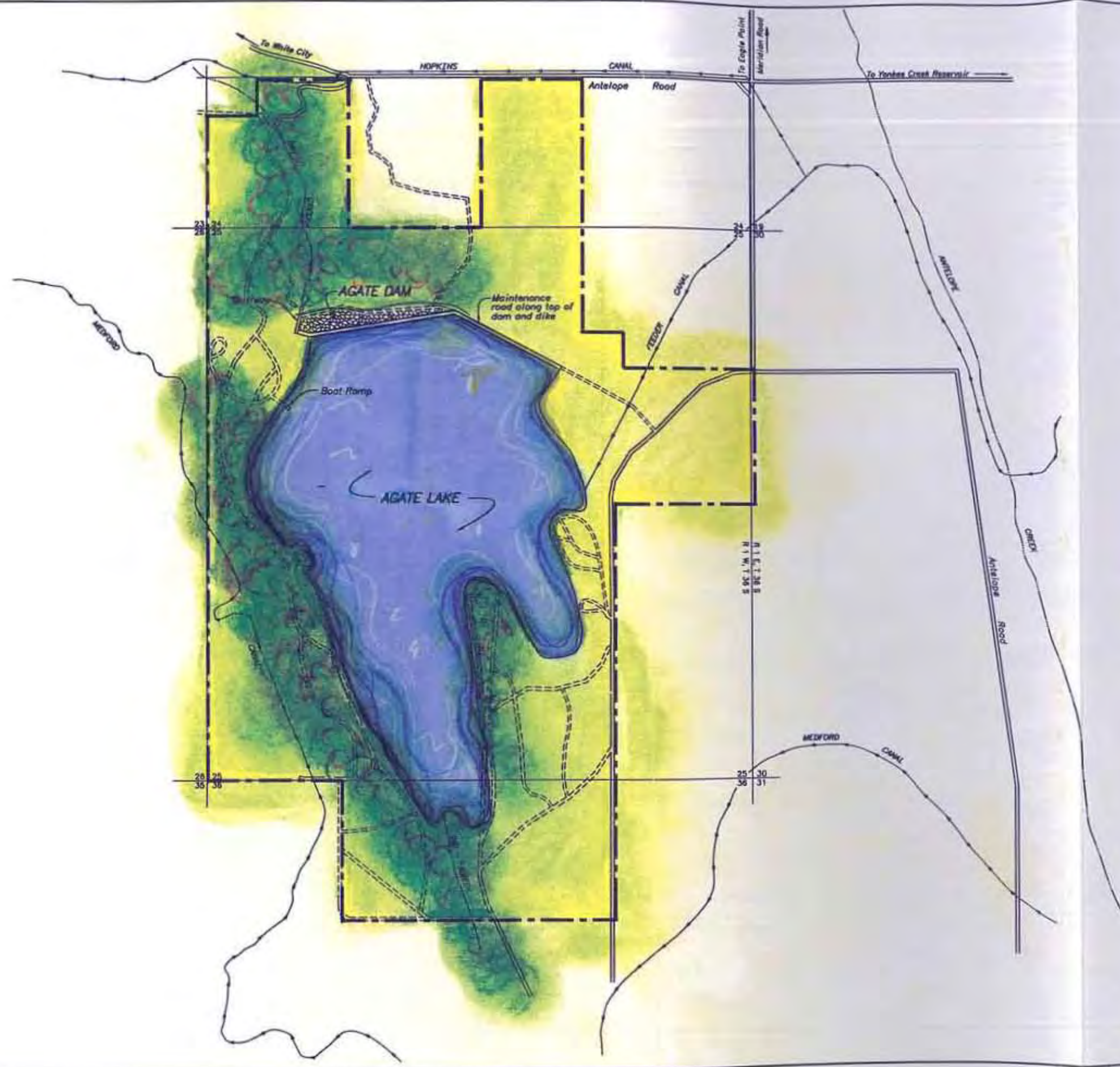
In compliance with the National Environmental Policy Act of 1969 (NEPA), Reclamation prepared a draft environmental assessment (EA) that described three alternative plans for managing Agate Lake resources, including this RMP (“preferred alternative”). As discussed under “Public Involvement,” comments received on the draft EA were considered in preparing the final Environmental Assessment/Finding of No Significant Impact (EA/FONSI), which is being distributed to the public at the same time as this RMP. The FONSI is a NEPA decision document that must be implemented before this RMP can be completed. Site-specific environmental and cultural resource clearances will be obtained before any ground disturbing activities begin.

In the course of preparing the EA, Reclamation consulted with the U.S. Fish and Wildlife Service (Service), as required by the Fish and Wildlife Coordination Act and Section 7 of the Endangered Species Act. Reclamation also contacted the Bureau of Indian Affairs and area Indian tribes to determine if they have knowledge of archaeological sites, traditional cultural properties, Indian trust assets, or Indian sacred sites within the study area. No ITAs or Indian sacred sites were identified. Reclamation also coordinated with city, county, State, and Federal agencies to ensure that proposed land uses would be compatible with adjacent land uses and solicited information from adjacent landowners about existing and future uses of their lands.

Public Involvement

Reclamation held a public meeting in November 1998 in White City, Oregon, to provide information and solicit input about the proposed project. Approximately 30 people, mostly private citizens, attended. A total of 15 written comments were received by mail before and after the meeting.

About 300 copies of the draft EA were distributed on October 21, 1999, for a 60-day public review. A public meeting was held in November 1999 in White City to discuss details of the alternative formulation process, the alternatives and associated environmental impacts, and information to be included in the RMP. A total of 22 letters were received on the draft environmental assessment.



LEGEND

- Lake Area Boundary
- Paved Highway
- Improved Road
- Well-traveled Track
- Canal
- Stream
- Woodland/grass savannah
- Grasslands/open areas

⊕ ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
ROGUE RIVER BASIN PROJECT - OREGON
TALENT DIVISION
AGATE LAKE
RESOURCE MANAGEMENT PLAN
GENERAL MAP

DESIGNED _____	TECH. APPROV. _____	
DRAWN _____	APPROVED _____	
CHECKED _____	DATE AND TIME PERMITTED _____	PLANT _____
TALENT DIVISION CORVALLIS, OREGON	PROJECT NUMBER 771300	DATE AND TIME PERMITTED MARCH 8, 1988

1-2

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CHAPTER 2

Existing Conditions

Introduction

This chapter describes existing conditions within the Lake Area Boundary. Resources described include climate, hydrology, water quality, lands, soils, vegetation and wildlife, fish, special status species, recreation and visual resources, social environment, cultural resources, Indian trust assets and sacred sites, and environmental justice.

Climate

U.S. Weather Service records show that precipitation in the vicinity of Agate Reservoir averages 23.10 inches a year. Rainfall occurs mostly from November through March, with the greatest rainfall in November and December. In the summer, average highs are 89 degrees Fahrenheit (°F) in July and 85 °F in August. In the winter, average lows are 22 °F in December and 30 °F in January.

Winds in the area are generally from the south during the winter and from the northwest during summer and average 10 to 15 miles per hour.

Hydrology

As discussed previously, Agate Dam and Lake are features of the Talent Division of the Rogue River Basin Project. The dam is located on Dry Creek, about 11 miles northeast of Medford, Oregon. Dam construction began in 1965 and was completed in 1966. The dam is a rolled earth-fill structure, blanketed on both sides with rocks and cobbles.

Agate Lake has a total capacity of 4,782 acre-feet at a water elevation of 1510 feet. Of this, 4,672 acre-feet are used for irrigation; and 100 acre-feet are used for sediment detention and to

sustain fish populations. The spillway, located on the left abutment, has a capacity of 3,300 cubic feet per second (cfs). The outlet works, also located on the left abutment, have a capacity of 78 cfs. See table 2-1.

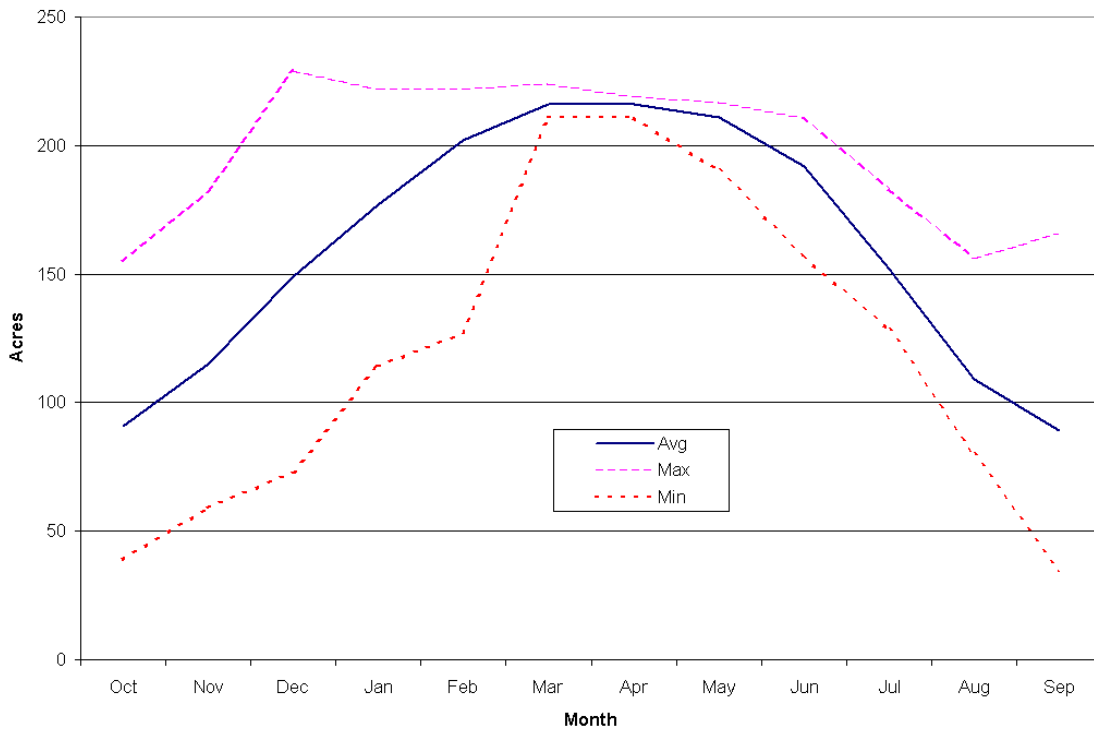
Table 2-1.—Agate Dam and Lake statistics

Agate Dam	
Structural height	86 feet
Top width	25 feet
Crest length (includes wing dike)	3,800 feet
Spillway capacity	3,300 cfs
Outlet works capacity	78 cfs
Agate Lake	
Normal water elevation (spillway invert)	1510 feet
Surface area at water elevation 1510 feet	216 acres
Total capacity at water elevation 1510 feet	4,780 acre-feet
Shoreline length	3 miles

Note: 1 acre-foot is the volume of water needed to cover 1 acre of land with 1 foot of water.

The facilities provide controlled storage of the water that previously flowed down Dry Creek and divert excess winter, spring, and early summer runoff from Antelope Creek into the Hopkins Canal. From Hopkins Canal, water is carried about three-quarters of a mile to a feeder canal, which conveys the water to Agate Lake to supplement the natural runoff of Dry Creek. Water is released from the lake into Dry Creek Diversion Canal and re-diverted into Hopkins Canal about one-half mile downstream of the dam. This water supply supplements the original Project water supply obtained from Little Butte Creek. Most of the stored water is collected during the rainy season. The stored water is used for irrigation, recreation, and fish and wildlife.

Beginning April 1 in most years and continuing through summer, this stored water is released through the outlet works at the dam to irrigate agricultural lands within the Rogue River Valley Irrigation District (District). The water elevation of the lake decreases rapidly from June through September as irrigation demand increases and natural inflow decreases. The water surface area is generally at a minimum at the end of September. On average, the water elevation decreases about 25 feet from April to September; and the water surface area in September is roughly half as large



as the reservoir surface area in April. Long-term average, minimum, and maximum end-of-month surface areas for Agate Lake are shown in figure 2-1.

Map 2-1, Water Surface Level Map, shows a range of water surface elevations and surface areas for Agate Lake.

Water Quality

Minimal water quality data are available for Agate Lake except for a water sample that was obtained in October 1998. However, comments received from the public indicate that turbidity, caused by algae or pondweed, is an aesthetic problem. Public comments also indicate concerns about “swimmers itch” and “parasites” observed on fish taken from the lake. The lake generally functions as warmwater habitat for fish and other uses, including swimming, and is naturally susceptible to algal blooms during the hot summer months. The extent of the blooms depends on the availability of the necessary nutrients—phosphorus and nitrogen.

The October 1998 water quality sample was collected from the lake at the north end at the dam and was analyzed by Reclamation’s Denver Chemistry Laboratory. Table 2-2 presents the results of the analysis performed on this water sample.

Table 2-2.—Water quality parameters in sample collected from Agate Lake on October 29, 1998

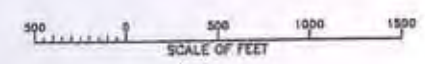
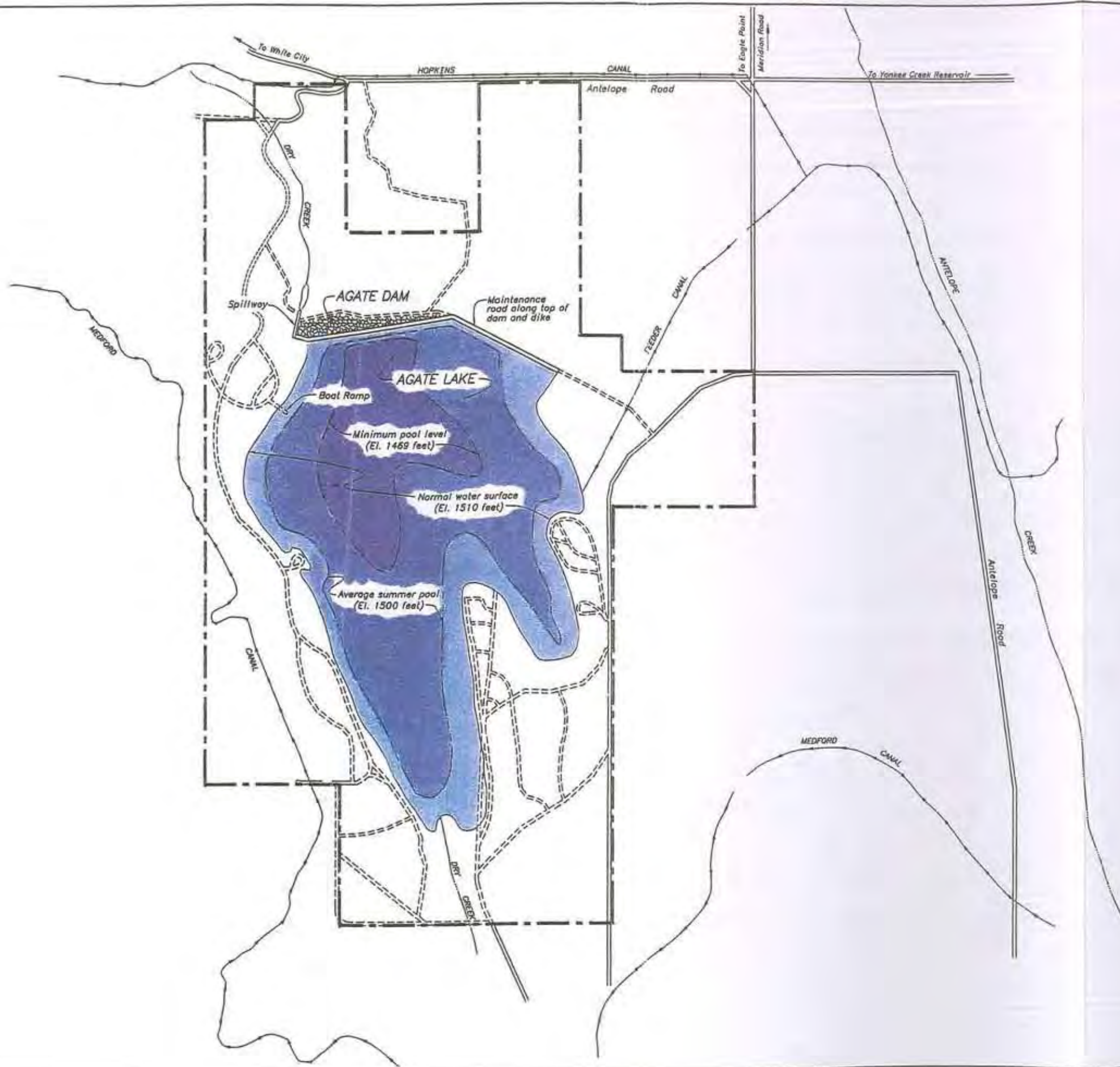
Parameter	Result	Units
General Parameters		
pH	7.52	—
Conductivity	111	$\mu\text{s}/\text{cm}^1$
Total dissolved solids	66	mg/L^2
Total suspended solids	14.3	mg/L
Sulfate	0.57	mg/L
Chloride	2.6	mg/L
Calcium	10.2	mg/L
Potassium	<1	mg/L
Magnesium	3.3	mg/L
Sodium	6.0	mg/L
Trace elements		
Arsenic	2.0	$\mu\text{g}/\text{L}^3$
Copper	11	$\mu\text{g}/\text{L}$
Iron	2400	$\mu\text{g}/\text{L}$
Manganese	36.8	$\mu\text{g}/\text{L}$
Silica	16,900	$\mu\text{g}/\text{L}$
Selenium	<2	$\mu\text{g}/\text{L}$
Zinc	8.5	$\mu\text{g}/\text{L}$
Nutrients		
Total phosphorus	<.05	mg/L
Total Kjeldahl nitrogen	0.24	mg/L

¹ $\mu\text{s}/\text{cm}$ = microsiemens per centimeter.

² mg/L = milligrams per liter.

³ $\mu\text{g}/\text{L}$ = micrograms per liter.

The analysis shows that Agate Lake water quality is generally good, reflecting the water quality of Little Butte Creek, the major source of water for the lake. Major ions, pH, conductivity, and trace elements are within the acceptable limits for all existing beneficial uses. The concentration of iron is somewhat elevated but is acceptable for the existing beneficial uses of the lake. The bacteriological quality of the lake is not known, as water samples apparently have never been collected and analyzed. The main problem with the lake's water quality appears to be suspended solids, primarily algae that forms during the summer and fall. The concentrations of phosphorus



LEGEND

- Lake Area Boundary
- Paved Highway
- Improved Road
- Well-traveled Track
- Canal
- Stream
- Normal April Water Surface, El. 1510 ft. Surface area = 216 acres
- Average Midsummer Pool, El. 1500 ft. Surface area = 156 acres
- Historic Minimum Pool Level, El. 1469 ft. Surface area = 35 acres

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
ROGUE RIVER BASIN PROJECT - OREGON
TALENT DIVISION

**AGATE LAKE
RESOURCE MANAGEMENT PLAN
WATER SURFACE LEVEL MAP**

DESIGNED _____ TECH. APPR. _____

DRAWN _____ APPROVED _____

CHECKED _____

DRAINAGE DISTRICT MEDFORD, OREGON	DRAINAGE DISTRICT MEDFORD, OREGON	DATE AND TIME PLOTTED MARCH 8, 1998
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2-1

and nitrogen (table 2-2) were both quite low; however, the critical phosphorus concentration, which could possibly cause algal blooms during the summer and fall, is as low as 10 micrograms per liter ($\mu\text{g/L}$) (i.e., 0.01 milligrams per liter [mg/L]). This concentration is less than the detection limit for chemical analysis. The source of nutrients to the lake is probably natural runoff from the drainage basin above the lake, and most of the runoff generally occurs in the winter and spring months.

The regional landfill is located in a small subtributary to the main basin above the lake. There has been concern that seepage from the landfill might affect the water quality of the lake. However, surface water from the landfill does not appear to be reaching the lake. Rogue Disposal and Recycling, Inc. (operators of the landfill) has been monitoring water quality in surface water at the site during the early spring and late fall. The analytical results indicate no organics; acceptable levels of field parameters, anions, and cations; and minor concentrations of selected trace metals.

Topography and Soils

Topography on the west side of Agate Lake varies from moderate to fairly steep slopes. The east side of the lake has slight to moderate slopes.

The soils on the west side of the lake are mainly composed of a McMullin-Medco complex, with 8- to 50-percent slopes (**Map 2-2, Soils Map**). The McMullin soils are shallow, gravelly loams to clay loams. They may be cobbly and are moderately permeable with a moderate water erosion hazard. The Medco soils are generally cobbly clay loams with very slow permeability and a moderate water erosion hazard. These soils may have a perched shallow water table from December through March, greatly increasing the damage from OHV abuse. Off-road vehicles can compact the soil and increase the erosion hazard. Revegetation of the Medco soils can be difficult.

The west side also has areas of Carney clay, with 5- to 20-percent slopes. This soil is moderately well drained, very slowly permeable, and has a moderate erosion hazard. It is commonly gravelly or cobbly and has a high shrink-swell potential.

The soils on the northeast side of the lake are composed of Carney clay with 1- to 5-percent slopes. This area has a lower erosion hazard because of the soil texture and the gentle slopes.

Soils on the southeast side are comprised mainly of an Agate-Winlo complex, with 0- to 5-percent slopes. These soils are loam to clay loam and are well drained. They may have a gravelly or cobbly surface and slight water erosion hazard.

When subjected to OHV use and other adverse conditions, soils with even slight to moderate erosion potential are likely to erode, especially when the slopes are from 8 to 50 percent.

Photos 2-11 and 2-13 (later in this chapter) show erosion caused by OHV use. Depending on the topography, soil that erodes off the steeper slopes may not wash into the lake but, instead, will be deposited near the base of the steeper slopes. As discussed under “Water Quality,” the extent of lake turbidity caused by soil erosion is not known at this time, but it is apparent that soil erosion contributes to the lake’s turbidity during rainfall/runoff events.

Land Use and Management

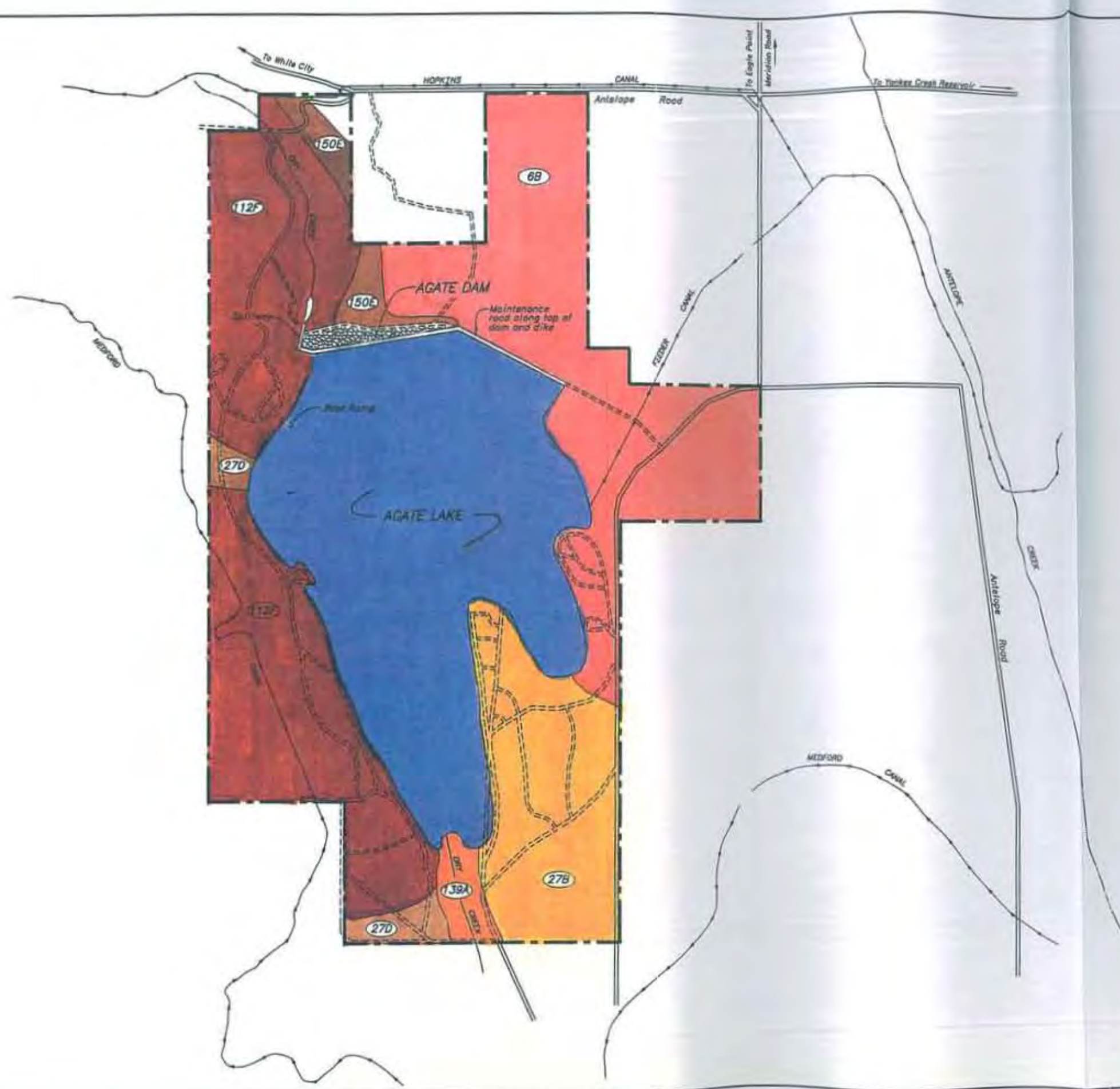
This section describes the land use authorizations granted by Reclamation or JCP; outlines the primary responsibilities of agencies involved in the management of the land and water resources and the public; and identifies the services available within the Lake Area Boundary. Adjacent lands uses are also discussed. Existing lands uses, as well as existing environmental conditions described in this chapter, can be described as “limiting factors” to development. These limiting factors set the framework or “sideboards” for development of the RMP.

Land Use Agreements/Permits

Land use activities within the Lake Area Boundary are authorized and managed under specific license agreements, lease agreements, right-of-way easements, special use permits, and other legal contracts (**Map 2-3, Land Use Agreement Map**). Reclamation issues and administers all land use agreements. JCP administers permits related to recreation use within the Lake Area Boundary pursuant to the long-term lease agreement between Reclamation and JCP.

Involved Agencies

Management of the lands and associated resources within the Lake Area Boundary is complex because several agencies have different degrees of management responsibility for the lands and water areas. JCP provides the primary recreation management, the District provides the primary



LEGEND

- Lake Area Boundary
- Paved Highway
- Improved Road
- Well-traveled Track
- Canal
- Stream

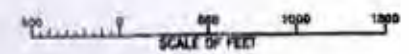
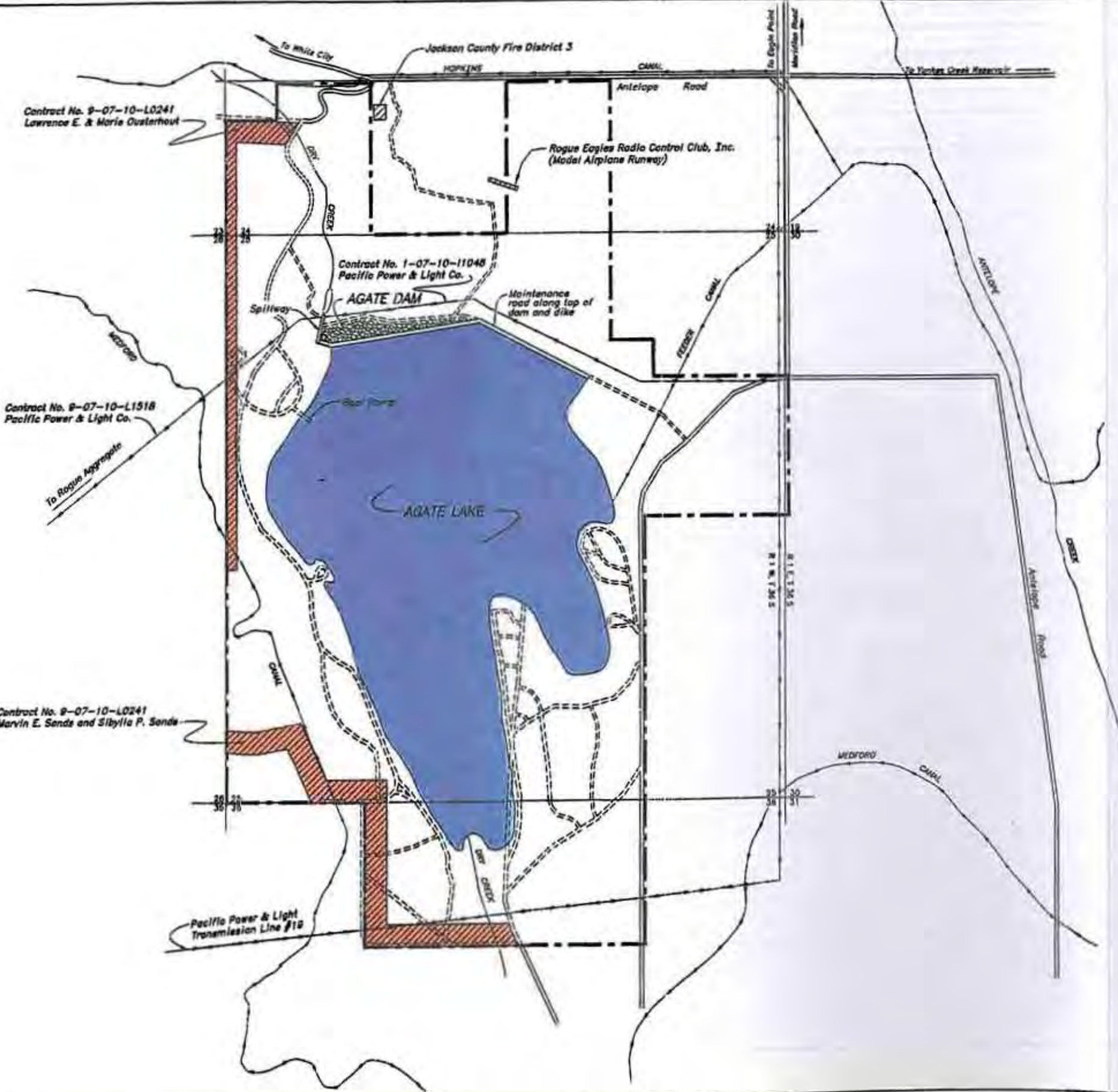
6B	Agate-Winlow complex	0-5% slopes
112F	McMullin-Medco complex	12-50% slopes
27D	Carney clay	5-20% slopes
27B	Carney clay	1-5% slopes
139A	Podigan clay	0-3% slopes
150E	Provig very gravelly loam	15-35% slopes

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TALENT DIVISION
AGATE LAKE
RESOURCE MANAGEMENT PLAN
SOILS MAP

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DEWEY, COLORADO	MARCH 8, 1988

2-2



LEGEND

- Lake Area Boundary
- Paved Highway
- Improved Road
- Well-traveled Track
- Canal
- Stream
- Land Use Agreement

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TALENT DIVISION

AGATE LAKE
RESOURCE MANAGEMENT PLAN
LAND USE AGREEMENT MAP

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10/11/00	11/11/00	12/11/00

2-3

Project management, and Reclamation provides oversight of both entities. Additionally, ODFW is responsible for developing and administering fish and wildlife regulations, as well as for implementing fish stocking programs at Agate Lake; the Oregon Department of Environmental Quality is responsible for enforcing water quality standards; the Oregon State Marine Board (OSMB) is responsible for regulating boating use, although it does not provide any law enforcement funds for Agate Lake; and the Oregon State Police is authorized to enforce all State statutes, including those adopted by ODFW, OSMB, and the county.

The Jackson County Sheriff's Office, Jackson County Roads and Parks Services, and the Oregon State Police are responsible for law enforcement within the Lake Area Boundary. The Oregon Department of Forestry and Jackson County Fire District No. 3 provide fire protection. JCP is responsible for solid waste disposal.

Services

Although there is an abandoned well near the west abutment of the dam, there is no potable water for public use. No sanitation facilities are currently available, and no sewage treatment facilities exist within the Lake Area Boundary. Several Pacific Power and Light transmission lines traverse Reclamation lands near the lake; however, no power sources are available for general public use. The District uses electricity supplied by Pacific Power and Light to operate the dam and appurtenant irrigation structures.

Adjacent Land Uses

The following discussion describes how lands adjacent to the lake are used and managed.

County Zoning.—The lands immediately surrounding Agate Land have been zoned by Jackson County as forest, aggregate, and farm lands intermingled with tracts zoned as rural residential. In addition, lands within the Lake Area Boundary have been designated as a county park by the County Board of Commissioners.

Specific Land Uses.—The specific uses of adjacent lands include the following:

- Jackson County Sports Park, located just west of the Lake Area Boundary.

- Municipal solid waste landfill, operated by Rogue Disposal and Recycling, located south of Agate Lake and upstream of Dry Creek.
- Gravel pit, operated by Rogue Aggregates, located west and north of the Lake Area Boundary.
- Stone Ridge Golf Course, located on 230 acres immediately west of the Lake Area Boundary.
- Fire station and two mobile home sites on 4.82 acres of county land, located directly east of the north entrance road to Agate Lake.

Land Use Planning.—The Jackson County Public Park Overlay District provides a mechanism for developing and adopting long-range park master plans for designated parks and open spaces in Jackson County. The purpose of the overlay zone is to establish a special framework under which designated parks and open spaces may be properly regulated within unincorporated Jackson County consistent with the comprehensive plan and Oregon Statewide Land Use Planning Goals.

In 1997, the Oregon Legislature passed House Bill (HB) 2924 relating to the establishment and implementation of State and local government park master plans. The rules to implement the legislation require review and adoption by local governments. The master plan must be consistent with listed allowable uses for parks located on lands zoned for resource use.

Under the overlay zone or HB 2924, only major changes in the use of a park area would initiate the need for master planning. The RMP will not conflict with State or county master planning requirements.

Related land use guidance and management are as follows:

- Jackson County Comprehensive Plan, updated December 1996.
- Jackson County Land Development Ordinance of 1989.
- The United States Forest Service, Rogue River National Forest, and the Bureau of Land Management (BLM) have jurisdiction of Federal lands in the vicinity of Agate Lake. However, the management of these lands by the respective agencies will have little or no effect on Reclamation's management of its lands.

Vegetation and Wildlife

Vegetation

Map 2-4, Vegetation Map, depicts the vegetation within the Lake Area Boundary. The west and southeast sides of the Lake Area Boundary have extensive oak woodland/grass savannah. This vegetation community is characterized by an overstory of Oregon white oak, the most drought tolerant of all trees in southwestern Oregon, as well as madrone. The dominant shrub is wedge-leaved ceanothus or “buckbrush,” with generous interspersions of poison oak. Herb/forb layers are characterized by ashy rock cress, Rogue River milkvetch, fringed brome, Henderson’s shootingstar, California fescue, Idaho fescue, woods strawberry, mission bells, scarlet fritillaria, lewisia, fineleaf biscuit-root, Sandberg’s bluegrass, western buttercup, Sucksdorf’s romanzoffia, groundsel, checkermallow, Lemmon’s needle grass, and American vetch.

Open areas on the west side of the Lake Area Boundary are dominated by grasslands and buckbrush. Grasslands have been invaded by noxious weed species, such as star thistle, and other exotic, introduced species, such as cheat grass. The south side of the Lake Area Boundary consists of more open areas of grassland. Teasel, an exotic species, has invaded moist sites.

A small stand of ponderosa pine occurs north of the dam. A well developed riparian forest exists along a narrow corridor on either side of Dry Creek north of the dam. This community type is dominated by blackberry, willow, alder, madrone, and dense stands of Oregon white oak. An extensive area of grasslands with vernal pools (also see “Vernal Pools”) occurs on the northwest side of Agate Lake.

Upstream of Agate Lake, Dry Creek provides a well developed riparian community dominated by willows, cottonwoods, and alders. As it empties into Agate Lake, Hopkins Canal also has a small riparian forest community dominated by willows and cottonwoods. **Photos 2-1** through **2-10** show the vegetation communities found within the Lake Area Boundary.

Vegetation communities have been heavily impacted by OHV use. **Photos 2-11** through **2-14** show some of these impacted areas.

Wetlands

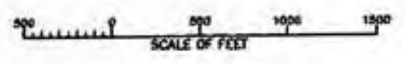
Map 2-5, Wetlands Map, is the Service’s National Wetland Inventory (NWI) map for the Lake Area Boundary. Seven wetland types have been identified. The most extensive wetland type is the lacustrine limnetic area, which is the open water of the lake. The second largest area is

the uplands/palustrine, emergent seasonally flooded wetland, which corresponds to the vernal pool habitat in the northeast section of the Lake Area Boundary. Another extensive wetland type is the lacustrine, littoral unconsolidated shore, which consists of the shallow, grassy submerged areas along the east and south lake shorelines. Three wetland types occur in the Dry Creek inlet area: palustrine emergent, temporarily flooded; palustrine emergent, seasonally flooded; and palustrine forested, seasonally flooded. A very small area of palustrine, unconsolidated bottom, permanently flooded wetland is located at the spillway of the dam.

The palustrine forested wetland type also extends along the riparian corridor of Dry Creek north of the dam (not indicated on the NWI map). Additionally, several small (less than 1 acre) recently formed wetlands are scattered along the northwest boundary of the Lake Area Boundary adjacent to the golf course. These small wetlands are most likely caused by runoff from golf course irrigation and are not on the official NWI map. One of the larger of these wetland areas has been sketched in on **map 2-5** to show its location. (See **photos 2-15 and 2-16.**) Brief surveys conducted on these recently formed wetlands on July 1, 1998, indicate they were colonized by bullfrogs. Medford Canal traverses the southwestern edge of the Lake Area Boundary (**photo 2-17**). The canal also supports a thin strip of riparian vegetation. Leakage occurs in several places along the canal, appearing downslope of the canal (**photo 2-18**). These wet areas are very ephemeral and usually do not develop associated wetland vegetation, although some wetland vegetation has developed around these puddles in shady areas. Additionally, clumps of blackberries have established in moist soil areas below the canal, probably also as a result of the canal leakage.

Wildlife

Big Game.—An elk herd of approximately 60 animals occupies the lower hillsides of Roxy Ann Peak, 3 to 4 miles south of Agate Lake. John Thiebes, Wildlife Biologist, Oregon Department of Fish and Wildlife, has not seen elk within the Lake Area Boundary but indicates that they could potentially use the area. Blacktail deer travel 20 miles from prime winter range on Dead Indian Plateau to use habitat within the Lake Area Boundary and nearby habitats during the spring, summer, and fall. Blacktail deer were observed during wildlife surveys conducted on July 17, 18, and 19, 1998. Wedgeleaf ceanothus or “buckbrush” is the prime forage species for deer and elk. This brush species is fire adapted, reproducing primarily after a burn. However, fire control programs have allowed this species to become decadent and of less forage value for big game. Big game and other wildlife species are also experiencing extensive habitat loss as the areas around Medford, White City, and Ashland are rapidly suburbanizing.



LEGEND

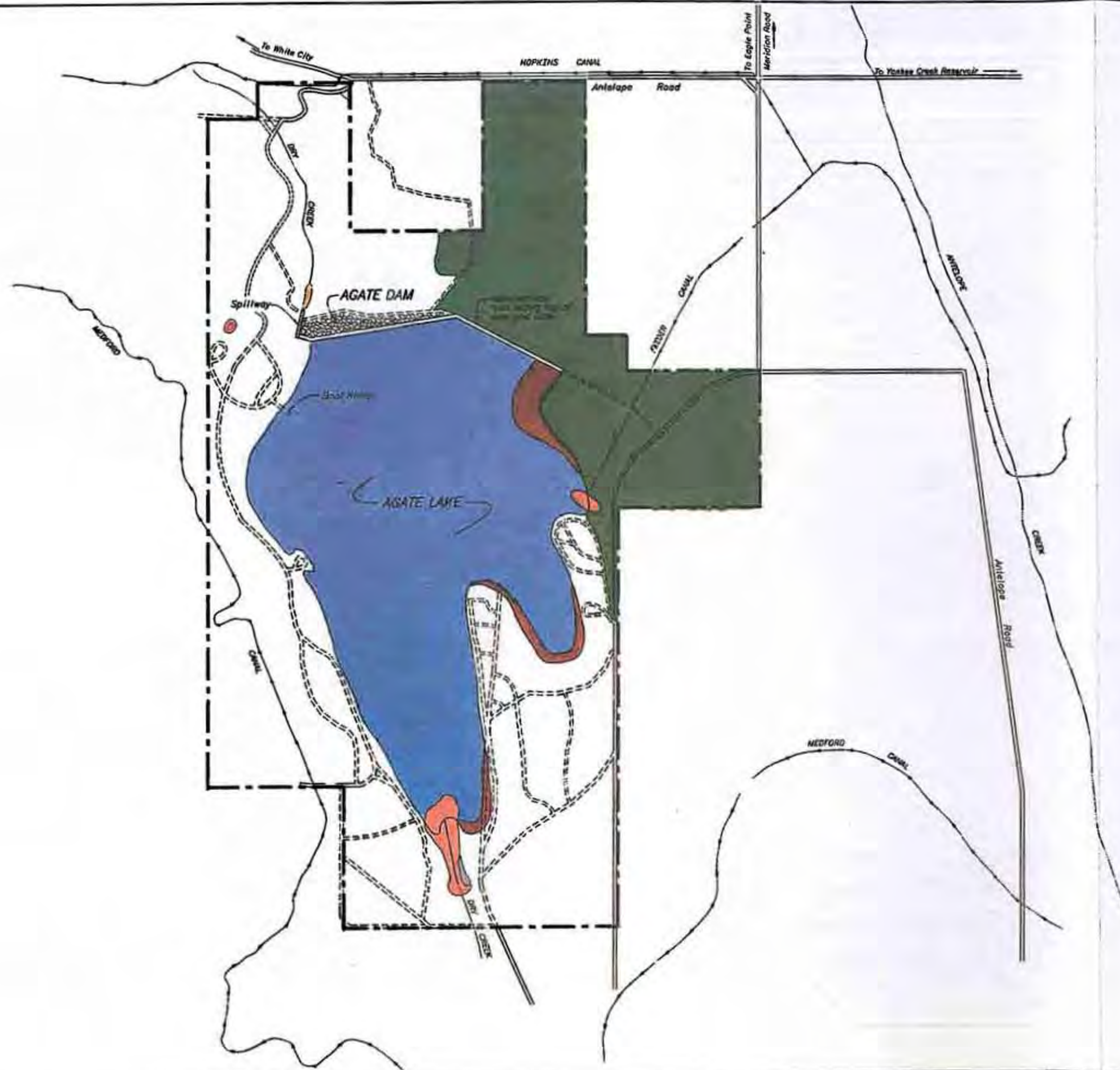
-  Lake Area Boundary
-  Paved Highway
-  Improved Road
-  Well-traveled Track
-  Canal
-  Stream
-  Oak Woodland/Savanna
-  Shrubs/Grass/Oaks
-  Riparian
-  Grassland
-  Grassland with Vernal Pools
-  Heavily Impacted Area
Bare Dirt/Weeds
-  Ponderosa Pine
-  Wetlands - Riparian Forest
-  Wetlands - Cottail
-  Wetlands - Emergent

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TALENT DIVISION
AGATE LAKE
RESOURCE MANAGEMENT PLAN
VEGETATION MAP

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LEGEND

- Lake Area Boundary
- Paved Highway
- Improved Road
- Well-traveled Track
- Canal
- Stream
- Palustrine, unconsolidated bottom, permanently flooded
- Palustrine, unconsolidated bottom, permanently flooded, excavated
- Uplands/palustrine, emergent, seasonally flooded
- Palustrine, emergent, seasonally flooded
- Palustrine forested, seasonally flooded, impounded
- Lacustrine, limnetic, unconsolidated bottom, permanently flooded, impounded
- Lacustrine, littoral, unconsolidated shore, sand, impounded

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ROGUE RIVER BASIN PROJECT - OREGON
TALENT DIVISION
AGATE LAKE
RESOURCE MANAGEMENT PLAN
WETLANDS MAP

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DATE PLOTTED _____	DATE AND TIME PLOTTED _____
PROJECT NUMBER _____	PROJECT NAME _____
SCALE _____	SCALE _____

2-5



Photo 2-1.—The oak woodland/grass savannah is characteristic of much of the Lake Area Boundary. The dominant tree is the Oregon white oak.



Photo 2-2.—The grassland/shrub/oak community is found in the southwest section of the Lake Area Boundary. Narrow leaved ceanothus and poison oak are the dominant shrubs.



Photo 2-3.—More extensive areas of grassland occur on the south half of the Lake Area Boundary.



Photo 2-4.—Moist areas within the grasslands have been invaded with the exotic teasel.



Photo 2-5.—Dry Creek downstream of the dam supports a well developed riparian forest.



Photo 2-6.—Dry Creek immediately below the dam.



Photo 2-7.—Grasslands in the northwest section of the Lake Area Boundary contain vernal pools.



Photo 2-8.—A vernal pool in summer looks like little more than a small depression in the grassland. Winter snow and rain fill the depression, allowing a uniquely adapted community of plants and animals to thrive for a brief time until once again drying up.



Photo 2-9.—Dry Creek upstream of Agate Lake supports a riparian community dominated by willows, cottonwoods, and alders.



Photo 2-10.—A small riparian forest has developed around Hopkins Canal as it empties into Agate Lake.



Photo 2-11.—Heavily impacted area on west side of Agate Lake.

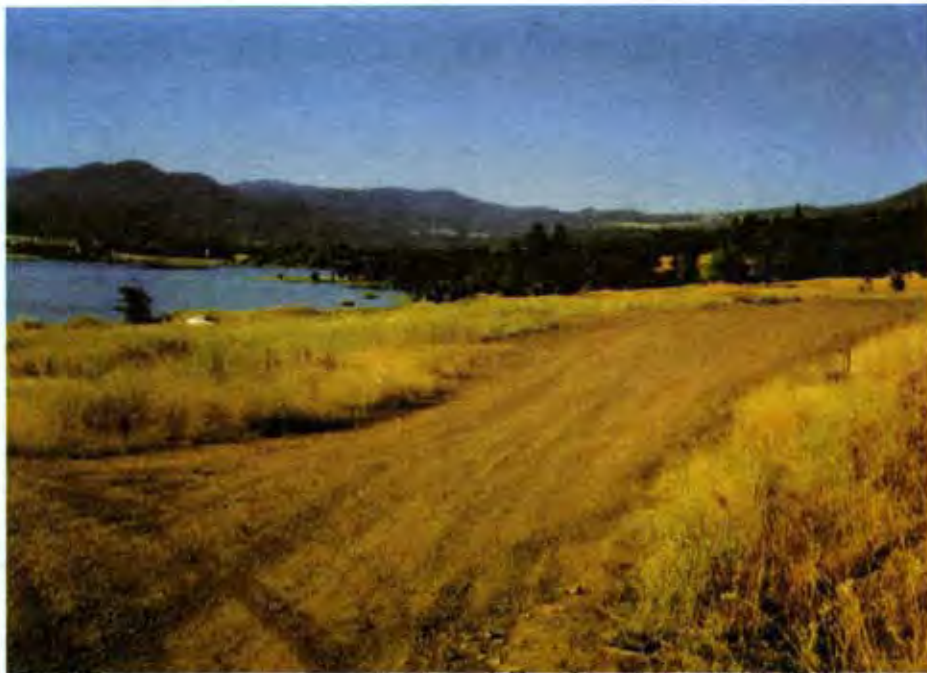


Photo 2-12.—An extensive network of roads and an expansive parking area is found near the dam on the west side of Agate Lake. Disturbed areas are colonized by star thistle and cheat grass.



Photo 2-13.—Nondesignated trails branch off designated OHV trails, causing erosion and destroying vegetation.

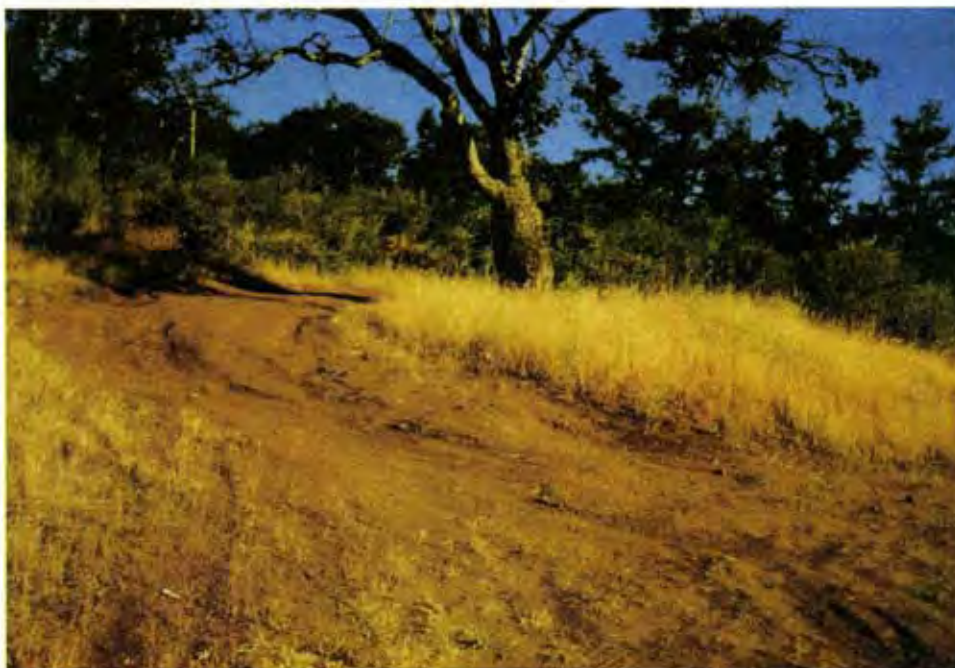


Photo 2-14.—OHV use such as this occurs throughout the Lake Area Boundary.



Photos 2-15 and 2-16.—Wetlands along the northwest edge of the Lake Area Boundary, resulting from golf course irrigation.





Photo 2-17.—Medford Canal traverses the southwest boundary of the Lake Area Boundary, providing a thin strip of riparian vegetation.



Photo 2-18.—Leakage from the canal appears down the hillside from the canal. Usually, these areas are too ephemeral to support vegetation; but in shadier areas, some riparian vegetation has developed.

Birds.—The Lake Area Boundary provides breeding, migration, and wintering habitat for a large number of bird species. Agate Lake is a popular destination for birders, who have observed at least 190 bird species there.

Reservoir drawdowns attract a large number of shorebirds to the mudflats at Agate Lake. These mudflats are considered to be a critical staging area for 24 species of shorebirds known to use Agate Lake. The mudflats comprise one of only three such staging areas in the Rogue Valley and, thus, are extremely important. Shorebirds differ from many other neotropical migrants in that they have narrow habitat requirements that limit them to relatively few, highly productive stopover sites. Shorebirds use the same coastal staging areas year after year, probably because the areas provide more highly productive, predictable feeding and roosting areas than other sites along the migratory route.

Shorebirds stopping at these staging areas can increase body mass up to 100 percent before continuing their migration. Most of this increased mass is body fat that is used as fuel for their long-distance migration. Shorebirds have higher metabolic rates than other nonpasserines (passerines are small or medium-sized songbirds with perching feet) of similar size, which forces them to spend much of their day, during staging periods, foraging for maintenance and fat storage. The elimination or degradation of stopover habitats can be detrimental to entire shorebird populations.

Breeding bird and wildlife surveys were conducted on July 17, 18, and 19, 1998. A large number of neotropical migrant songbirds, as well as resident birds, were breeding within the Lake Area Boundary, as evidenced by singing males and brood rearing activities. Several broods of western bluebirds, a species designated as vulnerable by ODFW, were observed in the oak woodlands/savannah north of the dam and along the west side of Agate Lake. A pair of grasshopper sparrows and seven vesper sparrows, both designated by ODFW as vulnerable species, were observed in the vernal pool/grassland community north of the dam. Raptor species included a black-shouldered kite, a pair of ospreys nesting in the southwest section of the Lake Area Boundary, two bald eagles, and four red-tailed hawks. Shorebirds and waterfowl observed during this survey included greater yellow legs, killdeer, spotted and least sandpipers, western grebes, great blue and green herons, mallards, and Canada geese. Game birds included nine ring-necked pheasants and four California quail adults with broods in hiding. The most numerous species observed during the 3-day survey was the European starling (86). Additionally, 12 brown-headed cowbirds were observed.

Habitat Conditions

Significant tracts of relatively undisturbed, intact habitat were found throughout the Lake Area Boundary (**Map 2-6, Outstanding Wildlife Habitat Map**), with high numbers of neotropical and resident songbirds present.

Songbirds, particularly neotropical migrants, are sensitive to habitat conditions and can serve as indicators of overall wildlife habitat quality. Neotropical migrant songbird numbers decline in areas that are heavily impacted by development. Declines can be caused by a variety of factors. Habitat fragmentation resulting from clearing vegetation for roads, trails, housing developments, and other human activities create conditions that favor brown-headed cowbirds, a nest parasite that lays its eggs in the nests of other birds, as well as nest predators, such as magpies and crows.

Habitat fragmentation also favors non-native species, such as the European starling, which compete with native songbirds for nest cavities and food resources.

Recreational impacts on neotropical migrant songbirds and other wildlife species are well documented. Birds tend to avoid nesting near heavily used trails and recreational sites. Nest predators, such as magpies and crows, tend to follow people; and the resulting increases in nest predation adjacent to heavily used trails and other recreational facilities is well documented. Wildlife subjected to recreational disturbance experience increased stress and metabolic energy demands. Pets can be a significant source of disturbance and direct mortalities on wildlife as well. The type of recreation can influence the degree of adverse impact on wildlife. For example, hikers moving slowly and quietly along a trail are less disturbing to wildlife than bicyclists or runners.

These well documented impacts to wildlife habitat, in particular, habitat for neotropical migrant songbirds, are illustrated within the Lake Area Boundary. The greatest numbers of birds and species were found in relatively undisturbed blocks of habitat. The oak woodland/savanna and riparian corridor in the northwest section of the Lake Area Boundary, the grassland/vernal pool area in the northeast section, and the oak woodland/savanna, shrub and riparian areas in the southwest and southeast sections all had relatively high numbers of neotropical migrant songbirds. The heavily disturbed areas around the boat ramp on the west side, the boat ramp on the east side, and the peninsula area in the southeast section of the Lake Area Boundary had much fewer numbers of birds. These areas have large areas denuded of vegetation and experience heavy recreational use by campers, fishers, boaters, and picnickers.

Unregulated shooting poses particular concern for wildlife. Given the lack of law enforcement, it is very likely that wildlife, particularly birds, squirrels, and rabbits, are used as targets or are poached (deer, quail). During the wildlife surveys conducted in July 1998, random shooting was observed in the southwest section of the Lake Area Boundary. Members of the public have expressed concern over this activity. Another activity discussed by the public in scoping meetings and also observed during the wildlife surveys conducted during July 1998 was long-term camping—not recreational camping—but use of the area as a semipermanent place to live. Individuals in well used, semipermanent camps were observed in an isolated oak grove in the southeast section of the Lake Area Boundary and in the oak woodland near the spillway area. These unregulated camps disturb wildlife and trample vegetation. They usually occur in the better habitat areas, resulting in greater impacts to wildlife.

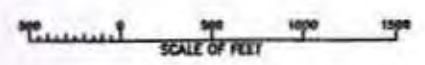
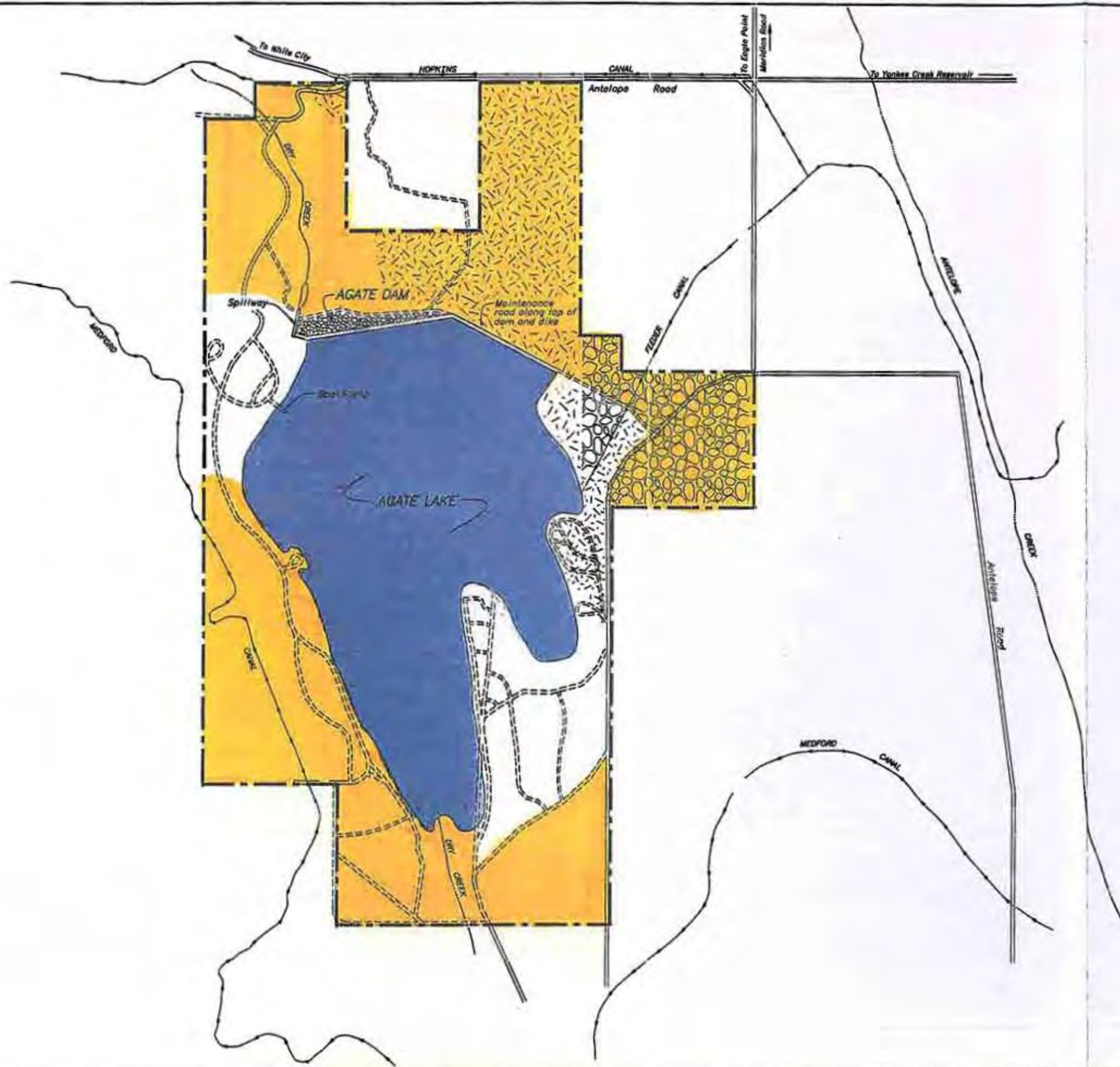
Of the outstanding wildlife habitat areas shown on **map 2-6**, the southwest section of the Lake Area Boundary has been the most affected by OHV trails (**photos 2-11, 2-13, and 2-14**). The proliferation of OHV trails has resulted in the loss of vegetative cover that otherwise would have provided wildlife habitat. Despite these habitat losses and the disturbance to wildlife, significant areas of good wildlife habitat remain. Removing OHV use from this area, revegetating denuded ground, and replacing OHV trails with a more wildlife-compatible, nonmotorized, multiple use trail designed to avoid fragmenting more habitat would restore habitat to its maximum potential.

Vernal Pools

Vernal pools are seasonal wetlands that are formed in depressions on soils that have either clay or silicate layers and are filled by rainwater, groundwater, or overland flows. Although they appear barren during the summer and fall, vernal pools teem with life during winter and spring with uniquely adapted plants and wildlife—many of which appear nowhere else.

A water body can be designated a "vernal pool" only if certain obligate species are present. In Oregon, these species include the vernal pool fairy shrimp, large flowered wooly meadowfoam and Cook's desert parsley, long-toed salamander, and Pacific tree frog. Vernal pool species have evolved to adjust to the drying and refilling of the pool. Fairy shrimp survive as long as the vernal pool contains cool water. They die when it dries up, but their eggs remain on the dry bottom of the pool.

Oregon vernal pools are found in the Agate Desert mounded prairie. Of the original 32 square miles of Agate Desert mounded prairie that existed in southwest Oregon, only 20 percent (about 5,000 acres) remains. Within the Lake Area Boundary, vernal pools are generally found on the



LEGEND

- Lake Area Boundary
- Paved Highway
- Improved Road
- Well-traveled Track
- Canal
- Stream
- Outstanding Wildlife Habitat
- Unaltered Vernal Pool Habitat
- Altered Vernal Pool Habitat

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TALENT DIVISION
AGATE LAKE
RESOURCE MANAGEMENT PLAN
OUTSTANDING WILDLIFE HABITAT

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MARCH 8, 1999

2-6

Agate-Winlow soils surrounding the north and northeast areas of the lake in upland areas left ungraded during the original construction of Agate Lake. See **map 2-6**.

In a survey conducted in December 1998 and January 1999 by Oregon Natural Heritage Program (ONHP) biologists, four vernal pools within the Lake Area Boundary were found to support vernal pool fairy shrimp. More thorough surveys may reveal their presence in other vernal pools in the area. This species is listed by the U.S. Fish and Wildlife Service (Service) as threatened. The vernal pool habitat on the Agate Desert mounded prairie may also support populations of the large flowered wooly meadowfoam and Cook's desert parsley, both candidates for listing under the Endangered Species Act .

Vernal pools at Agate Lake began filling up around Thanksgiving 1998 and, by December 1, were fully filled. The fairy shrimp were found in early January. Their life cycle is nearly completed by early March.

Management of vernal pools is a relatively new endeavor. Some experimental applications of prescribed burning and controlled cattle grazing have been conducted on other vernal pool systems to remove decadent vegetation and reinvigorate native vegetation. Historically, these vernal pool systems were subject to periodic wildfires which have now been controlled, resulting in decadent vegetation. ONHP has expressed interest in developing a management plan that may include prescribed burning or controlled cattle grazing. ONHP has also expressed interest in conducting a more thorough survey of all vernal pools within the Agate Desert mounded prairie. The survey would determine if those vernal pools within the Lake Area Boundary are some of the best remaining vernal pools in the State and, thus, in need of a high degree of protection from disturbance and habitat damage. As recommended by the Service, no vernal pool trails or interpretive sites are planned within the Lake Area Boundary.

Fish

Agate Lake is a popular warmwater fishing lake, with quality largemouth bass, bluegill, and black crappie available. Before 1992, Agate Lake was regularly stocked mostly with winter steelhead fingerlings, as well as some summer steelhead and rainbow trout. The lake has not been stocked for several years because of poor access to the lake. However, trout from the Cole Rivers Hatchery were stocked in Agate Lake in fall 1999.

ODFW does not stock warmwater fish species, except initially when a new reservoir is created. Natural reproduction is sufficient to provide an adequate sport fishery.

ODFW sampled Agate Lake in May 1999 and found the catch for all species, except yellow perch, was higher than in its May 1995 fish sampling results. The size structure of the fish populations had not changed considerably since 1995. Largemouth bass numbers had increased, but the condition and size of the fish were poor. Most bluegill were small (3 to 5 inches long), but some were about 6 inches long, a size that would interest anglers. Black crappie were still of a catchable size, about 8 to 9 inches long, and should continue to contribute to the fishery. Bullheads were abundant and of good size. As mentioned earlier, ODFW stocked Agate Lake in the fall of 1999 with excess trout from the Cole Rivers Hatchery on the Rogue River. ODFW may also stock legal size rainbow trout in 2000 in an attempt to improve angling if funding is available. Nongame fish in Agate Lake are probably similar to those in Emigrant Lake: red-side shiner, golden shiner, black-nose dace, and coarse-scale sucker.

Catch limits are in place for two fish species found in Agate Lake: a catch limit of five trout per day with 8-inch minimum length, and a catch limit of five largemouth bass per day, with no more than three bass more than 15 inches long. No catch limits are in place for bluegill, crappie, catfish and yellow perch.

Special Status Species

Two federally listed candidate plant species and ten federally listed plant species of concern may occur within the Lake Area Boundary. ODFW has listed one endangered and one threatened plant species, along with nine species listed as critical. Surveys for these species have not been conducted within the Lake Area Boundary.

Five special status anadromous fish species potentially occur in the study area: southern Oregon/northern California coho salmon, southern Oregon/California coast chinook salmon, sea-run cutthroat trout, Klamath Mountains Province steelhead, and Pacific lamprey. Suitable habitat for these species does not exist either in Agate Lake or in Dry Creek. Dry Creek downstream of Agate Lake is subject to severe seasonal dewatering because of operations for irrigation purposes. No facilities exist in the dam structure to provide anadromous fish passage.

Five other Federal sensitive invertebrate species potentially occur within the Lake Area Boundary. They include Franklin's bumblebee, Siskiyou chloelalis grasshopper, Schuh's homoplectran caddisfly, Siskiyou gazelle beetle, and Siskiyou caddisfly. Surveys for these five species have not been conducted at Agate Lake.

Four frog species and one turtle species are federally listed as species of concern and potentially occur within the Lake Area Boundary. The Oregon spotted frog is a federally listed candidate

species and a State critical species. It is found in or near a perennial water body such as a spring, pond, lake, or sluggish stream, most often associated with nonwoody wetland plant communities.

The tailed frog inhabits cold, swift mountain streams in humid forests of Douglas fir, pine, spruce, redwood, maple alder, and bay. The northern red-legged frog inhabits marshes, sluggish streams, lakes, reservoirs and ponds. The foothill yellow-legged frog occurs west of the crest of the Cascade Mountains in Oregon above elevation 3000 feet. This species is unlikely to be found in the low elevation streams near Agate Lake (around 1640 feet).

The northwestern pond turtle is federally listed as a species of concern and a State critical species. Suitable habitat may exist in the Dry Creek inlet area of Agate Lake, although no surveys have been conducted to verify its presence.

The Service lists eight sensitive mammal species of concern as potentially occurring in the study area, of which five species are bats. The white-footed vole inhabits riparian areas in primarily deciduous forests and is considered one of the rarest microtine rodents north of Mexico. The California wolverine is considered to be a wilderness species and was long thought to be extirpated from Oregon until a large male was killed in Linn County. Other tracks have been reported sporadically since then. The Pacific fisher has been reported west of the Cascade Mountains in coniferous forests. None have been recorded from oak woodlands. Three of the Federal bat species of concern are listed as occurring in the nearby Denman Wildlife Area: long-eared, fringed, and long-legged bat. Surveys have not been conducted to determine the composition of the bat community within the Lake Area Boundary.

The peregrine falcon was included in the Service's species list but was removed from the Endangered Species List on August 20, 1999.

The bald eagle is both a Federal and State listed threatened species. Bald eagles are not presently known to nest within the Lake Area Boundary, although eagles have been observed foraging on Agate Lake.

The northern goshawk is a Federal sensitive species and a State critical species. It possibly could use the Lake Area Boundary as a foraging area during migration or wintering.

The tricolored blackbird is a Federal sensitive species and a State sensitive species that is peripheral or naturally rare; however, it may migrate through or forage within the Lake Area Boundary.

The olive-sided flycatcher is a Federal sensitive species and a State vulnerable species. It is a common summer resident in coniferous forests. Nonbreeding transients appear in a variety of habitats, including oak woodlands and riparian areas.

The little willow flycatcher is a Federal sensitive species and a State vulnerable species. Potentially suitable habitat for this species exists along Dry Creek within the Lake Area Boundary.

Four State critical or vulnerable species occur within the Lake Area Boundary: Lewis woodpecker, purple martin, western bluebird, and Oregon vesper sparrow. The Lewis woodpecker is a local fairly common summer resident in the chaparral-oak community in Jackson County. The purple martin is an uncommon summer resident west of the Cascades. Western bluebirds were observed throughout the Lake Area Boundary during breeding and fall migrant bird surveys conducted in 1998. Additionally, the Oregon vesper sparrow was detected during spring bird surveys in grasslands adjacent to Dry Creek in the southwest section of the Lake Area Boundary.

Recreation and Visual Resources

Regional Setting

The study area is within the Rogue River Valley of western Oregon. It is bounded on the east by the Cascade Mountains and on the west by the Coast Range and Siskiyou Mountains. The landscape is dominated by cities and farmlands. The Rogue River Valley is a rural community with an economy based on timber, agriculture, software, tourism, and retirement, but it is experiencing growth in other sectors, such as the trades and services industry.

Access to the study area is provided by Interstate 5 south from Eugene, southeast from Grants Pass, and north from Ashland, Oregon; Highway 140 west from Klamath Falls, Oregon; and Highway 62 from the north. The three major metropolitan areas located near the study area are Grants Pass, which is approximately 40 miles west; Medford, which is approximately 11 miles southwest; and Ashland, which is approximately 21 miles south. Several smaller communities, such as White City, Eagle Point, Brownsboro, and Central Point, are all located within 15 miles of the study area.

Agate Lake is within planning Region 9, as described in the Oregon State Comprehensive Outdoor Recreation Plan (SCORP). The planning region includes Jackson, Klamath, Josephine, and portions of Douglas Counties. The region offers a variety of recreational opportunities to

visitors from throughout Oregon and other States. However, Agate Lake is visited mostly by local residents who enjoy hiking, wildlife viewing, hunting, fishing, and picnicking. Agate Lake's small land base, consisting of 476 land acres and 216 water surface acres, plus the lack of developed facilities, has allowed the study area to remain primarily a local attraction.

Three national forests (Siskiyou, Rogue River, and Umpqua) are within the region and offer a wide variety of recreational opportunities. Crater Lake National Park to the northeast and Oregon Cave National Monument to the southwest are within 1½-hours drive of the study area. Some of the 20 lakes within the region that are relatively close to the study area are Lake of the Woods, Howard Prairie, Hyatt, Applegate, and Emigrant Lakes. These and the other 15 lakes offer a wide variety of the flat water recreational opportunities, such as boating, water skiing, swimming, fishing, jet skiing, and sailboarding.

Recreation Use

JCP manages Project lands for recreation purposes, pursuant to the existing lease agreement with Reclamation and existing JCP regulations. The area within the take-line of the lake¹ consists of 476 land acres and 216 surface acres at a water elevation of 1510 feet. Day use activities are the only activities legally allowed within the Lake Area Boundary. JCP currently administers one recreation permit with a third party for public use (Rogue Eagles Radio Control Club, Inc.).

Currently, JCP estimates that Agate Lake receives approximately 5,000 visitors annually. The lack of adequate public facilities, as well as the occurrence of unauthorized activities, have contributed to a decrease in visitation over the past few years, as observed by JCP. JCP estimates that approximately 10 to 15 boaters use Agate Lake each day on weekends and that 4 to 6 boaters use the lake each day during the week.

The typical recreation season lasts approximately 4 months, from Memorial Day to Labor Day. The heaviest recreation use occurs on these holiday weekends, the Fourth of July weekend, and other weekends throughout the summer months. It can be assumed that the number of visitors at any particular time corresponds to the gradual summer release of water from the lake for Project irrigation purposes (i.e., as the water surface elevation decreases, the amount of visitors using the area also decreases). The water elevation drops approximately 25 feet from April to September on the average. In addition, the surface area of the lake in September is half the size as it is in

¹ Take-line refers to the lands immediately adjacent to and under Agate Lake that the Federal Government acquired for the Talent Division of the Rogue River Basin Reclamation Project.

April. (See “Hydrology.”) The smaller surface area available for fishing and other water-related activities and the numerous mudflats created by the drawdown of the lake, as well as observation of visitor use patterns, has led to this assumption. This trend is especially apparent at the southern end of the lake, where extensive mudflats make this area a less than desirable place to visit during the late summer months. As the water elevation drops, access for boaters and swimmers becomes more difficult.

The public currently participates in the following primary recreational activities within the Lake Area Boundary: bank and boat fishing for crappie, trout, bluegill, and bass; night fishing for catfish; upland game hunting for dove; waterfowl hunting for ducks and geese; bird watching; hiking; swimming; and OHV use.

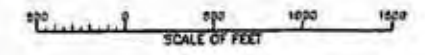
Fishing typically begins around the first of June and continues until August. Bank fishing for crappie is the most common fishing activity and occurs primarily on the west side. Anglers using boats fish for bass near the dam and for crappie, trout, and bluegill in other areas of the lake. The existing concrete boat ramp is usually “high and dry” by mid-July, making it unsafe for launching boats. Boaters, however, still attempt to launch their boats from this ramp and from other primitive launch sites located around the lake. Cat fishing typically occurs at night from the east side of the lake. Anglers use the east side of the lake because of the unauthorized activities that often occur on the west side.

Dove hunting occurs on the west side of the lake in early spring. Waterfowl hunting occurs in the late fall, typically at the southern end of the lake. The District has expressed concern about waterfowl hunting on the face of the dam. Hunters who build blinds on the dam increase the District’s operation and maintenance (O&M) expenses as well as its liability for the safety of the hunters. In addition, the general public currently has unrestricted access to the spillway and other areas of the dam, which creates serious public safety and liability concerns for all management entities.

Bird watching occurs in spring, summer, and fall, primarily in the wooded areas on west side of the lake and below the dam.

Hiking occurs primarily on the west side of the lake. Swimming has been observed primarily on the west side of the lake, although it probably occurs at other areas around the lake.

OHV use is currently authorized only on designated roadways by Reclamation’s Off-Highway Vehicle Proposal. Reclamation published a notice in the *Federal Register* concerning this OHV proposal and regulations on July 14, 1978. The OHV proposal, finalized by this *Federal Register* notice, became effective on August 14, 1978. OHV use within the Lake Area Boundary was to



LEGEND

- Lake Area Boundary
- Paved Highway
- Improved Road
- Well-traveled Track
- Canal
- Stream
- Designated Road

⊕ ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
ROGUE RIVER BASIN PROJECT - OREGON
TALENT DIVISION
AGATE LAKE
RESOURCE MANAGEMENT PLAN
DESIGNATED OFF-ROAD VEHICLE USE MAP

DESIGNED: _____ TECH. APPR: _____
 DRAWN: _____
 CHECKED: _____ APPROVED: _____
 DATE: _____

CADD SYSTEM	DATE OF DESIGN	SCALE AND TYPICAL PLOTTER
JUNIOR: _____	DESIGNER: _____	PLANNER: _____
SUPERV. ENGINEER: _____	APPROVED: _____	DATE: _____

2-7

OHV use is currently more widespread than is authorized on the east, south, and west sides of Agate Lake. There are approximately 6.03 miles of undesignated roads. OHV use of designated and undesignated roads has caused some soil erosion and degraded other natural resources within the Lake Area Boundary. **Map 1-2** shows the extensive road system within the Lake Area Boundary.

On the basis of comments received from the public, numerous user conflicts have occurred between OHV users and bird watchers, hikers, and other recreationists who attempt to use the area simultaneously.

In 1995, JCP limited public use of lands within the Lake Area Boundary to day use only. Numerous incident reports previously filed with JCP concerning public vandalism, dumping, and other unauthorized activities resulted in this restriction.

Except for the boat ramp on the northeast side of the lake, no recreation or sanitation facilities are available to the public. The dam and associated irrigation structures are not for use by the general public. The model airplane facilities on the north end of the lake, operated by the Rogue Eagles Radio Control Club, are available to the public on a limited basis. The domestic water supply—supplied by Reclamation when the dam was constructed—and the four pit toilets, 15 picnic units, and the 80- by-200-foot graded and graveled parking area constructed by JCP in the mid-1960s no longer exist. As stated earlier, all original facilities were vandalized to the point that JCP could no longer afford to operate and maintain them. Therefore, JCP removed all constructed capital improvements.

The National Park Service (NPS) prepared a recreation development plan for the Lake Area Boundary in 1967. The plan outlined future developments that would accommodate visitor demand through the year 2000. However, the 200,000 visitors per year projected for the year 2000 have never materialized. The Lake Area Boundary has found a niche in Region 9 as an undeveloped area having dispersed and unconfined recreation opportunities for the Medford community. The Oregon State Marine Board's prohibition against the use of power boats, primarily for the safety of young swimmers, has contributed to establishment of this niche.

No user fees currently are charged, nor were they charged in the past. Winter recreational use primarily is limited to birding and waterfowl hunting.

Agate Lake was found to be “primitive” during the 1998 accessibility review. The boat dock was untethered or anchored, and the area used as a boat ramp was not paved. The review recommended that construction of any new facilities comply with the Uniform Federal Accessibility Standards.

Visual Resources

Generally, visual resources below the dam to the north and at the south and west sides of Agate Lake maintain a somewhat natural appearance. The character of the landscape and vegetation types account for some of this natural appearance because of the “absorptive capability” of the trees and vegetative cover in these areas. (Absorptive capability refers to the ability of the landscape to conceal human activity and developments, such as roads and parking lots.) With the exception of the riparian area immediately below the dam, the north and east sides of the lake have less absorptive capability than other areas around the lake. The vegetation types at these locations lack the height, density, and mass to screen human activity and developments.

The denuded areas adjacent to the west side boat ramp and the Rogue Aggregates’ gravel pit are clearly visible from the east side of the lake. The existing OHV roads/trails along the steep west slopes are also visible. The denuded areas and some of the OHV roads/trails on the east and south sides of the lake are somewhat visible from the steep slopes on the west side of the lake. These areas, in particular, negatively affect the visual quality of the area.

Socio-Economics

Agate Lake is located in Jackson County, Oregon, about 11 miles northeast of Medford, the county seat and largest city in the county. (See **Map 1-1, Location Map.**) Unincorporated White City, the nearest community, is approximately 5 miles west of Agate Lake.

The populations of Jackson County and Medford have grown steadily from 1970. The county population was estimated to be 172,800 in 1998. Medford’s 1998 population was estimated to be 58,900. The 1990 population of White City was 5,891. The county population is projected to be 210,400 in 2015 and 233,000 in 2025. The largest minority group in the area is Hispanic. In 1990, approximately 5 percent of the population of Medford and White City and approximately 4 percent of the county population were Hispanic.

The median family income in Jackson County in 1990 was \$29,800, with 9.7 percent of all families below poverty level and an unemployment rate of 7.4 percent. In comparison, the 1990 median family income for the State of Oregon was \$32,336, with 8.7 percent of all families below poverty level and an unemployment rate of 6.2 percent.

The economy of Jackson County is based in timber, agriculture, software, tourism, and retirement but is experiencing strong growth in nonfarm employment, primarily in the trades and services sectors. Employment in manufacturing outside of the timber and wood products industries also continues, with an increase of 38 percent during the past decade. Overall, employment grew by 3.1 percent between 1995 and 1996.

Cultural Resources and Traditional Cultural Properties

No archeological survey was completed within the Lake Area Boundary before the dam and lake were constructed. Therefore, to collect cultural resources information for RMP planning, Reclamation contracted with Heritage Research Associates of Eugene, Oregon, for an archeological survey of selected lands at the reservoir. The survey was completed on January 4 and 5, 1999. Reclamation selected the lands to be surveyed based upon these criteria: (1) evidence of present focused recreational use; (2) probable continued focused use under the RMP; (3) lake operation impacts; and (4) mineral soil visibility to aid survey. Approximately 65 acres of lands, plus about 5 linear miles of shoreline and dirt roads, were surveyed, including: (1) lands on the west side from the dam to about 2,000 feet south, extending from the low water shoreline west to the Medford Canal; (2) the east peninsula; (3) the east boat launch area; (4) the entire shoreline perimeter; (5) all existing roads and trails on the west side; and (6) existing roads and trails on the east side leading to the boat launch and the peninsula. No surveys were performed below the dam. The contractor was to complete limited test probing of all recorded sites to collect preliminary information about soils and subsurface site content. However, the ground was so saturated with water that the soils could be screened only with great difficulty; so preliminary testing of most of the locations was deferred. However, unanticipated delays prevented the contractor from completing the initial archeological testing in 1999. It is expected to be completed in 2000. All necessary testing to determine if sites near impact areas are eligible to the *National Register of Historic Places* (Register) will be completed before the final selection of improvement sites.

The survey resulted in discovery of 11 concentrations of archeological material. Only three of the recorded locations contain 10 or more stone flakes or tool fragments within a 10-meter-diameter area, which is the minimum requirement necessary to meet the SHPO definition of an archeological site. One location included a circular depression.

The depression was filled with water when surveyed, and test excavations will be needed to determine if the depression is an archeological or a natural feature. Testing will also be needed to determine if any of the other 10 recorded sites or locations contain archeological deposits that would make them eligible for listing on the Register and to assess the impacts of existing uses on those sites.

In the summer of 1999, Reclamation's archeological contractor, Heritage Research Associates, contacted appropriate area Indian tribes to determine if the tribes have knowledge of archeological sites or TCPs within the Lake Area Boundary and to learn if they had related cultural resource management concerns. The contractor received no response. During the EA public review period, Reclamation again contacted the tribes to notify them about the proposed project, to request the same information, and to indicate its availability for face-to-face meetings, if desired. Reclamation received no response. Reclamation provided a copy of the draft EA to the SHPO for review and received no response. Therefore, Reclamation will complete specific Section 106 consultations² with tribes and the SHPO during the planning period before implementing RMP actions that could potentially affect unidentified archeological resources or TCPs.

² Section 106 of the National Historic Preservation Act require Federal agencies to consider the effects of their actions on historic properties and to consult with the SHPO and other parties, as defined in the regulations (36 Code of Federal Regulations 800)

Chapter 3 Planning Issues, Constraints, and Opportunities

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CHAPTER 3

Planning Issues, Constraints, and Opportunities

Introduction

This chapter describes the key factors that influenced development of the RMP. Reclamation's resource management planning process focuses on resolving issues that arise over the use and management of Reclamation lands and resources. A planning issue can be defined as an unrealized opportunity, an unresolved conflict or problem, an effort to implement a new management program as a result of new initiatives or laws and regulations, or a value being lost. Not all issues are related to resource management; therefore, not all issues are planning issues that can be resolved through an RMP. Some issues must be resolved administratively. The basic challenge is to protect natural and cultural resource values while allowing uses that affect these resources. The key factors that influenced development of the RMP resulted from two areas of investigation:

- Collection, review, and analysis of existing resource data.
- Public involvement and JCP's and Reclamation's internal review of policies and procedures to identify issues, goals, and objectives.

The planning issues, opportunities, and constraints identified in these investigations allowed Reclamation to formulate the RMP management actions and implementation strategies outlined in chapter 4.

Planning Issue Identification

To identify issues pertaining to management of Agate Lake, the planning process included public involvement. The public involvement process, as described in chapter 1, included two public meetings. In addition, Reclamation, in conjunction with JCP, reviewed Reclamation and JCP policies and procedures to identify issues and concerns. From these two steps, a wide range of issues were identified. Generally, the issues and concerns relate to the following:

- Keeping Agate Lake natural by limiting development and eliminating OHV use.
- Providing law enforcement to curtail the unauthorized activities taking place at the lake and on lands adjacent to the lake.
- Evaluating the effects of National Guard maneuvers.
- Limiting the area to primarily day use activities (i.e., no overnight camping).
- Providing adequate sanitary facilities.
- Providing a diverse number of recreation opportunities that are compatible with the existing environmental resources (i.e., fishing, hiking, wildlife observation, picnicking).
- Protecting and enhancing wildlife species and their habitats.
- Protecting vernal pools.
- Protecting fishing quality and enhancing fishing opportunities.
- Protecting cultural resources, where Register eligible properties might exist.
- Protecting water quality.

Constraints

In addressing management changes, agencies are constrained by their respective legislative authorities, environmental limitations, and responsibilities to protect natural and cultural resources, as well as by budget shortfalls, limited personnel for management programs, and current and future agency policies.

Legislative Constraints

Operating Agate Lake for irrigation purposes sometimes constrains its management for recreation or for natural resources. Lake water elevations affect the use of recreation facilities, such as boat ramps, and activities such as fishing, swimming, and picnicking. Generally, recreation facilities and activities can accommodate greater fluctuations in water elevations than natural resources, such as wetlands. Project water operations are managed under existing authorities and are not subject to this RMP. Existing authorities, therefore, may constrain the development of recreation facilities and the enhancement and protection of natural resources.

Federal laws, regulations, and Executive orders require Federal lands to be managed, among other things, to protect endangered and threatened wildlife species, water quality, Indian trust assets, and cultural resources. The future management strategies at Agate Lake will not negatively affect these resources or assets.

Environmental Constraints

Various natural-occurring conditions may limit or influence human activity within the Lake Area Boundary. Limiting factors, such as slopes, soils, wetlands, critical habitat, cultural resources, and the availability of an adequate land base, constrain recreation development. Any of the following factors would make an area less suitable for recreation development:

- Presence of wetland or riparian vegetation or habitat.
- Poor soils for constructing foundations and installing septic systems.
- Sensitive habitat for certain wildlife species.
- Sensitive or historically important cultural resources.
- Slopes greater than 10 percent.
- Reservoir inundation zones (i.e., 100-year flood).
- Shorelines areas that could be undercut by wave action.
- Hazardous geologic conditions such as a fault zone.

Opportunities

Opportunities exist at Agate Lake to enhance, protect, and interpret unique natural resources, such as upland oak, grassland habitats, and vernal pools. At the same time, opportunities exist to provide a range of recreation facilities and opportunities while not negatively affecting existing natural resources.

Opportunities also exist to increase law enforcement at the lake to discourage the unauthorized activities that have occurred in the past. JCP, OSMB, and ODFW could work cooperatively to increase the staff time spent patrolling the lake area to ensure the safety of the public and to enforce existing rules and regulations.

Opportunities exist to systematically implement cultural resource management actions, consistent with Reclamation's responsibilities under Section 110 of the National Historic Preservation Act. These actions could include systematic site evaluation and protection and would also provide an opportunity to interpret cultural resources for public enjoyment and education.

Cost-sharing opportunities with other Federal, State, local agencies could increase JCP's capability to successfully manage Agate Lake. Additionally, in light of input received during the public involvement process, public-private partnerships should be considered in future management strategies; local citizen and advisory groups and local organizations could directly and indirectly support management of the area.

Chapter 4 Resource Management Plan

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CHAPTER 4

Resource Management Plan

Introduction

This chapter describes the RMP and how it was developed by Reclamation in cooperation with JCP. Goals and objectives and associated management actions have been established to respond to the identified issues and concerns. An implementation schedule (tables 4-1, 4-2, and 4-3) highlights when the actions will be initiated within the 10-year planning period. The implementing agency and potential funding source is also provided. Because the RMP outlines management actions for both entities, Reclamation and JCP will jointly implement the RMP. However, implementation of all actions is subject to availability of funds.

Plan Development

Reclamation has the primary stewardship responsibility to manage the lands and resources under its jurisdiction in accordance with existing laws, policy, and guidelines. In cases in which another entity (e.g., JCP) directly manages Reclamation lands for recreation, Reclamation exercises oversight responsibility to ensure that both the responsibilities outlined in the RMP and the terms and conditions of the lease agreement are fulfilled.

Key objectives of the RMP include protecting the health and safety of visitors; providing for outdoor recreation; protecting fish, wildlife, and biodiversity; preserving cultural resources; and protecting water quality.

The first step in developing the RMP for Agate Lake was to identify public and agency concerns and issues. Similar concerns and issues were grouped into the categories of health and safety, recreation management, natural resources, cultural resources, and water quality.

The second step was to identify goals and objectives and potential management actions that could address the issues and concerns. In addition, many of the management actions were formulated in response to basic land management principles and concepts and JCP and Reclamation policy.

Pursuant to NEPA requirements, potential effects of implementing certain combinations of management actions, i.e., “alternatives” or management plans, were analyzed, and the results were described in a draft EA released to the public in October 1999. The draft EA identified the alternative preferred by Reclamation and JCP.

After public and agency review, the third step was to select those combinations of management actions that were widely accepted by the public and agency personnel, could be implemented without serious conflicts, were within the environmental resource limitations, and were consistent with existing policy, laws, Project purposes, and plan goals and objectives. Comments received on the preferred alternative were considered in finalizing the RMP described here.

This RMP assumes that the existing rules and regulations of Jackson County for managing Agate Lake will continue to be applied, except where otherwise indicated. Reclamation also must comply with the following environmental laws, Executive orders, and policies:

- American Indian Religious Freedom Act of 1978.
- Archeological Resources Protection Act of 1979, as amended.
- Archeological and Historic Preservation Act of 1974.
- Clean Water Act of 1974, as amended.
- Clean Air Act of 1970.
- Department of Defense American Indian and Alaska Native Policy, October 20, 1998.
- Endangered Species Act of 1973, as amended.
- Executive Order 12875, Enhancing the Intergovernmental Partnership, October 26, 1983.
- Executive Order 12898, February 11, 1994, Environmental Justice.
- Executive Order 11990, Protection of Wetlands.
- Executive Order 13007, Indian Sacred Sites, May 24, 1996.
- Executive Order 13084, Consultation and Coordination with Indian Tribal Governments, May 14, 1998.
- Fish and Wildlife Coordination Act of 1958.
- Indian Trust Assets Policy, July 1993.
- Migratory Bird Treaty Act of 1918, as amended.
- National Environmental Policy Act of 1969.
- National Historic Preservation Act of 1966, as amended.
- Native American Graves Protection and Repatriation Act of 1990.

- Presidential Memorandum: Government-to-Government Relations with Native American Tribal Governments, April 29, 1994.
- Rehabilitation Act of 1973, Title V, Section 504.

Goals and Objectives and Management Actions

The following discussion sets forth the specific management actions associated with each of five categories of goals and objectives. Certain general management actions that do not relate directly to a goal and objective(s) were identified during the planning process. These general actions are listed first. **Map 4-1** shows the proposed plan.

Site- or action-specific environmental and cultural resources clearances are required before implementing any ground disturbing activity.

A. General

- A.1.** The District will continue to operate the Project for the primary purpose of irrigation.
- A.2.** Reclamation, District, and JCP will adhere to Federal, State, and county laws and regulations, including accessibility regulations and guidelines, when these state and county laws and regulations do not conflict with Federal law and are consistent with Department of the Interior or Reclamation policy.
- A.3.** In cooperation with JCP and the District, Reclamation will conduct land management and recreation reviews every 5 years to ensure that the lands are being managed pursuant to the existing lease agreement between JCP and Reclamation and are consistent with the goals and objectives of the RMP.
- A.4.** JCP and Reclamation will comply with Reclamation's most up-to-date versions of its concession policy and directives and standards.
- A.5.** As the entities with primary management responsibility, Reclamation, the District, and JCP will coordinate their management actions to avoid conflicts.
- A.6.** Reclamation, the District, and JCP also will coordinate their management actions with entities with an interest in the management of Agate Lake, such as ODFW and OSMB.

- A.7. JCP will continually seek public/private partnerships and volunteers to support management of the area.
- A.8. Reclamation will establish agreements with the National Guard, if appropriate, and, thereafter, coordinate their use of lands within the Lake Area Boundary to eliminate potential negative impacts to the public and to environmental resources.

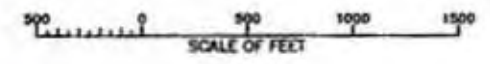
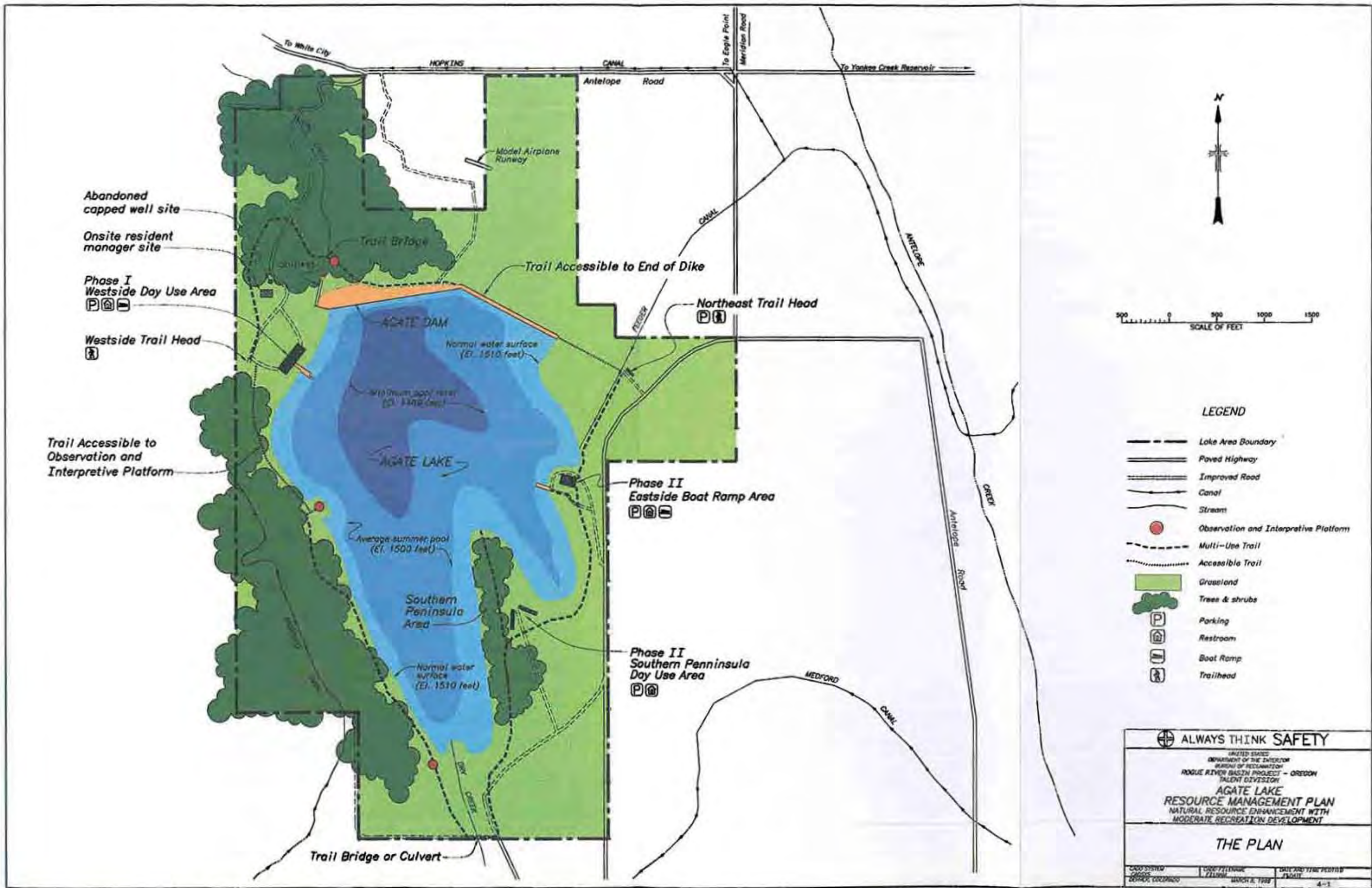
B. Health and Safety

Health and safety issues and concerns focused on providing adequate signage and visitor information regarding rules, regulations, and safety requirements; providing safe and accessible facilities for persons with disabilities; enforcing restrictions against random shooting and other illegal activities and instituting measures to prevent OHV use; providing visible security to control public use of Agate Lake lands and to prevent public misuse of adjacent private lands; and providing adequate sanitary facilities (i.e., restrooms and trash receptacles). The goals and objectives formulated to address these issues and concerns include the following:

B.1. Goal: Promote the safety of users of Agate Lake.

Objectives:

- B.1.1. Ensure that all federally funded or assisted facilities comply with the Uniform Federal Accessibility Standards or the Americans with Disabilities Act, whichever is more stringent.
- B.1.2. Make visitor health and safety the primary focus when constructing needed facilities and providing visitor use opportunities.
- B.1.3. Inventory signing needs within the Lake Area Boundary and install appropriate regulatory and informational signs.
- B.1.4. Enforce rules and regulations to discourage random shooting, vandalism, OHV use, and other unauthorized activities within the Lake Area Boundary.
- B.1.5. Provide law enforcement personnel on a regular basis at the lake.
- B.1.6. Provide onsite resident manager.



LEGEND

- Lake Area Boundary
- Paved Highway
- Improved Road
- Canal
- Stream
- Observation and Interpretive Platform
- Multi-Use Trail
- Accessible Trail
- Grassland
- Trees & shrubs
- Parking
- Restroom
- Boat Ramp
- Trailhead

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECREATION
ROGUE RIVER BASIN PROJECT - OREGON
TALENT DIVISION
AGATE LAKE
RESOURCE MANAGEMENT PLAN
NATURAL RESOURCE ENHANCEMENT WITH
MODERATE RECREATION DEVELOPMENT

THE PLAN

CDR SYSTEM 00000	CDR NUMBER 72100	DATE AND TIME PERIOD MARCH 8, 1988	PAGE 4-1
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Specific Management Actions:

- ◆ JCP, District, and Reclamation will cooperatively work to close Agate Dam to all hunting and other recreational use by installing signs and physical barriers to restrict access to the dam and spillway.
- ◆ Except for the dam area, hunting will continue pursuant to ODFW rules and regulations. JCP will monitor hunting use and its potential conflicts with other recreation users. If conflicts are identified, JCP will work with ODFW to implement necessary procedures to eliminate such conflicts. ODFW will post hunting rules and regulations and other pertinent public information at appropriate areas with the expectation that potential conflicts can be avoided through public education.
- ◆ JCP will finalize agreements with the Oregon Department of Forestry and Jackson County Fire District No. 3 for continued fire protection within the Lake Area Boundary.
- ◆ Emergency service numbers will be posted at appropriate use areas.
- ◆ The bridge leading to the existing west side day use area will be brought up to county standards.
- ◆ The road that is adjacent to the southern Lake Area Boundary will be closed to the public but left open to private use, pursuant to the right-of-way agreement, contract No. 9-07-10-L0241.
- ◆ JCP will remove the abandoned pump house, located on the east side of the lake, and the baseball diamond dugouts and backstops, located on the southeast side of the lake.
- ◆ JCP will repair and maintain the fence along the eastern boundary of Reclamation lands and other areas, as necessary.
- ◆ JCP will determine signing needs at constructed recreation facilities (e.g., day use areas, boat ramps, trailheads, and observation and interpretive platforms). Signs will be accessible to persons with disabilities. Signs will be fabricated and installed at the following locations:

- ❖ West side day use area, east side boat ramp area, and southern peninsula day use area to provide information about boating rules and regulations and proper use of boat launch facilities, as well as use of Agate Lake lands in general.
- ❖ Trailheads on the west and northeast sides to provide information about the rules and regulations governing the use of Agate Lake lands and other pertinent information, such as trail length, portions of the trail that are accessible to persons with disabilities, and information about other opportunities available along the trail, as well as at other areas within the Lake Area Boundary.
- ❖ Three observation and interpretive platforms located around the lake to provide information about the natural and cultural resources of Agate Lake.
- ❖ The main entrances to the Agate Lake area.
- ◆ Reclamation and the District will cooperatively determine signing needs at Project facilities (e.g., spillway, dam, dike, and canals). Signs will be fabricated and installed accordingly to warn visitors of potential hazards.
- ◆ JCP will cooperatively work with other agencies involved with law enforcement (e.g., county sheriff, State police, OSMB, and ODFW) to increase their visibility to ensure that visitors follow existing laws and regulations.
- ◆ A resident manager site will be located immediately northwest of the west side parking lot. The resident manager typically will be on site from Memorial Day through Labor Day each year. Reclamation and JCP will cooperate in providing water, electric, telephone, and sanitation service to the site. The abandoned capped well located west of the spillway will be used to provide water to the site. Facilities will be winterized, as needed. Among other possibilities, Reclamation will review the Federal General Services Administration excess property listings to acquire a mobile home residence that could be moved to the site.

B.2. Goal: Protect the health of the visitors to Agate Lake.

Objective:

- B.2.1.** Construct the appropriate number of restrooms and place the appropriate number of trash receptacles within the Lake Area Boundary to accommodate user demand.

Specific Management Actions:

- ◆ Restrooms and trash receptacles will be made available as visitor use facilities are constructed. JCP personnel will check trash receptacles several times a week and empty them as needed. Crews from the Oregon Department of Corrections will perform general cleanup of the area about every 2 weeks.

C. Recreation

Recreation management issues and concerns focused on keeping Agate Lake's appearance natural by limiting/restricting development; eliminating OHV use; determining carrying capacity of land and water areas; limiting the area to day use only; and providing adequate facilities and a trail system to meet demand. Two phases of recreation development are proposed. Phase I would accommodate the immediate need for facilities and opportunities within the Lake Area Boundary. Phase II would accommodate the future need within the 10-year planning period. The goals and objectives formulated to address these issues and concerns include the following:

C.1. Goal: Protect the scenic quality and natural and cultural resources on Federal lands within the Lake Area Boundary.**Objectives:**

- C.1.1.** Ensure the placement of new facilities is compatible with the surrounding natural landscape.
- C.1.2.** Terminate the existing Off-Road-Vehicle Use Plan, install appropriate physical barriers to prevent future unauthorized OHV use, and restore disturbed areas.

Specific Management Actions:

- ◆ Reclamation and JCP will work together to terminate the existing OHV Plan following properly mandated procedures, including a public involvement process. More specifically, the guidelines and procedures contained in the Code of Federal Regulations, 43 Part 420 will be followed. Discussions in Chapter 2, "Existing Conditions," of this document and Chapter 3, "Affected Environment and Environmental Consequences," of the EA for the Agate Lake RMP provide the basis and justification for such termination action. This action will close all 4.68 miles of roads that were officially designated as OHV roads. In addition, approximately 3.32 miles of other existing roads will be closed that were not

officially open to OHVs. Vehicular traffic will be allowed only on the 2.70 miles of roads that lead to developed day use areas, trailheads, and boat ramp parking areas.

- ◆ JCP will control future OHV use by installing appropriate physical barriers in closed areas.

C.2. Goal: Provide adequate recreation facilities to meet demand within the carrying capacities of the resources.

Objectives:

- C.2.1.** Restrict development to day use facilities and associated activities.
- C.2.2.** Establish a system of multiple use hiking trails that provide opportunities for observation and interpretation.
- C.2.3.** In conjunction with JCP, enter into cooperative cost-sharing agreements with other entities for developing facilities, if possible.

Specific Management Actions:

- ◆ JCP will monitor visitor use at Agate Lake. If resource damage is occurring or if the visitor experience is being diminished due to overcrowding, additional planning will take place to determine if the carrying capacity of the area has been exceeded and to develop management actions to keep visitor use within the appropriate carrying capacity.
- ◆ Lands within the Agate Lake Boundary will be designated as a day use area. No overnight camping will be allowed; however, nighttime catfishing will be allowed to continue. The lands and recreation facilities will be open for both summer and winter use.
- ◆ Informational, directional, and interpretive signs will be installed as described under “Health and Safety” goals and objectives.
- ◆ JCP will increase staff time and O&M funds to protect newly constructed recreation facilities and features.

- ◆ JCP will work with available entities to determine if cooperative arrangements can be reached to decrease its development and operation costs.
- ◆ JCP will monitor visitor use and O&M costs of constructed facilities to determine if day use fees will be charged to offset such costs. If fees are charged, JCP will structure its fee collection system on the basis of market demand and comparability. Fee structures will be designed to accommodate a variety of users and income groups.
- ◆ JCP will continue to allow recreation uses under the terms and conditions of existing permits. Upon expiration of each permit, the use will be evaluated to determine if it is compatible with the goals and objectives of the RMP. Extension or reauthorization will depend on the results of the evaluation.
- ◆ Any new permits considered will be evaluated on a case-by-case basis to determine the compatibility with the goals and objectives of the RMP. JCP will review and authorize permits for recreational activities, with concurrence by Reclamation. Reclamation will review and authorize permits for land use activities, such as National Guard maneuvers. As appropriate, site-specific environmental and cultural resource clearances will be obtained before these activities occur.
- ◆ JCP will work with the Rogue Eagle Radio Control Club on controlling the time of use of model airplanes to lessen the conflicts (noise) between other users of Agate Lake.
- ◆ Nonmotorized boating, except for boats with electric motors, will continue. However, motorized boats will be allowed for administrative purposes, such as law enforcement and fish management.
- ◆ JCP will close all unauthorized primitive boat launch sites around the lake and rehabilitate the areas with native vegetation, as appropriate.

Phase I Development

Phase I facilities and associated features to be planned, constructed, or installed include the following:

West Side Day Use Area:

- ❖ No more than seven low-density day use sites immediately adjacent to existing boat ramp. The suggested spacing between sites is 75 feet, center to center. Each site will include a picnic table, barbeque grill, and trash receptacle.
- ❖ Compacted use pads that allow for easy movement within the site.
- ❖ An 80-by-140-foot gravel parking lot to accommodate 16 vehicles with boat trailers.
- ❖ Vault-type restroom.
- ❖ Routes (paths) that are accessible to persons with disabilities within the west side day use area (i.e., between restroom, parking lot, trailhead, etc.).
- ❖ Extended concrete boat ramp (one lane) and installation of courtesy dock.

Multiple Use Trail Plan:

- ❖ Creation of a trail development team to direct development of a comprehensive trail plan. The trail plan will detail, among other things, site locations (alignment), lengths, materials, signing needs, construction costs, and an O&M strategy.

Gravel Access Roads:

- ❖ Upgrade of existing gravel access roads to meet county specifications (approximately 2 miles).

Phase II Development

Phase II development will include a southern peninsula day use area, including a restroom and adequate parking; an east side boat ramp area; and a multiple use trail. Facility and trail development will follow the same criteria outlined for phase I. Carrying capacity limits will be determined before development begins to determine how to best meet visitor needs, while protecting Agate Lake resources. If it is determined that additional sites are needed, each individual site will contain the same components as those under phase I (e.g., picnic table, barbeque grill, trash receptacle, and compacted use pad).

Southern Peninsula Day Use Area:

- ❖ No more than eight low-density day use sites with 75-foot center-to-center spacing.
- ❖ Individual parking spaces.
- ❖ Vault-type restroom.
- ❖ Basic components at each site, as discussed.
- ❖ New gravel access road that meets county specifications (approximately .3 mile long).

East Side Boat Ramp Area:

- ❖ Primitive gravel boat ramp.
- ❖ An 80-by 50-foot parking lot to accommodate six vehicles with boat trailers.
- ❖ Vault-type restroom.
- ❖ Appropriate number of trash receptacles.
- ❖ Improved gravel access road that meets county specifications (approximately .4 mile long).

Multiple Use Trail System:

- ❖ The multiple use trail system would include construction of a nonmotorized, multiple use trail (including equestrian use) circumnavigating the lake, portions of which are accessible to persons with disabilities; two trailheads; and three observation and interpretive platforms. Specific sections of trail will be constructed as funds become available. Although specifics will be included in the comprehensive trail plan, suggested individual sections of the trail system are as follows:
 - » Trail along west side of lake, approximately 4,840 feet long; approximately 1,764 feet of the trail would be accessible to persons with disabilities
 - » Trail from northeast side trailhead to east side of dam, approximately 3,285 feet long, accessible to persons with disabilities

- » Trail along east side of lake, approximately 7,142 feet long
- » Southern peninsula spur trail, approximately 1,230 feet long
- » Trail from east side of dam to west side trailhead, approximately 2,427 feet long
- ❖ Two observation and interpretive platforms will be constructed along the west side trail. A third platform will be constructed along the trail below the dam. Kiosks at the platforms will provide information about unique environmental resources, as well as information about the dam and other Project facilities.
- ❖ A trail bridge will be constructed across Dry Creek below the dam. During the trail planning phase, it will be determined if a bridge or a culvert is appropriate for the Dry Creek crossing at the southern end of the lake. Locations of the bridges/culverts will be determined during the planning phase.
- ❖ JCP will consult with the District on final locations of trail sections that are on the dike and below the dam to ensure that construction activities and future use will not interfere with the District's operation and maintenance of Project facilities.
- ❖ A trailhead and trails will be constructed along the west side of the lake. The multiple use trail along west side of lake will be approximately 4,840 feet long. A portion of this trail, approximately 1,764 feet long (from the trailhead to the first observation and interpretation platform) will be accessible to persons with disabilities. From the platform south along the west side of the lake, the trail will be multiple use. Access to this portion of the trail by persons with disabilities will depend on the capabilities and/or limitations of individual users. Trail users will share the west side parking lot with picnic and boat ramp day users. The parking lot has been sized accordingly.
- ❖ A northeast side trailhead and parking lot will be constructed. A portion of the trail (approximately 3,285 feet) will be accessible to persons with disabilities (from trailhead to east end dam). The 50- by 40-foot parking lot will accommodate five vehicles.
- ❖ As listed under trail development criteria, existing trails, as well as closed and revegetated OHV roads, and other disturbed areas, will be used whenever practical, except where resource protection or accessibility goals dictate otherwise, and providing old trails and roads were properly laid out and have good drainage.

D. Natural Resources

Natural resources issues and concerns focused on enhancing wildlife habitat; protecting existing habitat values for nesting raptors, protecting mudflats for fall waterfowl migrants; protecting fishing quality and enhancing fishing opportunities; identifying and protecting vernal pool habitat; and minimizing adverse impacts to wildlife when designing and constructing facilities and trails. Site-specific environmental and cultural resource clearances will be obtained before ground disturbing activities begin. The goals and objectives formulated to address these issues and concerns include the following:

D.1. Goal: Protect and enhance wildlife habitat within the Lake Area Boundary.

Objectives:

- D.1.1.** Close and revegetate OHV roads and disturbed areas not used for trails or recreational facilities.
- D.1.2.** Develop cooperative funding and management agreement with ODFW to improve the health and vigor of the vegetative community on the west side of Agate Lake through prescribed burns and revegetation.
- D.1.3.** Enforce rules and regulations to discourage random shooting, long-term camping, and OHV use to reduce or eliminate poaching, wildlife harassment, and habitat loss.

Specific Management Actions:

- ◆ As listed under “Recreation Management” management actions, the existing Off-Road-Vehicle Use Plan will be terminated, and appropriate physical barriers will be installed to prevent unauthorized OHV use. The soil in disturbed areas will be prepared and then reseeded with a native grass and forb seed mixture adapted for the soil and climate conditions of the study area.
- ◆ JCP and Reclamation will partner with ODFW to develop a prescribed burn plan for the dead and decaying vegetation on the west side of Agate Lake. The first task is to jointly develop goals and objectives. Local experts, primarily BLM and the United States Forest Service (USFS), as well as ODFW, who have conducted prescribed burns in the area and have experience with the local fuels and weather patterns, will be consulted. Opportunities to partner with BLM and USFS will be explored. It will be essential to partner with other agencies to obtain assistance and expertise for fire control and suppression.
- ◆ JCP and Reclamation will prepare a noxious weed control plan with assistance from the Oregon Department of Agriculture Noxious Weed Control Program and the Oregon State University Extension Service.

- ◆ JCP and Reclamation will partner with OHNP, ODFW, and the Service to develop a management plan for sensitive plant and animal species within the Lake Area Boundary. The initial task will be to conduct an inventory of sensitive species and identify and map locations. Management plans for those species can then be developed.
- ◆ As listed under “Health and Safety” management actions, JCP will cooperatively work with other agencies involved with law enforcement, including ODFW, to increase their visibility to ensure that visitors follow existing laws and regulations.

D.2. Goal: Protect fishing quality and enhance fishing opportunities.

Objectives:

- D.2.1.** Improve water quality by closing and revegetating OHV roads and disturbed areas to reduce soil erosion and sedimentation of Agate Lake.
- D.2.2.** Enforce State and JCP fishing regulations to ensure compliance with bag limits and to improve the recreational fishing experience.
- D.2.3.** Develop a cooperative management plan with ODFW and JCP to improve reservoir habitat for fish through placement of brush and other cover structures.

Specific Management Actions:

- ◆ As listed previously, the existing Off-Road-Vehicle Use Plan will be terminated, and appropriate physical barriers will be installed to prevent unauthorized OHV use. The soil in disturbed areas will be prepared and then reseeded with a native grass and forb seed mixture adapted for the soil and climate conditions of the study area.
- ◆ As listed previously, JCP will cooperatively work with other agencies involved with law enforcement, including ODFW, to increase their visibility to ensure that visitors follow existing laws and regulations.
- ◆ JCP and Reclamation will work with ODFW to develop and implement a fish habitat improvement plan for Agate Lake. The draft management plan for Agate Lake prepared by ODFW (subject to revision) has identified the need for vegetation and cover in the reservoir to benefit warmwater fish. Action items

suggest placing brush bundles and logs on the bottom of the reservoir to provide cover for fish and planting willows along the shoreline to provide cover and nutrient input, to attract fish for anglers, and to help control turbidity from wave action. Determining temperature and depth profiles and food availability are tasks needed to determine potential for trout production at Agate Lake.

D.3. Goal: Identify and protect vernal pool habitat.

Objectives:

D.3.1. Conduct a regional survey of vernal pools.

D.3.2. Enforce OHV road closures.

Specific Management Actions:

- ◆ Reclamation and JCP will recommend that the Oregon Natural Heritage Program and ODFW complete a regional vernal pool survey to determine the location, condition, and value of vernal pool habitat.
- ◆ As appropriate, Reclamation and JCP will partner with the Service, ODFW, and ONHP to develop a management plan that protects and enhances this resource. The plan would accomplish the following:
 - ❖ Determine the most appropriate regional site for interpretative displays and trails.
 - ❖ Determine the feasibility of using prescribed burns or cattle grazing to improve the habitat value.
- ◆ As listed previously, JCP will cooperatively work with other agencies involved with law enforcement to increase their visibility to ensure that visitors follow existing laws and regulations, including those prohibiting OHV use.

D.4. Goal: Provide hiking and wildlife observation opportunities that enhance visitor enjoyment and education while protecting wildlife values.

Objectives:

Specific Management Actions

- ◆ Reclamation and JCP will work with the District to locate the trail bridge as close to the dam as possible to reduce habitat fragmentation.
- ◆ Trail development will follow the criteria listed under phase I. These criteria include locating the trail to disperse visitors away from fragile or heavily used areas and avoiding areas of critical or sensitive habitat or areas where potentially serious impacts to plants and animals may occur. Criteria also include locating the trail to take advantage of scenic panoramas and natural, historic, and cultural resources.
- ◆ Three observation and interpretive platforms will be located around the lake to provide information about the natural and cultural resources of Agate Lake.

E. Cultural Resources and Indian Sacred Sites

Cultural resources issues and concerns focused on protecting unevaluated or Register eligible cultural resources from damage from development, land use, and operations; providing clearances for other RMP implementation actions; and integrating cultural resource interpretive materials into other educational developments. Currently, no Indian sacred sites are known to be present within the Lake Area Boundary. The goals and objectives formulated to address these issues and concerns include the following:

- E.1. Goal: To comply with Sections 106 and 110 of the National Historic Preservation Act and integrate cultural resource management into planning and developing recreation and other resource management programs within the Lake Area Boundary.**

Objectives:

- E.1.1.** To the extent that funding is available, systematically complete additional archeological inventories and site evaluations throughout the Lake Area Boundary.
- E.1.2.** To complete site-specific investigations, as needed, to enable implementation of other RMP development or restoration actions.

E.1.3. To educate the public about cultural resources and prehistoric and historic period use of the study area.

Specific Management Actions:

- ◆ To the extent that funding becomes available, systematically complete any necessary additional archeological surveys and test excavate all recorded sites or possible sites to determine if they are eligible for the Register.
- ◆ Until the systematic inventories and evaluations are completed, complete site-specific investigations to determine if Register eligible sites are present in locations where developments, terrestrial habitat restoration or improvements, or focused public use will occur. A Reclamation archeologist will determine if investigations are needed. Either Reclamation or JCP can implement the necessary investigations, but they shall be implemented by an appropriate cultural resources professional or suitably knowledgeable individual.
- ◆ If eligible cultural resource sites are present, complete a cultural resource management plan that identifies actions to protect and manage sites.
- ◆ Design improvements and plan restoration actions to avoid impacts to cultural resources.
- ◆ When actions will affect a Register eligible site or when planning actions that could result in significant new impacts to the lands (phase II actions), consult with appropriate tribes to determine if they have cultural resource concerns or are aware of traditional cultural properties.
- ◆ Monitor eligible or unevaluated sites to determine if they are affected by operations or public use.
- ◆ Implement actions to address impacts, as funding is available.
- ◆ When planning interpretive trails and platforms, integrate cultural resource interpretive information as appropriate, as determined together by Reclamation and JCP.

E.2. Goal: Seek to avoid impacts to Indian sacred sites.

Objective:

E.2.1. Avoid any identified Indian sacred sites when locating facilities, trails, and other developments.

Specific Management Action:

- ◆ Seek information on the presence of Indian sacred sites from appropriate tribes when planning an action that Reclamation and JCP determine could potentially affect such sites.

F. Water Quality

Water quality issues and concerns focused on assessing the suitability of existing water quality for selected beneficial uses; monitoring the effects of the landfill on water quality; identifying entity responsible for maintaining water quality; and controlling illegal dumping to improve water quality. The goals and objectives formulated to address these issues and concerns include the following:

F.1. Goal: Protect and enhance water quality at Agate Lake.

Objectives:

F.1.1. Establish a water quality monitoring plan to monitor the effects of onsite beneficial uses and offsite adjacent land uses.

F.1.2. Enforce regulations against dumping and other unauthorized uses within the Lake Area Boundary.

F.1.3. Identify agencies responsible for water quality within the Lake Area Boundary and establish appropriate procedures and guidelines to protect State and Federal water quality standards.

Specific Management Actions:

- ◆ JCP and Reclamation will work to develop and implement a long-term water quality monitoring program. Corrective actions will be implemented after evaluating annual reports, if appropriate.
- ◆ Any changes in water quality should be documented to help determine the positive or negative effects that implementing the RMP may have on the water quality of the lake and also to determine the landfill's potential impacts on the lake's environment.
- ◆ Dumping and other unauthorized uses will not be allowed, as detailed under "Health and Safety" and "Recreation" management actions.
- ◆ Reclamation will identify appropriate water quality standards, and the Oregon Department of Environmental Quality will be notified if the monitoring program determines that water quality standards are not being met.

Plan Implementation

Implementation of the RMP is the primary responsibility of Reclamation in cooperation with JCP. Successful implementation will rely on the cooperation of all entities involved in the management of Agate Lake, as well as those who use the facilities and lands for recreational purposes. JCP will continually seek public and private partnerships and volunteers to support management of the area.

Site-specific environmental and cultural resource clearances will be obtained before any ground disturbing activities begin. Reclamation will determine when additional NEPA compliance activities are required and will take the lead in completing the required documentation. Reclamation's archeologist will determine if additional investigations are needed to obtain a cultural resource clearance and will complete any needed consultations with the State Historic Preservation Officer.

Because of the uncertainty of funding availability, an exact schedule cannot be developed for implementing the proposed management actions. Therefore, the schedule addresses those actions that should be implemented in years 1 through 3 of the 10-year planning period (table 4-1); years 4 through 7 of the 10-year planning period (table 4-2); and years 8 through 10 of the 10-year planning period (table 4-3). Some factors that should influence the timing of a particular management action will be based on whether or not the action (1) is procedural or technical, such as preparing agreements or developing specific plans; (2) is needed to address public health and safety concerns; (3) is required immediately to prevent resource damage or protect wildlife

species or habitats; and (4) requires large capital investments, such as trail or facility development.

Only management actions that would require a substantial commitment of resources (e.g., staff time or money) are listed in the implementation schedule. Other management actions listed under the five goals and objectives categories but not included in the implementation schedule will be addressed as the major management actions are implemented.

Amendments and Modifications to the RMP

Reclamation, in cooperation with JCP, may need to revise or amend the RMP within the 10-year planning period to reflect changing conditions or management objectives. If modifications to the RMP are expected to significantly affect area resources or public use, additional NEPA compliance and public involvement will take place.

Table 4-1.—Management actions at years 1 through 3 of the 10-year planning period

Action	Implementing agency	Potential funding sources
Close to the public the road that is adjacent to the southern Lake Area Boundary and leave it open to private use.	Reclamation, JCP	Reclamation, JCP
Remove abandoned pump house and baseball facilities and repair existing fences	JCP	JCP
Inventory signing needs at constructed recreation and Project facilities	JCP, Reclamation	JCP, Reclamation
Fabricate and install pertinent signs dealing with rules and regulations, hazards, entrances to lake area, and road closures	JCP	JCP, Reclamation, District, BFGP, OPRD
Increase law enforcement activities to enforce rules and regulations	JCP, OSMB, ODFW	JCP, OSMB, Reclamation, ODFW, JCS, OSP
Select location for onsite resident manager, provide services to site, and purchase residence (GSA excess property)	JCP, Reclamation	JCP, Reclamation
Terminate OHV Plan, conduct public involvement, and prepare Federal Register Notice	JCP, Reclamation	JCP, Reclamation
Install appropriate physical barriers to close all identified old OHV roads and restrict public access to the dam and spillway	JCP	JCP, Reclamation
Revegetate old OHV roads and disturbed areas not needed for trails or recreational facilities.	JCP	JCP, Reclamation, HAHP, ONHP, RC&D
Design west side day use area (phase I) ¹ ; obtain all necessary environmental and cultural resources clearances	JCP	JCP, Reclamation
Create trail development team to develop multiple use trail plan	JCP, Reclamation	JCP, Reclamation
Seek and prepare grants with other entities to cost share with JCP for development and enhancement of Agate Lake	JCP	JCP, MAP
Develop and implement a controlled burn plan	JCP, Reclamation, ODFW, ONHP	Reclamation, HAHP, ONHP

Table 4-1.—Management actions at years 1 through 3 of the

10-year planning period (continued)

Action	Implementing agency	Potential funding sources
Develop management plan for sensitive plant and animal species	Reclamation, ODFW	Reclamation, HAHP, RC&D
Develop fish management plan and install fish habitat improvements	JCP, Reclamation, ODFW	Reclamation, ODFW, FA, RC&D
Recommend completion of regional vernal pool survey	ODFW, ONHP	Reclamation, HAHP, ONHP
Complete archeological test excavations, prepare cultural resource plan if necessary, and monitor sites	Reclamation	Reclamation
Enter into an arrangement for a long-term water quality monitoring program	JCP	JCP, Reclamation

¹Management actions related to construction of recreational facilities are designated as either phase I or phase II development.

Table 4-2.—Implementation actions at years 4 through 7 of the 10-year planning period

Action	Implementing agency	Potential funding sources
Construct west side day use area facilities (phase I)	JCP	JCP, Reclamation, FASFR, BFGP, LWCF
Fabricate and install signs at west side day use area, west side trail(s), and observation and interpretive platforms	JCP	JCP, Reclamation, FASFR, BFGP, LWCF
Design and upgrade access roads (approximately 2 miles)	JCP	JCP, Reclamation, TEA-21
Design and construct west side trailhead, west side trail (about 4,840 feet), portion of west side trail accessible to persons with disabilities (about 1,764 feet), and observation and interpretive platforms (phase II)	JCP	JCP, Reclamation, TEA-21, OPRD
Design and construct northeast side trailhead, parking lot, and trail from northeast side trailhead to east side of dam (about 3,285 feet) (phase II)	JCP	JCP, Reclamation, TEA-21, LWCF, OPRD
Develop vernal pool management plan, as appropriate	JCP, Reclamation, ODFW, ONHP	Reclamation, HAHP, ONHP

Table 4-3.—Implementation actions at years 8 through 10 of the 10-year planning period

Action	Implementing agency	Potential funding sources
Design and construct southern peninsula day use area facilities (phase II)	JCP	JCP, Reclamation, OPRD
Design and construct new access road to southern peninsula day use area (approximately .3 mile long) (phase II)	JCP	JCP, Reclamation, LWCF
Design and construct east side boat ramp area (phase II)	JCP	JCP, Reclamation, FASFR, BFGP, LWCF
Design and construct access road to east side boat ramp area (approximately .4 mile long) (phase II)	JCP	JCP, Reclamation, LWCF
Design and construct east side trail (about 7,142 feet) and spur trail into southern peninsula day use area (approximately 1,230 feet long) (phase II)	JCP	JCP, Reclamation, TEA-21, LWCF, OPRD
Design and construct trail from east side of dam to west side trailhead (approximately 2,427 feet long) (phase II)	JCP	JCP, Reclamation, TEA-21, LWCF, OPRD

JCP =Jackson County Parks, **BFGP**=Boating Facility Grant Program administered by Oregon State Marine Board, **Reclamation**=Bureau of Reclamation who administers the Title 28 Program, Public Law 102-575, **FA**=FishAmerica Program administered by FishAmerica, **FASFR**=Federal Assistance to Sport Fish Restoration Program administered by ODFW, **HAHP**=Hunting Access Habitat Program administered by ODFW, **JCS**=Jackson County Sheriff, **LWCF**=Land and Water Conservation Fund which is administered by the ODFW, **MAP**=Maintenance Assistance Program administered by OSMB; **ODFW**=Oregon Department of Fish and Wildlife, **ONHP**=Oregon Natural Heritage Program, **OPRD**= Oregon Parks and Recreation Department; **OSP**=Oregon State Police; **RC&D**=Resource Conservation and Development Program administered by the National Resource Conservation Service, **TEA-21**=Transportation Equity Act of the 21st century, which is administered by State and Federal highway departments.

Attachments

Criteria	A
Funding Opportunities and Potential Cooperators	B

ATTACHMENT A

Criteria

Criteria for developing recreational facilities and associated features include the following:

- Construction will not proceed until all environmental and cultural resource clearances are obtained.
- As much as possible, facilities will be developed only at sites that have already been disturbed or have been fragmented by human activity.
- Development will be compatible with existing uses and opportunities.
- Developments will be designed to complement the surrounding landscape and will use native plant species for vegetation and landscaping.
- Areas disturbed by construction will be revegetated as much as possible.
- Best management practices will be used to prevent erosion and surface runoff.

Criteria for developing the trail system include the following:

- Trail alignment will be at least 200 feet from the lake shoreline. Existing trails, as well as closed and revegetated OHV roads and other disturbed areas, will be used whenever practical, except where resource protection or handicap accessibility goals dictate otherwise, and providing old trails and roads were properly laid out and have good drainage.
- Location should be suitable for both winter and summer activities to the extent that visitor or management needs, terrain, and weather allow.
- Terrain and elevation changes should not be extreme.
- Trails should be located on stable soils. If soils are not stable, alternate material must be provided.
- Available guidelines should be used for specific guidance on drainage (water bars and culverts), trail signing, dimensions, clearing requirements, structures, surface, revegetation, cribbing (retaining walls), switchbacks, base construction, and bridges.

- Structures should be made of native materials when feasible (i.e., bridges, benches, retaining walls, erosion control devices, etc.).
- Special attention should be given to the problems that traffic and traffic-related noise and safety could create for hikers and horse riders at road crossings.
- Hitching rails should be located near trails so riders can secure their horses at trailheads, rest stops, and viewing and scenic areas.
- Access at varying distances along the trail should be provided so that users can choose trips of varying lengths.
- Alignment should offer the users the best views, follow contours, avoid steep topography, and angle across the natural slope to take advantage of natural drainage.
- Trail should be planned for minimum maintenance while providing maximum ecological variety (e.g., using forest edges that border meadows rather than crossing meadows).
- For interpretive purposes, trail should meander to take advantage of scenic panoramas and natural, historic, and cultural resources.
- Trail should avoid areas where potentially serious impacts on plants and animals may occur.
- Critical cultural resource sites should be avoided whenever feasible.

ATTACHMENT B

Funding Opportunities and Potential Cooperators

Following are some examples of funding opportunities and potential cooperators that JCP could work with to determine if cooperative arrangements can be reached to decrease its development and operations costs. These examples may change, and different opportunities may become available throughout the implementation years of the RMP.

Federal Assistance to Sport Fish Restoration

The Federal Assistance to Sport Fish Restoration, which includes the Wallop Breaux amendment, provides Federal funds to State game and fish departments to develop fishing access facilities, such as boat ramps, restrooms, courtesy docks, and parking areas. State game and fish departments will accept proposals from other entities to enhance fishing opportunities in the State. The Federal Government shares 75 percent of the costs, and the State game and fish departments share the other 25 percent. In this instance, Jackson County Roads and Parks Services (JCP) could supplement any portion of the State's 25-percent share if so desired.

Boating Facility Grant Program

The Boating Facility Grant Program is administered by the Oregon State Marine Board (OSMB). The program assists local governments and State agencies in constructing and improving public boating facilities on all State water bodies. Grant monies may be used to acquire or construct public recreational boating facilities, including launch ramps, boarding floats, transient docks, access roads, parking areas, restrooms, utilities, sewage pumpout stations, dredging, signing, and floating restrooms. Funds are available every 2 years. Requests are reviewed by OSMB staff and presented to OSMB for consideration.

Maintenance Assistance Program

The Maintenance Assistance Program is administered by the Oregon State Marine Board. It provides funds for routine and ordinary maintenance and minor repairs of boating facilities. Cities, counties, park and recreation districts, and port districts are eligible to apply. Funds are provided on an allocation basis for each fiscal year.

Land and Water Conservation Fund Program

The Land and Water Conservation Fund (LWCF) provides matching grants to State and local governments to acquire and develop public outdoor recreation areas and facilities. The National Parks Service (NPS) administers the program at the Federal level. The Oregon Parks and Recreation Department is responsible for administering and distributing State LWCF money provided by NPS. Individual project selection for funding is based on the project's quality and conformance with a priority rating system. Proposed projects are accepted on an annual basis.

1998 Transportation Equity Act for the 21st Century (TEA-21)

Eligible projects under the Public Lands Highway Discretionary Fund include, but are not limited to, planning for Federal programs that benefit recreational development, parking, interpretive signage, acquisition of certain lands, trails, roadside rest areas, and sanitary and water facilities. Efforts in identifying proposed projects should be coordinated among Federal, State, and local entities. Specifically, efforts should be closely coordinated with State and Federal Highway Departments at the early stages of project identification and formulation.

Reclamation Recreation Management Act of 1992, Public Law 102-575, Title XXVIII)

Title 28 is an amendment to the Federal Project Recreation Act of 1965, Public Law 89-72 (79 Statute [Stat] 213, 214), as amended by Public Law 93-251 (88 Stat 33, Sec. 77), which provides up to 50 percent Federal cost sharing for the planning, construction, and operation and maintenance (O&M) of recreation facilities. It also provides for up to 75 percent Federal cost sharing for fish and wildlife enhancement and up to 50 percent of the O&M of such facilities; however, if the fish and wildlife facilities are tied to recreation facilities, the cost share is limited to 50 percent. It should be noted, however, that Reclamation's Pacific Northwest Region's policy is to not cost share O&M, except on a case-by-case basis, where the policy has been waived by the Regional Director. Non-Federal public entities that have agreed to manage

developed facilities and lands at Reclamation water projects are to work with local Reclamation offices to identify proposed projects for funding. Congressional funds are secured yearly for selected projects.

Hunting Access and Habitat Program

The Hunting Access and Habitat Program is administered by the Oregon Department of Fish and Wildlife. Funding for habitat enhancement, such as prescribed burning and revegetation, is available to restore big game and upland game habitat. Hunting access must remain open.

FishAmerica Foundation

FishAmerica Foundation funds action-oriented, “on-the-ground,” projects conducted by volunteers (or staff paid from sources other than FishAmerica). Projects must directly improve water quality and/or preserve or enhance fish populations. For agency or institutional projects, volunteer groups must help conduct hands-on activities. Funds for nonlabor activities and costs are provided for habitat restoration, fish populations improvement, and educational projects with a hands-on fishery management component. Grant limits are not to exceed \$10,000. No matching funds are required.

Resources Conservation and Development (RC&D) Program

The Natural Resources Conservation Service provides grant money for the acceleration, development, and use of natural resources, improve the general level of the economy, and to enhance the environment and standard of living in authorized RC&D areas. RC&D areas are locally sponsored areas designated by the Secretary of Agriculture for RC&D technical and financial assistance program funds. Local communities identify goals and objectives and determine solutions to achieve these goals. Many local RC&D councils are involved in improving wildlife and fish habitat and providing access for recreational fishing.

