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State of California  
The Resources Agency  
Department of Water Resources

**ASSESSMENT OF  
RECREATION AREAS MANAGEMENT**

***FINAL***

**R-5**

**OROVILLE FACILITIES RELICENSING  
FERC PROJECT NO. 2100**



JUNE 2004

**ARNOLD  
SCHWARZENEGGER**  
Governor  
State of California

**MIKE CHRISMAN**  
Secretary for Resources  
The Resources Agency

**LESTER A. SNOW**  
Director  
Department of Water  
Resources

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FERC Project No. 2100**

**This report was prepared under the direction of**

Douglas Rischbieter ..... Staff Environmental Scientist, Resource Area Manager, DWR

**by**

Iris Mayes..... Senior Environmental Planner, EDAW, Inc.  
Donna Plunkett..... Senior Environmental Planner, EDAW, Inc.  
Ian Ferguson ..... Environmental Analyst, EDAW, Inc.  
Anne Lienemann ..... Environmental Planner, EDAW, Inc.

This report was prepared under the general direction of DWR staff. Opinions, findings, and conclusions expressed in this report are those of the authors. This report does not express the official position of DWR unless specifically approved by the Director or his designee.

## **REPORT SUMMARY**

This study is being prepared for the California Department of Water Resources (DWR) to identify the effectiveness of recreation area management in providing recreational opportunities within the Oroville Facilities Relicensing study area. The study identifies the current recreational opportunities provided in the study area and summarizes the jurisdiction of agencies that are responsible for recreation management. It identifies the recreation management actions needed to maintain or enhance these recreational opportunities, as well as the potential funding mechanisms that could accomplish those actions. As the California Department of Parks and Recreation (DPR) is the primary agency responsible for recreation resource management within much of the study area, the study focuses on current DPR management roles and practices. However, the roles of other agencies that have assumed some recreation management responsibility are also discussed in this study.

### **STUDY AREA**

The Oroville Facilities are located on the Feather River at the foothills of the Sierra Nevada Mountains in Butte County, California. For the purpose of this study, the area of analysis is inclusive of all lands and waters within the Project area, as well as lands and waters within one-quarter mile of the Federal Energy Regulatory Commission (FERC) Project No. 2100 boundary or lands otherwise with a nexus to the Project.

### **METHODOLOGY**

Primary sources of information used for this study were document review and interviews, with some site visits as necessary. Several criteria were used to evaluate management effectiveness: quality, level and type of recreation opportunity, user satisfaction and facility and site condition. These criteria were compared to survey data to help assess recreation management effectiveness.

### **RESULTS AND CONCLUSIONS**

#### **Background**

Land ownership, land and recreation management, recreation program funding, and existing recreational uses throughout the study area involve a complex network of federal, State, local, and private stakeholders. Recreational uses consist of both day use and overnight use, and both land-based and water-oriented activities. Additionally, there are multiple sources of recreation funding and several responsible parties. Current recreational uses, ownership and agency management, recreation area management, and recreation funding are discussed in this report.

In 1961, the California Legislature passed the Davis–Dolwig Act (California Water Code Sections 11900–11925), which made DWR responsible for acquiring land and planning for recreation and fish and wildlife enhancement as part of the SWP. The Davis–Dolwig Act identifies four responsible State agencies: DWR, DPR, California Department of Fish and Game (DFG), and California Department of Boating and Waterways (DBW). DWR is charged with planning for public recreation and fish and wildlife preservation and enhancement in connection with the development of SWP facilities. This duty involves acquiring all lands and locating and constructing all works and Project features so as to allow for fish and wildlife enhancement and recreational uses following construction of the Project. DPR design, construct, operate, and maintain public recreation facilities at State Water Project facilities. DFG has responsibility for managing fish and wildlife resources at State Water Project facilities. DBW, in turn, is charged with planning, designing, and constructing boating-related facilities.

### **Managing Agencies and Coordinated Plans**

Lands, facilities, and recreational interests in the study area are owned and managed by a number of State, local and federal agencies, including DWR, DPR, DFG, DBW, FRRPD, USFS, and BLM. The properties and management responsibilities of each agency are detailed in a series of deeds, agreements, and transfers between the agencies involved. Under regulations of the FERC, DWR is ultimately responsible for public access, recreational opportunities, and associated recreation development within the Project 2100 boundary. Each of these agency's ownership and management responsibilities and current management practices throughout the study area are detailed in this study. Figures 5.1-1 through 5.1-3 in this study illustrate the jurisdictional boundary of each of the managing agencies.

The variety of management jurisdictions within the study area has led to an overlay of management plans, goals, responsibilities and actions. Current planning efforts are being better coordinated by DPR and DWR in concert so that each agency's management plan within their jurisdictions are consistent. DPR's updated LOSRA General Plan (currently under development) will address its broad mission and recreation management goals for the LOSRA. In contrast, DWR's new Recreation Management Plan (RMP) for its new license (to be developed) will define specific actions related to the Oroville Facilities. This type of coordinated DWR and DPR planning effort should be continued into the implementation phase and should also include DFG managers responsible for recreation opportunities within the OWA.

### **Recreation Management Assessment**

In general, recreation management in the study area has been operating fairly effectively; however, there is room for improvement in several areas. The current management structure has led to some problems because of the multiple layers of jurisdictions. For example, there has been confusion for recreationists as to which regulations apply at the OWA due to differing signs for each jurisdiction. Other problems that have been identified are more likely attributed to understaffing, such as enforcement efforts relative to litter and dumping in the OWA. One area of

management structure that could be improved would be a better system for communication between agencies and between the agencies and the public.

Recreation management in the LOSRA involves collaboration among a number of agencies and organizations (pers. comm., Feazel 2003). Day-to-day coordination among DWR, DPR, DFG, and DBW is limited, but field staffs from the four agencies meet monthly to discuss recreation-related management issues throughout the study area. Otherwise, interagency coordination in the LOSRA, OWA, and throughout the study area is primarily project-specific. For example, DWR and DPR often work with DBW for funding and construction of boating-related recreational facilities. In addition, a number of other agencies and organizations play a variety of roles in recreation planning and management throughout the study area. CDF assists DPR with emergency fire and medical response and search and rescue (pers. comm., Feazel 2003).

### ***Operations and Maintenance***

Several categories of issues fall under the overall heading of operations and maintenance, such as visitor safety, litter and sanitation control, user fee structure, service and staffing, and landscape and maintenance.

### **Visitor Safety**

Safety among visitors, to the degree practicable, is one an important concern of recreation managers. Relicensing Study R-2 – *Recreation Safety Assessment* addresses safety within the study area. Survey results indicate that current recreation management is operating effectively in terms of safety and law enforcement at most times and places in the study area. The OWA was identified as needing additional enforcement. Potential safety issues should continue to be monitored in the future to see if an increase in the presence or type of law enforcement will be needed at certain times and places.

### **Use Levels**

Use levels and degrees of crowding indicate to managers if, when, and how often facilities are reaching capacity. The majority of survey respondents indicated that they did not feel crowded when visiting the Lake Oroville area. Relicensing Study R-8 – *Recreation Carrying Capacity* details the capacity of existing facilities. Further analysis of capacity and needs within the Project area will be discussed in Relicensing Study R-17 – *Recreation Needs Analysis*.

### **Litter and Sanitation Control**

Keeping facilities and recreation areas clean and free from debris are responsibilities of recreation area managers. Based on observed conditions within the LOSRA and OWA, and based on survey responses, recreation area managers have not been as effective as recreationists would like in controlling litter and sanitation. Litter and sanitation

management is a cause for “moderate” concern (EDAW 2003b). The current problems with litter can mainly be attributed to understaffing. Lack of enforcement staff time dedicated to preventing dumping and littering, and lack of staffing to clean up litter and trash, contribute to the current situation. Additional funding and staffing to minimize litter accumulation could help improve the problem within the study area. Some staff time could be spent recruiting and organizing volunteers to help clean up litter and could help get the community involved in self-policing programs. Community involvement could help to prevent or identify people who illegally dump garbage, particularly in the OWA.

### **Costs Paid by Recreationists**

User fees help offset the cost of operating recreation facilities at the Oroville Facilities including boat launching, day use and camping fees. Based on survey results, the recreation programs and the associated costs that are being administered are generally considered reasonable by a large majority of recreationists. A majority of recreationists may also be willing to pay more than is currently being charged. Most may also be willing to pay at areas that are currently free to the public (such as the OWA) to have additional services such as improved litter management.

### **Service and Staffing**

Quality and appropriate type of service and staffing related to provision of recreation facilities and opportunities are one of the responsibilities of recreation managers. Quality and type of services can change over time and are often linked to funding allocations. Only 11 percent of those surveyed on-site considered service and staffing to be a moderate to big problem. As a result, it appears that area recreation managers and service providers are generally effective when it comes to service and staffing. It is likely that the majority of perceived problems with service and staffing occurred at the busiest times and locations during the recreation season. This would be consistent with the survey responses regarding occasional problems with safety, which indicate that although there is not widespread concern over safety, there are some potential problems at certain times and places, such as the Thermalito Afterbay outlet during peak fishing times.

As demand for recreation use increases in the Oroville Facilities area, as projected in Relicensing Study R-12 – *Projected Recreation Use*, demand for recreational services and staffing will likely increase. These things considered, it continues to be in the best interest of recreation area managers and service providers to continue to provide services currently being supplied, as well as identify what services will be needed in the future.

### **Landscape and Maintenance**

Landscaping at facilities can help communicate to visitors where to park and where entrances are located at buildings. Some landscaping, such as turf, significantly

enhances some day use activities. Trees provide shade and cooling during hot weather. Attractive landscapes can also affect attitude and increase visitor expectations regarding quality and type of experience. In general, survey results indicate that the landscaping provided is adequate for most areas. However, sensitivity to the adequacy of landscaping and its maintenance varies among those surveyed and some places could be better landscaped. Future management plans should consider plans for improving and developing additional landscaping for some key locations.

### **Shoreline Access and Water Level**

Adequate access to the Project is not only mandated by FERC, but access to shoreline and water is fundamental to providing water-based recreation. This topic is discussed in detail in Relicensing Study R-3 – *Assessment of the Relationship of Project Operations and Recreation*. Although reservoir pool level is primarily determined by factors other than recreation, managers could work to communicate more effectively with users affected by reservoir pool levels. Reservoir and river levels could be publicized during the recreation season so that recreationists have more opportunity to experience Lake Oroville when it is at optimum conditions, or to adjust their plans when pool levels are not optimum. Finally, recreation managers could provide alternative suggestions at kiosks and signs directing visitors to sites within the Lake Oroville area that may be less affected by low water levels.

### **Data Collection and Monitoring**

As outlined in Relicensing Study R-9 – *Existing Recreation Use*, monitoring of attendance numbers and activities and locations will be valuable in the future. Relicensing Study R-8 – *Recreation Carrying Capacity* identifies when recreation facilities are expected to reach capacity in the future. Recreation managers should consider including an improved monitoring program in future recreation plans.

### ***Communication with the Public***

DWR and DPR communicate with the public through various means. The DWR and DPR websites on the Internet provide a large amount of information as well as opportunities for contacting staff at each of the agencies. However, if management structure changes, or there are alternative stakeholder forums or volunteer groups (which is recommended), these could potentially be very effective opportunities to improve the level of communication with the public.

### ***Interagency Management***

Due to the various roles and responsibilities of the State agencies, communication between staff members among each of the managing agencies is essential for recreation opportunities in the study area to be adequately provided to the public. Interagency coordination is important for recreation management issues that may arise around timing of events and changes in time of facility conditions and reservoir levels. Scheduling of events and hunting seasons requires communication for safety reasons.

Clear divisions of responsibility are important for efficiency of Operations and Maintenance (O&M) and for recreation managers to be prepared to manage the unexpected.

Currently, field staff from DWR, DPR, and DFG have been meeting regularly to address this interagency management. However, more coordination and higher-level decisions may be needed to address and resolve all of the issues including funding sources and long-term planning.

### ***Recreation Funding Structure***

Funding for the development of recreational opportunities and facilities at portions of the SWP is a major concern for recreation managers, often limiting recreation development and constraining recreation management in the study area. The appropriate source of funding for the development of recreation facilities has been confused through multiple interpretations of the FERC license agreement and the Davis–Dolwig Act. The legal responsibilities under the Davis–Dolwig Act are generally inconsistent with recreation management requirements under the Federal Power Act. A MOA between the agencies and the SWC, outlining agreements regarding future recreation funding, could help establish a more clearly-defined funding structure.

### **Effect of Management Actions on Recreational Activities**

One of the responsibilities of Project area managers is to provide adequate recreational opportunities at the Oroville Facilities. Opportunities for recreational activities are created by providing access to areas with recreation potential, developing the appropriate level of facilities to support those activities, and maintaining that access and facilities over time.

The study area, principally within LOSRA lands managed by DPR, offers a wide variety of recreational opportunities, including boating, camping, fishing, hiking, bicycling, horseback riding, hunting, interpretive programs and nature study, off-highway vehicle (OHV) use, picnicking, shooting, swimming, and wildlife viewing. Lands within the LOSRA contain extensive recreation facilities, and DPR manages a wide variety of the facilities and programs supporting recreation in the area, as detailed below. In addition, recreational activities occur on other lands and waters within the study area, including the OWA.

### **Management Structure Evaluation**

The management structure at the Oroville Facilities is complex, involving agencies at the federal, State, local, and regional level, as well as community organizations and interested individuals. To evaluate the effects of this management structure on public recreation opportunities at Lake Oroville, it is useful to understand other potentially viable management structures, compare the current recreation management structure with that of other similar areas, and investigate means to fund these management activities in the future. Based on this comparative review, there are some specific

actions that management may want to consider, such as creating an improved public outreach and communication program, institutionalizing additional stable funding, and resolving OWA management issues.

Four other entities were investigated for comparison of recreation management structure with the Oroville Facilities. Two of these four entities represent a cross section of water-based recreation in the Northern California region. The other two are located in other regions of the United States.

### **Potential Management Structure Alternatives**

This report discusses several alternative management agency structures to address issues identified in the relicensing studies. These include single agency responsibility, increased local responsibility (including the Joint Powers Authority), and increased reliance on concessionaires. Alternative stakeholder models were also evaluated. However, under any scenario, DWR (as Licensee) is ultimately responsible for providing recreation facilities and opportunities within the Project area.

Alternative management structures were evaluated. Management functions that are affected by management structure include:

- O&M;
- Visitor monitoring and surveying;
- Fee collection;
- Management of concession contracts;
- Building of new facilities;
- Recreation planning;
- Enforcement;
- Visitor management control;
- Communication with the public; and
- Budgeting and staffing.

A multi-agency structure, similar to the current management structure is recommended. While some improvements in management need to be addressed and some responsibilities need to be further defined and assigned, in general the current divisions of responsibilities are appropriate and functional. A single-agency structure is not recommended for managing all recreation resources within the study area. Although recreation is a component of DWR's mission to manage water resources for the SWP, DPR has recreation as its main purpose and has experience managing large recreation facilities. However, if the Oroville Facilities continue to be managed under a multi-agency structure, it will be important to provide more seamless, integrated management coordination to enhance service to the public.

General Project area enhancements and needs for facilities are addressed in R-17 – *Recreation Needs Analysis*. The management responsibilities that may need to be reconciled or reassigned include:

- Management authority for the OWA;
- Boating regulations on Thermalito Afterbay;
- Financial accountability for recreation spending within the LOSRA;
- Law enforcement within the study area;
- More local input to recreation management within the study area; and
- Communication with the public.

Management authority for the OWA was not examined as part of this study. This issue will require resolution between agency management decision makers with local staff input. Boating regulations on the Afterbay should be made consistent either through additional policy or through enforcement of existing restrictions. This decision should be made by DWR and DFG, also in conjunction with local input. DPR should implement accounting practices that will allow for regular review of expenditures within the LOSRA, separate from other Park units. Greater input by a local entity, such as the FRRPD or other representatives could be an important part of stakeholder involvement. Further, DWR should consider implementing a comprehensive public outreach program that would provide various avenues for communication with the public. This outreach program could include a friends group, a recreation commission, or an advisory committee.

Recreation managers should consider implementing an improved public outreach program that provides the public with opportunities to regularly meet face-to-face with recreation area managers, to gather information, to make recommendations and have concerns addressed. Stakeholder involvement will likely continue to be an important facet of recreation management in the next license period. Regular, continued interagency meetings during the new license term are also advised in order to continue improving communication, coordination, and planning.

### **Potential Supplemental Recreation Funding**

Adequate funding is a critical element of long-term recreation management effectiveness. Additional funding sources should be sought. Additional funding should be prioritized and planned in conjunction with future recreation plans for the area. However, funding sources that support ongoing maintenance are less common than funding for the development of new facilities or for rehabilitation. Therefore, a recreation funding structure should be designed that maximizes grant opportunities for new development, but also provides for long-term maintenance and operations.

Developing and implementing a revised user fee system for LOSRA and OWA that provides direct funding for local, on-site maintenance and operation would have a two-fold benefit: (1) recreationists would be able to see a direct benefit from fees paid; and, (2) agency budget variability would be less likely to cause gaps in maintenance and

operations. The feasibility of a new fee structure would need to be examined collectively by DWR, DPR, and DFG. Nevertheless, supplemental funding from other sources, in addition to user fees, would also be needed to cover anticipated costs. Revenue from operations rarely covers the operation costs at public recreation areas; this is especially true in California where the State has set high standards for a Park System that has often been a leader in the Nation.

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## ACRONYMS

AB	Assembly Bill
ADA	Americans with Disabilities Act
af	acre-feet
BIC	Boat-in Campsites
BLM	U.S. Bureau of Land Management
BR	Boat Ramp
CDF	California Department of Forestry and Fire Protection
cfs	cubic feet per second
CPR	cardiopulmonary resuscitation
CORP	California Outdoor Recreation Plan
DBW	California Department of Boating and Waterways
Delta	Sacramento–San Joaquin Delta
DFG	California Department of Fish and Game
DOF	California Department of Finance
DPR	California Department of Parks and Recreation
DUA	Day Use Area
DWR	California Department of Water Resources
EBMUD	East Bay Municipal Utility District
F	Fahrenheit
FERC	Federal Energy Regulatory Commission
FPC	Federal Power Commission
FRRPD	Feather River Recreation & Parks District
FRSA	Feather River Service Area
I&E	Interpretation and Education
ISO	Independent System Operator
JPA	Lake Oroville Joint Powers Authority
LOSRA	Lake Oroville State Recreation Area
maf	million-acre-feet
msl	mean sea level
MOA	Memorandum of Agreement
MW	megawatts
NF	National Forest
NGO	non-governmental organization
NGC	Northeast Generation Company
NGPC	Nebraska Game and Parks Commission
NOAA Fisheries	National Oceanic and Atmospheric Administration National Marine Fisheries Service
O&M	Operations and Maintenance
OEP	Office of Energy Projects
OHV	off-highway vehicle

**ACRONYMS (Cont.)**

ORAC	Oroville Recreation Advisory Committee
OWA	Oroville Wildlife Area
PG&E	Pacific Gas and Electric Company
PM&E	protection, mitigation, and enhancement
PWC	personal watercraft
R&PP	Recreation and Public Purposes Act
RRMP	Redding Resource Management Plan
RRA	Redding Resource Area
RMP	Recreation Management Plan
RTP	Recreational Trails Program
RV	recreational vehicle
RZH	Roberti-Z'berg-Harris
SMUD	Sacramento Municipal Utility District
SR	State Route
SVRA	State Vehicular Recreation Area
SWC	State Water Contractors
SWP	State Water Project
UARP	Upper American River Project
USACE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
WCB	Wildlife Control Board

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## 1.0 INTRODUCTION

### 1.1 BACKGROUND INFORMATION

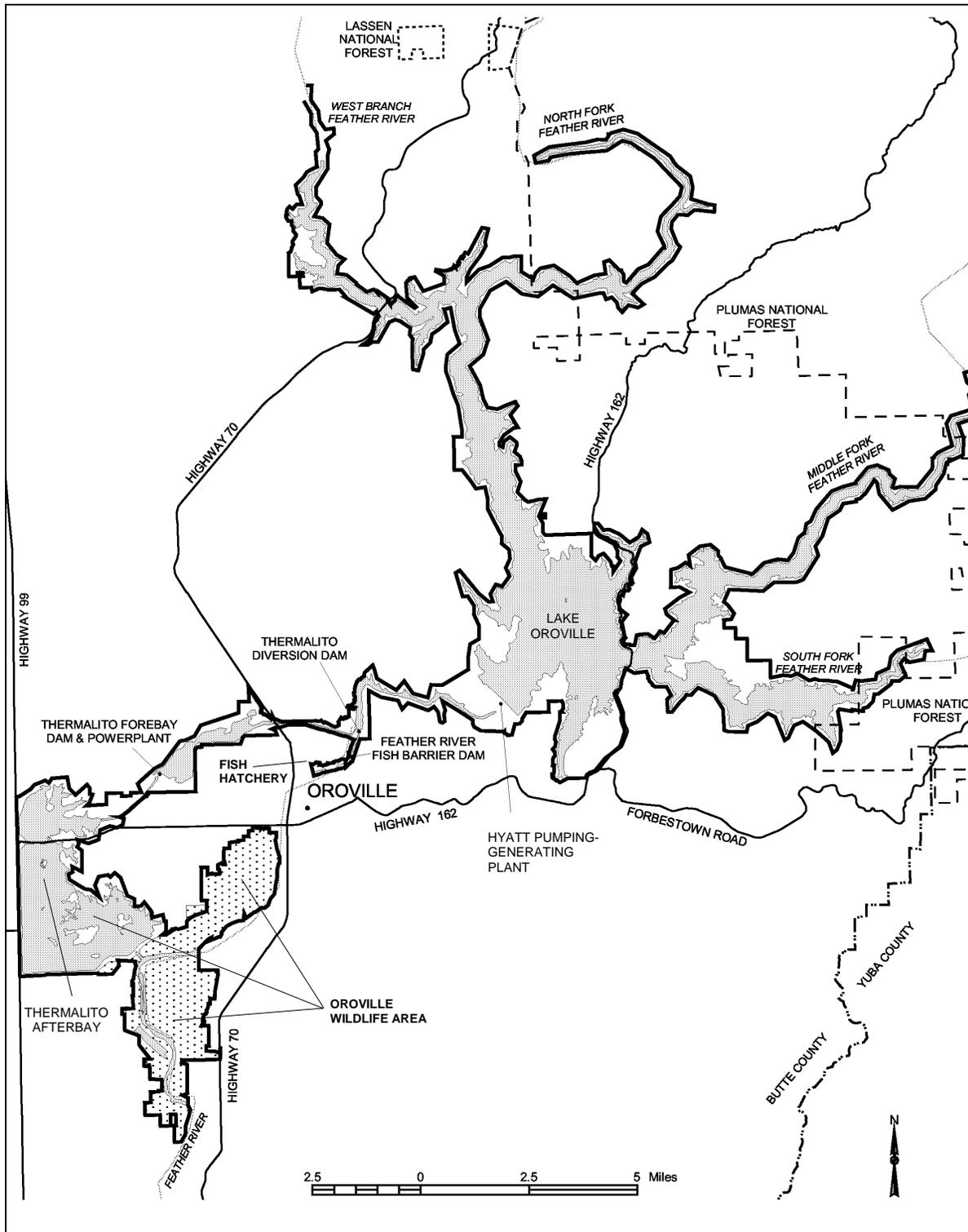
The Lake Oroville Facilities include Lake Oroville, the second largest reservoir in California and the keystone of the State Water Project (SWP). The reservoir provides numerous water supply, power generation, and flood control benefits. In addition, the Lake Oroville State Recreation Area (LOSRA), the Oroville Wildlife Area (OWA), and other lands managed by the U.S. Forest Service (USFS) and U.S. Bureau of Land Management (BLM) provide a variety of recreational opportunities, including a number of developed use areas, trails, camping areas, and undeveloped or primitive use areas within the Project area.

Relicensing Study *R-5 – Assessment of Recreation Area Management* assesses the effectiveness of recreation area management in providing recreational opportunities within the study area. This study considers the current range of recreation management actions and opportunities, and also identifies actions or other opportunities that could help to maintain or enhance recreational opportunities. This study goes on to assess the adequacy and efficiency of recreation funding, development, and management structures, as well as the adequacy of operations and maintenance activities associated with existing recreational uses and facilities. Understanding existing and potential recreation management structures and organizations helps ensure that future recreation programs and facilities may be implemented with success and the satisfaction of user groups and other stakeholders is enhanced.

During the scoping and issues identification phase of the Oroville Facilities Relicensing, several issues were raised regarding the role that agencies with management responsibility can play to enhance recreational opportunities within the study area. These agencies include the California Department of Parks and Recreation (DPR), California Department of Water Resources (DWR), California Department of Fish and Game (DFG), California Department of Boating and Waterways (DBW), USFS, BLM, the City of Oroville (City), Feather River Recreation and Parks District (FRRPD), and Butte County (County).

### 1.2 STUDY AREA

The Oroville Facilities are located on the Feather River at the foothills of the Sierra Nevada Mountains in Butte County, California. For the purpose of this study, the area of analysis is inclusive of all lands and waters within the Project area, as well as lands and waters within one-quarter mile of the Federal Energy Regulatory Commission (FERC) Project boundary or lands with a nexus to the Project. See Figure 1.2-1.



Source: DWR 2003.

**Figure 1.2-1. Oroville Facilities FERC Project 2100 boundary.**

Study area lands include the following areas:

- Lake Oroville;
- Thermalito Diversion Pool;
- Thermalito Forebay;
- Thermalito Afterbay;
- OWA;
- Feather River below Oroville Dam; and
- Feather River Fish Hatchery.

Table 1.2-1 lists the recreation facilities in the study area. Facilities that have a relationship to the Project are included in the study area. Figures 5.1-1, 5.1-2, and 5.1-3 show the location of recreation facilities in the study area.

### **1.3 DESCRIPTION OF FACILITIES**

The Oroville Facilities are located on the Feather River at the foothills of the Sierra Nevada in Butte County, California. The Oroville Facilities were developed as part of the SWP, a water storage and delivery system of reservoirs, aqueducts, power plants, and pumping plants. The main purpose of the SWP is to store and distribute water to supplement the needs of urban and agricultural water users in Northern California, the San Francisco Bay area, the San Joaquin Valley, and Southern California. The Oroville Facilities are also operated for flood control, power generation, to improve water quality in the Sacramento–San Joaquin Delta (Delta), enhance fish and wildlife, and provide recreation.

FERC Project No. 2100 encompasses 41,100 acres and includes Oroville Dam and Reservoir, three power plants (Hyatt Pumping-Generating Plant, Thermalito Diversion Dam Power Plant, and Thermalito Pumping-Generating Plant), Thermalito Diversion Dam, the Feather River Fish Hatchery and Fish Barrier Dam, Thermalito Power Canal, the OWA, Thermalito Forebay and Forebay Dam, Thermalito Afterbay and Afterbay Dam, transmission lines, and a relatively large number of recreational facilities. An overview of these facilities is provided in Figure 1.2-1. Oroville Dam, along with two small saddle dams, impounds Lake Oroville, a 3.5-million-acre-foot (maf) capacity storage reservoir with a surface area of 15,810 acres at its maximum normal operating level of 900 feet above mean sea level (msl).

The hydroelectric facilities have a combined licensed generating capacity of approximately 762 megawatts (MW). The Hyatt Pumping-Generating Plant is the largest of the three power plants with a capacity of 645 MW. Water from the six-unit underground power plant (three conventional generating and three pumping-generating units) is discharged through two tunnels into the Feather River just downstream of Oroville Dam. The plant has a generating and pumping flow capacity of 16,950 cubic feet per second (cfs) and 5,610 cfs, respectively. Other generation facilities include the

3-MW Thermalito Diversion Dam Power Plant and the 114-MW Thermalito Pumping-Generating Plant.

**Table 1.2-1. State recreation facilities within the study area.**

Facility Type	Name	
<b>Campgrounds</b>	<ul style="list-style-type: none"> <li>• Bidwell Canyon Campground</li> <li>• Lime Saddle Campground</li> <li>• Lime Saddle Group Campground</li> <li>• Loafer Creek Campground</li> <li>• Loafer Creek Group Campground</li> <li>• Loafer Creek Horse Campground</li> <li>• North Thermalito Forebay “En Route” Recreational Vehicle (RV) Campground</li> <li>• OWA Primitive Camping and Access (DFG)</li> </ul>	<p><b>Boat-in Campsites (BICs) and Floating Campsites</b></p> <ul style="list-style-type: none"> <li>• Goat Ranch Area BICs</li> <li>• Foreman Creek BIC</li> <li>• Craig Saddle BIC</li> <li>• Bloomer Cove BIC</li> <li>• Bloomer Knoll BIC</li> <li>• Bloomer Point BIC</li> <li>• Bloomer Group BIC</li> <li>• Floating Campsites</li> </ul>
<b>Day Use Areas (DUAs)</b>	<ul style="list-style-type: none"> <li>• Clay Pit State Vehicular Recreation Area (SVRA)</li> <li>• Diversion Pool DUA</li> <li>• Feather River Fish Hatchery (DWR/DFG)</li> <li>• Lake Oroville Visitors Center (DWR/DPR)</li> <li>• Loafer Creek DUA</li> <li>• Oroville Dam DUA</li> <li>• Riverbend Park</li> </ul>	<ul style="list-style-type: none"> <li>• Bedrock Park</li> <li>• OWA (DFG)</li> <li>• Model Aircraft Flying Facility (DWR)</li> <li>• Rabe Road Shooting Area (DFG)</li> </ul>
<b>Boat Ramps (BRs)</b>	<p><b>BRs with DUAs</b></p> <ul style="list-style-type: none"> <li>• Bidwell Canyon BR/DUA</li> <li>• Enterprise BR</li> <li>• Lime Saddle BR/DUA</li> <li>• Monument Hill Thermalito Afterbay BR/DUA (DWR)</li> <li>• North Thermalito Forebay BR/DUA</li> <li>• South Thermalito Forebay BR/DUA</li> <li>• Spillway BR/DUA</li> </ul>	<p><b>BRs Only</b></p> <ul style="list-style-type: none"> <li>• Afterbay Outlet BR (DFG)</li> <li>• OWA unimproved BRs</li> <li>• Wilbur Road Thermalito Afterbay BR (DWR)</li> <li>• Larkin Road Thermalito Afterbay Car-top BR (DWR)</li> <li>• Foreman Creek Car-top BR</li> <li>• Stringtown Car-top BR</li> <li>• Dark Canyon Car-top BR</li> <li>• Nelson Bar Car-top BR</li> <li>• Vinton Gulch Car-top BR</li> </ul>
<b>Trailheads and Trails</b>	<ul style="list-style-type: none"> <li>• East Hamilton Road Trailhead Access (DWR)</li> <li>• Lakeland Boulevard Trailhead Access</li> <li>• Saddle Dam DUA Trailhead Access</li> <li>• Tres Vias Road Trailhead Access (DWR)</li> <li>• Bidwell Canyon Trail</li> <li>• Brad P. Freeman Trail</li> </ul>	<ul style="list-style-type: none"> <li>• Chaparral Interpretive Trail</li> <li>• Dan Beebe Trail</li> <li>• Loafer Creek Canyon Trail</li> <li>• Loafer Creek Day Use/Campground Trail</li> <li>• OWA</li> <li>• Potter Ravine Trail (accessed from Spillway DUA)</li> <li>• Wyk Island (at Bidwell BR)</li> <li>• Roy Rogers Trail</li> </ul>

*Note: All facilities are managed by DPR unless specified.*

Thermalito Diversion Dam, 4 miles downstream of Oroville Dam, creates a tail water pool for the Hyatt Pumping-Generating Plant and is used to divert water into the Thermalito Power Canal. Thermalito Diversion Dam Power Plant is located on the left abutment of the diversion dam. The power plant releases a maximum of 615 cfs of water into the river.

The power canal is a 10,000-foot-long channel designed to convey generating flows of 16,900 cfs to the Thermalito Forebay and pump-back flows to the Hyatt Pumping-Generating Plant. Thermalito Forebay is an off-stream regulating reservoir for the 114-MW Thermalito Pumping-Generating Plant. The Thermalito Pumping-Generating Plant is designed to operate in tandem with the Hyatt Pumping-Generating Plant and has generating and pump-back flow capacities of 17,400 cfs and 9,120 cfs, respectively. When in generating mode, the Thermalito Pumping-Generating Plant discharges into Thermalito Afterbay, which is contained by a 42,000-foot-long earthfill dam. Thermalito Afterbay is used to release water into the Feather River downstream of the Oroville Facilities, helps regulate the power system, provides storage for pump-back operations, provides recreational opportunities, and provides local irrigation water. Several local irrigation districts also receive Lake Oroville water via Thermalito Afterbay.

The Feather River Fish Barrier Dam is downstream of the Thermalito Diversion Dam and immediately upstream of the Feather River Fish Hatchery. The flow over the dam maintains fish habitat in the low-flow channel of the Feather River between the dam and the Afterbay outlet, and provides attraction flow for the hatchery. The hatchery is an anadromous fish hatchery intended to compensate for salmon and steelhead spawning grounds made unreachable by construction of Oroville Dam. Hatchery facilities have a production capacity of 10 million fall-run salmon, 5 million spring-run salmon, and 450,000 steelhead annually (pers. comm., Kastner 2003). However, diseases have reduced hatchery production in some recent years.

The Oroville Facilities support a wide variety of recreational opportunities. They include boating (several types), fishing (several types), fully developed and primitive camping (including boat-in and floating sites), picnicking, swimming, horseback riding, hiking, off-road bicycle riding, wildlife watching, hunting, and visitor information sites with cultural and informational displays about the developed facilities and the natural environment. There are major recreation facilities at Loafer Creek, Bidwell Canyon, Spillway, Lime Saddle, and Thermalito Forebay. Lake Oroville has two full-service marinas, five car-top boat launch ramps, 10 floating campsites, and seven two-stall floating toilets. There are also recreation facilities at the Lake Oroville Visitors Center, Thermalito Afterbay, and the OWA.

The OWA comprises approximately 11,000 acres west of Oroville that is managed for wildlife habitat and recreational activities. It includes the Thermalito Afterbay and surrounding lands (approximately 6,000 acres) along with 5,000 acres adjoining the

Feather River. The 5,000-acre area is adjacent to or straddles 12 miles of the Feather River, and includes willow and cottonwood-lined ponds, islands, and channels. Recreational opportunities include dispersed recreation (hunting, fishing, and bird watching); recreational activities also take place at developed sites (the Monument Hill Day Use Area [DUA], model airplane grounds, and three boat launches on Thermalito Afterbay and two on the river) and in two primitive camping areas. DFG's habitat enhancement program includes a wood duck nest-box program and dry land farming for nesting cover and improved wildlife forage. Limited gravel extraction also occurs in a few locations.

## **1.4 CURRENT OPERATIONAL CONSTRAINTS**

Operation of the Oroville Facilities varies seasonally, weekly, and hourly, depending on hydrology and the objectives DWR is trying to meet. Typically, releases to the Feather River are managed to conserve water while meeting a variety of water delivery requirements, including flow, temperature, fisheries, diversions, and water quality. Lake Oroville stores winter and spring runoff for release to the Feather River as necessary for Project purposes. Meeting the water supply objectives of the SWP has always been the primary consideration for determining Oroville Facilities operation (within the regulatory constraints specified for flood control, instream fisheries, and downstream uses). Power production is scheduled within the boundaries specified by the water operations criteria noted above. Annual operations planning is conducted for multiyear carryover storage. The current methodology is to retain half of the Lake Oroville storage above a specific level for subsequent years. Currently, that level has been established at 1.0 maf; however, this does not limit drawdown of the reservoir below that level. If hydrology is drier or requirements are greater than expected, additional water could be released from Lake Oroville. The operations plan is updated regularly to reflect forecast changes in hydrology and downstream operations. Typically, Lake Oroville is filled to its maximum operating level of 900 feet above msl in June and then lowered as necessary to meet downstream requirements, to a minimum level in December or January (approximately 700 msl). During drier years, the reservoir may be drawn down more and may not fill to desired levels the following spring. Project operations are directly constrained by downstream operational demands and flood management criteria as described below.

### **1.4.1 Downstream Operation**

An August 1983 agreement between DWR and DFG, entitled "Agreement Concerning the Operation of the Oroville Division of the State Water Project for Management of Fish & Wildlife," (DWR and DFG 1983) sets criteria and objectives for flow and temperatures in the low-flow channel and the reach of the Feather River between Thermalito Afterbay and Verona. This agreement: (1) establishes minimum flows between Thermalito Afterbay Outlet and Verona that vary by water year type; (2) requires flow changes under 2,500 cfs to be reduced by no more than 200 cfs during any 24-hour period (except for flood management, failures, etc.); (3) requires flow stability during the peak of the fall-run Chinook salmon spawning season; and (4) sets an objective of suitable

temperature conditions during the fall months for salmon and during the later spring/summer for shad and striped bass.

#### **1.4.1.1 Instream Flow Requirements**

The Oroville Facilities are operated to meet minimum flows in the Lower Feather River as established by the 1983 agreement (see above). The agreement specifies that the Oroville Facilities release a minimum of 600 cfs into the Feather River from the Thermalito Diversion Dam for fisheries purposes. This is the total volume of flows from the diversion dam outlet, diversion dam power plant, and the Feather River Fish Hatchery pipeline.

Generally, the instream flow requirements below the Thermalito Afterbay outlet are 1,700 cfs from October through March, and 1,000 cfs from April through September. However, if runoff for the previous April through July period is less than 1,942,000 af (i.e., the 1911–1960 mean unimpaired runoff near Oroville), the minimum flow can be reduced to 1,200 cfs from October to February and 1,000 cfs for March. A maximum flow of 2,500 cfs is maintained from October 15 through November 30 to prevent spawning in overbank areas that might become dewatered.

#### **1.4.1.2 Temperature Requirements**

The Thermalito Diversion Pool provides the water supply for the Feather River Fish Hatchery. The hatchery temperature objectives are 52°F for September, 51°F for October and November, 55°F for December through March, 51°F for April through May 15, 55°F for the last half of May, 56°F for June 1–15, 60°F for June 16 through August 15, and 58°F for August 16–31. In April through November, a temperature range of plus or minus 4°F is allowed for objectives.

There are several temperature objectives for the Feather River downstream of Thermalito Afterbay outlet. During the fall months, after September 15, the temperatures must be suitable for fall-run Chinook salmon. From May through August, the temperatures must be suitable for shad, striped bass, and other warmwater fish.

National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries), has also established an explicit criterion for steelhead trout and spring-run Chinook salmon, memorialized in a biological opinion on the effects of the Central Valley Project and the SWP on Central Valley spring-run Chinook and steelhead. As a reasonable and prudent measure, DWR attempts to control water temperature at Feather River mile 61.6 (Robinson's Riffle in the low-flow channel) from June 1 through September 30. This measure attempts to maintain water temperatures at less than or equal to 65°F on a daily average. The requirement is not intended to preclude pump-back operations at the Oroville Facilities needed to assist the State of California with supplying energy during periods when the California Independent System Operator (ISO) anticipates a Stage 2 or higher alert.

The hatchery and river water temperature objectives sometimes conflict with temperatures desired by agricultural diverters. Under existing agreements, DWR provides water for the Feather River Service Area (FRSA) contractors. The contractors claim a need for warmer water during spring and summer for rice germination and growth (i.e., minimum 65°F from approximately April through mid-May, and minimum 59°F during the remainder of the growing season), although there is no explicit obligation for DWR to meet the rice water temperature goals. However, to the extent practical, DWR does use its operational flexibility to accommodate the FRSA contractors' temperature goals.

#### **1.4.1.3 Water Diversions**

Monthly irrigation diversions of up to 190,000 af (July 2002) are made from the Thermalito Complex during the May through August irrigation season. The total annual entitlement of the Butte and Sutter County agricultural users is approximately 1.0 maf. After meeting these local demands, flows into the lower Feather River (and outside of the Project 2100 boundary) continue into the Sacramento River and into the Delta. In the northwestern portion of the Delta, water is pumped into the North Bay Aqueduct. In the south Delta, water is diverted into Clifton Court Forebay where the water is stored until it is pumped into the California Aqueduct.

#### **1.4.1.4 Water Quality**

Flows through the Delta are maintained to meet Bay-Delta water quality standards arising from DWR's water rights permits. These standards are designed to meet several water quality objectives such as salinity, Delta outflow, river flows, and export limits. The purpose of these objectives is to attain the highest reasonable water quality, considering all demands being made on Bay-Delta waters. In particular, they protect a wide range of fish and wildlife including Chinook salmon, Delta smelt, striped bass, and the habitat of estuarine-dependent species.

### **1.4.2 Flood Management**

The Oroville Facilities are an integral component of the flood management system for the Sacramento Valley. During the wintertime, the Oroville Facilities are operated under flood control requirements specified by the U.S. Army Corps of Engineers (USACE). Under these requirements, Lake Oroville is operated to maintain up to 750,000 af of storage space to allow for the capture of significant inflows. Flood control releases are based on the release schedule in the flood control diagram or the emergency spillway release diagram prepared by USACE, whichever requires the greater release. Decisions regarding such releases are made in consultation with USACE.

The flood control requirements are an example of multiple use of reservoir space. When flood management space is not required to accomplish flood management objectives, the reservoir space can be used for storing water. From October through March, the maximum allowable storage limit (the point at which specific flood releases

would have to be made) varies from about 2.8 to 3.2 maf to ensure adequate space in Lake Oroville to handle floodflows. The actual encroachment demarcation is based on a wetness index, computed from accumulated basin precipitation. This allows higher levels in the reservoir when the prevailing hydrology is dry. When the wetness index is high in the basin (i.e., high potential runoff from the watershed above Lake Oroville), required flood management space is at its greatest to provide the necessary flood protection. From April through June, the maximum allowable storage limit is increased as the flooding potential decreases, which allows capture of the higher spring flows for use later in the year. During September, the maximum allowable storage decreases again to prepare for the next flood season. During flood events, actual storage may encroach into the flood reservation zone to prevent or minimize downstream flooding along the Feather River.

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## **2.0 NEED FOR STUDY**

This study is needed to identify the effectiveness of existing recreation area management in providing recreational opportunities within the study area. To do so, this study assesses the current range of recreational opportunities and recreation area management activities and identifies the agencies responsible for the various management tasks associated with these recreation activities in the Project area. This study goes on to assess the adequacy and efficiency of recreation funding, development, and management structures, as well as the adequacy of operations and maintenance activities associated with existing recreational uses and facilities.

The assessment of existing recreational facilities, uses, and management associated with the Oroville Facilities is important to provide insight into future recreation area management and to develop alternatives to meet potential existing and future recreational demands. This study analyzes various recreation area management actions that could maintain and enhance recreational opportunities in the future.

The evaluation of management effectiveness and management structure within the study area has been undertaken to address stakeholder concerns regarding a need for better coordination among recreation managers and increased public involvement. Background information on these topics will be used to guide development of a Recreation Management Plan (RMP), as required of FERC License applicants (Subpart F Section 4.51 of 18 CFR).

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### **3.0 STUDY OBJECTIVE(S)**

The main objective of this study is to identify the effectiveness of existing recreation area management in providing recreational opportunities within the study area. If problems are identified, then appropriate potential solutions are recommended. To do this, the study assesses the current range of recreation area management actions being undertaken, and identifies the responsible agencies. It then identifies potential recreation area management actions needed to help maintain, preserve, or enhance recreational opportunities. Understanding existing and potential recreation management structures and organizations helps ensure that future recreation programs and facilities may be implemented with success and the satisfaction of user groups and other stakeholders is increased.

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## **4.0 METHODOLOGY**

The methodology of this study consisted of document reviews, survey data analyses, and interviews with relevant agencies. Site visits were also conducted as necessary.

### **4.1 DOCUMENT REVIEW**

Project-related documents were acquired for review from Federal, State, and local agencies, including DWR, DPR, DBW, DFG, FRRPD, Butte County, City of Oroville, USFS, and BLM. These documents were reviewed for a number of purposes, including reviewing recreational opportunities available in the study area; understanding current recreation-related management actions, structure, and funding; and identifying managing agencies and their responsibilities.

Additional research included review of preliminary information from other relevant relicensing studies, particularly Relicensing Studies R-3 – *Assessment of the Relationship of Project Operations and Recreation*; R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation*; R-8 – *Recreation Carrying Capacity*; R-10 – *Recreation Facility and Condition Inventory*; and R-13 – *Recreation Surveys*. Drafts and final versions of these reports were reviewed, and pertinent data were summarized and referenced.

### **4.2 INTERVIEWS**

In addition to document reviews, researchers interviewed key personnel from DWR, DBW, DPR, DFG, USFS, BLM, Oroville Recreation Advisory Committee (ORAC), Lake Oroville JPA, Office of the Butte County Board of Supervisors, FRRPD, State Water Contractors (SWC), and members of the Butte County Relicensing Team involved in recreation development, management, and planning in the study area. These interviews were conducted in order to gain a better understanding of current and past recreation area management issues and practices, available management resources, day-to-day management activities and duties, and relevant management issues that needed to be examined in this study.

### **4.3 SITE VISITS**

Site visits were conducted as part of several relicensing studies. Relicensing Study R-10 – *Recreation Facility Inventory and Condition Report* presents detailed information on the condition of facilities; condition information that is relevant to the assessment of recreation area management is discussed in this report.

### **4.4 USE OF SURVEY DATA**

Surveys were conducted throughout the study area between May 2002 and June 2003 to provide information for the recreation studies being carried out as part of the relicensing effort. Results from the hunting- and fishing- focused survey questions are

presented in Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation*.

Survey respondents provided information regarding their recreational activities, preferences, and satisfaction, along with additional comments on management issues and suggestions, some of which address recreation management. Survey response groups are listed in Table 4.4-1. Complete survey results are detailed in Relicensing Study R-13 - *Recreation Surveys*.

**Table 4.4-1. Oroville Facilities relicensing surveys used for R-5 analysis.**

Survey Name	Response Group	Number of Total Respondents <sup>1</sup>
Recreation Visitor On-Site	General visitors	2,583
Mailback	General visitors	1,071
Hunter Survey (on-site)	Hunters	106
Hunter Survey (mailback)	Hunters	38

<sup>1</sup> Number of respondents is provided at the bottom of each survey summary table to indicate how many of the total respondents answered a specific question.

Sources: EDAW 2003a, EDAW 2003b, EDAW 2003c and EDAW 2003d..

#### **4.4.1 On-Site Survey**

The On-Site Survey was administered to 2,583 recreationists at several Lake Oroville locations including boat ramps, campgrounds, trailheads and day use areas. The survey includes general information as well as specific sections related to fishing, trail use, and boating. The survey also included a map describing the Lake Oroville area as including the reservoir, the Diversion Pool, Thermalito Forebay, Thermalito Afterbay, OWA, Clay Pit SVRA and Feather River below Oroville Dam. On-Site Survey efforts were conducted from Memorial Day weekend 2002 to Memorial Day weekend 2003. Lake surface elevation during the 2002 recreation season ranged from 837 feet above msl in mid-May to 725 feet above msl in mid-September (lower than in an average water year).

#### **4.4.2 Mailback Survey**

The Mailback Survey was a follow-up to the On-Site Survey and was mailed to all On-Site Survey respondents who provided a name and mailing address. Of those that were mailed a survey, 1,071 returned the survey. The Mailback Survey dealt mainly with visitors' recreation expenditures during their survey visit and general opinions on the quality and number of facilities and other conditions. This survey was distributed from June 2002 to June 2003.

## **4.5 ASSESSMENT OF MANAGEMENT EFFECTIVENESS**

Information about recreation opportunities collected in interviews, site visits, surveys, and document review was synthesized to identify effectiveness of management's provision of recreation opportunities. Four major criteria were used to identify management effectiveness including:

- Providing for the appropriate mix of recreational opportunities;
- Providing for the appropriate number and types of recreational facilities;
- Recreationist satisfaction; and
- Facility and site condition.

These four criteria are discussed further below. Recreation management issues were identified in the course of assessing management effectiveness. These issues are addressed in Section 5.2 Overall Management Assessment.

### **4.5.1 Management Provision of Recreation Opportunities**

Management is directed to provide recreation opportunities within the Project area. One criterion for evaluating management effectiveness is: to what extent is management providing for the recreation opportunities that are in demand or are needed due to existence of the Project. For instance: Are a variety of different opportunities being provided? Are all the appropriate types of recreation opportunities (e.g. water-based) being provided? Are recreation opportunities appropriate for the Project area? Are a variety of settings being offered in which to participate in recreation opportunities? What is the quality of the recreation opportunities provided? These questions can help evaluate whether management is effectively providing for recreation opportunities.

### **4.5.2 Management Provision of Adequate Facilities**

Another criterion for evaluating management effectiveness is the provision of adequate facilities. For instance, are enough recreation opportunities being provided? Are enough facilities being provided to allow for quality recreation opportunities? These questions can help identify whether management is effectively providing adequate facilities. Study R8 – Carrying Capacity reviews the number of facilities along with projected recreation use to determine a sustainable level of recreational facility development and use which will provide high quality recreational opportunities to the primary recreation groups visiting the Oroville Facilities, protect the study area's sensitive and natural resources, and be consistent with the planned operation of the Project.

### **4.5.3 Recreationist Satisfaction**

Recreationist satisfaction is another criterion by which to evaluate management effectiveness. However, satisfaction can be attributed to a wide range of factors, some of which may be an effect of management actions. Dissatisfaction can be more directly a result of management actions if facilities are closed or poorly maintained but are not wholly management related. Survey data and comment responses were analyzed to

identify which components of satisfaction levels may be attributed to management actions.

#### **4.5.4 Facility and Use Area Maintenance**

Conditions of recreation facilities and sites include maintenance levels, deterioration issues, and sanitation among others. Facility and use area maintenance is a criterion by which management effectiveness can be evaluated.

#### **4.6 EVALUATION OF MANAGEMENT STRUCTURE**

Potential solutions to recreation management issues identified through the assessment of management effectiveness are provided in Section 6.0. Potential solutions were developed as needs were identified and as existing and potential management structures were compared and evaluated.

## 5.0 STUDY RESULTS

Land ownership, land and recreation management, recreation funding, and existing recreational uses throughout the study area involve an array of federal, State, local, and private stakeholders. Recreational uses consist of both day use and overnight use, and both land-and water-based activities. Additionally, there are multiple sources of recreation funding and responsible parties. Current recreational uses, ownership and agency management, recreation area management, and recreation funding are discussed below.

### 5.1 AGENCY MANAGEMENT WITHIN THE STUDY AREA

In 1961, the California Legislature passed the Davis–Dolwig Act (California Water Code Sections 11900–11925) which identified four responsible State agencies: DWR, DPR, DFG, and DBW. These agencies are responsible for providing recreational opportunities and fish and wildlife enhancements as part of the SWP. DWR is charged with planning for public recreation and fish and wildlife preservation and enhancement in connection with the development of SWP facilities. This duty involves acquiring land and locating and constructing all works and Project features so as to allow for fish and wildlife enhancement and recreational uses following construction of the Project. DPR is authorized to design, construct, operate, and maintain public recreation facilities. DFG is responsible for managing fish and wildlife resources. DBW, in turn, is charged with planning, designing, and constructing boating-related facilities.

#### **5.1.1 Managing Agencies and Stakeholders**

Lands, facilities, and recreational interests in the study area are owned and managed by a number of State and federal agencies, including the following California Resources Agency Departments: DWR, DPR, DFG, DBW; as well as FRRPD, USFS, and BLM. The properties and management responsibilities of each agency are detailed in a series of deeds, agreements, and transfers between the agencies involved. Relevant agency ownership, management responsibilities and current management practices throughout the study area are presented below. Organizational structure and budget are provided where relevant. Under FERC regulations, DWR is ultimately responsible for public access, recreation opportunities, and associated development. Figures 5.1-1 through 5.1-3 illustrate the land-based jurisdictions of each of the managing agencies.

##### **5.1.1.1 Federal Energy Regulatory Commission**

FERC is a federal agency that regulates the interstate transmission of natural gas, oil, and electricity, as well as natural gas and non-federal hydropower projects. With a vision of “dependable, affordable energy through sustained competitive markets,” its mission is to regulate and oversee energy industries in the economic and environmental interest of the American public (FERC 2004).

In general, FERC regulates the following: the transmission and sale of natural gas for resale in interstate commerce; the transmission of oil by pipeline in interstate

commerce; and the transmission and wholesale sales of electricity in interstate commerce. It also: licenses and inspects private, municipal, and state hydroelectric projects (non-federal); approves the siting of and abandonment of interstate natural gas facilities, including pipelines, storage and liquefied natural gas; oversees environmental matters related to natural gas and hydroelectricity projects and major electricity policy initiatives; and administers accounting and financial reporting regulations and conduct of regulated companies (FERC 2004). FERC's management goals and organizational structure are briefly discussed to provide a context for FERC orders (discussed later in Section 5.0) that have contributed to management development of recreational facilities.

### **Management Goals**

FERC's Office of Energy Projects (OEP) is responsible for Hydropower-Environment and Engineering and is the Office that oversees applications for dam licensing and relicensing. The mission of the OEP is to "foster economic and environmental benefits for the nation through the approval and oversight of hydroelectric and natural gas pipeline energy projects that are in the public interest" (FERC 2003).

In implementing its mission, OEP focuses on four aspects: 1) project siting and development; 2) balancing environmental and other concerns; 3) ensuring compliance; and 4) safeguarding public welfare. Licensee provision of recreation opportunities falls under each of the four aspects of FERC's mission.

### **Organizational Structure**

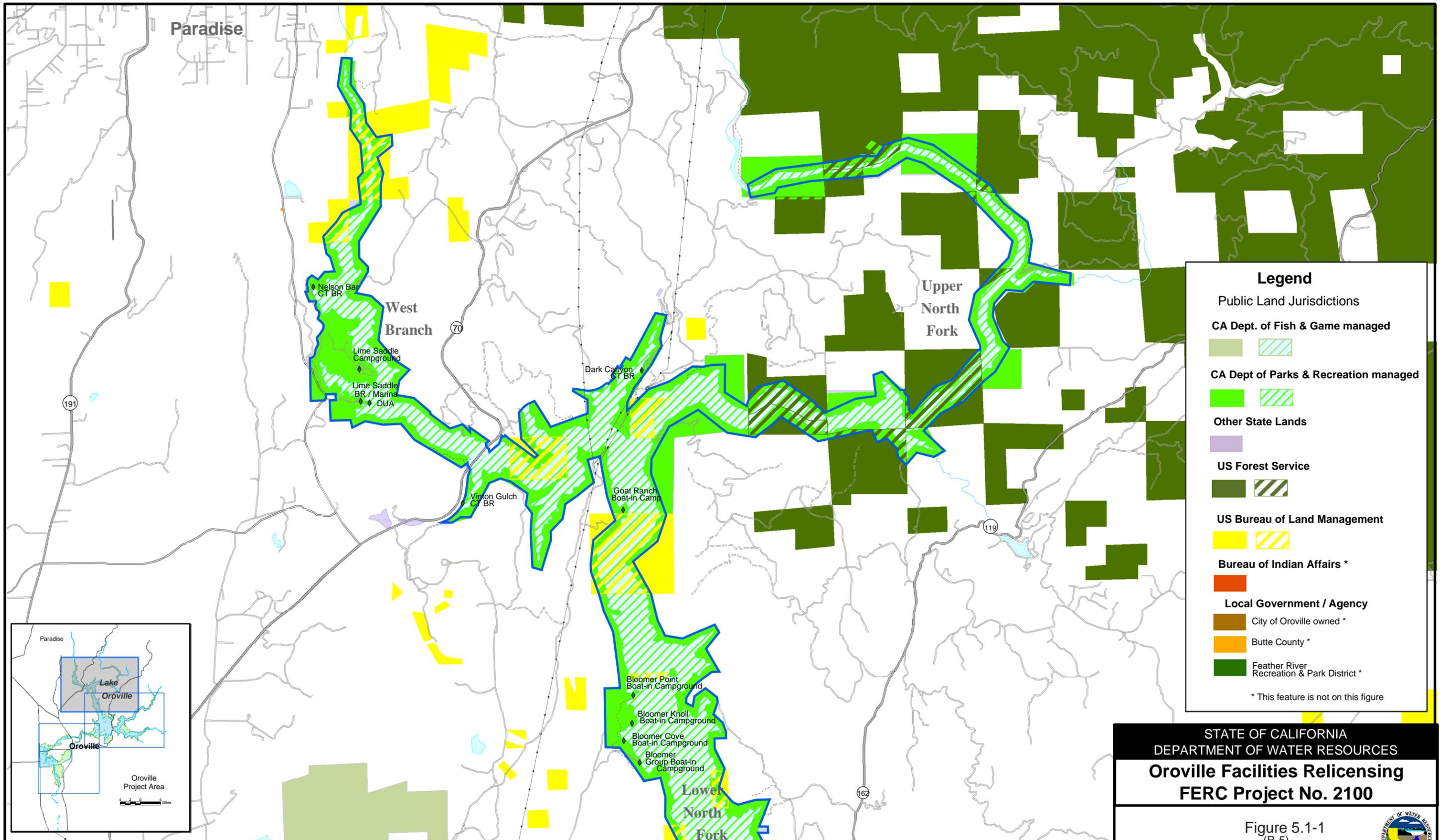
OEP is one of seven offices overseen by FERC commissioners. The other six offices are External Affairs, Office of the General Counsel, Administrative Law Judges, Administrative Litigation, the Offices of the Secretary and Executive Director.

OEP itself is comprised of five Divisions, which are overseen by a Deputy Department Director, and Energy Infrastructure Policy Group and an Assistant Director of Management and Operations. The five divisions are Pipeline Certificates, Gas-Environment and Engineering, Hydropower-Environment and Engineering, Hydropower Administration and Compliance, and Dam Safety and Inspections. Hydropower-Environment and Engineering, which is responsible for licensing and relicensing, is split into two east branches and two west branches. The Oroville Facilities falls under the jurisdiction of one of the western branches.

#### **5.1.1.2 U.S. Forest Service**

USFS, an agency of the U.S. Department of Agriculture, operates under the mission "to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations" (USFS 2004).

**Figure 5.1-1. Public Land Jurisdiction, Reservoir – North**  
[Insert 11x17]



**Legend**

Public Land Jurisdictions

CA Dept. of Fish & Game managed

CA Dept of Parks & Recreation managed

Other State Lands

US Forest Service

US Bureau of Land Management

Bureau of Indian Affairs \*

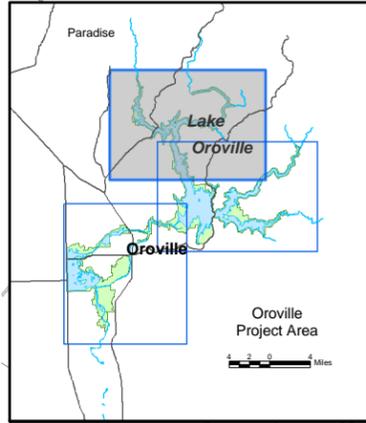
Local Government / Agency

City of Oroville owned \*

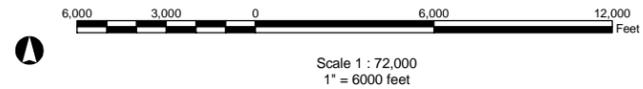
Butte County \*

Feather River Recreation & Park District \*

\* This feature is not on this figure



Source: DWR GIS 2003 / CA DPR 2004 / EDAAW 2004



**General Reference**

FERC Boundary

Oroville City Limits

Recreation Sites

STATE OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

**Oroville Facilities Relicensing  
FERC Project No. 2100**

Figure 5.1-1  
(R-5)

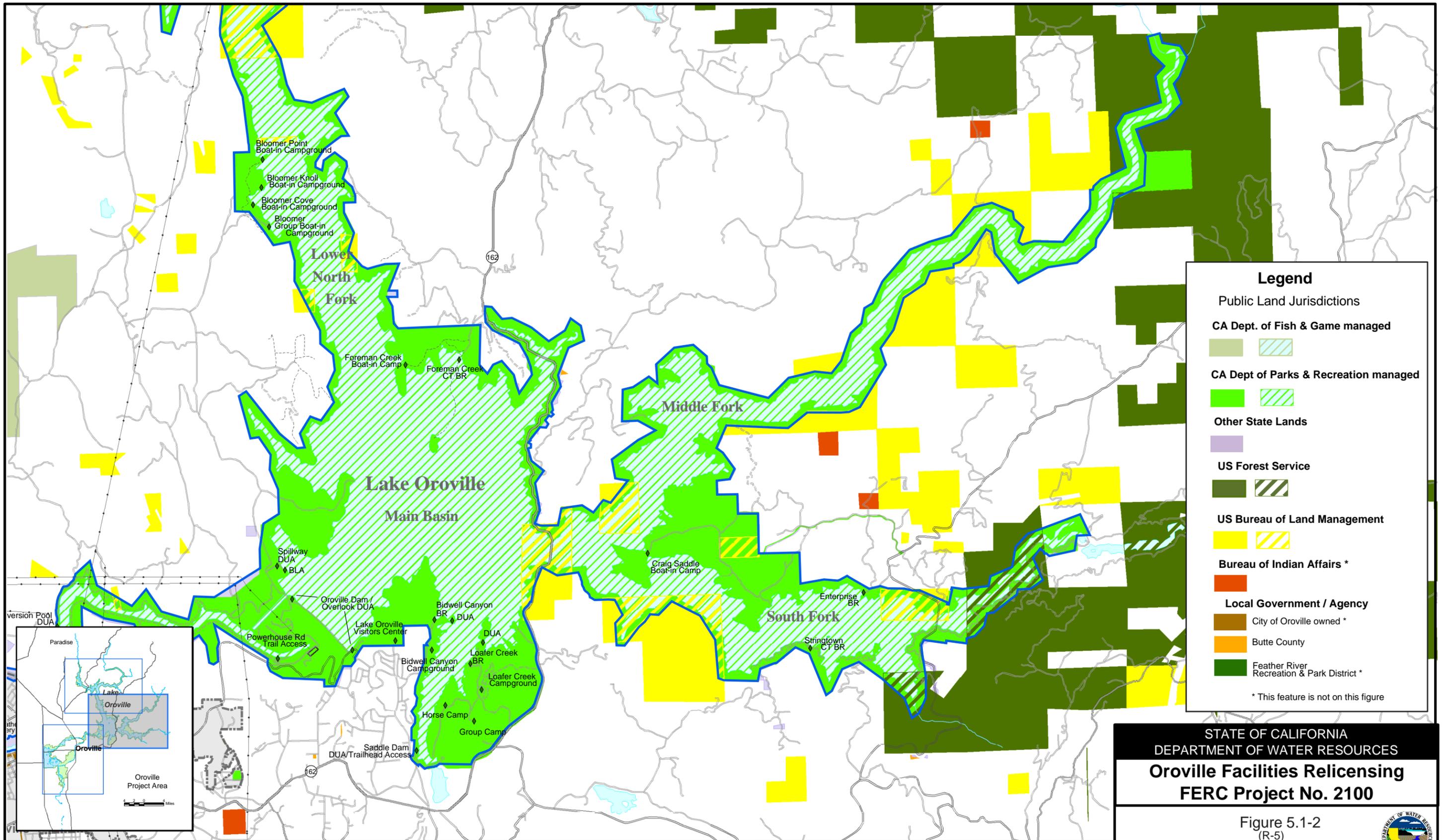
**Public Land Jurisdiction**  
Reservoir -- North

Prepared by: PJ -- EDAAW, Inc. Date: 5/21/04

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Back of Figure 5.1-1. Public Land Jurisdiction -- Reservoir -- North

**Figure 5.1-2. Public Land Jurisdiction, Reservoir – South**  
[Insert 11x17]



**Legend**

Public Land Jurisdictions

CA Dept. of Fish & Game managed  


CA Dept of Parks & Recreation managed  


Other State Lands  


US Forest Service  


US Bureau of Land Management  


Bureau of Indian Affairs \*  

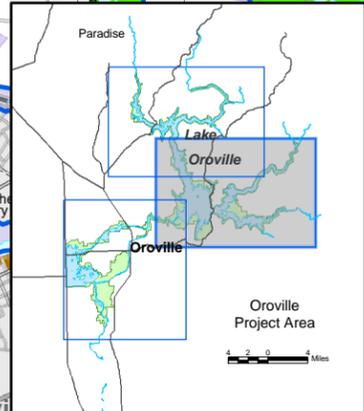

Local Government / Agency

City of Oroville owned \*  

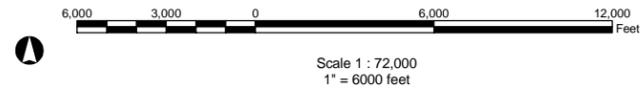

Butte County  


Feather River Recreation & Park District \*  


\* This feature is not on this figure



Source: DWR GIS 2003 / CA DPR 2004 / EDAW 2004



**General Reference**

FERC Boundary  Oroville City Limits  Recreation Sites 

STATE OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

**Oroville Facilities Relicensing  
FERC Project No. 2100**

Figure 5.1-2  
(R-5)

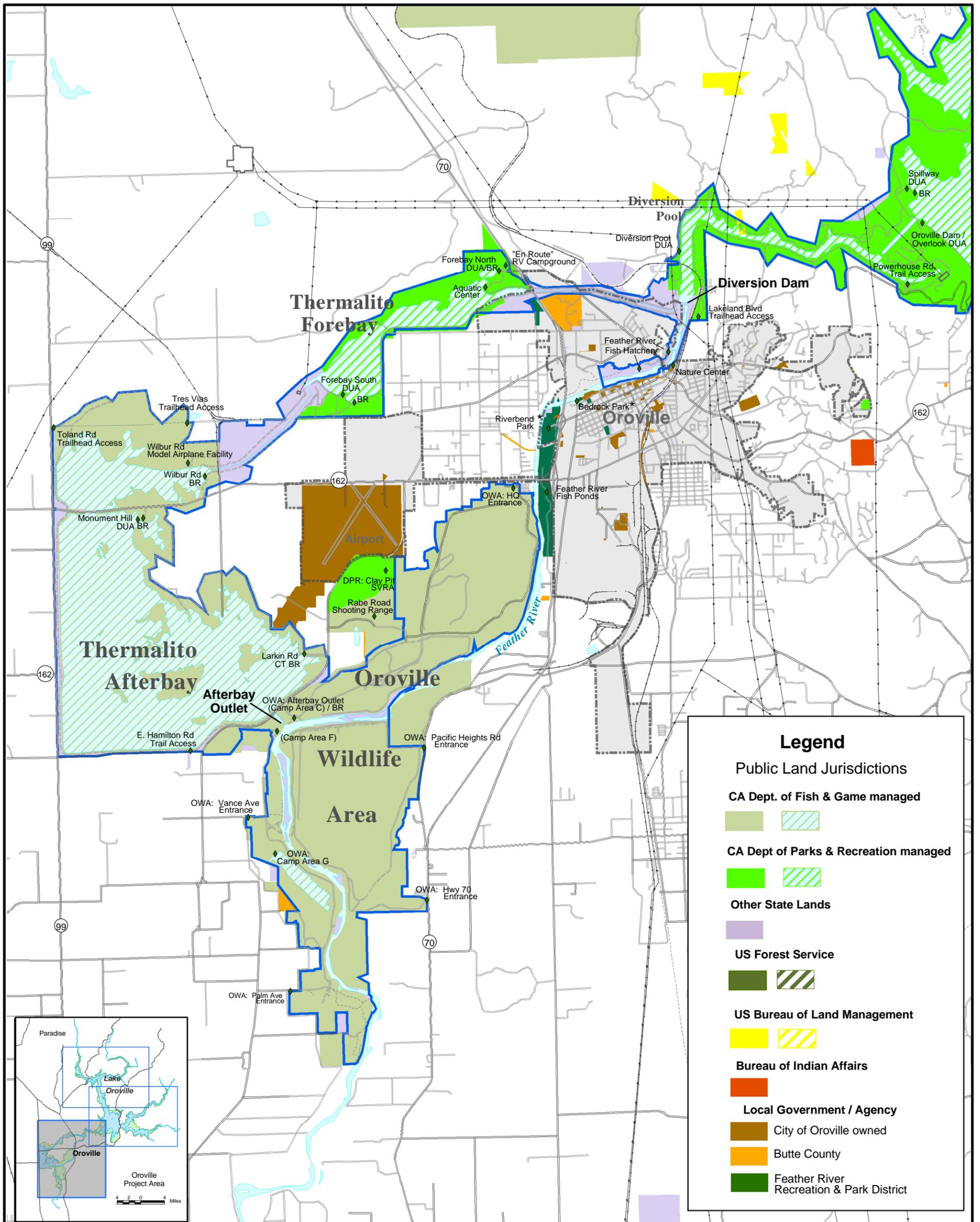
**Public Land Jurisdiction  
Reservoir -- South**

Prepared by: PJ -- EDAW, Inc. Date: 5/21/04 P:\2000\0s016.gis\arcmap\mgmt\_own\_res\_17x11.mxd



Back of Figure 5.1-2 Public Land Jurisdiction -- Reservoir – South

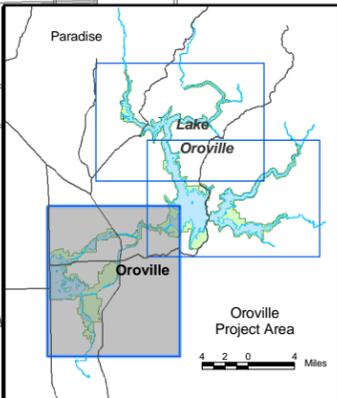
**Figure 5.1-3. Public Land Jurisdiction, River Below Dam**  
[Insert 11x17]



### Legend

**Public Land Jurisdictions**

- CA Dept. of Fish & Game managed
- CA Dept. of Parks & Recreation managed
- Other State Lands
- US Forest Service
- US Bureau of Land Management
- Bureau of Indian Affairs
- Local Government / Agency
  - City of Oroville owned
  - Butte County
  - Feather River Recreation & Park District



Source: CA Spatial Information Library / DWR GIS 2003 / DPR 2004 / EDAW 2004



Scale 1 : 72,000  
1" = 6000 feet

### General Reference

- FERC Boundary
- Oroville City Limits
- Feather River Low Flow Channel  
Extending from Diversion Dam to Afterbay Outlet
- Recreation Sites

\* Sites are outside Project boundary, and not a State operated facility.

STATE OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

## Oroville Facilities Relicensing FERC Project No. 2100

Figure 5.1-3  
(R-5)

### Public Land Jurisdiction

River -- Below Oroville Dam

Prepared by: PJ -- EDAW, Inc.      Date: 5/21/04      P:\2000\0s016.gis\arcmap\mgmt\_own\_riv\_11x17.mxd

Back of Figure 5.1-3 Public Land Jurisdiction -- River -- Below Dam

Approximately 4,000 acres of the Plumas National Forest and a small parcel of Lassen National Forest fall within the study area, mostly in the northern portion adjacent to North Fork Feather River (USFS 1988) and within the Oroville and La Porte Ranger Districts. Within the LOSRA boundary, there are 1,811 acres of Plumas National Forest lands, which are comprised of several fragmented holdings distributed proportionately between the North, Middle, and South Forks of the Feather River. There are also 228 acres of Lassen National Forest lands within the LOSRA, located on the North Fork of the Feather River, which are administered by the Plumas National Forest (pers. comm., Graham 2004). All National Forest (NF) lands within the study area are part of USFS's French Creek, Galen, Kellogg, and Feather Falls Management Areas, where ownership is a checkerboard of private, State, and federally owned parcels (USFS 1988).

### **Management Plans and Goals**

The *Plumas National Forest Land and Resource Management Plan* (1988, as amended), also called the "Forest Plan," directs "the management of the Plumas National Forest and 15,000 acres of the Lassen National Forest." The Forest Plan establishes the management goals and policies that direct the management of the Forest over 10 to 15 years (the "planning period") and helps meet long term objectives over a 50-year period (the "planning horizon"); it is superordinate to all general management plans such as Timber Management Plans and District Multiple Use Plans.

The Sierra Nevada Forest Plan Amendment was adopted in 2002 for all land and resource management plans for National Forests in the Sierra Nevada and Modoc Plateau, including the Plumas and Lassen National Forests. The Plan Amendment was adopted in response to the need for an old forest and associated species (such as the California spotted owl) conservation strategy that would protect, increase, and perpetuate old forest conditions. Some Forest Plan standards and guidelines were amended by provisions in the Plan Amendment (USFS 2000).

The French Creek, Galen, Kellogg and Feather Falls Management Areas, including those areas that overlap with the study area, are managed with a number of specific goals related to resource conservation, provision of high quality recreational opportunities, and protection of visual resources. The Forest Plan specifically calls for the promotion of efficient recreation management in both the French Creek and Galen Management Areas by allowing DPR to manage recreation on Plumas National Forest lands that fall within the LOSRA boundary, per a 1978 Memorandum of Agreement between the two agencies (USFS 1988; USFS and DPR 1978).

The French Creek and Galen Management Areas are managed in a manner consistent with the agreement between USFS and DPR. The Kellogg and Feather Falls Management Areas contain Wildlife Scenic Zones and are managed in a manner consistent with the Wild and Scenic Rivers Act (pers. comm., Graham 2004). Each area contains a part of the Feather Falls Scenic Area. The area includes the Middle Fork Feather River, which has been designated by the National Park Service as a

National Wild and Scenic River. Other than designation and information management of the Wild and Scenic Rivers nationwide, the NPS does not perform a management role in the study area.

### **Organizational Structure**

Nationally, the USFS is divided into nine regions. USFS land in the Oroville area is located in Region 5. In Region 5, the Pacific Southwest Region, USFS manages 18 national forests that cover a total of 20 million acres within the State of California. Region 5 is run by a Regional Forester from the USFS Regional Office in Vallejo, CA. Each Forest is managed by a Forest Supervisor located at a Forest Supervisor's Office, which for the Plumas National Forest, is in Quincy, CA. Forests are then divided into one or more Ranger Districts, managed by a District Ranger. Ranger Districts are further subdivided into Management Areas. The Plumas National Forest contains 3 Ranger Districts and 43 Management Areas.

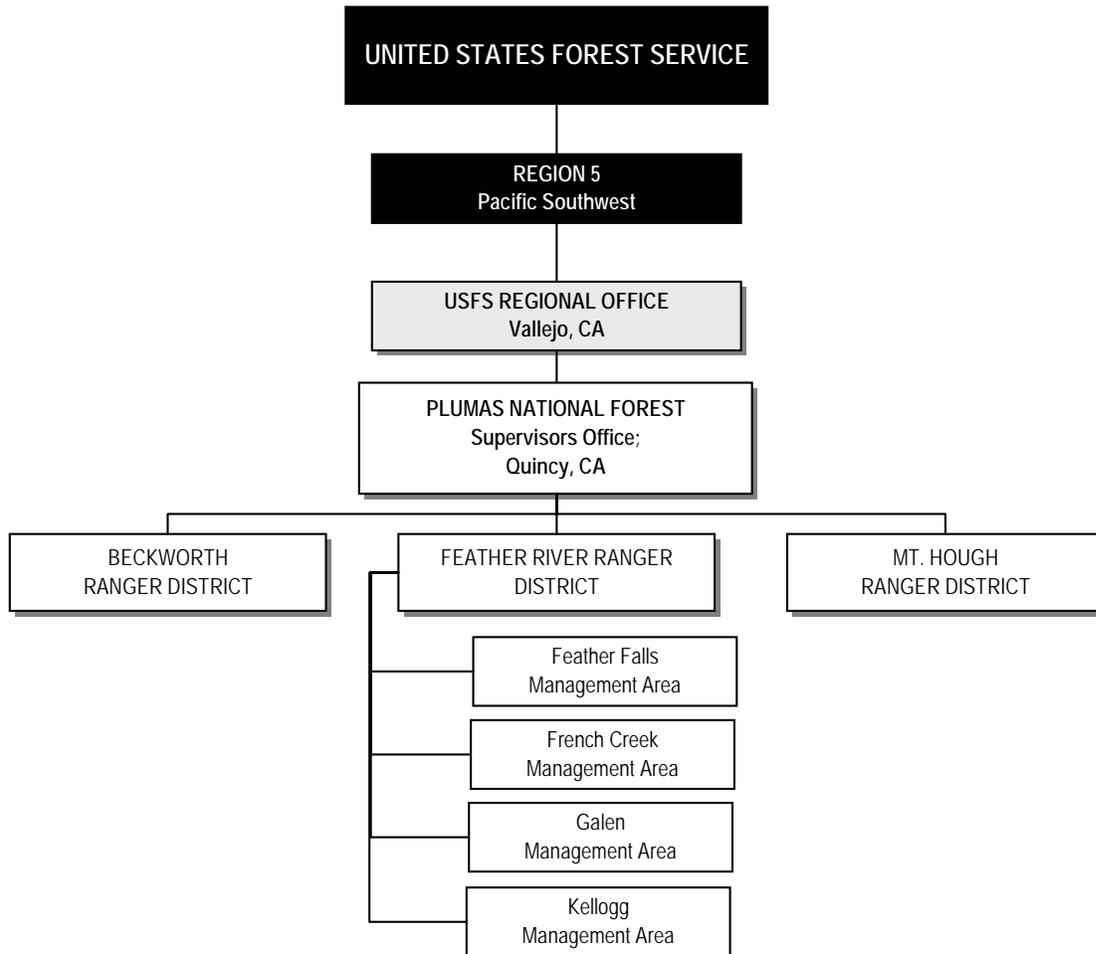
The Feather River Ranger District is responsible for all NF lands within the Project boundary, which includes 18 of the 43 Management Areas (pers. comm., Graham, 2004). A District Ranger oversees staff officers, one of whom oversees the Recreation, Lands and Minerals Program and its 14 full- and part-time staff Rangers. District staffing is described in greater detail below (Figure 5.1-4).

All NF lands within the study area are part of USFS's French Creek, Galen, Kellogg, and Feather Falls Management Areas. The French Creek Management Area overlaps the study area along the northeastern bank of the North Fork from Pacific Gas and Electric Company's (PG&E's) Poe Powerhouse to the confluence of French Creek with the North Fork. The Galen Management Area overlaps the study area along the southern bank of the North Fork from Poe Powerhouse to the confluence with French Creek, then along both banks of the North Fork from the confluence of French Creek to the NF boundary, approximately 4.5 miles downstream. The Kellogg Management Area is a 1–2 mile wide corridor along the north side of the Middle Fork of the Feather River Canyon from Lake Oroville to near Bear Creek. Last, the Feather Falls Management Area overlaps the study area at the northeastern tip of the study area, on the Middle Fork in the vicinity of the Feather Falls Trail (USFS 1988).

### **Budget**

The Feather River Ranger District's estimated recreation budget for FY 2004 is \$150,000 including personnel, vehicles, and minimal materials and supplies. The budget for FY 2003 was \$170,000. None of these funds would apply specifically to the Project area.

**Figure 5.1-4. USFS study area organizational structure.**



Source: pers. comm., Graham 2004.

### **Staffing Levels**

A Public Services Staff Officer oversees each Ranger District's Recreation, Lands and Minerals Program and its 14 full- and part-time staff. Staff include two Assistant Resource Officers (full-time), one Resource Assistant (full-time), one Information Assistant (full-time), four Information Receptionists (one full-time, one part-time, one full-time seasonal, one part-time seasonal) and one Recreation Technician (full-time), who oversees five other Recreation Technicians on a full-time, seasonal basis. These staff manage recreation on NF lands within and adjacent to the study area, not within the LOSRA.

### **Existing and Planned Activities**

There are few developed recreational facilities in the Forest Management Areas, including the portions that overlap with the LOSRA. Recreational activities in these

areas primarily include hunting, fishing, hiking, recreational mining, and a limited amount of primitive camping (USFS and DPR 1988). As previously mentioned, the USFS and DPR have an agreement in place concerning management of NF lands located within the Project boundary. The agreement "transferred interest" in NF lands within the Project boundary to permit DPR to "use, and protect said lands in a manner necessary to administer them for recreation purposes and, to the extent permissible, to enforce all applicable laws and regulations thereon" (USFS 1978). The USFS retains all other authorities. The USFS is not interested in changing or terminating the Agreement at this time, but will reevaluate the Agreement during the next Forest Plan revision (pers. comm., Taylor 2003).

Although no formal agreements have been made directly between DWR and USFS regarding these overlapping boundary areas, recreation resources in areas falling within the LOSRA boundary are managed primarily by DPR (pers. comm., Elliot 2003; pers. comm., Rischbieter 2002). With the exception of the Feather Falls Trail and the Feather Falls Management Area, the USFS does not actively manage recreational facilities or activities on any lands within the study area (pers. comm., Humphreys 2003; pers. comm., Elliot 2003). The USFS does, however, require that any development planned in conjunction with the Oroville Facilities, including construction of any facilities or infrastructure on NF lands, be approved by the USFS before implementation (pers. comm., Humphreys 2003).

### **5.1.1.3 U.S. Bureau of Land Management**

BLM, an agency of the U.S. Department of the Interior, operates with the mission "to sustain the health, diversity and productivity of the public lands for the use and enjoyment of present and future generations" (BLM 1993).

BLM manages approximately 3,852 acres of land in scattered, non-contiguous parcels located along the West Branch, the North, Middle, and South Forks of the Feather River inside of the FERC Project 2100 boundary and manages another 2,021 acres within one-quarter mile of the FERC boundary. BLM lands within the FERC boundary represent 9.4 percent of the total 41,142 Project acreage. BLM is responsible for scattered lands managed under the direction of the 1993 Redding Resource Management Plan (RRMP) discussed below.

Of the total acres of BLM-administered public lands within the study area, approximately half are submerged under Lake Oroville. The rest are located surrounding the waters of the reservoir. Currently, BLM does not actively manage recreation on any lands within the study area (pers. comm., Williams 2003; pers. comm., Ritter 2002).

### **Management Plans and Goals**

The following discussion presents applicable information from the Redding Resource Management Plan (RRMP). The RRMP (BLM 1993) directs the management of public

lands and federal mineral estates<sup>1</sup> that are administered by the BLM within the Redding Resource Area (RRA) of north-central California. Lands managed by BLM in and around the study area are designated as “undeveloped public lands.” The four main land use issues addressed in the RRMP are land tenure adjustment, recreation management, access, and forest management.

The RRMP integrates BLM land use planning for the RRA into a single, comprehensive land use plan. The RRMP calls for BLM to “accommodate recreational use and development” (BLM 1993); however, although no written agreement exists between BLM and DPR or DWR, BLM defers the management of recreation on BLM lands within the study area to DPR (BLM 1993; pers. comm., Williams 2003; pers. comm., Ritter 2002).

The RRMP states that BLM hopes to “transfer via exchange or the Recreation and Public Purposes Act (R&PP) to the State of California all surface and submerged public lands encompassing approximately 6,400 acres within and adjacent to the LOSRA” (BLM 1993). Currently, a total of approximately 300 acres within the LOSRA have been transferred from BLM to DWR, and BLM has been considering transfer of the remaining 6,400 acres to the State. Although discussion and internal evaluation of a possible transfer continues, no action has been taken to transfer these lands.

At an operational level, BLM has prioritized the following management objectives for lands in and near the study area (pers. comm., Berg 2003):

- Identify what lands are of specific interest to the State of California within the FERC Project area/LOSRA;
- Design the mechanism(s) to effect transfer of surplus federal lands to the State of California; and
- Complete those land transfers within the FERC Project area/LOSRA.

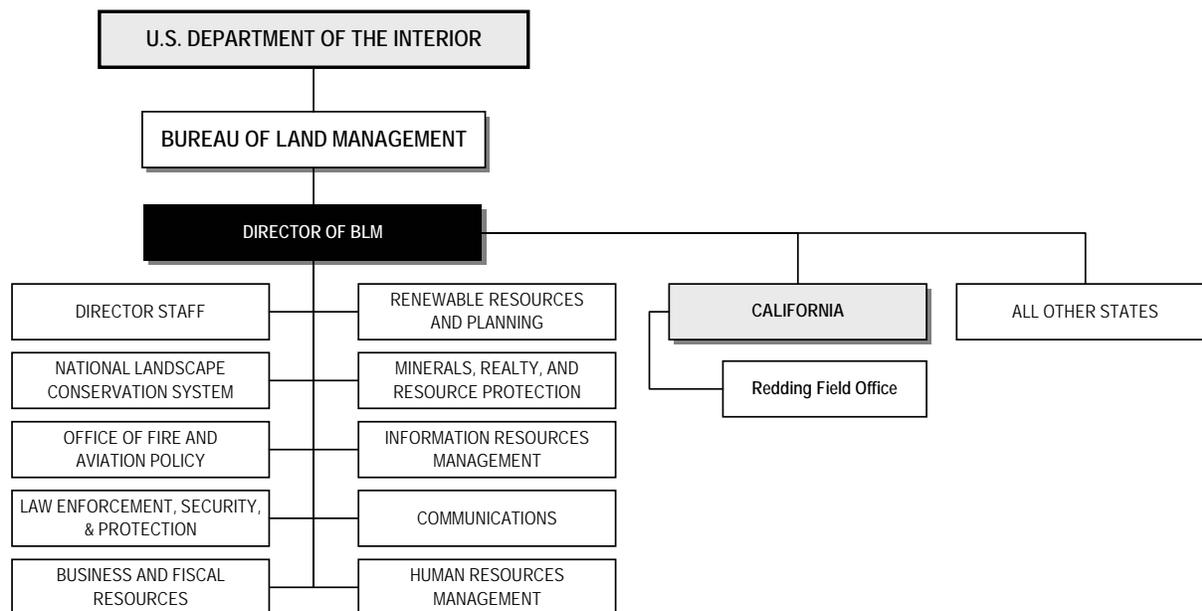
### **Organizational Structure**

Figure 5.1-5 illustrates the organization of the BLM. The study area lies in BLM’s Redding Resource Area (RRA), which includes 247,500 acres of public land and 142,000 acres of federal mineral estate within Butte, Shasta, Siskiyou, Tehama, and Trinity Counties. The RRA is broken down into seven smaller management areas, and the entire study area falls within the Ishi Management Area. BLM’s Ishi Management Area encompasses a significant portion of Butte County, where BLM manages 252 parcels totaling approximately 36,526 acres. The BLM owns several parcels within the study area, primarily along the West Branch, North Fork, Middle Fork, and South Fork Feather River, and in the Stringtown Mountain area, totaling approximately 6,400 acres (BLM 1993; pers. comm., Ritter 2002).

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<sup>1</sup> Publicly owned mineral rights managed by the federal government.

**Figure 5.1-5. BLM Organizational Structure.**



Source: BLM 2004.

The RRA consists of more than a thousand individual parcels of public land, scattered through five counties in Northern California. To adequately address management issues in such a large geographic area, the RRA is divided into seven geographically distinct management areas, including: Scott Valley, Klamath, Trinity, Shasta, Sacramento River, Ishi, and Yolla Bolly.

The Ishi Management Area is divided further into seven sub-areas, which include: Battle Creek, Deer Creek, Forks of Butte Creek, Minnehaha Mine, Upper Ridge Nature Preserve, Baker Cypress, and the remainder of the Ishi Management Area. The study area lands are located within the remainder of the Management Area sub-area, which consists of scattered tracts of BLM lands.

### **Budget**

BLM's 2004 budget is approximately \$1.7 billion (BLM 2004). The Redding Field Office has a total annual budget of \$3,061,000 which includes all office operations. BLM does not keep a record of the funds spent or the budgets for the specific areas that they manage, such as the Ishi Management Area or for recreation within that area. A total of \$12,000 was budgeted for law enforcement, although more is frequently spent using funds designated for other services. Approximately 10 to 15 percent of the BLM's Redding Field Office budget is spent on the Ishi Management Area (pers. comm., Wright 2004).

## **Staffing Levels**

The BLM Redding Field Office employs two rangers that are responsible for covering the entire RRA. Two specific security issues associated with BLM public lands have been identified by BLM. The agency attempts to respond to service calls associated with trespassing and illegal dumping on BLM lands within the study area as well as the raiding of known cultural resource sites. However, the agency's ability to respond is compromised by the distance of these lands to field offices and existing committed work load demands (pers. comm., Berg 2003).

## **Existing and Planned Management Activities**

BLM lands in the Ishi Management Area are managed to accommodate recreational use and development, as well as limited timber harvesting and mining. More specifically, lands are managed as "semi-primitive motorized" and are managed to protect the watershed and view shed of Lake Oroville (pers. comm., Williams 2003; pers. comm., Ritter 2002).

BLM lands within the study area are, as mentioned, available for transfer to the State of California to "enhance the resource management efficiency and public service mission of local, State, and federal agencies via transfer of specific public lands from BLM" (BLM 1993). Transfer could occur via an application under the R&PP of 1926 (as amended), or via an exchange of title for surplus State of California lands based on an appraisal of fair market value. BLM began this process by transferring roughly 300 acres to the State of California under the R&PP. State interest exists in considering a transfer of the surplus BLM public lands via federal legislation since the total acreage involved exceeds the annual limit permissible under the R&PP (pers. comm., Ritter 2002). The lands within the Project boundary have been withdrawn from typical BLM uses for the reservoir Project (pers. comm., Berg 2003). Cultural issues on these lands are the largest management issues facing the BLM (pers. comm., Matzat 2003).

### ***5.1.1.4 California Department of Water Resources***

It is the official mission statement of DWR, a Department within the California Resources Agency, "to manage the water resources of California, in cooperation with other agencies, to benefit the State's people and protect, restore, and enhance the natural and human environments" (DWR 2001b).

The Oroville Facilities—including Oroville Dam, Lake Oroville, the Hyatt Pumping-Generating Plant, Thermalito Pumping-Generating Plant, Thermalito Diversion Dam, Thermalito Diversion Dam Powerplant, Thermalito Forebay, Thermalito Afterbay, Fish Barrier Dam, and Thermalito Power Canal—were built and are managed and operated by DWR. In addition, DWR owns and funds many of the recreational and fish and wildlife preservation and enhancement facilities associated with the Oroville Facilities, including the Feather River Fish Hatchery, which are operated by other

agencies. The Oroville Facilities, designed and constructed by DWR in the 1960s, are a critical part of the State Water Project (SWP) and provide significant water collection and storage, flood management, and power production capabilities. Land acquisition and construction authorization for the Oroville Facilities were given by the Feather River Project authorized by the voters in 1960 (Burns-Porter Act). In accordance with the California Water Code (Sections 346 and 11911), properties for recreation purposes were acquired by DWR at the same time that land was acquired for the Oroville Facilities.

### **Management Plans and Goals**

DWR currently operates and manages the Oroville Facilities to maximize its benefit to the SWP, with the primary focus on flood control and water supply. The SWP was developed to conserve and distribute water to supplement the needs of urban and agricultural users throughout California. Power produced by the Oroville Facilities helps meet power demands associated with water conveyance, reducing the need to purchase power and producing reliable power that is sold to the power grid to reduce the net cost of water delivery.

The Project area includes 47,000 acres, of which 2,825 acres were acquired solely for recreational uses, and 23,175 acres were acquired for recreation and other project uses; the reservoir surface comprises 15,810 acres (DWR 2001b).

Although DWR does not manage the majority of the recreational opportunities and facilities in the study area, it is responsible, under its existing FERC license, for implementing a variety of recreation-related projects and improvements. FERC Orders regarding DWR's responsibility to carry out improvement projects, fishery studies and fish stocking programs, hatchery operations, and other recreation-related tasks have been added as conditions of DWR's FERC License to operate the Oroville Facilities. By necessity as well as by statute, DWR works closely with other agencies, including DPR, DFG, and DBW, to both fund and implement the programs and improvements required by FERC. Although in many cases DWR is not involved in the direct implementation of recreation improvements and programs at the field level, it is ultimately DWR's responsibility to ensure that all required improvements, maintenance, and studies in the Order are properly carried out.

Since 1977, when FERC approved DWR's first Recreation Plan for Lake Oroville, DWR has undergone many planning efforts and has constructed numerous recreation facilities at the Oroville Facilities. An Amended Recreation Plan (DWR 1993) was approved by FERC in 1994. Additional management plans (beyond recreation management) that apply to DWR management activities are discussed in Land Use Relicensing Study L-3 – *Comprehensive Plans Evaluation*.

DWR Proposed Amended Recreation Plan for Lake Oroville State Recreation Area (1993)

The *Proposed Amended Recreation Plan* outlines existing facilities as well as potential additional improvements and new facilities such as picnic tables, parking campsites and boat ramp upgrades at various locations. This plan also includes a description of fish and wildlife resources, the local area, economic considerations, and LOSRA user patterns. It superseded Bulletin 117-6 (DWR 1966) as the contemporary and official Recreation Plan for Project 2100. Various attachments include a chronology of events leading to the Amended Recreation Plan, comments on the amended Plan, and comments on existing facilities. FERC issued an order approving the Plan in 1994 with additional provisions.

DWR began preparing a new recreation plan for the Oroville Facilities in the late 1980s. This proposed plan was submitted to FERC in 1991. In compliance with the FERC Order of October 1, 1992, the DWR prepared the Amended Recreation Plan (ARP) in 1993 as the recreation plan for the LOSRA. The ARP was adopted by the FERC Order of September 22, 1994, and superseded the 1966 document, Bulletin 117-6. That 1966 document was forwarded to FERC in 1977 when FERC requested a recreation plan, though DWR did not intend it to be construed as a final development plan. The 1993 ARP describes a number of improvements and the commitments of DWR to construct specific facilities and take actions to address the fisheries and recreation needs at LOSRA; additional improvements and actions deemed necessary by FERC were included in the September 22, 1994, Order. The 1993 ARP also detailed the time frame for the completion of additional proposed projects. DWR acknowledges in the ARP that as the licensee, they are responsible for ensuring specific improvements. The ARP describes the fish and wildlife resources, facilities, local area, user patterns, and operation of LOSRA facilities, economic considerations, recreation plan, and the fisheries management plan.

The ARP acknowledges that recreation activities and preferences have changed over time (1966 to 1993), which has resulted in reduced demand for boat use and fishing, and increased demand for equestrian, bike, and hiking trails. Another finding was that use patterns in 1993 had changed due to low water levels and temporarily inaccessible or seasonally-unusable facilities. The ARP puts forth recommendations for facility expansion and modification in light of these findings. These recommendations have since been implemented.

In terms of Lake Oroville fisheries, ARP goals include developing a multi-species fishery in Lake Oroville that makes optimum use of the available habitat and forage base while sustaining the existing fisheries above then-current levels. One goal included management of the bass fishery to achieve the California Fish and Game Commission's designation of Lake Oroville as a "Trophy Black Bass Water."

The ARP states that Lake Oroville recreational facilities must be responsive to fluctuating water levels, topography that restricts uses during low water, temperatures that deter use during the peak summer period, a highway system that is conducive to local or destination-type uses, and reasonable user costs. The facilities recently developed at Lake Oroville have taken these factors into consideration, while incorporating cost effective development focusing on areas that would receive high usage. For example, facilities around Thermalito Afterbay (such as Monument Hill) have been developed to mitigate for low pool elevations that restrict usage on Lake Oroville. Recreation facilities (Bidwell and Spillway) on Lake Oroville have been upgraded to take into account periods of low pool elevations, such as extending the length of boat ramps.

#### FERC Order on Revised Recreation Plan, 1994

This order, No. 2100-054 issued September 22, 1994, stipulates that in addition to the Proposed Amended Recreation plan, general additional recreational facilities and programs must also be implemented. The order called for additional facilities at Lime Saddle, Thermalito Afterbay, South Thermalito Forebay, and along the Feather River. All these improvements have since been implemented (FERC 1994).

#### DWR Lake Oroville Fisheries Habitat Improvement Plan, 1995

In response to the September 22, 1994, FERC Order, DWR adopted the Lake Oroville Fisheries Habitat Improvement Plan in 1995 to improve fish habitat and establish a schedule for implementation. Due to the magnitude of Lake Oroville's water level fluctuations, steep slopes, poor soils, and encroachment of terrestrial vegetation, the establishment of rooted aquatic vegetation is extremely limited. A major Plan objective includes increasing the productivity of fisheries within specific areas and the entire lake (DWR 1995).

Although the Lake Oroville Fisheries Habitat Improvement Plan focuses on projects to be implemented before the 1998-99 season, it provides a template for long-term habitat enhancement plans for fisheries. *Lake Oroville Fisheries Habitat Improvement Plan* is also discussed in Relicensing Studies R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation* and L-3 – *Comprehensive Plans Evaluation*.

#### **Organizational Structure**

DWR's organizational structure is illustrated in Figure 5.1-6. DWR management is administered by a Director, who is appointed by the Governor. The State Reclamation Board and the California Water Commission both serve in advisory roles to the Director's Office. There are five Deputy Directors that report to the Director's Office. The Oroville Field Division is a part of the Division of Operations and Maintenance that serves one of the five branches. The Division of Operations and Maintenance is under

the authority of the same Deputy Director as the Division of Land and Right of Way, the Division of Engineering, the SWP Analysis Office, and the Bay-Delta Office. The SWP Field Division Office is divided into five field divisions: Southern, Delta, Oroville, San Luis, and San Joaquin.

The Oroville Field Division has five branches that include Administrative, Engineering, Operations, Plant Maintenance, and Civil Maintenance. Each of these branches has two to five sections each.

### **Budget**

DWR's expenditures for recreation at the Oroville Facilities generally fall into one of two categories: operations or capital improvements (also referred to as labor and projects, respectively). As shown in Table 5.1-1, for the years 1971–93, DWR spent approximately \$1.4 million on operations (labor and projects) and \$1.1 million on capital improvements for a total of \$2.5 million (\$5.5 million in 2003 dollars). A significant increase in expenditures took place between 1993 and 2000 with a budget averaging \$11.2 million (\$13.4 million in 2003 dollars).

The estimated expenditure for operations for the years 2000–02 is \$1 million. The estimated expenditure for capital improvements for the years 2000–02 is \$4.6 million. Thus estimated expenditures for the years 2000–02 totals \$5.6 million. Including historical and estimated costs for the years 1971–99 and 2000–02, respectively, by the end of the 2002 fiscal year, DWR will have spent \$19.3 million for recreation-related projects at the Oroville Facilities. When this amount is adjusted (normalized) for inflation to year 2000 dollars using the Consumer Price Index for California, DWR expenditures through the end of the 2002 fiscal year for recreation-related projects at the Oroville Facilities are \$23.3 million.

Expenditures have been higher in years when capital improvements, such as new campgrounds or other facilities, were built. DWR's funding comes primarily from reimbursement for the costs of SWP operations paid by the SWC. Some State General Funds were initially used, prescribed by the Davis–Dolwig Act to pay for construction of some recreation facilities.

### **Staffing Levels**

Oroville Field Division as stated, has five branches (Figure 5.1-6), with each branch divided into two to five sections. Each section has 2 to 10 staff, and each branch has 12 to over 20 staff.

**Table 5.1-1. DWR expenditures for development and operation of Oroville Facilities recreation areas.**

Funding Period	Labor	Projects	Operation <sup>1</sup>	Capital	Total Expenditures	Adjusted for 2003 <sup>2</sup>
<b>Actual Expenditures</b>						
1971 - 1972	NA	NA	\$ 54,000	NA	\$ 54,000	\$ 257,684
1972 - 1973	NA	NA	\$ 37,000	NA	\$ 37,000	\$ 169,754
1973 - 1974	NA	NA	\$ 41,000	NA	\$ 41,000	\$ 174,250
1974 - 1975	NA	NA	\$ 47,000	NA	\$ 47,000	\$ 179,335
1975 - 1976	NA	NA	\$ 39,000	NA	\$ 39,000	\$ 137,766
1976 - 1977	NA	NA	\$ 13,000	NA	\$ 13,000	\$ 43,197
1977 - 1978	NA	NA	\$ 37,000	NA	\$ 37,000	\$ 114,178
1978 - 1979	NA	NA	\$ 40,000	\$ 55,000	\$ 95,000	\$ 268,368
1979 - 1980	NA	NA	\$ 81,000	NA	\$ 81,000	\$ 198,999
1980 - 1981	NA	NA	\$ 45,000	\$1,069,000	\$1,114,000	\$2,454,926
1981 - 1982	NA	NA	\$ 88,000	NA	\$ 88,000	\$ 175,080
1982 - 1983	NA	NA	\$ 73,000	NA	\$ 73,000	\$ 141,973
1983 - 1984	NA	NA	\$ 64,000	NA	\$ 64,000	\$ 120,174
1984 - 1985	NA	NA	\$ 38,000	NA	\$ 38,000	\$ 68,000
1985 - 1986	NA	NA	\$ 85,000	NA	\$ 85,000	\$ 146,197
1986 - 1987	NA	NA	\$ 109,000	NA	\$ 109,000	\$ 181,571
1987 - 1988	NA	NA	\$ 56,000	NA	\$ 56,000	\$ 89,525
1988 - 1989	NA	NA	\$ 66,000	NA	\$ 66,000	\$ 100,612
1989 - 1990	NA	NA	\$ 77,000	NA	\$ 77,000	\$ 111,744
1990 - 1991	NA	NA	\$ 77,000	NA	\$ 77,000	\$ 106,084
1991 - 1992	NA	NA	\$ 107,000	NA	\$ 107,000	\$ 142,268
1992 - 1993	NA	NA	\$ 131,000	NA	\$ 131,000	\$ 168,758
1993 - 1995 <sup>3</sup>	\$ 1,742,673	NA	NA	NA	\$1,742,673	\$2,187,244
1995 - 1996	\$ 1,389,815	\$ 1,030,213	NA	NA	\$2,420,028	\$2,968,900
1996 - 1997	\$ 1,331,806	\$ 1,247,735	NA	NA	\$2,579,541	\$3,092,850
1997 - 1998	\$ 763,595	\$ 178,639	NA	NA	\$ 942,234	\$1,107,416
1998 - 1999	\$ 1,056,716	\$ 1,328,619	NA	NA	\$2,385,335	\$2,735,950
1999 - 2000	\$ 1,142,527	\$ 20,990	NA	NA	\$1,163,517	\$1,294,005
<b>TOTAL</b>	<b>\$ 7,427,132</b>	<b>\$ 3,806,196</b>	<b>\$1,405,000</b>	<b>\$1,124,000</b>	<b>\$13,762,328</b>	<b>\$18,936,808</b>
<b>Estimated Expenditures</b>						
2000 - 2001	\$ 757,232	\$ 4,548,232	NA	NA	\$5,305,464	\$5,305,464
2001 - 2002	\$ 226,500	\$ 51,000	NA	NA	\$277,500	\$277,500
<b>TOTAL</b>	<b>\$ 983,732</b>	<b>\$ 4,599,232</b>	<b>NA</b>	<b>NA</b>	<b>\$5,582,964</b>	<b>\$5,582,964</b>
<b>TOTAL (Actual and Estimated Expenditures)</b>					<b>\$ 19,345,292</b>	<b>\$ 23,315,495</b>

<sup>1</sup> Operational expenditures include wage and salary expenditure and may include non-Oroville employees working on Oroville Facilities programs, but who live outside of Butte County.

<sup>2</sup> Expenditures adjusted for year 2003 (based on CPI-California).

<sup>3</sup> For unknown reasons, data for these two years are combined.

NA: information not applicable.

Sources: DWR 1993 Recreation Plan and Ferguson 2000.

### **Existing, Planned and Past Management Activities**

As required by the Davis–Dolwig Act, DWR is responsible for planning recreation and fish and wildlife preservation and enhancement at SWP facilities, and for consulting with DPR and DFG and all appropriate federal and local agencies.

DWR also provides analyses of benefits and costs, prepares land use and land acquisition plans, prepares development proposals, and makes recommendations to the Legislature for financing, and, if necessary, authorization (pers. comm., Tabor 2004).

Pursuant to a request by U.S. Fish and Wildlife Service (USFWS), DWR is preparing Bald Eagle and Peregrine Falcon Territory Management Plans for lands around Lake Oroville (pers. comm., Bogener 2003). Additionally, in conjunction with DFG and as mandated by the 1994 FERC Order on the revised Recreation Plan, DWR has assumed responsibility for the management of the expansion of Thermalito Afterbay facilities and has arranged for patrol of the facilities with the Butte County Sheriff’s Office (pers. comm., Rischbieter 2004).

DWR retains all rights associated with management, operation, and maintenance of the Oroville Facilities, while DPR designs, constructs, manages, operates, and maintains the associated recreational facilities and opportunities (DPR 1973). DWR retains fee ownership over much of the State-owned Project area (meaning surface and mineral rights) except for a few small parcels of land, which were transferred to DPR for its District headquarters and other permanent facilities (pers. comm., Feazel 2002). Table 5.1-2 describes the status of previously planned and proposed facilities at Lake Oroville. In 1968, DWR transferred the original portion of the OWA to DFG, reserving rights necessary to operate and maintain the SWP.

Recent improvements since 1989 have included: extension of several boat launching ramps, development of new day use facilities at Thermalito Afterbay, and improvement and enhancement of wildlife habitat. For a detailed history of the proposed recreation facilities at Lake Oroville refer to *Appendix A: History of DWR’s Implementation of FERC Ordered Recreation Mandates*.

**Table 5.1-2. Recently completed State developed recreation facilities within the Project area.**

Area	Planned or Proposed Recreation Facilities	Status of Facilities
Lime Saddle	50-unit campground.	Completed in 2001.
	25 tent/RV camping sites. <sup>1</sup>	Completed in 2001.
	Extend boat ramps. <sup>2</sup>	Completed in 1996.
	Renovate parking area, boat turnaround, and entrance road. <sup>3</sup>	Completed in 1996. <sup>3</sup>
	Construct fish-cleaning station. <sup>4</sup>	Completed in 2002.
	Install a fuel guard at the boat ramp. <sup>5</sup>	Completed in 2000 by DBW.
Project Area Fishery Improvements	Fish hatchery expansion.	Completed in 2000.
	Construct brush shelters and plant willow trees in the Lake Oroville littoral zone.	Implemented in 1993.
	Chinook salmon stocking. <sup>5</sup>	Completed in 1999 by DFG.
	Conduct a five-year joint (DWR/DFG) fish study.	Implemented in 1993.
	Prepare Interim Fishery Management Plan, with salmonid stocking program.	Implemented in 1993.
	Americans with Disabilities Act (ADA) access. <sup>4</sup>	Completed in 2002.
	Provide cross link of bike trail to provide shortcut in the vicinity of the power canal and fish hatchery. <sup>5</sup>	Completed in 2000 by DWR.
Construct two 300-foot channel runs. <sup>6</sup>	Completed in 1998 by DWR.	
Diversion Pool	Construct restroom. <sup>5</sup>	Completed in 2000 by DBW.
	Construct car-top launch for non-motorized boats. <sup>5</sup>	Completed in 2000 by DBW.
	Fish Barrier Pool improvements: trail/boardwalk, shade armadas and picnic tables.	Completed in 2004.
Enterprise BR	Restroom installation/upgrades.	Completed in 2002.
Spillway	Extend boat ramps. <sup>2</sup>	Completed in winter 2002/2003.
	Construct 3-inch potable water line and 6-inch pump sewer line across crest of dam to Spillway boat ramp. <sup>2</sup>	Completed in 1995.
	Construct a fish-cleaning station. <sup>6</sup>	Completed in 2001 by DWR.
	Construct a 4-unit restroom facility. <sup>6</sup>	Completed in 2001 by DPR. <sup>3</sup>
Lake Oroville	Install 2 additional floating restrooms at Lake Oroville. <sup>2</sup>	Completed in 1995.
	Install 4 floating campsites at Lake Oroville. <sup>2</sup>	Ten floating campsites were constructed in 1997. <sup>3</sup>
	Provide 6 additional floating campsites at Lake Oroville (2 each per year from 1996-1998). <sup>2</sup>	See above.

**Table 5.1-2. Recently completed State developed recreation facilities within the Project area (continued).**

Area	Planned or Proposed Facilities	Status of Facilities
Project Area	Improved equestrian/hiking trail. <sup>2</sup>	Completed in 1995.
	Provide equestrian group camping facilities. <sup>2</sup>	Completed in 1995.
	Hire full-time fisheries biologists for Lake Oroville.	Implemented in 1993.
	Provide 35-mile loop mountain bike trail. <sup>2</sup>	Completed in 1994/1995.
	Install informational bulletin boards. <sup>6</sup>	Completed in 1998 by DWR.
	Provide staff assistance to keep horse trails and parking lots open for use. <sup>3</sup>	Implemented in 1999 by DPR. <sup>3</sup>
Thermalito Afterbay	Construct 3 additional wildlife brood ponds. <sup>2</sup>	Completed between 1993-1997
	Install picnic table. <sup>2</sup>	Completed between 1993-1997
	Designate parking area. <sup>2</sup>	Completed between 1993-1997
	Continue security patrol.	Completed between 1993-1997
	Designate slalom ski course with buoys. <sup>2</sup>	Completed between 1993-1997
	Construct restrooms. <sup>7</sup>	Completed in 1997.
	Construct overflow parking area. <sup>4</sup>	Completed in 2002.
	Improve main entrance/exit road. <sup>2</sup>	Completed between 1993-1997
	Pave boat ramp. <sup>5</sup>	Completed in 2000 by DBW.
	Pave access road from Larkin Road. <sup>5</sup>	Completed in 2000 by DBW.
	Install a boarding float. <sup>5</sup>	Completed in 2000 by DBW.
	Improvements to traffic flow in the parking areas. <sup>5</sup>	Completed in 2000 by DWR.
	Construct a boat-boarding dock at Wilbur Road boat ramp. <sup>6</sup>	Completed in 2001, funding provided by DBW.
	Grade and pave main parking area at Monument Hill. <sup>6</sup>	Completed in 1998 by DWR.
	Reconfigure and improve upper parking area. <sup>6</sup>	Completed in 1998 by DWR.
Construct a fish-cleaning station. <sup>8</sup>	Completed in 1999 by DWR.	
Site and runway improvements for the Oroville Model Airplane Club. <sup>3</sup>	Completed in 1997. <sup>3</sup>	

**Table 5.1-2. Recently completed State developed recreation facilities within the Project area (continued).**

Area	Planned or Proposed Facilities	Status of Facilities
North Thermalito Forebay	Construct concrete boat ramp. <sup>2</sup>	Completed in 1995.
	Provide 15 RV camping sites. <sup>2</sup>	Completed in 1995.
	Expand or modify the portable restrooms.	Completed in 1997.
	Provide en-route camping for RVs. <sup>2</sup>	Completed in 1996.
	Construct sewer line and pump station. <sup>2</sup>	Completed in 1995.
	Aquatic Center. <sup>7</sup>	Completed in 1997 by DWR.
	Pave overlay of parking area adjacent to boat ramps. <sup>4</sup>	Completed in 2000.
	Provide 1,000-square-foot boat storage facility <sup>2</sup>	Completed in 1999. <sup>3</sup> Increased to 1,200-square-feet, and a mezzanine was added at the request of the Butte Sailing Club.
	Replace beach sand. <sup>5</sup>	Completed in 2000 by DWR.
	Construct a 4-unit restroom facility at the boat ramp. <sup>6</sup>	Completed in 2001 by DWR.
Construct a 6-unit restroom facility adjacent to the main picnic area. <sup>8</sup>	Completed in 1999 by DWR.	
Oroville Dam	Install permanent restroom on dam crest. <sup>2</sup>	Completed in 1995.
	Provide lighting for night-time recreation on dam crest. <sup>2</sup>	Completed in 1995.
	Provide ADA access at Diversion Dam Overlook. <sup>6</sup>	Completed in 1998 by DWR.
	Install asphalt/concrete overlay of Dam Crest Road, and all other entrance roads.	Completed in 1999. <sup>3</sup>
	Improvements to Overlook: removal of cyclone fencing, install crash barrier and interpretive signs.	Completed in 2003.
South Thermalito Forebay	Provide designated parking area. <sup>2</sup>	Completed in 1995.
	Construct swimming beach. <sup>2</sup>	Completed in 1995.
	Install 10 picnic tables. <sup>2</sup>	Completed in 1995.
	Plant trees. <sup>2</sup>	Completed in 1995.
	Improve road. <sup>2</sup>	Completed in 1995.
	Construct fish-cleaning station. <sup>7</sup>	Completed in 1995.

**Table 5.1-2. Recently completed State developed recreation facilities within the Project area (continued).**

Area	Planned or Proposed Facilities	Status of Facilities
Bidwell Canyon	Upgrade boat ramp. <sup>2</sup>	Completed in 1999. <sup>3</sup> Installed a concrete overlay of the upper 7-lane boat ramp.
	Construct overflow parking area. <sup>4</sup>	Completed in 2002.
	Saddle Dam Improvements: Restroom installation/upgrade, grading road, install metal hitching posts.	Completed in 2003.
Wilbur Road	Improvements to boat ramp, road, parking area, picnic area and overlook area.	Some completed in 1997. Reconfiguration of entrance road canceled due to fish and wildlife concerns.
	Install restroom with ADA parking.	Completed 2004.
Loafer Creek	Keep Loafer Creek Campground open all year.	Implemented in 1994.

Sources: Rischbieter 2004; Cochran 2004; and FERC, multiple years.

<sup>1</sup> Proposed in the 1995 DWR Feather River Project Recreation Plan.

<sup>2</sup> Mandated in the September 22, 1994 FERC Revised Recreation Plan.

<sup>3</sup> FERC Project No. 2100 – Biennial Report, December 1997.

<sup>4</sup> DWR Bulletin 132-01, December 2002.

<sup>5</sup> DWR Bulletin 132-00, December 2000.

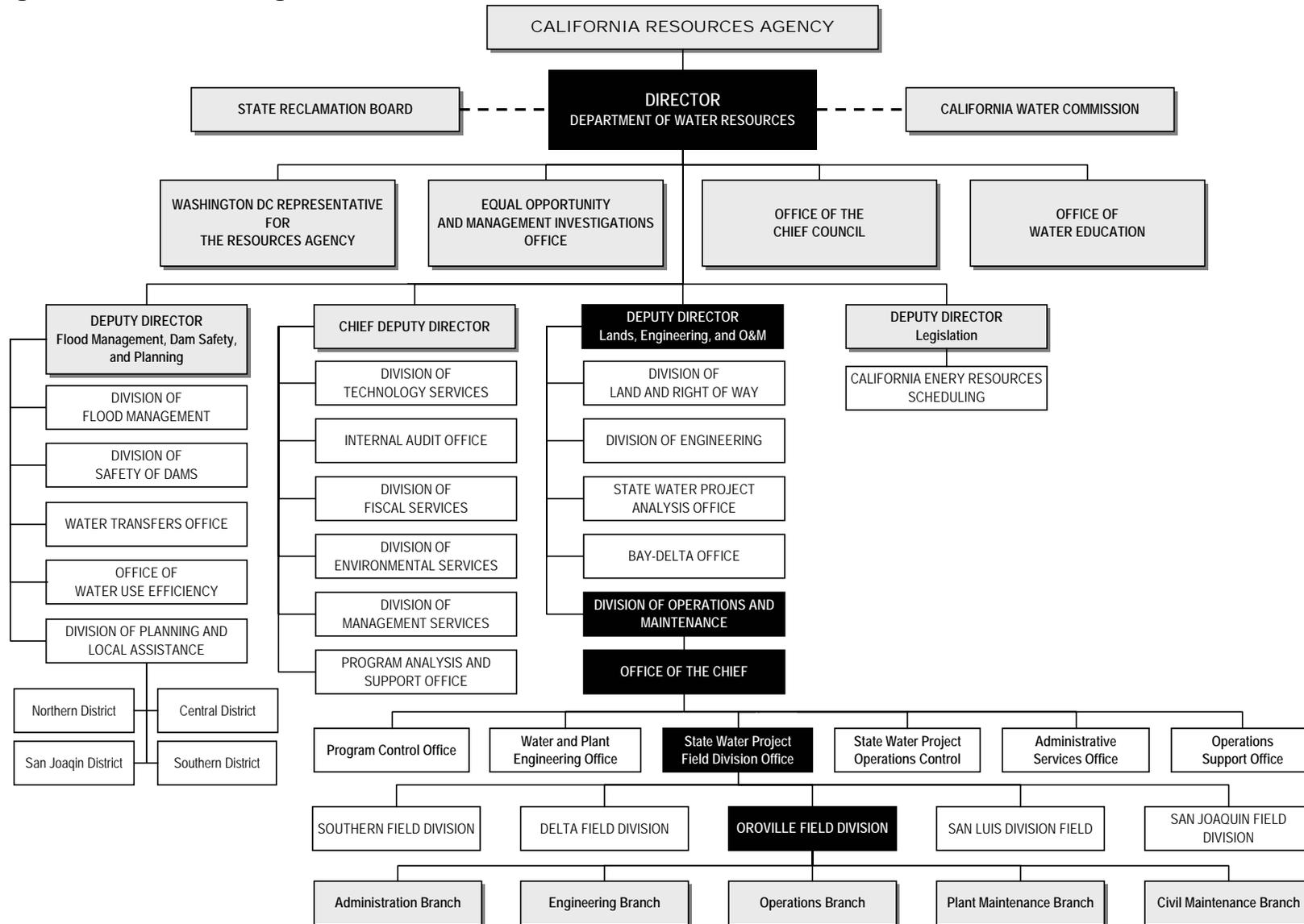
<sup>6</sup> DWR Bulletin 132-99, March 2001.

<sup>7</sup> DWR Bulletin 132-97, December 1997.

<sup>8</sup> DWR Bulletin 132-98, November 1999.

Note: These projects were developed either as part of the 1993 Recreation Plan, subsequent FERC Orders, or as “interim” relicensing projects.

**Figure 5.1-6. DWR's organizational structure.**



Source: DWR Internal Website 2004.

#### **5.1.1.5 California Department of Parks and Recreation**

The official mission of DPR, which is also a Department within the California Resources Agency, is “to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation” (DPR 2003a). In addition, DPR’s Northern Buttes District, which manages the LOSRA, aims “to perpetuate, enhance, and make available to all people the natural and cultural resources and recreational opportunities within the District” through the “delivery of outstanding park and recreational services, maintaining at all times a customer-oriented approach which emphasizes quality, integrity, courtesy, and efficiency” (pers. comm., Feazel 2002).

DPR’s Core Programs, linked directly to the agency’s mission, include Resource Protection, Education and Interpretation, Facilities, Public Safety, and Recreation (DPR 2001).

Ongoing DPR management duties within LOSRA include:

- Park equipment and facilities maintenance;
- Systems maintenance;
- Safety and enforcement, on both land and water;
- Project management;
- Volunteer management;
- Concession management;
- Resource management;
- Park administration;
- Interpretive activities; and
- Strategic planning.

Routine tasks performed by DPR staff include collecting fees and monitoring attendance; cleaning and maintaining restrooms and toilet buildings; servicing trash receptacles; maintaining camping and day-use areas, including launch ramps, courtesy docks, and 47 miles of trails; monitoring and maintaining buoys and vessels; and maintaining recreation area grounds and landscaping.

DPR is also responsible for carrying out boat safety inspections and providing safety patrols at Lake Oroville, Thermalito Forebay, and the Thermalito Diversion Pool. Less frequent tasks include road maintenance for approximately 21 miles of road, maintenance of all park utilities (including electrical, water, and wastewater facilities), and capital improvement of all recreational facilities. In addition to DPR, two private concessionaires operate and maintain facilities at Bidwell Canyon and Lime Saddle

Marinas, respectively, subject to DPR contracts and oversight (pers. comm., Feazel 2002).

Utility services in the recreation area are overseen by a water/sewer plant supervisor. In addition to LOSRA staff, DPR's other Northern Buttes District administrative staff provide additional aid to all units in the DPR District. DPR annually hires additional seasonal support staff in the summer to operate entrance stations and carry out basic facility maintenance tasks.

Aside from routine operations and maintenance throughout the LOSRA, DPR's most pressing management issues in the study area include management of culturally sensitive areas, trail management, Americans with Disabilities Act (ADA) requirements, staffing levels, and low-water-level facilities for marina access.

*The Seventh Generation: The Strategic Vision of California State Parks* (DPR 2001) outlines the strategies and management practices that DPR follows in managing parks throughout the State. DPR's related management strategies and practices in the LOSRA include:

- Public involvement: meeting with interest groups and the general public;
- Interagency involvement: meeting and conferring with other agencies;
- Hiring qualified staff;
- Contracting professional services;
- Seeking alternative funding sources, including grants and reimbursements;
- Using data collection to identify and resolve relevant issues; and
- Following Total Quality Management practices.

DPR manages interpretive programs, most Lake Oroville Visitors Center activities, special events coordination, and general recreational opportunities with the above in mind.

Although DPR manages the majority of LOSRA's recreational aspects, DWR bears the ultimate responsibility under the current FERC license for ensuring funding, development, operation, and management of current and additional recreation facilities at the Oroville Facilities. In addition, the Davis–Dolwig Act requires DWR to plan for and acquire land for recreation in conjunction with all SWP development. Under the Davis–Dolwig Act, DPR has the authority to design, construct, operate, and maintain recreation facilities of the SWP. Consistent with its responsibilities, DWR works with DPR, DBW, and DFG to provide for recreational opportunities and funding throughout the study area.

## **Management Plans and Goals**

Following the completion of the Oroville Facilities, the “recreational interest” of lands within what is now LOSRA was transferred by DWR to DPR in 1966 under the *Agreement for Transfer to Department of Parks and Recreation of Interest in Certain Real Property at Oroville Division of State Water Project* (DWR and DPR 1966). Since that agreement, what is now the Northern Buttes District of DPR has been the most prominent recreation management agency in the study area, managing and operating the LOSRA. DWR retains all rights and responsibilities associated with management, operation, and maintenance of the Oroville Facilities, while DPR designs, constructs, manages, operates, and maintains the associated recreational facilities and opportunities (DPR 1973). As mentioned in Section 5.1.1.4 DWR transferred only a few small parcels of land, to DPR for its District headquarters and other permanent facilities (pers. comm., Feazel 2002).

Since the transfer of recreational interest in 1966, DPR has managed recreation and recreational facilities in the study area according to the LOSRA purpose, which is “to perpetuate, enhance, and make available to the public the recreational opportunities afforded by Lake Oroville, Thermalito Forebay, and adjacent land and water areas.” The purpose also includes the protection of all environmental amenities so that they make an optimum contribution to public enjoyment of the area (DPR 1973).

As allowed under the California Public Resources Code (Section 5019.56), DPR has undertaken improvements to provide for a number of recreational activities, including camping, picnicking, swimming, hiking, bicycling, horseback riding, boating, and water sports. Specific recreational facilities are described in Relicensing Study R-10 – *Recreation Facility Inventory and Condition Report*, and recreation management is discussed further below. The legal charter of California State Parks, as required by the Public Resources Code, Davis- Dolwig Act, and the California Code of Regulations, among others, calls for DPR to:

- “Administer, protect, provide for recreational opportunity, and develop the State Park System;
- Interpret the values of the State Park System to the public;
- Operate the Off-Highway Motor Vehicle Recreation Program;
- Administer the California Historical Resources Protection Program; and
- Administer federal and State grants and bond funds to local agencies” (DPR 2001);
- Authority to design, construct, operate, and maintain public recreation facilities at SWP facilities.

General DPR management goals for LOSRA include:

- Interagency coordination;

- Land jurisdiction, ownership and use;
- Improving aesthetics;
- Land restoration;
- Vegetation and fire management;
- Preserve sensitive species;
- Improve fish habitat;
- Protect cultural resources;
- Improve interpretive and visitor facilities;
- Expand and upgrade camping facilities;
- Expand and improve marina and boating facilities; and
- Improve day-use facilities and trails (DPR 2001).

High priorities for the LOSRA involve facilitating the potential transfer of BLM property to DPR, initiating a debris collection program, and implementing vegetation management plans in order to reduce biomass in wildland and urban areas (pers. comm., Elliot 2003).

These management goals and priorities are being incorporated into a new General Plan for the LOSRA. As a guideline in the new LOSRA General Plan, DPR staff will coordinate with other agencies for planning, design and implementation of recreation and interpretive facilities, natural resource management and cultural resource management. DPR staff has identified specific projects, such as acquiring BLM lands within the LOSRA boundary, which will simplify and improve management of recreation opportunities in the LOSRA. Many of these goals and activities have been taking place although not all were previously identified in the existing plan.

The existing management plans that apply to DPR's recreation management activities are discussed below.

#### LOSRA Resource Management and General Development Plan, 1973

The *LOSRA Resource Management Plan* outlines recreational development opportunities at 22 areas around Lake Oroville and Thermalito Forebay. The plan was intended to set allowable development levels for a variety of public facilities to the area such that recreational opportunities are perpetuated, enhanced, and made available to the public. It also includes long-range management objectives for the area, and the Environmental Impact Report for ten areas including Loafer Creek, Kelly Ridge, Bidwell Canyon, Foreman Creek, Lime Saddle, Craig Ravine, Potter Ravine, Bloomer Primitive Area, Goat Ranch, and Sycamore Creek (DPR 1973).

This document is the current General Plan for this unit of the State Park System, adopted by the California Parks and Recreation Commission. It also describes the various natural resources at Lake Oroville including geology, climate, hydrology, soils, slope, vegetation, wildlife, scenic and cultural resources. Descriptions of each recreation area summarize the relationship between the natural resources and potential

recreation development. Capacity of each area, and existing and potential recreation developments are also discussed (DPR 1973). The General Plan was amended in 1988 to accommodate changes proposed for the Lime Saddle Area.

### California Outdoor Recreation Plan, 2002

The *California Outdoor Recreation Plan* (CORP) describes federal and state land management agencies and their programs for managing public recreation resources. The report also summarizes local, nonprofit, and private sector providers of recreation within the state (DPR 2002a).

The CORP discusses demographic trends and challenges that are affecting and will continue to affect California's recreation in the future. Trends include robust population growth, urbanization, and growth of inland counties. Demographic shifts include a continuing increase of Hispanic and Asian populations as a percentage of the total state population. The "baby boom" generation is expected to become a more active senior population than today's seniors. Popularity of nature study, adventure-based activity, and high-technology recreation are all trends that will influence future recreation numbers and types of recreation participation (DPR 2002a).

Outdoor recreation is very important to Californian lifestyles in general. Recreational walking was the number one activity among surveyed California residents. Statewide, there is a high, unmet demand for several activities as follows:

1. Recreational walking
2. Camping at developed sites
3. Trail hiking
4. Attending outdoor cultural events
5. Visiting museums, historic sites
6. Swimming in lakes, rivers, ocean
7. General nature, wildlife study
8. Visiting zoos and arboretums
9. Camping in primitive areas
10. Beach activities
11. Use of open grass or turf
12. Freshwater fishing
13. Picnicking in developed sites

The CORP lists issues facing parks and outdoor recreation and outlines actions for dealing with the challenges faced by park managers. Issues include funding, access to parks and recreation areas, natural and cultural resource protection, and leadership in recreation. The CORP also outlines health and social benefits of recreation. Wetlands and future reports to be published by DPR are also discussed (DPR 2002a). The *Public Opinions and Attitudes on Outdoor Recreation in California* (1997) was conducted as part of the 1998 revision of the 1993 CORP.

### Area Operations Plan for the Oroville Field Area – Section 0430 of the Department Operations Manual from Northern Buttes District

The Operations Plan is updated annually, and identifies:

- Physical and operational characteristics;
- Workload, by function and task;
- Staff, by classification;
- Identifiable deficiencies in staffing; and
- A manpower plan to balance needed work with available staff.

These responsibilities are implemented by DPR field staff in operating and maintaining recreational facilities within the LOSRA.

### LOSRA General Plan Amendment Lime Saddle Area, 1988

This plan amendment was approved by the State Parks Commission in 1988, and was intended to address the needs at the Lime Saddle Marina including acquisition of additional land and increasing the marina boat capacity. The Amendment focused on marina changes including: acquisition of 5 acres of adjacent PG&E property, the need to surplus 23 acres of property, and increasing the marina boat capacity from 350 to 500 boats (DPR 1988).

### Clay Pit State Vehicular Recreation Area (SVRA) Habitat Monitoring Plan (1994)

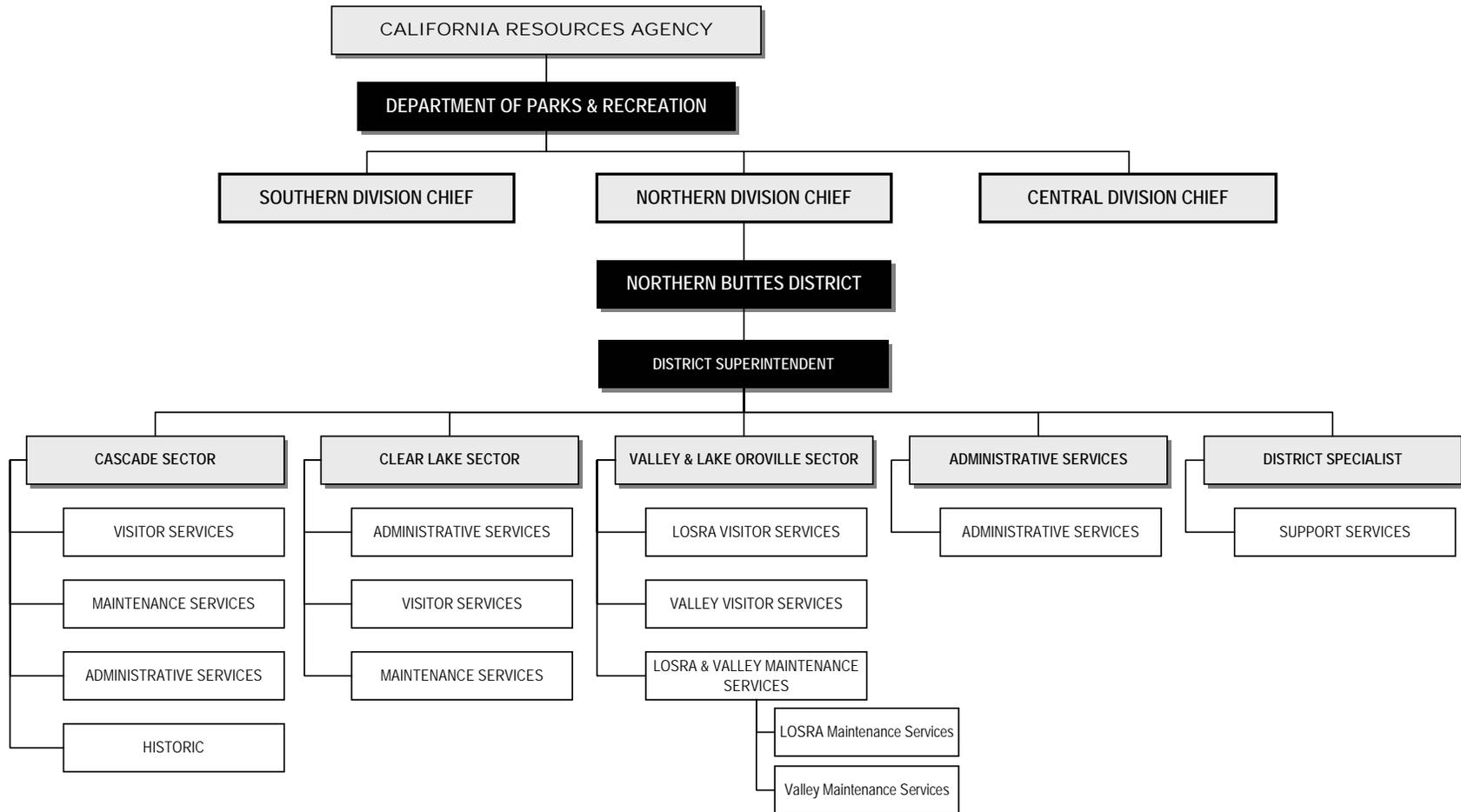
The Clay Pit SVRA is a 350-acre park northwest of Oroville that occupies the northern two thirds of a large “borrow pit.” This area was created in 1968 to provide fill for the Oroville Dam during construction, and was initially part of a large wildlife management area established along the Feather River by DFG and DWR. Today, the Clay Pit SVRA is under DPR jurisdiction and is outside of the FERC Project boundary. The *Habitat Monitoring Plan* outlines activities to monitor wildlife in the Clay Pit SVRA, which contains vernal pools as well as other habitats (DPR 1994).

### Organizational Structure

DPR is a Department of the California Resources Agency that manages more than 270 park units, which contain a diverse collection of natural, cultural, and recreational resources. DPR is divided into three Divisions and 12 regional units (Districts); LOSRA is located in the Northern Buttes District (Figure 5.1-7). There are an additional 12 parks in the Northern Buttes District, the nearest being Clay Pit SVRA, located 3 miles south of the Oroville Dam near the OWA (DPR 1973).

About half of SWP lands at Lake Oroville are operated and managed by DPR. In general, however, DWR retains fee ownership of all but a few small parcels of land. The Lake Oroville Visitors Center is jointly managed by both DWR and DPR (pers. comm., Feazel 2002).

**Figure 5.1-7. DPR Northern Buttes District organizational structure.**



Source: pers. comm., Feazel 2004.

Although individual projects are completed by individual agencies, DWR, DPR, DBW, and DFG meet every 4 to 6 weeks to keep each other informed of activities related to recreation. The DPR Northern Buttes District Superintendent and Chief Ranger usually attend these meetings (pers. comm., Rischbieter 2004).

DPR also works with the FRRPD and the Chico Area Recreation and Park District to discuss recreation activities they occasionally jointly sponsor within the LOSRA. DPR also periodically meets with DFG and DBW to discuss specific LOSRA projects while keeping DWR informed of their activities (pers. comm., Feazel 2004).

Additionally, one of the goals of Resources Agency Order No. 6 (March 13, 1963)<sup>2</sup> is the full and close coordination, cooperation, and consultation among DPR, DWR and DFG. Every report prepared by any of the three agencies under the Davis–Dolwig Act must contain the written comments of the other two agencies. Additionally, DPR is responsible for managing the surface of the water for recreation purposes and patrolling in order to protect the LOSRA from damage and to preserve the peace (pers. comm., Tabor 2004). DPR also has the authority to grant licenses, permits, and concessions under the laws of the State Park System, but may not transfer any other interest in the Oroville Facilities without the written consent of DWR. Any rights, permits, and easements over lands under DPR jurisdiction made by DWR are subject to the prior approval of DPR (pers. comm., Tabor 2004).

### Concessionaires

DPR contracts with concessionaires to provide additional services that support recreation in the LOSRA. DPR is presently negotiating with three new concessionaires they hope to have under contract in 2004. Concessionaire management is included within the duties of existing staff such as the Administrative Officer and Administrative Technician (pers. comm., Feazel 2004).

Current DPR concessionaires located at LOSRA as of March 2004 include the following:

- Bidwell Canyon Marina – Funtime, Fulltime, Inc., located at the south end of Lake Oroville in Bidwell Canyon offers a full-service marina including boat and houseboat rentals, mooring docks, slip and buoy rentals, shuttle service, dry boat storage, boat repair service, gasoline, sewer pump-out, snack bar/restaurant, bar serving hard liquor, boating supplies, sundries, and souvenirs (pers. comm., Feazel 2004).

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<sup>2</sup> This was an order issued by the Secretary of the California Resources Agency, of which DPR, DWR, and DFG are Departments. This was an administrative approach to initiating and guiding departmental coordination under the Davis–Dolwig Act.

- Lime Saddle Marina – Forever Resorts LLC, located at the north end of Lake Oroville at Lime Saddle offers a full service marina including boat and houseboat rentals, mooring docks, slip and buoy rentals, shuttle service, dry boat storage, boat repair service, gasoline, sewer pump-out, boating supplies, sundries, and souvenirs (pers. comm., Feazel 2004).
- Advanced Diving Services, Inc., provides service anywhere within LOSRA and is contracted for a term of five years, expiring in 2009. Advanced Diving Services, Inc. provides hull cleaning, salvage services, deep water diving, and object or body recovery (pers. comm., Feazel 2004).

### **Budget**

DPR is the primary recreation operator of the Oroville Facilities. However, identifying specific DPR expenditures for operation at LOSRA is challenging for several reasons. Most significantly, LOSRA is 1 of 13 widely separated units in DPR's Northern Buttes District. DPR budgeting has been developed only at the District level, not the park unit level, since they reorganized in 1993. Many of the costs of providing services and goods to LOSRA are varying fractions of the budget of the DPR District as a whole. The many campgrounds and boating facilities at Lake Oroville make it one of the largest and most expensive parks to maintain within the District (pers. comm., Feazel 2002).

An estimate of DPR expenditures for fiscal years (FYs) 1996-97 through 1999-2000, which includes an estimate of the pro-rata share of DPR District staff support to LOSRA, totals \$9,810,000 (Table 5.1-3). This total includes several major non-recurring appropriations for deferred facility maintenance, and should not be construed as a basis for calculating a normal operating average. The figure includes the salaries of Rangers, maintenance workers, and seasonal staff assigned specifically to LOSRA (annually, varying numbers of these positions may be vacant for some period of time). It also includes maintenance and resource project costs, equipment and supply purchases, and service costs that have been specifically coded to the LOSRA unit. However, some equipment and supply purchases and service costs are for the DPR District as a whole; an estimate of the pro-rated fraction of these latter costs has also been included. Similarly, an estimate of a pro-rated fraction of District staff costs (essentially overhead support for the unit) has been included in the labor total (pers. comm., Preston 2001).

**Table 5.1-3. Estimated labor, operating expense, and maintenance costs of DPR operations at LOSRA.**

Fiscal Year	Estimated LOSRA Labor Total <sup>1</sup>	Estimated LOSRA Operations Engineering and Maintenance Total <sup>2</sup>	Total LOSRA FY Estimate	Total LOSRA FY Estimate Adjusted for 2003*
96-97	\$ 1,193,389	\$ 391,052	\$ 1,584,441	\$ 1,899,733
97-98	\$ 1,319,914	\$ 792,023	\$ 2,111,937	\$ 2,482,178
98-99 <sup>3</sup>	\$ 1,368,467	\$ 1,614,912	\$ 2,983,379	\$ 3,421,900
99-00	\$ 1,684,122	\$ 1,446,208	\$ 3,130,330	\$ 3,481,395
		<i>Total</i>	\$ 9,810,087	\$ 11,285,206

\* Expenditures adjusted for year 2000 (based on CPI-California).

<sup>1</sup> Includes staff assigned to LOSRA, plus pro-rated estimated costs for DPR District-based expenses (salaries for the District Superintendent, Chief Ranger, Maintenance Chief, administrative staff and other district-wide positions whose workloads are associated with the LOSRA operation a portion of the time).

<sup>2</sup> Includes LOSRA-specific costs for operating expense and maintenance projects, plus a pro-rata share of District-wide bulk purchases (tires, gasoline, lumber, and other such expenses) and the pro-rated share of occupancy in the DPR District Office.

<sup>3</sup> The recent marked increase in Operations Engineering & Maintenance costs is due to one-time funding of facility deferred-maintenance projects, which had been accumulating for many years. Once these maintenance projects are completed, after approximately 3 years, the expenditures will likely resume at their normal/historical rate (unless the California Legislature makes additional special appropriations) completed, after approximately 3 years, the expenditures will likely resume at their normal/historical rate (unless the California Legislature makes additional special appropriations).

Source: pers. comm., Preston 2001.

Prior to DPR's reorganization in 1993, budgets were calculated by park unit, and a series of annual "Statistical Reports" were published that summarized unit-specific operating costs and revenues. The Statistical Report is a compilation of data on the operation and physical aspects of each park unit in the California State Park System, based on the State's fiscal year (July 1 through June 30). It was intended to provide an overview of park unit operations in terms of public usage, revenue generated, and available facilities. The annual past expenditures reported for LOSRA generally increased each year: from \$283,482 (FY 71-72) to \$2,340,090 (FY 89-90). As shown in Table 5.1-4, revenues also increased in almost every year over the 19-year period of record, normally ranging between 14 to 27 percent of operating expenses (DPR, various dates).

**Table 5.1-4. DPR LOSRA attendance and revenue summary, Fiscal Years 71-72 through 89-90.**

Fiscal Year	Expenditures	Adjusted for 2000*	Revenues	Adjusted for 2000*	Revenue as Percentage of Expenditures
1971-72	\$ 283,482	\$ 1,260,881	\$ 99,190	\$ 441,180	47
1972-73	\$ 444,528	\$ 1,913,879	\$ 94,539	\$ 407,029	21
1973-74	\$ 623,340	\$ 2,533,949	\$ 102,449	\$ 416,467	22
1974-75	\$ 761,208	\$ 2,807,155	\$ 116,227	\$ 428,617	18
1975-76	\$ 856,491	\$ 2,862,612	\$ 129,554	\$ 433,002	18
1976-77	\$ 956,974	\$ 3,008,616	\$ 113,921	\$ 358,154	14
1977-78	N/A	N/A	\$ 97,466	\$ 286,278	N/A
1978-79	N/A	N/A	\$ 153,258	\$ 415,986	N/A
1979-80	N/A	N/A	\$ 179,635	\$ 440,395	N/A
1980-81	N/A	N/A	\$ 267,141	\$ 566,702	N/A
1981-82	N/A	N/A	\$ 297,554	\$ 569,063	N/A
1982-83	N/A	N/A	\$ 314,945	\$ 565,800	N/A
1983-84	N/A	N/A	\$ 393,052	\$ 694,696	N/A
1984-85	N/A	N/A	\$ 399,272	\$ 672,377	N/A
1985-86	N/A	N/A	\$ 361,709	\$ 582,198	N/A
1986-85	N/A	N/A	\$ 475,649	\$ 742,352	N/A
1987-88	N/A	N/A	\$ 600,413	\$ 900,104	N/A
1988-89	\$ 2,149,574	\$ 3,082,408	\$ 551,203	\$ 790,404	26
1989-90	\$ 2,340,090	\$ 3,195,685	\$ 625,641	\$ 854,390	27
<i>Total</i>	<i>\$ 8,415,687</i>	<i>\$ 20,665,185</i>	<i>\$ 5,372,818</i>	<i>\$ 10,565,194</i>	

N/A: data not available.

\* Adjusted to 2000 (using the California Consumer Price Index).

Source: Preston 2001.

### **Staffing Levels**

DPR has employed up to 32 staff at LOSRA (pers. comm., Feazel 2002), although for various reasons some of these positions are intermittently vacant for various lengths of time. Management and patrol of the park is conducted by 11 Rangers, 2 Supervising Rangers, and 1 Chief Ranger; the latter provides support to all 13 parks in the Northern Buttes District. General maintenance, including maintenance of all recreation-related facilities, is carried out by four staff at the Park Maintenance Worker I level, two staff at the Park Maintenance Worker II level, and five Park Maintenance Assistants. Maintenance activities are overseen by the Park Maintenance Chief and two Park Maintenance Supervisors. Furthermore, park and maintenance equipment and grounds are maintained separately by the Grounds Maintenance Technician and the Heavy Equipment Mechanic and helper Mechanic, who also provide support services to the 13 parks in DPR's Northern Buttes District. Utilities in the recreation area are overseen by

the water/sewer plant Supervisor. In addition to LOSRA staff, the Northern Buttes District's administrative staff provides additional aid to all units in the DPR District (pers. comm., Feazel 2002). Table 5.1-5 lists the Northern Buttes District Staff as of March 2004.

**Table 5.1-5. DPR Northern Buttes District staff.**

Staffing	Northern Buttes District	Cascade Sector	Clear Lake Sector	Valley Sector	Lake Oroville Sector	Administrative Services	District Specialists
Superintendent V	1	NA	NA	NA	NA	NA	NA
SPS I / II / III AO III, PMC I / III	NA	SPS II: 1	SPS I: 1	SPS III: 1 PMC I: 1	(shared with Valley Sector)	AO III: 1	PMC III: 1
Visitor Services	NA	6	4	7	14	NA	NA
Maintenance Services	NA	5	5	5	11	NA	NA
Administrative Services	NA	1	NA	NA	NA	4	NA
Historic	NA	2	NA	NA	NA	NA	NA
Support Services	NA	NA	NA	NA	NA	NA	4
Totals	1	15	10	14	25	5	5

PMC: Park Maintenance Chief, SPS: State Park Superintendent, AO: Administrative Officer

NA: Not applicable to the specific District or Sector.

Source: pers. comm., Feazel 2004.

Interpretive programs involved more than 1,839 volunteer hours in 2002, and DPR recorded a total of 9,079 volunteer hours for all volunteer activities within the study area, including administration, campground and park host activities, maintenance and housekeeping, public safety, resource management, and public relations (DPR 2002b).

### **Existing and Planned Activities**

California Public Resources Code (Section 5019.56) allows DPR to undertake improvements to provide for a number of recreational activities, including camping, picnicking, swimming, hiking, bicycling, horseback riding, boating, and water sports. Specific recreational facilities are described in Relicensing Study R-10 – *Recreation Facility Inventory and Condition Report*, and recreation management is discussed further below.

As required by the Davis–Dolwig Act, DPR is responsible for designing and constructing public recreation facilities at SWP facilities; establishing and enforcing standards for the development, operation and maintenance of public recreation areas at SWP facilities; and implementing recreation proposals included by DWR in plans (where funded by the Legislature). Additionally, once financed, the DPR oversees design, construction, operation, maintenance, and management of recreation components; manages SWP lands as a State Recreation Area; and submits designs and plans to DWR for

determination that proposed recreation development and operation will not impair the other purposes of the SWP (pers. comm., Tabor 2004).

### Department of Park and Recreation Reservation System

DPR's campground and tours reservation system has been in place since 1970. Reservations are now made over the phone or through DPR's Website and can be made up to 6 months in advance. Prior to the implementation of the reservation system, DPR used a first-come, first-served approach that was often not time-efficient. The existing reservation system is working to DPR's satisfaction. The public is sometimes dissatisfied with how quickly campgrounds fill up; however, this is due to demand for key time frames and sites far outweighing the supply, and not a flaw in the reservation system (pers. comm., Luscutoff 2004).

#### **5.1.1.6 California Department of Fish and Game**

DFG is a department within the California Resources Agency. Its mission is "to manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public" (DFG 2004).

DFG maintains native fish, wildlife, plant species, and natural communities for their intrinsic and ecological value and their benefits to people. This includes habitat protection and maintenance in a sufficient amount and quality to ensure the survival of all species and natural communities. DFG is also responsible for the diversified use of fish and wildlife including recreational, commercial, scientific, and educational uses (DFG 2004).

DFG is responsible for managing all fish and wildlife resources in the State. Fishing is the dominant recreational activity in the study area, with the most number of participants on an annual basis (Guthrie et al. 1997; EDAW 2003a), making fisheries management an important aspect of recreation management in both LOSRA and the Feather River.

DFG manages the Feather River Fish Hatchery both for fish stocking and salmon fishery mitigation and as an interpretive facility open to the public. In addition to fish and wildlife management, DFG has the authority to regulate hunting and fishing throughout the study area, including within the LOSRA. Although fish and wildlife management falls under DFG authority, DPR Rangers also have the authority to enforce hunting and fishing regulations and the DFG Code in the LOSRA (pers. comm., Feazel 2002). Fish and wildlife management and recreation and DFG management activity within the study area is detailed in Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation*.

## **Management Plans and Goals**

The management plans that apply to DFG recreation management activities are discussed in Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation*.

DFG manages nearly 12,000 acres of land within the study area (17 percent of the total study area). Most of this area (11,200 acres) is located within the FERC boundary. DFG manages fish and wildlife habitat and associated recreational use for both surface water and dry lands within the LOSRA and OWA and operates the Feather River Fish Hatchery.

DFG is the managing agency for the OWA. The OWA was formally established by DWR in 1968 under the provisions of the Davis–Dolwig Act. Initially, part of this area was known as the Oroville Borrow Area, which was the source of clay and aggregate for the construction of the Oroville Dam. DWR acquired the Oroville Borrow Area in the public interest for fish and wildlife enhancement and recreational use in 1962. By 1968, a total of 5,500 acres were transferred from DWR to DFG for creation of the OWA. Additional acreage was transferred from DWR to DFG for inclusion in the OWA through a series of transfer agreements between 1973 and 1986. Under the 1968 agreement, DFG agreed that it would be solely responsible for the operation and maintenance of the OWA.

Management of the Thermalito Afterbay water surface and adjoining State shoreland “as may be necessary for access and use during waterfowl hunting season” was transferred to DFG through an agreement with DWR (DWR and DFG 1973). That agreement required DFG to provide and maintain bathroom facilities and parking areas, install and maintain safety warning signs where necessary, and clean up the Thermalito Afterbay area following hunting season.

A subsequent agreement between DWR and DFG, dated January 24, 1986, transferred “an easement for such management of the Thermalito Afterbay water surface and adjoining lands to use as a wildlife area and associated recreation,” and states that the “operation and maintenance of the subject property as a wildlife habitat area shall be the sole responsibility of [DFG], and [DWR] shall not be liable for any costs arising from such operation and maintenance.” OWA currently encompasses 11,870 acres, including Thermalito Afterbay (pers. comm., Atkinson 2003; DFG Lands and Facilities Branch website).

In 1978, DFG developed the *Oroville Wildlife Area Management Plan*. The purpose of the Management Plan was to provide for the preservation and enhancement of the OWA and for the reasonable use and enjoyment by the public. The Management Plan describes the plan’s purpose, description of the area, history of the site, present (as of 1978) situation and problems, and recommended action programs. The Management Plan also states that destructive uses and activities incompatible with wildlife and

fisheries objectives (that were present at the time the Management Plan was written) will be eliminated through enforcement of existing regulations or development of additional regulations if necessary.

As previously mentioned, DFG also operates and manages the Feather River Fish Hatchery, which was opened in 1967 to compensate for the loss of salmon and steelhead spawning habitat resulting from the construction of Oroville Dam. The hatchery is operated by DFG, with substantial funding and maintenance provided by DWR. In addition, DFG studies and manages the warm- and cold-water fisheries in Lake Oroville and assists with DWR's habitat improvement and fish stocking programs.

DFG also maintains authority over all hunting and fishing activities and regulations at LOSRA, and over all activities that have the potential to affect wildlife or wildlife habitat (Davis–Dolwig Act). In addition, DFG has permitting authority over projects throughout the study area, including issuing authority for Fish and Game Code Section 1600 Agreements, which apply to projects that would affect the flow, bed, channel, or bank or any river, stream, or lake (pers. comm., Atkinson 2003). Fish and wildlife management in the study area, including hatchery operation and management, is detailed in Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation*.

### **Organizational Structure**

DFG is divided into three functional divisions including the Administrative Division, the Habitat Conservation Division, and the Wildlife and Inland Fisheries Division (Figure 5.1-8). There are seven DFG Regions in California. Lake Oroville is located within Region 2, or the Sacramento Valley-Central Sierra Region. The Region 2 headquarters are in Sacramento County.

As stated above, DFG has management authority over all wildlife and fishery resources throughout California. Thus, fish and wildlife resources in the LOSRA are under DFG management under the authority of the Davis–Dolwig Act (Water Code Section 11917), with all projects subject to DWR approval to ensure compatibility with the purposes and uses of the Oroville Facilities.

### **Budget**

DFG is generally funded by the sale of fishing and hunting licenses and federal matching grants based on those license sales. Between 1989 and 2000 DFG has spent nearly \$700,000 (adjusted to 2003 dollars) in the Project area. DFG currently dedicates approximately \$52,990 per year of the \$325,000 spent annually at the OWA to wildlife-related recreation activities. All of these expenditures either directly or indirectly support the purpose of sustainable fisheries. Financial expenditures include monitoring of the fishery, fish pathology, studying the benefits of recreational fishery, operation of management lands, fish population surveys, and law enforcement. Further information

on DFG budgeting in the Project area is provided in Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation*.

### **Staffing Levels**

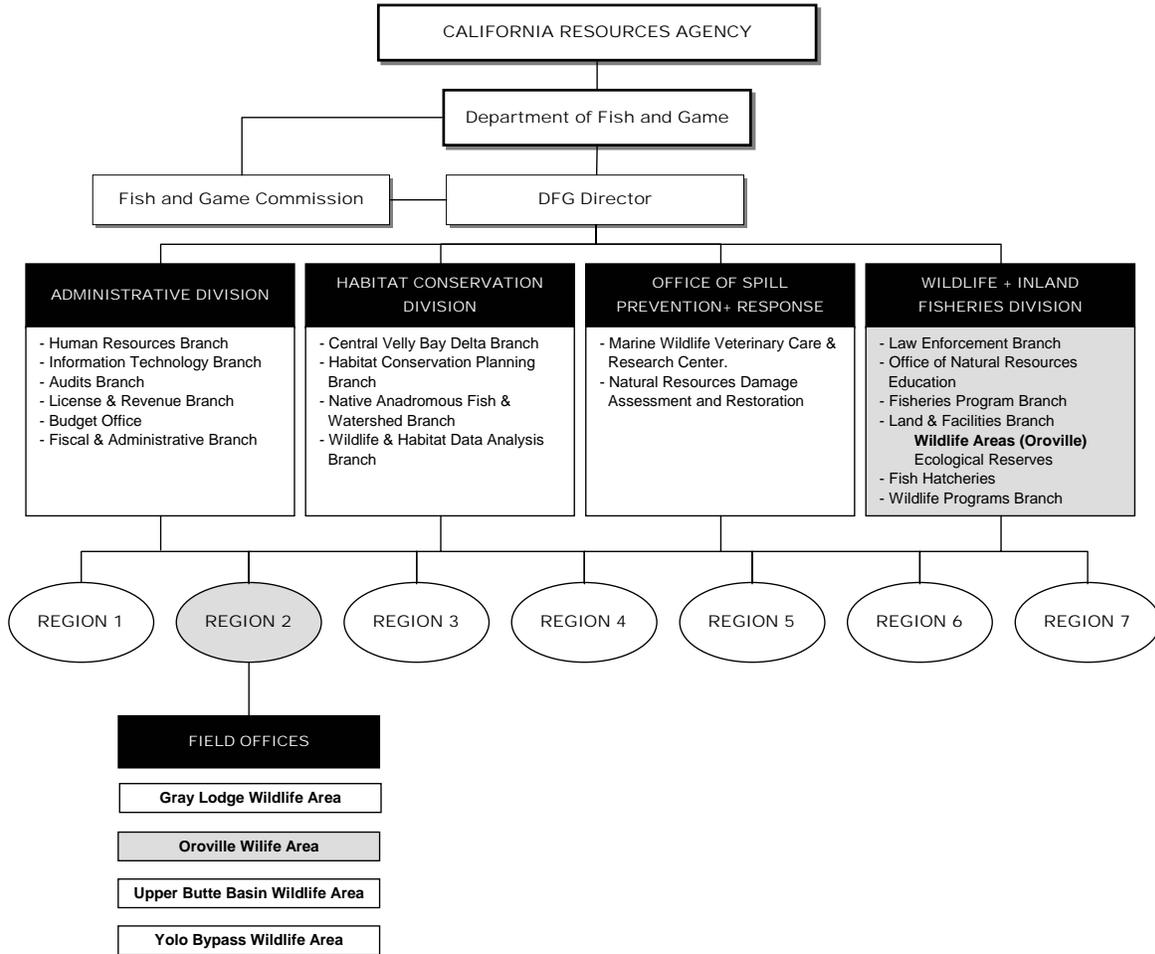
Until 2004, DFG maintained three employees at its OWA office. Staff at the OWA includes one Area Manager who works one-third time at the OWA, two-thirds time at other wildlife areas, and also serves as the acting Lead Lands Supervisor for the entire Sacramento Valley-Central Sierra Region. Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation* presents more information regarding DFG staffing.

### **Existing and Planned Management Activities**

The Habitat Conservation Division runs the Resource Assessment Program to assess and inventory the State's wildlife resources. In addition, DFG is funded by CALFED to implement the Natural Communities Conservation Program, which takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity. A Natural Communities Conservation Plan identifies and provides for the regional or area-wide protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity.

Other programs operated by DFG and implemented in the Oroville area include the Bear Management Program, Deer Management Program, Waterfowl Program, Game Bird Heritage Program, and the Wild Turkey Strategic Plan. The Game Bird Heritage Program includes annual "junior" pheasant hunts in the Thermalito Afterbay area, and turkey hunts in the OWA.

**Figure 5.1-8. DFG’s organizational structure.**



Source: DFG 2004.

**5.1.1.7 California Department of Boating and Waterways**

DBW, another department of the California Resources Agency, administers a number of programs, including boating and aquatic safety education and training programs, boat and yacht licensing programs, and programs that fund the development of public-access boating facility projects. DBW funds and constructs various projects at LOSRA and OWA related to boating and boating-related facilities, including boat-in facilities, launch ramps and associated parking areas, floating restrooms, other restrooms at boat ramps, and general renovation of boating facilities. Projects pursued by DBW are typically proposed following suggestions from other agencies and from the public through DBW’s public outreach programs. Following construction, the responsibility for operation and maintenance of facilities is turned over to the appropriate land managing agency—in this case it is DPR (LOSRA) or DWR

(Thermalito Afterbay). DBW neither owns nor manages any recreational facilities or activities within the study area (pers. comm., DiGiorgio 2003).

### **Management Plans and Goals**

DBW's most current management plan, The *California Boating Facilities Needs Assessment*, includes a comprehensive assessment of boats and boating facilities Statewide. It also includes an analysis of existing boats and facilities, as well as projections of boating facility needs through 2020. The Boating Needs Assessment, conducted approximately every five years, is used to assist DBW to allocate funding for boating facilities, including launch ramps, dry storage, marinas, and support features. DBW also publishes reports that address various topics such as safe boating tips, boating laws, tips for buying a used boat, and boating trail guides for certain lakes and rivers (DBW 2002).

The mission of DBW is to improve access to the water for the recreational boating public, and to make sure that boating is as safe as possible. A major step toward accomplishing this mission is providing free boating information to the boating public, and the Internet provides expanded opportunities for doing this. The DBW has taken advantage of the Internet by providing boaters with the latest information on boating safety, education, law, and access (DBW 2002).

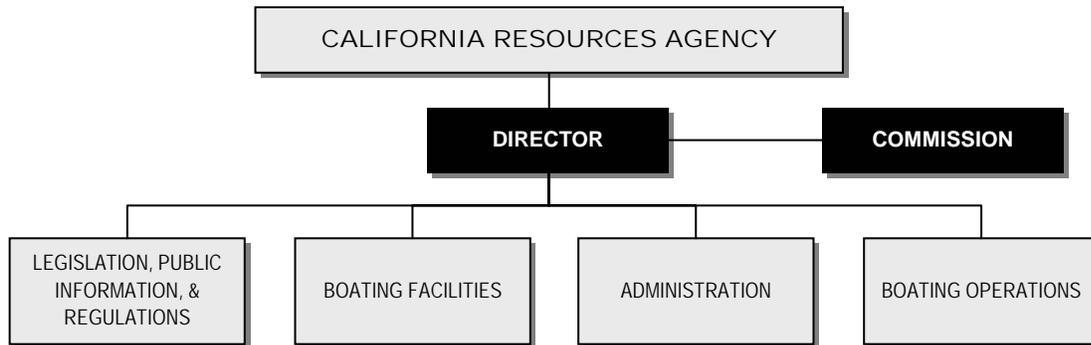
DBW serves an estimated 3 million California boaters (DBW 2002). DBW's management goals are the same throughout the State and are not site specific (pers. comm., DiGiorgio 2003).

### **Organizational Structure**

The Department's management team includes a Director, who is appointed by the Governor, and the managers within DBW's four Divisions, as illustrated in Figure 5.1-9 (pers. comm., DiGiorgio 2003).

The Boating and Waterways Commission is composed of seven members appointed by the Governor, with the consent of the State Senate. The length of each term of appointment is 4 years. In making appointments to the Commission, consideration is given to the geographical location of the residence of each member as it relates to boating activities and harbors.

**Figure 5.1-9. DBW's Structure.**



Source: pers. comm., DiGiorgio 2003.

The Commission is mandated to advise DBW with respect to all matters within the jurisdiction of the Department, and all loans and grants made by DBW must have its consent.

Additionally, although individual projects are completed by individual agencies, DWR, DPR, DBW, and DFG meet every 4 to 6 weeks to keep each other informed of activities related to recreation. A DBW Engineer assigned to projects in Butte County usually attends the coordination meetings (pers. comm., Rischbieter 2004).

### **Budget**

Revenue for DBW is derived from vessel gasoline taxes, registration fees, and small craft harbor loan repayments, which are provided to the State Harbors and Watercraft Revolving Fund.

DBW funding allocations and budget are determined based on the needs of each geographic area. DBW's budget includes funding for boat-in facilities, parking area construction and improvements, boat-launch ramp construction and improvements, floating restroom facilities, on-land restroom facilities, and general renovation of facilities. When a potential project is identified, it is evaluated by DBW. DBW then develops their budget for the project (pers. comm., DiGiorgio 2003).

DBW has spent \$9.4 million on constructing and maintaining boating facilities that support boating at LOSRA since 1995. When this amount is adjusted (normalized) to 2002 using the Consumer Price Index for California, DBW expenditures for recreation-related projects at LOSRA is \$18 million (Table 5.1-6).

The annual statewide DBW budget as reported in DBW's 23rd Biennial Report was \$90-\$100 million in 2002 (DBW 2002). In 2004, \$81 million of DBW funding had been transferred from DBW to the DPR resulting in a revised DBW annual budget of \$9-\$19 million (pers. comm., DiGiorgio 2004).

**Table 5.1-6. DBW's facility construction within the study area.**

Project Location	Start of Construction	Construction Completed	Cost	Facilities
<b>CAMPGROUNDS</b>				
Bidwell Canyon BR	Nov 6th, 1981	Dec 12th, 1981	\$25,600	Drainage and parking
	1978	1979	\$43,000	<i>Project details unavailable.</i>
Bloomer Cove BIC	1973	1974	\$243,700	70 boat-in sites
<b>DAY USE AREAS (DUA) and BOAT RAMPS (BRs)</b>				
Bidwell Canyon BR/ DUA	Nov. 2002	Feb. 2003	\$160,000	Extend launch ramp
	Oct. 1995	Jan. 1996	\$187,200	Construction of concrete ramp & drainage improvements
	Sept. 9th, 1992	Dec. 10th, 1992	\$182,000	Construct parking area and 3 concrete boat ramp lanes.
	1990	1991	\$159,700	Boat Ramp Extension
	Nov. 1st, 1989	Dec. 15th, 1989	\$156,800	Concrete ramp overlay
	Nov. 21st, 1988	Dec. 15th, 1988	\$37,300.	Concrete boat ramp extension
Enterprise BR	Nov 6th, 1981	Dec 12th, 1981	\$25,600.00	Drainage and parking
	1975	1976	\$46,000	
Lake Oroville Visitors Center	1973	1974	\$15,000	<i>Project details unavailable.</i>
	1970	1971	\$15,000	<i>Project details unavailable.</i>

**Table 5.1-6. DBW's facility construction within the Project area (continued).**

Project Location	Start of Construction	Construction Completed	Cost	Facilities
Lime Saddle BR/ DUA	Nov. 2002	Feb. 2003	\$170,000	Extend launch ramp
	2000	2000	\$34,000	Shore embankment reconstruction
	1998	1999	\$46,000	Fuel Containment
	1993	1994	\$1,500,000	Additional parking, maneuvering area, lighting, gas storage
	Oct. 8th, 1992	Mar. 22nd, 1993	\$184,700	Ramp extension
	Aug. 30th, 1990	Nov. 16th, 1990	\$111,700	Extending existing ramp
	1983	1984	\$87,000	<i>Project details unavailable.</i>
	1975	1976	\$112,000	Extend Ramp
	1971	1972	\$120,000	3 lane ramp and parking
Loafer Creek BR	1998	1999	\$114,000	Lighting Improvement
	Nov. 1986	Apr. 3rd, 1987	\$16,100	Boat boarding floats and anchors
	1976	1977	\$6,600	Guide rail extension
	1975	1976	\$3,600	Guide rail extension
	1972	1973	\$60,000	<i>Project details unavailable.</i>
	1966	1967	\$274,500	7 lane ramp, etc
Spillway BR/DUA	2001	2003	\$3,000,000	Facility renovation (includes A&E fees)
	1996	1997	\$129,000	Concrete Block Restroom and Utilities
	Jun. 30th, 1990	May 15th, 1991	\$41,800.00	2 Boat boarding floats
	1974	1975	\$84,700	Restroom & miscellaneous
	1968	1969	\$391,800	4 lanes
	1965	1966	\$267,800	16 lanes
Thermalito Afterbay (Monument Hill) BR/ DUA	Oct. 1998	Apr. 1999	\$157,000	Parking Improvement
	Aug. 4th, 1998	Jan. 1st, 1999	\$47,000.00	Boat boarding floats and concrete brow
	Oct. 1st, 1993	Oct. 20th, 1994	\$15,900.	Boat boarding floats and gangway

**Table 5.1-6. DBW's facility construction within the Project area (continued).**

Project Location	Start of Construction	Construction Completed	Cost	Facilities
Thermalito Afterbay (North Wilbur Road) BR	1998	1999	\$48,500	Boat boarding floats and piles
	Dec. 8th, 1993	Jan. 26th, 1994	\$163,900.	Construct 2 lane concrete boat launching ramp
	1975	1976	\$25,000	<i>Project details unavailable.</i>
	1966	1967	\$12,100	2 lanes
Thermalito Afterbay (Larkin Road) Car-top BR	Feb. 1999	Feb. 2000	\$122,900	Construct entry road, extruded concrete curbs and other miscellaneous work.
North Thermalito Forebay DUA	2000	2001	\$137,000	Renovate parking
	1998	1999	\$197,400	New restroom, utilities & improvements
	1997	1998	\$7,000	Marine Flagpole
South Thermalito Forebay BR/DUA	1970	1971	\$44,400	2 lanes in North and 4 lanes in South
	1966	1967	\$46,700	2 lanes
Lake Oroville Floating Restrooms	1995	1996	\$140,100	Floating Restrooms
	Oct. 11th, 1983	May 24th, 1984	\$75,300	Floating Restrooms
	Jan. 12th, 1983	Unknown	\$42,000	Floating Restrooms
	May, 1974	Unknown	\$60,000	Floating Restrooms

Source: pers. comm., DiGiorgio 2004.

### **Staffing Levels**

There are currently about 75 DBW staff members in Sacramento. No specific group within DBW manages or works specifically for the LOSRA (pers. comm., DiGiorgio 2003).

### **Existing and Planned Management Activities**

Currently, DBW provides many boating access and safety programs which include the following:

#### **DBW Access Programs**

- Loans funds to cities, counties, and districts for the planning, design and construction of small craft harbors; provides loans to businesses for the development of recreational marinas;
- Grants funds to public agencies for the planning and construction of boat launching facilities, floating restrooms, and vessel sewage pump out facilities;
- Plans, designs, finances and constructs boating facilities in the State Park System, at SWP reservoirs, and on State lands;
- Conducts an aquatic weed control program in the Delta and its tributaries. Work consists of control of water hyacinth and *Egeria densa*;
- Grants funds to local agencies for coastal beach erosion control measures, including sand replenishment, to protect coastal resources;
- Coordinates, plans and funds access projects for the State's river boating trails for non-motorized vessels; and
- Conducts oceanographic research at the Scripps Institution of Oceanography.

#### **Safety Programs**

- Provides funding, equipment and training to local boating law enforcement agencies.
- Provides grants to universities, colleges and nonprofit organizations who teach boating safety education.
- Promotes boating safety and education by distributing more than 1 million copies annually of 50 different titles of boating safety literature including a free "home study" boating course.
- Makes an aquatic safety program available to all California public schools.
- Licenses yacht and ship brokers and for-hire vessel operators.

DBW's only construction project that is currently planned for the LOSRA is the removal and replacement of the existing restroom facility at the Bidwell Canyon BR. The cost is expected to be approximately \$350,000 and construction will likely occur during FY 2003-2004. Due to Statewide budget cuts, future DBW projects at LOSRA may be impacted (pers. comm., DiGiorgio 2004).

#### **5.1.1.8 Feather River Recreation and Parks District**

The FRRPD, established by Butte County in 1952 to provide recreation and park services to the residents of the City of Oroville and surrounding communities, is a special assessment district encompassing 700 square miles of southeastern Butte County (City of Oroville 1995; FRRPD 2002). The FRRPD owns or leases ten parks, three community buildings, two public pools, several sports fields, playgrounds, picnic areas, and assorted park amenities, several of which lie near or adjacent to the study area (City of Oroville 1995; FRRPD 2003). In addition to parks and recreation facilities, the FRRPD offers a variety of programs, including youth and adult sports leagues, summer day camps, and classes for youth, adults, and seniors. Classes range from sailing lessons, swimming lessons, and lifeguard training, including first aid and cardiopulmonary resuscitation (CPR), hunter safety, and a variety of dance classes (FRRPD 2003).

#### **Management Goals**

FRRPD's mission is "creating community through people, parks and programs" (FRRPD 2003). FRRPD owns and/or manages several recreation areas and facilities near or adjacent to the study area, including:

- Riverbend Park–Corridor (157 acres);
- Gary Nolan Sports Complex, including Mitchell Field (15.3 acres)
- Nelson Park and Sports Complex (30 acres);
- Municipal Auditorium (18,000 square feet, on 1 acre);
- Feather River Parkway, Bedrock Park and Tennis Courts (15.5 acres);
- Martin Luther King Park (5.6 acres);
- Forbestown Park and Community Center (3.7 acres);
- Playtown Park (2.8 acres);
- Palermo Community Building (0.9 acres); and
- Wildlife Area Fishing Ponds (10 acres).

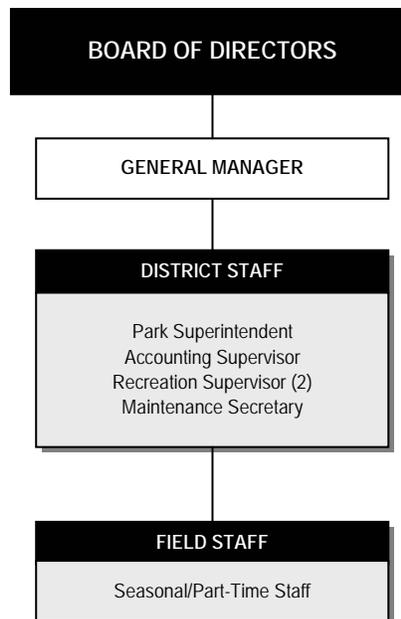
The District provides routine maintenance of the community/neighborhood parks, sports fields, swimming pools, community centers and special facilities at the above locations. In addition, the District provides recreation programs and activities to more than 40,000 youth, teens, adults and senior citizens (pers. comm., Lawrence 2003).

## **Organizational Structure**

FRRPD is a special district funded for the most part by property tax assessments on the residents of the geographical area of Butte County it serves (Figure 5.1-10). A five-person Board of Directors provides oversight for FRRPD.

FRRPD coordinates with DWR, DBW, and DFG to enhance the recreational opportunities available in and around the study area (pers. comm., Lawrence 2003). Coordination with State agencies includes the FRRPD's leasing and management of several areas owned by DWR and cosponsorship of several public and educational special events.

**Figure 5.1-10. FRRPD Organizational Structure.**



Source: pers. comm., Lawrence 2003.

## **Budget**

FRRPD's current budget is \$1.3 million, which does not include grants. Approximately 54 percent of the budget, roughly \$712,000, is for Park Maintenance and Operations (pers. comm., Lawrence 2004).

## **Staffing Levels**

The FRRPD main office is staffed by 11 people, including a General Manager, a Park Superintendent, two Recreation Supervisors, an Accounting Supervisor, and a Maintenance Secretary. At most times, however, there are approximately 50 people on

the payroll, ranging from part-time sporting officials to park maintenance workers. As mentioned above, the District is overseen by a Board of Directors (Figure 5.1-10).

### **Existing and Planned Activities**

Activities at FRRPD parks and facilities near and adjacent to the study area include passive and active day uses, after-school programs, youth sports, and educational programs (pers. comm., Lawrence 2003).

Recreational development planned at a number of FRRPD sites that are funded by DWR and DBW includes the proposed development of Riverbend Park. In addition, FRRPD continues to operate softball fields and develop soccer fields on land leased from DWR, adjacent to the Nelson Sports Complex. FRRPD will also be involved with the continuation of the DWR-funded Aquatic Adventure Camp, which provides sailing, kayaking, and water safety courses to at-risk youth in the North Thermalito Forebay, Bidwell Marina, and Loafer Creek areas of Lake Oroville. FRRPD has an agreement with DFG to manage the OWA east of the Feather River and south of State Route (SR) 162, known as the Wildlife Area Fishing Ponds (pers. comm., Lawrence 2003, 2004).

#### **5.1.1.9 Butte County**

Butte County does not maintain a department or agency responsible for providing recreation opportunities. All recreation within Butte County is managed by cities and recreation districts. Butte County is represented on ORAC, a recreation advisory group created by FERC Order. The Butte County Counsel assisted in drafting the Lake Oroville Joint Powers Agreement that created the JPA (see Section 5.1.1.12 Joint Powers Authority for a discussion of ORAC and JPA's recreation management role). The specific vehicle through which the County's long-term recreation interests are represented in the Oroville Facilities relicensing is the Butte County Relicensing Team.

### **Management Goals**

Although Butte County owns no recreational land within the study area, the entire study area lies within the County, and all development within County jurisdiction is subject to the policies detailed in the Butte County General Plan and Zoning Ordinance (DWR 2001b). The Recreation Element of the General Plan states that although Butte County has limited recreation planning involvement (which is the responsibility of the recreation districts) the County is responsible for development of regional parks or recreation areas. The County's primary functions in terms of parks and recreation are to conserve large natural open spaces suitable for parks and recreation development and to encourage the development of recreational facilities that will be used by County residents, tourists, and other County visitors (Butte County 1996). For recreation within the study area, the primary role of the County has been to:

- Encourage the development of day-use and overnight facilities by DPR and DWR and the conservation of fish and wildlife resources and habitats by DFG;

- Seek funding available from State and federal sources for the development of further recreation facilities; and
- Maintain open space, surface waters, and waterways in and near the study area.

#### **5.1.1.10 City of Oroville**

The Oroville city limits encompass all Project lands south of Lake Oroville and west of Saddle Dam, including the shoreline of Lake Oroville between Saddle Dam and the northeastern edge of the Oroville Dam spillway, Thermalito Diversion Pool, Thermalito Forebay, Thermalito Afterbay, the low-flow channel of the Feather River, and OWA (Figure 5.1-3).

The City of Oroville owns and manages approximately 146 acres within the study area, but does not own or manage any lands within the Project boundary (DWR 2004a). Outside of the Project boundary, the City of Oroville owns a number of public parks, and has proposed a number of future parks as well (City of Oroville 1995). These parks are managed by the FRRPD and discussed in Section 5.1.1.8.

#### **Management Plans and Goals**

Although the City does not own any lands or manage activities within the Project boundary, the City of Oroville General Plan includes objectives and implementing policies pertaining to recreation, including:

- Lake Oroville and Facilities – Development (parking, camp, picnic, boat ramp, comfort station, trailer, food, gasoline, oil, water, observation points and other facilities to serve the recreation minded public) is proposed at the following facilities: Lime Saddle, Foreman Creek, Bloomer, Craig, Kelly Ridge, Forebay, Loafer Creek, Goat Ranch, Afterbay, Potter Ravine, Fish Hatchery, etc. Development Agencies: County, Recreation District, and DPR (City of Oroville 1995).

The Land Use Element of the General Plan designates several areas near the Project boundary as “Parks.” This land use designation is described below:

- Parks – This land use category includes public parks, golf courses, or other appropriate uses. A recreational vehicle (RV) park or campground may be permitted as a conditional use within areas designated as Park. Within the City, this land use includes the Table Mountain Golf Course, located adjacent to the OWA in the Thermalito Planning Area. Within Oroville’s unincorporated planning area, park lands are primarily located near the Oroville Dam, and contain such recreational areas as the Bidwell Canyon Campground, the Lake Oroville Visitors Center, and the Dan Beebe trail, which are managed by DPR.

All development and activity within the Oroville city limits is subject to the policies and zoning regulations outlined in the City's General Plan and Zoning Ordinance. Objectives detailed in the General Plan pertaining to open space, natural resources, conservation, parks, and recreation serve as a policy framework for activities and developments within the city limits. The City's policies encourage the protection of open space and natural resources, development of recreational opportunities, and cooperation with State and local agencies involved in recreation and resource management, including DPR, DFG, and FRRPD (City of Oroville 1995).

### **Organizational Structure**

The City of Oroville has delegated its recreation management role to FRRPD, and does not have a parks and recreation department. The City's Department of Parks and Trees is housed in the Operations Branch of City Government and maintains the City's tree program.

#### **5.1.1.11 State Water Contractors**

SWC is a non-profit organization made up of 27 of the 29 urban and agricultural water suppliers in Northern California, the San Francisco Bay Area, the San Joaquin Valley, the Central Coast, and Southern California who receive water from the SWP and deliver it to approximately two-thirds of the State's population (DWR 2004a). The SWC formed in 1982 to represent the interests of the SWP recipients.

While primarily concerned with SWP operations and the FERC relicensing project, the SWC also facilitates discussions among its members regarding the energy industry, fisheries, and topics related to the Bay-Delta. The organization represents the 27 agencies' interests and follows legislative and DWR decisions affecting water and costs of delivery.

### **Management Goals**

Specific SWC objectives include the following:

- Timely completion of SWP facilities under construction;
- Proper and efficient operation of the SWP;
- Protection of water rights needed by the SWP;
- Review of litigation affecting the SWP;
- Presentation of the views of SWC members to legislative and administrative agencies, to the public generally and to other interested groups; and
- Development and maintenance of a public information program about the SWP (SWC 2004).

## **Organizational Structure**

SWC is a non-profit, quasi-governmental organization, of which the following are member agencies:

- Alameda County Flood Control and Water Conservation District Zone 7;
- Alameda County Water District;
- Antelope Valley-East Kern Water Agency;
- Casitas Municipal Water District;
- Castaic Lake Water Agency;
- Central Coast Water Authority;
- City of Yuba City;
- Coachella Valley Water District;
- County of Kings;
- Crestline-Lake Arrowhead Water Agency;
- Desert Water Agency;
- Dudley Ridge Water District;
- Empire-West Side Irrigation District;
- Kern County Water Agency;
- Littlerock Creek Irrigation District;
- Metropolitan Water District of Southern California;
- Mojave Water Agency;
- Napa County Flood Control and Water Conservation District;
- Oak Flat Water District;
- Palmdale Water District;
- San Bernardino Valley Municipal Water District;
- San Gabriel Valley Municipal Water District;
- San Geronimo Pass Water Agency;
- San Luis Obispo County Flood Control and Water Conservation District;
- Santa Clara Valley Water District;
- Solano County Water Agency; and
- Tulare Lake Basin Water Storage District.

Butte County and Plumas County are the only two water contractors that have not joined SWC. Butte and Plumas Counties each maintain water entitlements but have not chosen to join SWC primarily because they have not needed SWC representation (pers. comm., Jones 2004).

## **Budget**

The 27 water contractors fund all water supply-related costs of the SWP for an allocation of approximately 3,000,000 acre feet. These costs amounted to \$866,000,000 in 2003 (pers. comm., Coburn 2004). This represents about 94 percent of the annual costs for operation and maintenance of SWP facilities. The remaining costs are funded by the federal government for joint operation of the San Luis Facilities (3 percent), and by the California State General Fund for recreation and fish and wildlife enhancement (3 percent).

Contractors also fund about 89 percent of SWP capital expenditures made through 1995, which were funded by bonds. Repayment of the remaining 11 percent comes from the federal government for flood control (2 percent), the State General Fund for

recreation and fish and wildlife enhancement per the Davis–Dolwig Act (5 percent), and the rest from miscellaneous sources (DWR 2004a).

If the State of California is not able to make a payment for recreation and fish and wildlife enhancement, SWC would be responsible for those costs (pers. comm., Jones 2004). It is estimated that SWC will pay \$12 to \$15 million for recreation and fish and wildlife enhancement in 2004. Total payments by SWC over the past several years for recreation and fish and wildlife enhancement have exceeded \$100 million (pers. comm., Coburn 2004).

Table 5.1-7 shows the percentage of SWC funding responsibilities to the SWP relative to other funding sources.

**Table 5.1-7. Funding responsibilities to the SWP.**

Funding Source	SWP Water-Supply Related Costs (Reimbursements to DWR)	SWP Capital Expenditures (Bond Repayments)
SWC	94%	89%
Federal Government for joint operation of San Luis Facilities	3%	
Federal Government for Flood Control		2%
State General Funds for recreation and fish and wildlife enhancement	3%	5%
Miscellaneous	0%	4%
Total	100%	100%

Source: DWR 2003.

All contractors pay the same rate per acre-foot for the cost of constructing and operating facilities that store and convey the SWP water supply. In addition, each contractor pays a transportation charge which covers the cost of facilities required to deliver water to its service area. Thus, the contractors more distant from the Delta pay higher transportation charges than those near the Delta (DWR 2004a).

Full payments are made each year for fixed SWP costs regardless of the variations in water deliveries that occur from year to year. Fixed costs include those for operation, maintenance and debt service. Contractors also pay costs that vary depending on the amount of water delivered during the year. These include the costs for energy used to pump water to their respective aqueducts (DWR 2004a). The current contract between SWC and DWR is scheduled to end in 2035, however, it is expected that it would be renewed prior to expiration (pers. comm., Jones 2004).

### **Staffing Levels**

SWC has a staff of seven, including a General Manager.

## **Existing and Planned Activities**

SWC continues to monitor energy legislation and the activities of DWR, including those related to the Oroville relicensing.

SWC expects additional capital expenditures will be required before the expiration of its contract with DWR, as equipment ages and requires repair or replacement (pers. comm., Jones 2004).

### ***5.1.1.12 Lake Oroville Joint Powers Authority***

The JPA was created by a legal agreement between several participating agencies including Butte County, the City of Oroville, the Town of Paradise, and the FRRPD. The purpose of the JPA is to facilitate the development and management of recreational facilities at Lake Oroville and its auxiliary structures (JPA 2000).

## **Management Goals**

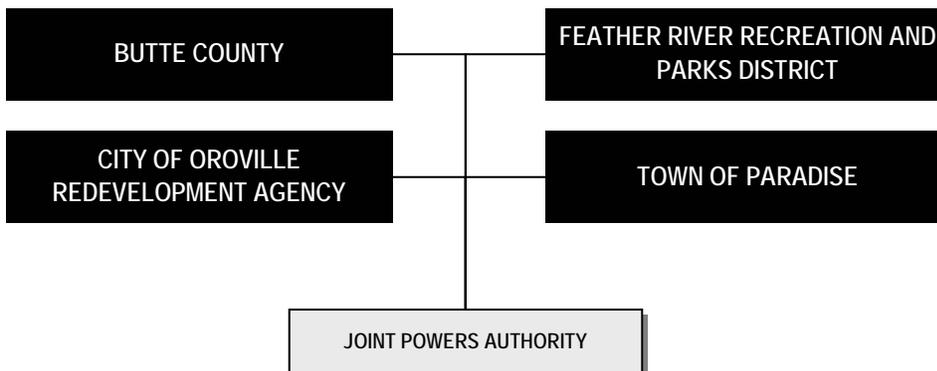
The rationale for the formation of JPA was that the economic interest of the Oroville community, Butte County, and the northern region of the State could be furthered by the development of additional recreational facilities at Lake Oroville, including those facilities developed by the private sector after the development of public infrastructure. Furthermore, JPA holds that cooperation, agreement and trust between all interested local public entities, non-governmental organizations (NGOs), DWR, and SWC is required for the facilitation of the development, preparation, and implementation of an overall recreation and economic development plan. A broad base of citizen involvement, including ORAC, in the economic development planning process is also desired by JPA. According to JPA, citizen involvement can be assured through partnership agreements with non-profit corporations, chambers of commerce, citizen interest groups, and other organizations and groups having a stake in the development of recreational facilities at Lake Oroville (JPA 2000).

## **Organizational Structure**

The JPA was created by an agreement entered into by and between the Redevelopment Agency of the City of Oroville and the County of Butte (referred to as "Initial Constituent Entities"). FRRPD and the Town of Paradise joined JPA as "Subsequent Constituent Entities." The City of Gridley was originally among the Subsequent Constituent Entities, but are no longer members of JPA. Figure 5.1-11 illustrates the organizational structure of JPA.

The member agencies of JPA, according to their agreement signed in January 2000, scheduled the JPA to last for 3 years. This agreement has been extended into 2004. The Mayor of Oroville is the Chair of JPA, and the City of Oroville manages the logistics of JPA meetings, providing support staffing to JPA.

**Figure 5.1-11. JPA Organizational structure.**



Source: pers. comm. Hoffman-Floerke 2004.

### **Budget**

DWR provides funding to JPA with the City of Oroville Redevelopment Agency agreeing to match 25 percent of those funds with “in-kind” services, such as staff time.

### **Staffing Levels**

The City of Oroville supplies JPA with support and clerical staffing. Levels of staffing are in direct relationship to the issues under consideration by JPA at any given time (JPA 2000).

### **Existing and Planned Activities**

JPA locates, describes and identifies issues, opportunities, and problems related to Lake Oroville and other facilities within the Project boundary. It reviews the Project’s existing recreational facilities and use, as well as recommending the need for additions or improvements (JPA 2000).

JPA also researches various funding methods and sources that would allow the construction, operation, maintenance, and replacement of recreational facilities other than those stipulated by FERC. Finally, JPA explores the availability of various entities (private citizens, local groups, special districts, the constituent entities of JPA, the State of California, and the federal Government) that could support the construction, operation, maintenance, and replacement of those facilities already mandated by FERC (JPA 2000).

#### **5.1.1.13 Relicensing Recreation Stakeholders**

Agencies, businesses, interest groups, and other community organizations listed in Table 5.1-8 have been represented at Recreation and Socioeconomics Work Group meetings. These stakeholders have been actively involved in describing issues related

to recreation and socioeconomics at the Oroville Facilities, and developing study plans to address these issues. Stakeholders are also involved (to varying degrees) in the process of reviewing the results of these studies and recommending future resource actions related to recreation and socioeconomics.

**Table 5.1-8. Oroville Facilities relicensing recreation stakeholders.**

African American Community	Harten Whitewater
American Whitewater	Kern County Water Agency
Angler's Choice	Kon Kow Tribe
Berry Creek Improvement Club	Lake Oroville Bicyclist's Organization
Black Bass Action Committee	Lake Oroville Fish Enhancement Committee
Butte County	JPA
Butte County Citizens for Fair Government	Metropolitan Water District of Southern California
Butte County Development Services	Mooretown Rancheria
Butte County Relicensing Team	National Park Service
Butte County Taxpayers Association	Native American Coalition
Butte Sailing Club	Operating Engineers Local #3
California Autochthon Peoples Foundation	The Opportunity Bulletin
DBW	Oroville Air Corps
DFG	Oroville Chamber of Commerce
DPR	Oroville City Council
DWR	Oroville Foundation of Flight
California Entities	Oroville Model Airplane Club
California State Horseman's Association	Oroville Pageant Riders
California Waterfowl Association	ORAC
Center for Economic Development – CSU, Chico	Oroville Water Ski Club
Chico Area Flyfishers	Pacific Cherokee Tribal Council / NANRC 111
Chico Bass Club	Paradise Chamber of Commerce
Chico Paddleheads	Plumas Corporation
Citizens for the Fair and Equitable Recreation Use of Lake Oroville	Plumas County Public Works
City of Oroville	Regional and Economic Sciences
Communications Workers of America	Riverside Bed and Breakfast
The Dangermond Group	Science Applications International Corporation
Dingerville, USA	Santa Clara Valley Water District
Enterprise Rancheria	Seaplane Pilots Association
Environmental Science Associates	Senator Sam Aanestad
Equestrian Trail Riders	SWC
Experimental Aircraft Association	State Water Resources Control Board
Feather River Guides Association	Supervisor Bob Beeler
Funtime, Fulltime, Inc.	Town of Paradise

**Table 5.1-8. Oroville Facilities relicensing recreation stakeholders.**

Feather River Low Flow Collaborative Alliance	USFWS, Anadromous Fish Restoration Program
Feather River Nature Center	USFS
FRRPD	United States Hang Gliding Association
Friends of Ruddy Creek	

Source: DWR 2004a.

#### **5.1.1.14 Interagency Management**

Volunteer and user groups also assist in managing a variety of recreation-related projects and issues. The Bidwell Bar Association, for example, assists DWR by purchasing interpretive equipment, installing and improving Lake Oroville Visitors Center exhibits, and supporting a dedicated group of volunteers. Boy Scout groups, fishing and hunting organizations, equestrian groups, and other user groups assist DPR to some degree in tasks such as trail maintenance and habitat improvement projects, and many are active in the relicensing efforts and through ORAC. DPR coordinates volunteer and user group projects and retains authority over these projects in LOSRA.

Recreation in OWA is managed by DFG, with assistance from DWR primarily at Thermalito Afterbay. DFG manages OWA as a State Wildlife Area; therefore, fish and wildlife protection and enhancement are the primary management purposes, and recreation and public use are secondary. Because fish and wildlife are primary issues, and because many of the recreational opportunities in OWA center on fish and wildlife resources, recreation management in OWA includes fish and wildlife management, habitat improvement, and enforcement of the DFG Code and wildlife area restrictions and regulations. Fish and wildlife management in the OWA and its relationship to recreation in the area are detailed in a separate study, Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation*.

In addition to DFG management, DWR has constructed facilities and has assumed responsibility for recreation management at Thermalito Afterbay. Because of budgetary constraints that DFG and DPR faced several years ago, DWR funded the construction of recreation facilities and Thermalito Afterbay access at the Monument Hill, Wilbur Road, and Larkin Road use areas and assumed responsibility for the maintenance of these facilities. Moreover, DFG budgetary and staffing constraints do not allow for patrol of Thermalito Afterbay; DWR has therefore contracted with the County Sheriff's Office to provide regular boat patrol on Thermalito Afterbay and at Thermalito Afterbay day-use areas and access points (pers. comm., Atkinson 2003).

## **5.2 ASSESSMENT OF OVERALL RECREATION MANAGEMENT EFFECTIVENESS**

This section discusses recreation management issues and problems faced by those agencies with current management responsibility for the Project area. Adequacy of facilities and user satisfaction are summarized to discuss management effectiveness but are covered in more detail in Relicensing Study R-10 – *Recreation Facility Inventory*

and Condition Report and Relicensing Study R-14 – Assessment of Regional Recreation and Barriers to Recreation, respectively. Management’s effectiveness in providing adequate and various types of recreational activities is also assessed below.

**5.2.1 Management Assessment**

The overall management assessment discusses O&M issues, agency communication with the public, interagency management, and overall funding structure. These aspects of management responsibility have the potential to affect recreational opportunities, activities, and recreationists’ experiences.

**5.2.1.1 Operations and Maintenance**

The management assessment of O&M discusses management effectiveness and visitor experiences. O&M issues discussed include visitor safety, litter and sanitation, user fees, service and staffing, landscape and maintenance, and access to shoreline.

In the Mailback Survey, study area visitors were asked questions regarding aspects of recreation management. Table 5.2-1 shows respondent’s assessment of how problematic (or not) selected experiences were during their visit to the study area. The mean score for each of the listed visitor experiences fell below a “slight” problem.” Litter along the shoreline had the highest percentage of respondents who scored it as a problem (50 percent of respondents). Access to the shoreline was rated a “big problem” by nearly 13 percent of respondents. Unsafe behavior by other users was scored as a problem by 45 percent of respondents.

**Table 5.2-1. Mailback Survey respondents’ experiences within the Lake Oroville area.**

Visitor Experience	Mean Score <sup>1</sup>	Percentage of Respondents			
		Problem			
		Not	Slight	Moderate	Big
Litter along the shoreline	1.84	49.9	26.4	13.1	10.6
Sanitation along the shoreline	1.60	66.6	15.1	10.5	7.8
Cost to use facilities	1.20	88.0	6.1	3.6	2.2
Overall safety and security	1.41	73.0	15.8	8.0	3.2
Availability of service/staffing	1.41	74.4	14.7	6.6	4.2
Adequate information/warnings provided	1.32	79.9	11.2	5.7	3.2
Adequate landscaping of facilities	1.38	75.9	14.0	5.9	4.2
Access to the shoreline	1.78	58.5	17.2	11.7	12.6
Law enforcement presence	1.45	75.2	10.5	8.1	6.2
Unsafe behavior by other users	1.71	55.3	26.2	11.3	7.3
Numbers of people at developed facilities	1.51	67.3	18.2	10.4	4.2
Use of alcohol by other users	1.41	74.6	14.4	6.2	4.8
Encounters between visitors and residents	1.14	90.6	5.8	2.5	1.1

<sup>1</sup>Experiences were rated “not a problem” (1), “slight” (2), “moderate” (3), or “big” (4). There were 1,071 respondents. Source: EDAW 2003b.

## **Visitor Safety**

Safety among visitors, to the degree practicable, is an important concern of recreation managers. Relicensing Study R-2 – *Recreation Safety Assessment* addresses safety within the study area. In terms of recreation management and safety, several potential issues were identified through research for Study R-2 and surveys administered for Relicensing Study R-13 – *Recreation Surveys*. Of these issues, two were identified: 1) incident/accident reporting and 2) cellular phone coverage within the study area. Other visitor management issues were also identified in R-2 and were described as visitor education issues. These topics include boat operators speeding, alcohol use while boating, conflicts with personal watercraft (PWC), lack of awareness regarding hunting and fishing regulations, and cases of hypothermia.

Table 5.2-1 shows that 73 percent of Mailback Survey respondents did not consider overall safety and security to be a problem, while 11 percent considered it a moderate to big problem. These results are similar to responses to other safety questions. Approximately 75 percent of Mailback Survey respondents did not indicate problems with the level of law enforcement or with use of alcohol by others. Approximately 14 percent of respondents considered law enforcement presence to be a moderate to big problem. Eleven percent of respondents indicated that use of alcohol by others was a moderate to big problem. A smaller majority, 55 percent, did not consider unsafe behavior by others to be a problem, while slightly less than 20 percent considered it to be a moderate to big problem. Nearly 80 percent of respondents considered information and warnings provided to be adequate.

Law enforcement presence was considered a moderate to big problem by only 14 percent of respondents at certain times and places. This is also likely to be associated with incidents implied in the other safety-related survey responses.

These results appear to indicate that current recreation management is operating effectively in terms of law enforcement at most times and places. The OWA was identified as needing additional enforcement. Potential safety issues should continue to be monitored in the future to see if an increase in the presence or type of law enforcement will be needed at certain times and places.

## **Use Levels**

Use levels and degrees of crowding indicate to managers if, when, and how often facilities are reaching capacity. Approximately 67 percent of respondents did not consider the number of people at developed facilities to be a problem. Over 90 percent did not consider encounters between visitors and residents as a problem. It is most likely that any incident which may have motivated respondents to indicate a problem occurred at the busiest times and places during the recreation season. This is consistent with the responses relating to numbers of people at developed facilities, which was rated as a moderate to big problem by approximately 15 percent of

respondents. Relicensing Study R-8 – *Recreation Carrying Capacity* details the capacity of existing facilities. Further analysis of capacity and needs within the Project area will be discussed in Relicensing Study R-17 – *Recreation Needs Analysis*.

### **Litter and Sanitation Control**

Keeping facilities and recreation areas clean and free from debris are among responsibilities of recreation area managers. Several questions on the survey addressed litter and sanitation within the Lake Oroville area with some mixed responses. Litter along the shoreline was not considered a problem by approximately 50 percent of Mailback Survey respondents, while approximately 24 percent rated it as a moderate to big problem, the second most frequent response. Approximately 67 percent of respondents did not consider sanitation along the shoreline to be a problem, whereas approximately 18 percent rated it as a moderate to big problem. This rate was higher among those surveyed in the OWA where about 30 percent rated litter as a big problem. DFG managers also identified litter as a problem within the OWA (pers. comm., Atkinson 2003).

Based on observed conditions at the OWA and survey responses, recreation area managers have not been as effective as recreationists would like, and litter and sanitation management is a cause for “moderate” concern (EDAW 2003b). Litter is further discussed in Relicensing Study R-11 – *Recreation and Public Use Impact Assessment*. The current problems with litter can mainly be attributed to lack of funding and resulting understaffing. Lack of enforcement staff time dedicated to preventing dumping and littering, and lack of staffing to clean up litter and trash, contribute to the current situation (pers. comm., Atkinson 2003). Additional funding and staffing to prevent and clean up litter could help improve the problem within the study area. DWR, DPR, and DFG should consider recruiting and organizing volunteers to help clean up litter and could help get the community involved. Community involvement could also help to prevent or identify people who illegally dump garbage.

### **Costs Paid by Recreationists**

User fees help offset the cost of operating recreation facilities at the Oroville Facilities, including boat launching, day use, and camping fees. Section 5.4.2 outlines existing fees charged to recreationists at certain areas within the Project area. The Governor and the Legislature have recently decided to raise user fees Statewide to help cover rising costs, including within the LOSRA. Some local citizens are not pleased with this decision (Oroville Mercury Register 2004).

Willingness to pay was one of several topics studied by DPR in a Statewide 1997 survey. Californians indicated a high willingness to pay for the activities listed in the right-hand column of Table 5.2-2.

**Table 5.2-2. Willingness of Californians to pay for activities.**

Low	Moderate	High	
Camping in developed sites	Attending outdoor cultural events (concerts, theater, etc)	Attending outdoor sports or athletic events	
Walking (recreational)	Visiting zoos and arboretums	Kayaking, rowboating, canoeing, and rafting	
Trail hiking	Swimming in lakes, rivers and the ocean	Mountain biking	
Visiting museums, historic sites	Fishing (freshwater)	Target shooting	
Camping in primitive areas	Use of open grass for unstructured activities	Fishing (saltwater)	
Picnicking in developed sites	Horseback riding	Jogging/running	
Beach activities	Bicycling	Power boating	
	Use of play equipment, tot-lots	Off-highway vehicle (OHV)/dirt bike use	
	Swimming (in outdoor pools)	Hunting	
	Golf	Snow sports	
	Driving for pleasure		Skateboarding and rollerblading
			Ball sports such as softball, baseball, and basketball
			Water skiing
			Windsurfing
			Mountain climbing
		Surfing	

Source: DPR 1997.

Of the 404 open-ended comments to DPR’s Statewide survey, payment of existing or increased user fees for park use received 14 percent of all comments (the third largest percentage); 11 percent were negative, 3 percent were positive (DPR 1997).

In a survey of the study area, 88 percent of study area Mailback respondents did not rate cost to use facilities as a problem, whereas approximately 6 percent of respondents considered cost to be a moderate to big problem. Based on these results, it would appear that recreation managers are administering fees that are considered reasonable by a large majority of recreationists. However, a majority of recreationists may be willing to pay more than is currently being charged and may be willing to pay at areas that are currently free to the public, such as the OWA, to have additional services such as improved litter management. This appears to be the case in spite of opposition by some vocal opponents. Opponents may or may not be willing to pay the increase in fees proposed by DPR.

**Service and Staffing**

Quality and appropriate type of service and staffing related to provision of recreation facilities and opportunities are one of the responsibilities of recreation managers. Quality and type of services can change over time and are often linked to funding allocations. Recreation-related services offered within the study area include those provided by concessionaires at the marinas; outreach and education functions at the

Lake Oroville Visitors Center and Feather River Fish Hatchery; maintenance of recreation facilities; and most other functions performed by DPR, DWR, and DBW staff. Recreation-related services offered in the Lake Oroville area also include private business such as hotels, gas supply, equipment supply, boat repair, and other recreation- and travel-related amenities.

Mailback Survey respondents were asked to rate service and staffing on their most recent trip to the Lake Oroville area. Availability of service and staffing was not considered a problem by nearly 75 percent of Mailback Survey respondents. Approximately 11 percent considered service and staffing to be a moderate to big problem. Based on the response to this question, it appears that area recreation managers and service providers are generally effective when it comes to service and staffing. It is likely that the majority of perceived problems with service and staffing occurred at the busiest times and places during the recreation season. This would be consistent with the survey responses regarding potential problems with safety, which indicate that although there is not widespread concern over safety, there are some potential problems at certain times and places.

As demand for recreation use increases in the Lake Oroville area as projected in Relicensing Study R-12 – *Projected Recreation Use*, demand for services and staffing will likely increase. It is in the best interest of recreation area managers and service providers to monitor what services are currently being supplied and what services are needed in order to identify what ongoing and future services may best serve visitors.

### **Landscape and Maintenance**

Landscaping at facilities can help communicate to visitors where to park and where entrances are located at buildings. Some landscaping, such as turf, is essential for some day use activities. Trees provide shade and cooling during hot weather. Attractive landscapes can also affect attitude and increase visitor expectations regarding quality and type of experience. Staff from DPR and DWR have installed landscaping above water inundation zones at some of the recreation facilities within the Project area. Examples include landscaping at day use areas and boat ramps such as at Spillway BR and landscaping around the Feather River Fish Hatchery and Lake Oroville Visitors Center. Some private local businesses also have landscaped areas.

Recreationists were asked to rate the adequacy of landscaping on their most recent trip to the Lake Oroville area. Just over 75 percent of survey respondents considered landscaping of facilities to be adequate while 10 percent considered adequacy of landscaping to be a moderate to big problem. In general, this appears to indicate that landscaping provided is adequate. Sensitivity to adequacy of landscaping may vary among those surveyed; however, there may be some places that could be better landscaped. Future management plans could include plans for improving and developing some additional site-specific landscaping.

### **Shoreline Access and Water Level**

Adequate access to the Project is not only mandated by FERC, but access to shoreline and water is fundamental to providing water-based recreation. This topic is discussed in detail in Relicensing Study R-3 – *Assessment of the Relationship of Project Operations and Recreation*. Access to the shoreline is provided at boat ramps and day use areas such as North Thermalito Forebay Recreation Area. Loafer Creek DUA provides a swimming area with shoreline that is available at higher reservoir levels. Access to shoreline at Lake Oroville recreation sites is affected by fluctuations in water levels. Downstream areas below Oroville dam experience some minor fluctuations in water levels compared to the main reservoir.

Recreationists were asked to rate the access to the shoreline on their most recent visit to the Lake Oroville area. Nearly 60 percent of respondents did not consider access to the shoreline to be a problem, while 24 percent considered it to be a moderate to big problem.

Although reservoir pool level is primarily determined by factors other than recreation, managers could work to communicate more effectively with users affected by pool level. Reservoir levels could be better publicized during the recreation season so that recreationists have more opportunity to experience Lake Oroville when it is at optimum conditions, or to adjust their plans when pool levels are not optimum. Finally, recreation managers could provide alternative suggestions at kiosks and signs directing visitors to substitute areas within the Lake Oroville area that may be less affected by low water levels (such as the Thermalito Forebay and Afterbay).

### **Data Collection and Monitoring**

As outlined in Relicensing Study R-9 – *Existing Recreation Use*, monitoring of recreation use levels and activities could be improved in the future. Relicensing Study R-8 – *Recreation Carrying Capacity* identifies when recreation facilities are expected to reach capacity in the future. Recreation managers should develop an effective monitoring program as part of the upcoming recreation plans (DWR's RMP and DPR's LOSRA General Plan).

#### **5.2.1.2 Communication with the Public**

DWR and DPR communicate with the public through various means. The DWR and DPR websites on the Internet provide a large amount of information as well as opportunities for contacting staff at each of the agencies.

ORAC was created to provide communication access for the public to address DWR compliance with recreation-related aspects of the Oroville Facilities FERC License Order. Communication with the public will continue to be a top priority for DWR during

its next license. Potential communication structures are discussed later in this report (Section 5.3.2.5, Alternative Stakeholder Involvement Programs).

DPR has an office in Oroville where recreationists may get information about available recreation facilities of the LOSRA and also communicate with DPR staff. DPR also offers an on-line and telephone camping reservations system. The reservation system is discussed further in Section 5.2.2.2 Camping.

### **5.2.1.3 Interagency Management**

Due to the various roles and responsibilities of the State agencies, communication between staff members of each of the managing agencies is essential for recreation opportunities in the study area to be adequately provided to the public. Interagency coordination is important for recreation management issues that may arise around timing of events and changes in time of facility conditions and reservoir levels. Scheduling of events and hunting seasons requires communication for safety reasons. Clear divisions of responsibility are important for efficiency of O&M and for recreation managers to be prepared to manage the unexpected.

Currently, recreation managers from DWR, DPR, and DFG have been meeting regularly to address this interagency management. However, more or higher-level coordination may be needed to address all of the issues including funding sources and long-term planning.

### **5.2.1.4 Recreation Funding Structure**

Funding for the development of recreational opportunities and facilities at the Oroville Facilities is a concern for recreation managers, often limiting recreation development and constraining recreation management in the study area. As discussed below, the appropriate source of funding for the development of recreation facilities and opportunities has not been clear due to interpretations and inconsistencies between the FERC license agreement, the Davis–Dolwig Act, and the State Water Code (California Law that governs water use). Currently the SWC fund DWR’s budget for recreation facilities within the Project. In the past, the State has budgeted funds for recreation from the State General Fund, primarily through DPR. Appendix B provides further background details regarding recreation funding structure.

DWR has assumed a FERC-mandated responsibility for funding within the study area. FERC requires that licensees be responsible for all license provisions, including those pertaining to Project-related recreational development, facilities, operation, and maintenance. The Water Code (Section 11455) gives DWR the authority to charge its water contractors (SWC) for all operational costs of the SWP. Costs related to FERC-mandated facilities are interpreted as being reimbursable<sup>3</sup> in that FERC license requirements are a necessary element to “operate” the SWP. In other words, FERC-

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<sup>3</sup> A cost that may be passed on from DWR to the SWC. The SWC may then pass this cost on to water customers.

mandated recreational facilities are a necessary component of Project operations that are then charged to the SWC, rather than being non-reimbursable or being funded by the State General Fund (DWR 1998).

DWR also operates under the Davis–Dolwig Act of 1961, which states that recreation at State Water Projects is the responsibility of DPR (typically funded by the State General Fund). Furthermore, the legislative history, administrative practice, and legislative interpretations of the Davis–Dolwig Act can all be interpreted to imply that all recreational costs, including costs associated with the construction, operation, and maintenance of FERC-mandated recreational facilities, are considered non-reimbursable. This interpretation is consistent with the general policy of the Davis–Dolwig Act that recreational elements should be considered a General Fund cost, since they benefit the public as a whole. The Water Code (Section 11912), which amended the Davis–Dolwig Act in 1966, on its face, appears to prohibit the cost of providing recreation facilities to the public from being passed on to the consumers of water and power (DWR 1998).

In a memorandum signed by DWR and DPR on May 23, 1995, titled *Memorandum of Agreement between California Department of Parks and Recreation and California Department of Water Resources regarding Coordination of Planning, Development, and Operation of Recreational Facilities at Lake Oroville State Recreation Area*, DWR formally acknowledged that it “bears the ultimate responsibility for ensuring funding, development and management of current and additional recreational facilities at the Project.” In response to DWR’s acknowledgement of ultimate financial responsibility, under FERC requirements, for recreation-related expenditures, the California Department of Finance (DOF) determined that expenditures for recreational facilities were no longer a State General Fund obligation and that funding was therefore not appropriated for the 1997-98 Lake Oroville Recreation operation costs (SWC 1998). DOF’s determination directly conflicts with the provisions of the Davis–Dolwig Act. DWR has paid for capital and O&M costs that have included development costs of some recreational facilities. O&M costs are deemed reimbursable by DWR and have been passed on to the SWC.

In addition to funding responsibilities for the development of public recreation facilities, the Davis–Dolwig Act also distinguishes between responsibility for costs related to the preservation<sup>4</sup> and costs related to the enhancement of fish and wildlife. Water Code Section 11912 states that preservation of fish and wildlife may be paid for by the Project and passed on as a cost of operation to the SWC; however, enhancement of fish and wildlife for the development of public recreation would be non-reimbursable and be borne by the State General Fund.

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<sup>4</sup> “Preservation” includes activities that mitigate for loss of habitat, fish and wildlife as a result of the Project.

Accordingly, funding for fish and wildlife enhancement could be viewed as a General Fund obligation, and these costs are not to be reimbursed by the SWC. In contrast, costs incurred for fish and wildlife preservation activities are to be included in the prices, rates, and charges for water and power.

Although the costs of fish and wildlife enhancement are explicit State General Fund obligations, the State Legislature found that the General Fund was unable to appropriate sufficient funds for all necessary projects, operations, and maintenance. Thus, in 1966, Section 11915 of the Water Code was amended to provide for additional fish and wildlife enhancement and recreation funding to supplement what could be appropriated from the State General Fund (SWC 1998). Assembly Bill (AB) 12, which also amended Water Code Sections 11912 and 11913, amended Section 11915 to require that \$5 million from the “tideland oil and gas revenues” be deposited each year into the SWP Construction Fund. This, along with the existing annual obligation of \$11 million from tideland oil and gas revenues, is deposited into the California Water Fund (SWC 1998). Additional recreation and fish and wildlife enhancement funding for the Project is received from tideland oil and gas revenues via the California Water Fund.

Two additional sources of funding for recreation at SWP facilities were established by the State Legislature following the 1966 Water Code amendments that amended the Davis–Dolwig Act. First, under Senate Bill (SB) 1268, approved by California voters in 1970, issuance of \$60 million in general obligation bonds for the funding of SWP-related fish and wildlife enhancement and recreation was approved. SB 1268 provides for up to a total of \$54 million in bond revenues to be allocated for the development and operation of recreation and up to \$6 million to be allocated to fish and wildlife enhancement associated with SWP facilities.

Second, AB 1442 (Statutes of 1989, Chapter 716) allows for automatic offset, upon approval by the State Legislature, of Davis–Dolwig expenditures against any SWP debt to the California Water Fund. Although AB 1442, known as “Offset Legislation,” does not fully provide an additional source of funding, it does allow for expedited funding of projects required by the Davis–Dolwig Act.

Finally, under FERC regulations, operating and managing agencies may charge reasonable fees for use of recreational facilities at SWP facilities comparable to those at other facilities not related to the SWP; this currently takes place within developed sites of the LOSRA. However, no fees are charged at OWA, Thermalito Afterbay, or undeveloped LOSRA access points.

The appropriate source of funding for the development of recreation facilities has been confused through multiple interpretations of the FERC license agreement and the Davis–Dolwig Act. A new MOA between the agencies and the SWC specifically outlining agreements regarding future recreation funding could help establish a more clearly defined funding structure.

## **5.2.2 Effect of Recreation Management Actions on Recreational Activities**

Opportunities for recreational activities are created by providing access to areas with recreation potential, developing the appropriate level of facilities to engage in those activities, and maintaining that access and facilities over time. Management actions regarding each of the aspects discussed in section 5.1.1 Overall Management Assessment including O&M, communication with the public, interagency management and funding have effects on recreational opportunities.

The study area offers a wide variety of recreational opportunities, including boating, camping, fishing, hiking, bicycling, horseback riding, hunting, interpretive programs and nature study, OHV use, picnicking, shooting, swimming, and wildlife viewing, principally within LOSRA lands managed by DPR. Lands within the LOSRA contain extensive recreation facilities, and DPR manages a wide variety of the facilities and programs supporting recreation in the area, as detailed below. In addition, recreational activities occur on other lands and waters within the study area, including the OWA. Further information regarding recreational facilities in the area is provided in Relicensing Study R-10 – *Recreation Facility Inventory and Condition Report*; a thorough analysis of current recreational use throughout the study area is detailed in Relicensing Studies R-9 – *Existing Recreational Use* and R-13 – *Recreation Surveys*. Locations of recreation facilities are shown in Figure 5.1-1, 5.1-2, and 5.1-3.

### **5.2.2.1 Boating**

This subsection discusses existing boating opportunities, boating use levels, and visitor satisfaction levels as factors to assess recreation management effectiveness. The potential for additional management actions are evaluated, and some potential solutions are offered.

#### **Existing Boating Opportunities**

As detailed in Relicensing Study R-10 – *Recreation Facility Inventory and Condition Report* and Relicensing Study R-7 – *Reservoir Boating*, many boat ramps provide access to Lake Oroville, Thermalito Forebay, and Thermalito Afterbay. Lake Oroville has more boat ramp lanes and associated parking than any other reservoir in California (DWR 2001a).

Launch areas range from unimproved car-top boat ramps to paved multi-lane ramps with associated parking areas. Boating is allowed on all Project reservoirs, although powerboating is prohibited in some areas. Boating and boating-related activities are permitted on all reservoirs throughout the year, with peak use occurring during summer. Reservoir boating within the LOSRA is managed and patrolled by DPR Rangers and by the Butte County Sheriff's Office at Thermalito Afterbay through a special agreement between the Sheriff's Office and DWR.

**Boating Use Levels and Visitor Satisfaction**

According to the On-Site Survey, nearly 41 percent of respondents listed a boating-related activity as their primary activity. Such activities included motorboating, houseboating, PWC use, sailing, kayaking, canoeing, rafting, windsurfing, waterskiing, or boat fishing. Respondents were also asked to indicate all of the activities in which they participated in addition to their primary activity. Among respondents, 95 percent indicated participation in a boating-related activity.

Almost 90 percent of respondents were satisfied with their boating experiences. Of the 11 percent of respondents who were not satisfied, nearly half cited “low lake level” as the reason for their dissatisfaction (Table 5.2-3). More than 20 percent of dissatisfied respondents mentioned boat ramp or boat launching problems, including inexperienced launchers, boat ramps that were too short to reach the water, overcrowding of the launch ramp, and the need to wait to launch their boat. About 12 percent of respondents who were not satisfied wanted more or better facilities including more beaches, docks, launching areas, and picnic areas.

**Table 5.2-3. Reasons for boater dissatisfaction in Lake Oroville area.**

Reason	Percentage of Dissatisfied Respondents
Lake level too low	46.2
Boat ramp/launching problems	21.0
Want more/better facilities	11.8
Too crowded on the water	8.4
Conditions were not good	6.7
Parking problems	5.9
Problems with the marina	4.2
Hazards in the water	2.5
Other	6.7

*Note: There were 119 respondents.  
 Source: EDAW 2003a.*

Waiting time is directly linked to the level of perceived crowding at a boat ramp on a given day. Thus, On-Site Survey respondents were asked whether they had to wait to launch their boats. Almost 58 percent of respondents said they did not have to wait (see Table 5.2-4). Of the 42 percent who did have to wait, the waiting time reported ranged from 1 minute to 60 minutes with an average waiting time of about 10 minutes. Some waiting may be unavoidable on the busiest days, such as on holidays. Approximately 96 percent of those who had to wait launched within 20 minutes. Wait time should be periodically monitored in the future to ensure that wait times do not become excessive.

**Table 5.2-4. Boater waiting times to launch at Lake Oroville area.**

<b>Did you have to wait to launch?</b>	<b>Percentage of Respondents</b>
Yes	42.0
No	58.0
<b>How long did you have to wait?</b>	
0-5 minutes	38.3
6-10 minutes	35.6
11-15 minutes	14.0
16-20 minutes	7.8
Over 21 minutes	4.1

*Note: There were 1,155 respondents and 435 respondents who had to wait. Only the top four waiting times are reported.  
Source: EDAW 2003a.*

Survey respondents were also asked whether they had any encounters that they felt put themselves or others at risk. Less than 10 percent of respondents had an encounter that they felt put themselves at risk, and less than 14 percent of respondents had an encounter that they felt put others at risk. Generally, these encounters were with PWC, boats that were too close to each other, or boaters who were going too fast or not following speed regulations. Safety issues are further addressed in Relicensing Study R-2 – *Recreation Safety Assessment*.

The visitor experiences listed in Table 5.2-5 are all related to boating. Most visitor experiences had an average score between “not a problem” and “a slight problem,” however, there were three experiences scored between “a slight problem” (2.0) and “a moderate problem” (3.0) on average. These experiences include exposed land during lower water levels (2.35), shallow areas during lower water levels (2.25), and water level fluctuations (2.20). More than 20 percent of respondents scored these experiences as “a big problem.” When comparing these scores to satisfaction, it appears that some people who rated these issues as big problems were not dissatisfied with their boating experience.

**Table 5.2-5. Lake Oroville area visitor boating experiences.**

Visitor Experience	Mean Score <sup>1</sup>	Percentage of Respondents			
		Not a Problem	Slight Problem	Moderate Problem	Big Problem
Exposed land during lower water levels	2.35	37.3	18.0	17.1	27.7
Shallow areas during lower water levels	2.25	39.7	19.3	17.5	23.6
Floating debris in the water	1.81	54.4	21.5	12.8	11.3
Quality of water	1.45	71.3	16.8	7.7	4.2
Water level fluctuations	2.20	44.5	16.7	12.9	25.9
Numbers of watercraft	1.62	59.6	23.0	13.6	3.8
Noise from boats and PWC	1.52	67.7	17.4	9.8	5.1
Boat speed or wake effects	1.58	63.0	21.1	10.7	5.3
Encounters between water skiers and others	1.36	75.1	16.2	5.8	2.9
Encounters between pleasure boaters and boat anglers	1.39	74.3	16.3	5.8	3.6
Encounters between PWC and other users	1.67	61.9	18.3	10.7	9.1

<sup>1</sup> Experiences were rated “not a problem” (1), “a slight problem” (2), “a moderate problem” (3), or “a big problem” (4).

Note: There were 1,071 respondents. Those who responded “not applicable” are not included in the table or percentages.

Source: EDAW 2003b.

Table 5.2-6 shows facility issues related to boating that were listed in the recreation Mailback Survey. Relicensing Study R-7 – *Reservoir Boating* provides a detailed analysis of boating at within the study area including infrastructure, the effects of drawdown, safety, use levels, characteristics, and capacity. Results relevant to this study are discussed here.

For most issues, approximately 50–60 percent of respondents felt that the number of boating facilities was “about right”; however, there were a significant percentage of respondents who felt that there were not enough boating facilities (35–44 percent). The number of docks or temporary moorages was rated as “too few” by approximately 52 percent of respondents. Temporary docks are used by boaters who want to get supplies or who may want to keep their boat on the reservoir for a short period, such as during a vacation, without having to launch each day.

**Table 5.2-6. Visitor-scored level of facilities related to boating.**

Level of Facility	Percentage of Respondents <sup>1</sup>		
	Too Few	About Right	Too Many
Number of boat ramps	37.1	62.2	0.7
Number of docks or temporary moorages	51.6	47.7	0.7
Number of boat-in primitive campsites	42.3	55.5	2.2
Number of boat-in campsites	43.6	54.9	1.5
Number of marinas	34.5	64.5	1.0
Number of boat-in gas stations	37.7	60.5	1.8

<sup>1</sup> Experiences were rated from "Too Few" (1), "About Right" (2), to "Too Many" (3).

Note: There were 1,071 respondents. Those who responded "not applicable" are not included in the table or percentages

Source: EDAW 2003b.

### **Assessment of Recreation Management Effectiveness Related to Boating**

When looking at survey responses, it appears that the large majority of respondents were satisfied with their boating experiences. Boating satisfaction, number of facilities provided and maintained, reasons for dissatisfaction, wait times, and visitor experiences appear to all indicate that, in general, boaters are satisfied with current management activities and, in general, recreation area managers have been effective in managing boating opportunities.

DPR and DWR manage boating facilities within the Oroville Facilities. Both agencies have clearly defined responsibilities and service areas. The planning, design, and construction of boating facilities are under the authority of DBW. Concessionaires also play a role in providing boating opportunities and have, in general, contributed to the high level of satisfaction among boaters. Study R-12 – *Projected Recreation Use* projects boating to increase in the future and lists this activity in the high demand category.

#### **5.2.2.2 Camping**

This subsection discusses existing camping opportunities, camping use levels, and visitor satisfaction levels as factors to assess recreation management effectiveness. The potential for additional management actions are evaluated. Many visitors to the Project area are residents of the surrounding communities. As such, camping is not the primary activity of most visitors. Nevertheless, effective provision of camping opportunities may contribute to increasing visitation from more distant areas.

## **Existing Camping Opportunities**

Camping is allowed in a number of designated areas throughout LOSRA and OWA as detailed in Relicensing Study R-10 – *Recreation Facility Inventory and Condition Report*<sup>5</sup>. Camping areas range from primitive to full-hookup RV sites, and also include boat-in and floating campsites. All camping areas are subject to fees and registration, with the exception of primitive campsites in OWA, which are managed on a first-come, first-served basis and are free to the public. All LOSRA camping areas and policies are managed by DPR, while OWA camping areas are managed by DFG. Table 5.2-7 details the number and type of camping facilities located throughout the study area.

**Table 5.2-7. Number and type of campsites within the study area.**

<b>Location</b>	<b>Facility</b>	<b>Quantity</b>
Bidwell Canyon	Campsites	75
	RV sites	75
Bloomer Area	Boat-in campsites	36
	Boat-in group sites	10
Craig Saddle	Boat-in campsites	10
Foreman Creek	Boat-in campsites	30
Goat Ranch	Boat-in campsites	6
Lake Oroville	Floating campsites	10
Lime Saddle	Campsites	46
	RV sites	16
	Group sites	6
Loafer Creek	Campsites	137
	Group sites	6
	Equestrian sites	15
OWA	Primitive sites	Variable
North Thermalito Forebay	Undeveloped RV Sites (“en-route”)	15
Spillway	Undeveloped RV Sites (“en-route”)	40

Source: DWR 2004b.

## **Camping Use Levels and Visitor Satisfaction**

About 5 percent of On-Site Survey respondents listed camping as their primary activity (tent, RV, or floating campsites), with 30.4 percent of all respondents participating in camping. Table 5.2-8 shows how Mailback Survey respondents felt about the level of camping-related facilities. The majority of those surveyed felt the number of facilities was “about right” in every category. However, all of the facilities were scored as “too

<sup>5</sup> Since publication of Study R-10, camping opportunities at OWA have been reduced to one designated area (Afterbay outlet).

few” by between 30 and 46 percent of respondents except for “presence of campground hosts.”

**Table 5.2-8. Visitor-scored level of facilities related to camping.**

Level of Facilities	Percentage of Respondents		
	Too Few	About Right	Too Many
Presence of campground hosts	17.3	80.3	2.4
Number of campgrounds	30.9	67.7	1.4
Number of campsites with RV hookups	42.4	55.2	2.4
Number of group campsites	38.0	59.5	2.5
Screening between campsites	39.9	58.6	1.6
Number of floating campsites	46.7	50.8	2.4
Number of shower facilities at campgrounds	44.6	55.1	0.3

*Note: There were 1,071 respondents. Those who responded “not applicable” are not included in the table or percentages.*

*Source: EDAW 2003b.*

Table 5.2-9 lists satisfaction levels for those who stated in the On-Site Survey that their primary activity at the Lake Oroville area was camping. The majority of these campers (74 percent) appear to have been satisfied with their most recent visit. Nearly 20 percent indicated that they were dissatisfied to varying degrees (somewhat/very/extremely).

**Table 5.2-9. Camper satisfaction at Oroville Facilities.**

Level of Satisfaction	Percentage of Respondents	Mean
Extremely Dissatisfied	4.3	6.63
Very Dissatisfied	4.3	
Somewhat Dissatisfied	8.6	
Somewhat Satisfied	6.5	
Satisfied	34.8	
Very Satisfied	28.3	
Extremely Satisfied	10.9	

<sup>1</sup> *Satisfaction was rated in a range from Extremely Dissatisfied (1), Neutral (5), Satisfied (7), to Extremely Satisfied (9).*

*Note: There were 48 respondents. Those who responded “not applicable” are not included in the table or percentages.*

*Source: EDAW 2003a.*

Some respondents mentioned problems with the reservation system in their additional comments. Respondents occasionally found the automated reservation system

indicated that the campground was full, however when respondents went to the campground it did not appear full. Other respondents felt the reservation system was difficult to use. According to the Reservation System Manager, although people are sometimes dissatisfied with how quickly the campgrounds fill-up, this is due to demand outweighing supply and not a flaw in the reservation system (pers. comm., Luscutoff 2004).

### **Assessment of Recreation Management Effectiveness Related to Camping**

Based on the survey responses, a large majority of respondents are satisfied with their camping experiences. Number of facilities and camper satisfaction appear to indicate that in general, campers are satisfied with current management activities, and, in general, recreation area managers have been effective in managing camping opportunities. However, with 20 percent of campers indicating dissatisfaction, there may be a need to review management actions. However, some or all dissatisfaction may be attributed to factors that are not within the control of recreation managers. Issues covered in Section 5.2.1, Overall Management Effectiveness, that may affect camping experiences include: visitor safety, litter and sanitation, user fees, service and staffing, landscape and maintenance, and access to shoreline. Camper satisfaction levels may be linked to conditions regarding some of these issues.

DPR and DWR have maintained and recently developed camping facilities in the Project area since the construction of the Oroville Dam. DPR has primarily been responsible for the management of camping facilities and opportunities in the Project area, including fee collection and maintenance.

#### ***5.2.2.3 Day Use and Picnicking***

This subsection discusses existing picnicking and day use opportunities, day use activity levels, and visitor satisfaction levels as factors to assess recreation management effectiveness. The potential for additional management actions is identified, and some potential solutions are offered.

### **Existing Day Use and Picnicking Opportunities**

Most day use areas throughout the study area provide facilities for picnicking. Picnic areas typically include picnic tables, some of which have barbeques, shade ramadas, and trash receptacles. Picnic areas within LOSRA are managed by DPR, while those at Thermalito Afterbay are managed by DWR (DWR 2004b). Day use facilities are discussed in detail in Relicensing Study R-10 – *Recreation Facility Inventory and Condition Report*.

### **Picnicking and Day Use Levels and Visitor Satisfaction**

Table 5.2-10 lists day use activities that visitors described as their primary activity, as well as other day use activities that they participated in while visiting the Lake Oroville

area. These data indicate that most survey respondents participated in multiple activities.

**Table 5.2-10. Visitor-identified day use activities within the Lake Oroville area.**

Day Use Activity	Percent of Respondents' Primary Activity	Percent Participation
Swimming	11.0	50.8
Relaxing	5.8	42.1
Picnicking	2.7	27.6
Sightseeing	1.3	22.2
Sunbathing	0.9	32.4
OHV	0.9	5.9
Dog walking	0.8	12.5
Nature Study	0.7	9.1
Bird Watching	0.5	12.4
Golf	0.5	3.5
Movies and theater	0.4	9.3
Shop (art/clothes/antiques)	0.3	9.2
Educational Event	0.3	2.4
Photography	0.2	14.9
Panning for gold	0.2	4.3
Concert/festival/tournament/event	0.2	4.2
Dining out at restaurants/bars	0.1	14.9
Museum/art gallery/historic site	0.1	9.1
Rock Collecting	0.1	8.2
Tennis	0.1	2.4
Amusement park	0.1	2.0
Painting/drawing	0.0	2.7

*Note: There were 2,365 respondents for primary activity and 2,583 respondents for percent participation.*

*Source: EDAW 2003a.*

Table 5.2-11 lists satisfaction levels for those who stated in the On-Site Survey that their primary activity at the Lake Oroville area was one of seven day use activities: nature study, bird watching, swimming, sunbathing, sightseeing, picnicking, or relaxing. As shown in Table 5.2-11, two-thirds (66 percent) of these day users appear to have been satisfied with their most recent visit. Nearly 20 percent indicated that they were dissatisfied to varying degrees (somewhat/very/extremely).

**Table 5.2-11. Day user<sup>1</sup> satisfaction with last visit to Lake Oroville area.**

Level of Satisfaction <sup>2</sup>	Percentage of Respondents	Mean
Extremely Dissatisfied	2.9	6.40
Very Dissatisfied	5.2	
Dissatisfied	3.4	
Somewhat Dissatisfied	6.9	
Neither Dissatisfied nor Satisfied	5.2	
Somewhat Satisfied	10.9	
Satisfied	34.5	
Very Satisfied	23.6	
Extremely Satisfied	7.5	

<sup>1</sup> Includes nature study, bird watching, swimming, sunbathing, sightseeing, picnicking, and relaxing.

<sup>2</sup> Satisfaction was rated from Extremely Dissatisfied (1), Neutral (5), Satisfied (7), to Extremely Satisfied (9).

Note: There were 174 respondents. Those who responded “not applicable” are not included in the table or percentages.

Source: EDAW 2003a.

Facility issues related to picnicking and day use are listed in Table 5.2-12. On all four issues, a large portion of the total respondents indicated there were “too few,” especially for number of day use/picnic shoreline areas, where 57 percent of respondents felt that the number of such areas was too few.

**Table 5.2-12. Visitor-scored level of Picnicking/day use facilities.**

Level of Facilities	Percentage of Respondents		
	Too Few	About Right	Too Many
Number of group picnic sites	38.4	60.4	1.2
Amount of swim area	48.3	51.3	0.5
Number of developed day use or picnic areas along the shore	57.1	42.0	0.8
Number of restrooms	40.0	59.4	0.6

Note: There were 1,071 respondents. Those who responded “not applicable” are not included in the table or percentages.

Source: EDAW 2003b.

## **Assessment of Recreation Management Effectiveness Related to Picnicking and Day Use**

Survey responses indicate that a large majority of respondents are satisfied with their day use experiences, although a significant minority was not satisfied. This indicates that recreation managers may not have been as effective at managing day use opportunities as many survey respondents would like. The majority of those surveyed regarding number of developed day use or picnic areas along the shore felt that there were too few. Although they are the minority, a significant number of those surveyed also felt that there were too few group picnic sites, swim areas, and restrooms. Additional comments from the On-site Survey indicated that many respondents felt restrooms should be more frequently maintained and supplied.

DPR and DWR have provided many new facilities in the Project area in recent years, but additional shoreline access for day users is difficult to provide due to water level drawdowns and steep slopes. In some areas, it is likely that recreation management has not been funded to provide maintenance to the level that some visitors would prefer.

### **5.2.2.4 Fishing and Hunting**

This subsection discusses existing fishing and hunting opportunities, fishing and hunting use levels, and visitor satisfaction levels as factors to assess recreation management effectiveness. The potential for additional management actions is evaluated. Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation* covers fish- and wildlife-related recreation in more detail.

### **Existing Fishing and Hunting Opportunities**

Lake Oroville's warmwater and coldwater fisheries support a variety of fish, including flourishing populations of both salmonid<sup>6</sup> and centrarchid<sup>7</sup> species. Fish populations in Thermalito Diversion Pool, Thermalito Forebay, Thermalito Afterbay, and the Feather River also attract a variety of anglers to the area. Hunting is also permitted for a variety of species in portions of LOSRA and throughout OWA. In addition, the variety of wildlife, including more than 175 species of birds and 20 species of mammals, makes the study area a popular wildlife viewing destination. Interpretive programs, nature study, and wildlife viewing are discussed in more detail in Section 5.2.2.6. Fish and wildlife populations and habitat throughout the study area, including the Feather River Fish Hatchery, are generally managed by DFG, although DWR and DPR are also involved in select habitat improvement projects. Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation* describes these programs in

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<sup>6</sup> Of, belonging to, or characteristic of the family Salmonidae, which includes the salmon, trout, and whitefish.

<sup>7</sup> Small carnivorous freshwater percoid fishes of North America usually having a laterally compressed body and metallic luster, including crappies, black bass, bluegill, and pumpkinseed.

detail. DPR has broad resource management authority and expertise on State Park System lands, including LOSRA.

### **Hunting and Fishing Use Levels and Visitor Satisfaction**

Fishing and hunting are popular throughout the study area, although fishing is prohibited in some areas of the Feather River and hunting is limited to specific areas. Fish and wildlife management and recreation are detailed in Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation*. Approximately 27 percent of On-Site Survey respondents listed fishing as their primary activity, with approximately 56 percent participating in fishing on their last visit to the Lake Oroville area. Less than 1 percent listed hunting as their primary activity with about 3 percent participating in hunting on their last visit to the Lake Oroville area (EDAW 2003a). Of the 883 respondents to the fishing portion of the survey, 76.6 percent indicated that they were satisfied with their visit to the study area, while 23.4 percent indicated that they were dissatisfied with their visit.

The majority of the reasons given for angler dissatisfaction involve fishing conditions: 52.4 percent of those who were dissatisfied stated their reason was that they did not catch any fish or did not catch enough fish; 17.3 percent stated that the water level in Lake Oroville, Thermalito Afterbay, or the ponds in OWA was too low or that the flow in the Feather River was too low. Other reasons given for angler dissatisfaction include overcrowding (8.4 percent); conditions of the study area, such as litter and poorly maintained restrooms and facilities (5.8 percent); too-small size of the fish (5.2 percent); unpleasant encounters with other visitors (4.2 percent); illegal fishing activity (3.1 percent); and poor or inadequate access (2.6 percent).

In general, most respondents (75 percent) were satisfied with their hunting experience. Of the 14 respondents who were not satisfied, their reasons were mainly lack of birds/catch (57 percent) or their feeling that that habitat needs improvement (50 percent). Dissatisfied respondents also felt that the water levels were too low and this caused their dissatisfaction (21 percent). Other reasons for dissatisfaction included inadequate access and other hunters using unsafe practices (14 percent each).

The majority of respondents (94 percent) did not have encounters with other users that they felt put them at risk. Of the six respondents who did have an encounter that put them at risk, four of the six said that this encounter occurred because hunters were too close together.

Table 5.2-13 lists the improvements that Hunter Survey respondents (on-site) listed. About 30 percent of respondents mentioned they would like to see improvements to access, including extending the hours of entry, improving roads and access, possibly restricting access, or allowing access to the gates by key. About 22 percent of respondents mentioned improving natural habitat. Respondents also mentioned stocking more game or removing predators (10 percent), adding or improving facilities

and cleaning up litter (10 percent), and maintaining water levels (11 percent). Hunters also suggested acquiring more lands for hunting (2 percent), altering hunting regulations (7 percent), and increasing Game Warden patrol (4 percent).

**Table 5.2-13. Potential improvements listed by recreation Hunter Survey respondents (on-site).**

Potential Improvement	Percentage of Respondents
Access (extend hours of entry, improve roads and access, restrict access, allow key access at gates)	32.0
Improve natural habitat	22.0
Water levels (maintain consistent water levels, high levels in the Thermalito Afterbay)	11.0
Facilities (additional and improved bathroom facilities, improve boat launch ramps, add trash bins and remove litter)	10.0
Alter hunting regulations (free blinds, doe tags, open turkey season, limit hunters, guns during deer season, assign/label blinds)	10.0
Stock more game/remove predators	10.0
Increase Game Warden patrol	4.0
Acquire more lands for hunting	2.0

*Note: Respondents' comments could include more than one improvement. There were 85 respondents.  
 Source: EDAW 2003c.*

Facility issues related to fishing and hunting are listed in Table 5.2-14. Approximately 47 percent of respondents ranked the number of fish cleaning stations as too few and about 53 percent felt that the number of stations is about right. About 42 percent of respondents felt that there are not enough lands for hunting, whereas about 53 percent felt that there are enough lands. Approximately 69 percent of these hunters who responded to the mailback portion to the Hunter Survey rated lands for hunting as too few.

**Table 5.2-14. Facility issues related to fishing and hunting.**

Facility Issue	Percentage of Respondents		
	Too Few	About Right	Too Many
Number of fish cleaning stations	46.5	52.6	1.0
Quality of habitat for hunting	25.9	70.8	3.2
Lands for hunting	42.1 (68.6) <sup>1</sup>	53.2 (31.4) <sup>1</sup>	4.6 (0.0) <sup>1</sup>

<sup>1</sup> From the Hunter Survey (mailback).

*Note: There were 1,071 respondents. Those who responded "not applicable" are not included in the table or percentages.*

*Source: EDAW 2003b and EDAW 2003d.*

Quality of habitat was rated as too few (or low) by approximately 26 percent of survey respondents. Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation* addresses habitat issues related to recreation in more detail.

Twenty-two percent of respondents to the Hunter Survey (on-site) who wrote a comment mentioned things that management could do to improve hunting opportunities, including cleaning up or improving habitat and weeds, planting food plots, or stocking more game. Thirteen percent of respondents felt that the opening time should be earlier to allow hunters to set up, or that there were other regulations that should be changed. Some respondents felt that access could be improved (11 percent), reservoir levels should be higher (9 percent), or more turkey hunting opportunities should be provided (7 percent). A few respondents made comments that mentioned other issues with management (7 percent) or that the area is too crowded (4 percent).

Respondents to the Hunter Survey were also allotted space for additional comments. Most of these comments indicated that visitors had a good experience and/or felt that management was doing a good job (29 percent). Another large minority mentioned improving access or habitat (22 percent). There were also comments on the need for more and “cleaner” water. Some respondents mentioned that the gates should be open longer at night and earlier in the morning as well as the need to remove trash. Some respondents also mentioned that they would like more facilities such as campsites (in particular at Thermalito Diversion Pool) and more permanent restrooms.

### **Assessment of Recreation Management Effectiveness Related to Hunting and Fishing**

Both anglers and hunters generally had very high satisfaction levels. This indicates that recreation and fish and game managers have generally been effective in managing angling and hunting opportunities. At the end of the Hunter Survey (on-site) respondents were given space to write additional comments. Almost 30 percent of the respondents who wrote a comment mentioned that they had had a good experience or believed that management was doing a good job and that they had a good time hunting. Given the survey results and that no serious incidents or gun accidents have been reported, it would appear that management actions have been adequate regarding hunter safety.

A significant minority of angler and hunter respondents indicated that they were not satisfied with their most recent visit. For anglers and hunters, the majority of those dissatisfied indicated that their dissatisfaction could be attributed to lack of fish or lack of catch. Half of dissatisfied hunter survey respondents indicated that their dissatisfaction was due to needs for habitat improvement.

DFG is the primary agency responsible for fishing and hunting opportunities. In the recent past and present, it appears that DFG has not fully funded maintenance and habitat improvement activities needed to maintain a high level of effectiveness.

#### **5.2.2.5 Non-Motorized Trail Use**

This subsection discusses existing non-motorized trail use opportunities, trail use levels, and visitor satisfaction levels as factors to assess recreation management effectiveness. The potential for additional management actions is evaluated.

#### **Existing Trail Use Opportunities**

The LOSRA offers a number of multi-use, non-motorized trails open to bicyclists, equestrians, and hikers. The Brad P. Freeman Trail, Bidwell Canyon Trail, Dan Beebe Trail (with the exception of Sycamore Hill), and all fire roads within LOSRA are open to all three groups year round. In addition, the Roy Rogers and Loafer Creek Trails are open for multiple uses (mountain biking, hiking, and horseback riding) on even-numbered days of the month and open to hiking and horseback riding only on odd days of the month. Bicycling is permitted in the OWA, but only on roads open to vehicles. Horses are not allowed in OWA, except for permitted special events. Trail maintenance in LOSRA is carried out by DPR in conjunction with a number of user groups and volunteer organizations, and with limited assistance from DWR. Policies and etiquette regarding use of multi-use trails are managed by the California State Parks Mounted Assistance Unit and Bicycle Patrol Unit, which patrols trails throughout the study area. Relicensing Study R-10 – *Recreation Facility Inventory and Condition Report* provides a summary of trailheads, trails, and uses.

#### **Trail Use Levels and Visitor Satisfaction**

About 7 percent of On-Site Survey respondents listed biking, hiking, or horseback riding as their primary activity. Of these activities, horseback riding was the most popular with about 4 percent of total respondents listing this as their primary activity. One or more of these activities were also participated in by approximately 29 percent of survey respondents (hiking, 17 percent; equestrian, 6.3 percent; mountain biking, 6.1 percent).

About 90 percent of respondents who completed the Trails Section of the On-Site Survey reported that they were satisfied with the condition of the trails. Of the 10 percent who were not satisfied, their reasons for dissatisfaction are listed in Table 5.2-15. The largest fraction of those dissatisfied, 21 percent, were dissatisfied due to a lack of maintenance on trails. Other issues with trail conditions include litter problems and dust perceived to be from mechanized trail maintenance.

The desire for more facilities was the second-most frequent reason for dissatisfaction (18.3 percent) that trail users mentioned. Facilities mentioned included more trails, rest areas/benches, swimming areas/beaches, campsites, and restrooms. The reservoir level was also mentioned in 12.7 percent of responses for those dissatisfied with the

trail condition (Table 5.2-15). Although reservoir level does not directly affect the ability to use most of the trails, it can affect the setting of the trail.

**Table 5.2-15. On-Site Survey respondents' reasons for dissatisfaction with trails.**

Reason	Percentage of Respondents
Trails need maintenance	21.1
Want more facilities (more trails, swimming areas, benches/rest areas, etc.)	18.3
Lake level is too low	12.7
Lack of signage	9.9
Litter problems	8.5
Need water available on the trails	8.5
Better accessibility	8.5
Want separate trails/problems with other user groups	5.6
Dust from the trail machine	2.8
Other	7.0

*Note: Respondents include only those who responded that they were not satisfied with trail condition. There were 71 respondents. Comments could include more than one reason.  
Source: EDAW 2003a.*

Lack of signage, litter problems, lack of available water on the trail, and better accessibility were also mentioned as reasons for dissatisfaction. Only a few respondents gave reasons such as wanting separate trails for different uses (e.g., separate biking and equestrian trails) or problems with other user groups. Only those respondents who completed the trail section of the survey and answered that they were not satisfied were included in this analysis.

Trail users were also asked whether they had any encounters on the trail with other users that put themselves at risk. About 93 percent of On-Site Survey (trail section only) respondents reported that they had not had such an encounter. Recreation Mailback Survey respondents were also asked about whether they felt encounters between trail users and other users was a problem. Approximately 90 percent of respondents felt that this was not a problem. A small percentage, four percent, felt encounters were a moderate to big problem.

Table 5.2-16 lists facility issues related to biking, equestrian use, and hiking. The majority of respondents, approximately two-thirds, felt that the number of trail facilities related to biking, equestrian use, and hiking was “about right” for every type of facility. The number of signs indicating trail locations was scored by slightly more respondents than the other facilities as “too few” (38 percent). All of the facilities were scored as “just right” by at least 60 percent of respondents.

**Table 5.2-16. Mailback Survey responses: number of facilities related to biking, horse-back riding, and hiking.**

Facility	Percentage of Respondents		
	Too Few	About Right	Too Many
Number of unpaved bike trails	29.9	67.2	3.0
Number of hiking trails	29.5	70.2	0.3
Number of signs indicating trail locations	38.2	60.4	1.4
Number of paved bike trails	33.5	61.8	4.7
Number of equestrian trails	27.1	67.4	5.5
Number of equestrian facilities	30.3	64.6	5.2

*Note: There were 1,071 respondents. Those who responded "not applicable" are not included in the table or percentages.*

*Source: EDAW 2003b.*

### **Assessment of Recreation Management Effectiveness Related to Trail Use**

Based on survey responses it appears that, in general, most trail users were satisfied with their last visit. Satisfaction levels, reasons for dissatisfaction, visitor experiences, and number of facilities appear to indicate that recreation area managers have been mostly effective in managing trail use opportunities. However, there is some room for improvement related to signage, litter accumulation, and drinking water availability.

DPR and DWR manage approximately 75 miles of trails within the study area. Recently, most trails that had been designated for single use only (equestrian only or biking only) have been converted to a multiple use designation, similar to many other trails Statewide. However, some trails have schedules limiting use to one type or both on alternate days.

#### ***5.2.2.6 Wildlife Viewing, Interpretive Programs, and Nature Study***

This subsection discusses existing wildlife viewing, interpretive programs and nature study opportunities. Visitor use levels and satisfaction levels are factors to assess recreation management effectiveness. The potential for additional management actions is evaluated. Wildlife viewing is discussed in detail in Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation*.

### **Existing Wildlife Viewing, Interpretive Programs and Nature Study Opportunities**

The Lake Oroville Visitors Center, overlooking Oroville Dam and Lake Oroville, features several interpretive displays, a 47-foot viewing tower, and an audiovisual room where informational slide shows and videos are shown throughout the day. The Visitors Center also offers an ADA-accessible 0.2-mile nature trail, the Chaparral Interpretive Trail, which leaves from the Visitors Center and provides interpretive displays that

identify and describe local plant life. Other programs offered through the Lake Oroville Visitors Center include a summer speaker series and several interpretive and educational presentations and programs. In addition, the Junior Ranger Program offers a variety of interpretive and nature study opportunities for children between the ages of 7 and 12, including games, hikes and nature walks, and wildlife viewing. The program involves a total of 12 activities designed to teach children about geology, ecology, history, plants, wildlife, safety, and more. Relicensing Study R-4 – *Relationship Assessment of Fish/Wildlife Management and Recreation* discusses wildlife-related nature study in more detail.

Programs cater to a wide variety of audiences, including elementary and junior high school students, special education students, university students, local organizations, and the general public. Themes of recent programs include the SWP and water supply issues, native peoples of the Feather River basin, and a presentation on careers as a State Parks Ranger. Lastly, volunteers support a variety of interpretive programs throughout the study area, including nature walks, campfire programs, and museum tours.

In addition to the interpretive opportunities provided at the Visitors Center, nature-oriented programs and opportunities are available throughout the study area. The variety of birds and mammals and diverse habitats supports nature study and wildlife viewing opportunities. OWA in particular is often used for such purposes by individuals and groups, as are many areas throughout the northern reaches of LOSRA. Moreover, formal nature study programs include volunteer-led nature walks and interpretive and educational programs focusing on local flora and fauna. The Bidwell Bar Association also conducts a variety of interpretive efforts.

### **Nature Study Use Levels and Visitor Satisfaction**

There were very few respondents who listed nature study or attending educational events as their primary activity (1 percent of On-Site Survey respondents). Nevertheless, 11 percent of respondents identified nature study or educational events as among the activities in which they participated. About 53.2 percent felt that interpretive programs/educational opportunities were about right. About 45.5 percent of respondents felt there are too few interpretive programs/educational opportunities available (EDAW 2003b).

### **Assessment of Recreation Management Effectiveness Related to Interpretation and Education**

DPR, DWR, DFG, DBW, CDF, and FFRPD all play roles in providing for interpretive, educational, wildlife viewing, and nature study opportunities within an overlay of management jurisdictions. A large number of those surveyed (45.5 percent) indicated that there are too few interpretive programs and educational opportunities in the study area. Wildlife viewing and nature study opportunities are prevalent in the OWA, with a

large variety of species of birds, mammals, reptiles and amphibians. However, the current conditions in the OWA may discourage organized nature study field trips by school groups or may be less attractive to individuals or other groups due to trash accumulation, dumping, road conditions, and/or negligible facilities. In general, management has been somewhat effective in managing interpretation and education opportunities, but more could be done in this area to enhance these opportunities.

### **5.3 RECREATION MANAGEMENT STRUCTURE EVALUATION**

Management interactions at the Oroville Facilities are relatively complex, involving agencies at the federal, State, local, and regional levels, as well as community organizations and interested individuals. In order to evaluate the effects of resultant management structure on recreation opportunities at the Oroville Facilities, it is useful to compare the recreation management structure at other selected facilities. Section 5.3.1 provides a description of similar projects that may provide some useful examples for recreation management at the Oroville Facilities. Section 5.3.2 suggests some possible changes to the current management structure, and evaluates the potential effects of some alternative structures.

#### **5.3.1 Similar Projects**

The following descriptions of similar sites discuss some of the ways that recreation management is structured at other FERC Projects and reservoirs.

##### ***5.3.1.1 East Bay Municipal Utility District***

East Bay Municipal Utility District (EBMUD) provides recreation opportunities at many of their reservoirs and on lands adjacent to their projects. EBMUD's water system serves approximately 1.3 million people in a 325-square-mile area extending from Crockett on the north, southward to San Lorenzo (encompassing the major cities of Oakland and Berkeley), eastward from San Francisco Bay to Walnut Creek, and south through the San Ramon Valley. Their wastewater system serves approximately 640,000 people in an 83-square-mile area of Alameda and Contra Costa counties along the Bay's east shore, extending from Richmond on the north, southward to San Leandro.

Recreation opportunities at some of their FERC-licensed facilities include: boating, swimming, trail activities, fishing, hunting, and camping. Recreation facilities are managed by EBMUD. Each of the recreation areas has a nearby managing office with 4 to 6 EBMUD staff. Most of the nine offices are run by EBMUD but some are run by concessionaires, including the large reservoir at San Pablo Recreation Area. Fees for access to facilities are comparable between EBMUD facilities and concessionaire-run facilities. The EBMUD staff has a variety of responsibilities, especially at their own facilities including O&M, firefighting, fee collection, and interpretive presentations. Each of the staff members participate in all of these duties. Law enforcement has been contracted out to other entities since 1983.

Due to their value as a sport and commercial fishery, and as an indicator of ecological health of the river, Chinook salmon are the primary focus of fisheries management in the lower Mokelumne River. The Salmon Spawning Habitat Improvement Project is a joint effort of EBMUD, the California Department of Fish and Game, and the US Fish and Wildlife Service to protect and enhance the ecological resources in the lower Mokelumne River. Some anglers have had concerns about declining numbers of fish on various rivers of EBMUD's projects. These issues have been addressed or are being addressed through the Habitat Improvement Project and other fisheries improvement efforts.

Some of the upstream hydroelectric facilities owned by PG&E have potential effects on EBMUD's reservoirs. Water quality has been the main concern of EBMUD staff; therefore, PG&E now provides water quality reports to EBMUD.

In general, recreation managers have been able to be effective because they have contracted some responsibilities and because they are able to operate autonomously. Satisfaction is perceived to be high. However, regulatory requirements and visitation have increased without an increase in staffing levels. There may be a need for additional staff and for staff to specialize in the future (pers. comm., Licalfi 2004).

The recreation management structure has some similarities with the current structure at the Oroville Facilities. The main difference is the clarity of jurisdictions for recreationists. If a visitor has a complaint or issue, it is clear with whom they need to communicate. It appears that EBMUD has been able to provide the facilities that are in demand amongst their stakeholders (pers. comm., Licalfi 2004).

### **5.3.1.2 Sacramento Municipal Utility District Upper American River Project**

In 1957, the Federal Power Commission (FPC) - predecessor to FERC - granted a 50-year license to the Sacramento Municipal Utility District (SMUD) for the construction and operation of the Upper American River Project (UARP). The present project configuration of 11 dams and 8 powerhouses was constructed over a period of approximately 30 years, culminating in 1985 with the addition of the Jones Fork Powerhouse. The UARP has a total installed capacity of 688 MW, which generates an annual average of 1.8 billion kilowatt-hours, enough energy to power about 180,000 homes for a year in Sacramento (SMUD 2001).

Most of the recreation opportunities related to the UARP are located in the El Dorado National Forest Crystal Basin Recreation Area, which spans 85,000 acres of pine and fir forests along the western slope of the Sierra Nevada and includes lakes, reservoirs, and streams. Facilities include more than 700 developed campsites, boat ramps at each of the lakes, and 4.5 miles of paved bike trail, along with other opportunities for hiking, fishing, cross-country skiing, and horseback riding (SMUD 2004).

USFS owns the land and manages all recreation activities in the Crystal Basin Recreation Area. However, recreation facilities have been constructed primarily by SMUD, with USFS oversight in regard to construction specifications.

Per the original UARP license, recreation facilities have been constructed in four phases, the timing of which has been dependent upon visitation and usage rates at already-existing recreation sites. Close monitoring of attendance has allowed recreation managers to initiate development projects as the need has arisen.

The fourth and final phase—consisting of, among other things, new bike paths and trails, two new group camp sites, additional primitive campsites and additional shower facilities—was completed in 2003. While limits on cost for each phase were established as part of the original license, the facilities that would actually be constructed were agreed upon by USFS and SMUD as each new phase commenced. The recreation management partnership between the two agencies, which has reportedly been positive and functional, may undergo changes in structure during the upcoming relicensing effort, however, these changes are not yet known. USFS believes the area is nearly built to capacity in terms of recreation construction and will likely only see additional day use facilities, such as bike trails and off-road access, built in the near future (pers. comm., Higgins 2004).

#### **5.3.1.3 Kingsley Dam Project**

The Kingsley Dam Project provides an example of a project relatively similar to the Lake Oroville Facilities. Central Nebraska Public Power and Irrigation District (Central) operates four hydroelectric power projects (Jeffrey, Johnson #1, Johnson #2, and Kingsley) that provide 104 MW of power in Nebraska. Central provides over 36,000 surface acres for water recreation, including activities such as boating, fishing, water-skiing, sailing, jet-skiing and swimming on the reservoirs associated with these four projects. The public spends about 1.5 million visitor days annually on Central's reservoirs, making them some of the state's most popular destinations for outdoor recreation. In addition to water-based recreational activities, 6,800 acres of land have been set aside by Central as Wildlife Management Areas open to public use. An additional 6,000 acres adjacent to Central's reservoirs are designated as state recreation areas. Nebraska Game and Parks Commission (NGPC) operates all of the recreation facilities (National Hydropower Association 2004).

The Land and Shoreline Management Plan (Plan) is a product of the Kingsley Dam Project (FERC Project 1417) and was approved by FERC in 2003. The licensing obligated Central to provide for "reasonable public recreational access to the lands and waters of the Project and for the protection of existing uses and wildlife habitat" (CNPPID 2004). Central's primary interest throughout the licensing process was in maintaining water rights related to irrigation, hydropower generation, and endangered species, while the public's primary interest was in maintaining access to recreation sites (pers. comm., Vetter 2004). As a result of the process, Central is charged with

reviewing all proposed uses and changes in use for compliance with the Plan. However, development, operation, and maintenance responsibilities for all recreation facilities are those of the NGPC. There are also five concessionaires that provide boat and jet ski rental and repair, restaurants, and stores.

NGPC leases the land for \$1 a year, paying all costs related to recreation and fulfilling its mission to the state by serving the public's recreation needs. Public satisfaction with current access to and operation of recreation sites is high, particularly with the modernization of a 4-mile-long campground along the north shore of Lake McConaughy, including campsite upgrades.

The management structure and division of responsibilities is similar to the division of management at Lake Oroville. The management structure at the Kingsley Dam Project has been successful with the current arrangement. Central and NGPC have been responsive to the public and have provided adequate access to recreation. Central views NGPC as being the appropriate entity to manage recreation because Central does not have that capability or expertise (pers. comm., Vetter 2004). Central appears to be less involved in recreation management at Kingsley Dam than DWR is at Lake Oroville.

#### **5.3.1.4 Northeast Generation Company**

Northeast Generation Company (NGC) spends over \$1 million annually at projects in Connecticut and Massachusetts to provide valuable recreational opportunities. These projects generate 1,274 MW of electricity and provide 22,534 reservoir surface acres, 199 miles of shoreline and result in over 471,000 recreational days annually, where visitors can enjoy fishing, swimming, hiking, hunting, boating, camping, picnicking, canoeing, mountain biking, skiing, nature watching and more. NGC provides shuttle service for its many canoeists and kayakers on the Connecticut River, and its hydropower system plays an important role in the effort to restore anadromous fish, such as the Atlantic salmon and the American shad, to New England's waterways (National Hydropower Association 2004).

At NGC's Northfield Mountain Project, the Recreation and Environmental Center (the Center) is a 4-season recreational facility with satellite facilities along a 7-mile stretch of the Connecticut River. The Center provides opportunities for cross-country skiing, hiking, and mountain biking on 26 miles of trails, along with camping, canoeing, kayaking, riverboat cruises, and public environmental and recreation programs. Educational programs for children allow them to learn about anadromous fish, local wildlife, water safety, energy production, insects, environmental appreciation/protection and much more (Northeast Utilities System 2004).

The Center, the result of a FERC relicensing process in 1972, manages all recreation activities in the Northfield Mountain Project area. During the relicensing process, a cause of concern for the local residents was that proposed NGC recreational facilities

might prove to be a financial burden. The proposal of a town park in the form of a 4-mile “brook park” was rejected by the rural area stakeholders, due to the concern that the park could become a cost liability if the utility ceased operations in the area or shifted park maintenance responsibilities to the town (pers. comm., Gabriel 2004).

Presently, NGC maintains flowage and seepage rights along the Connecticut River and owns and operates all recreational facilities in the area. The Center was established to provide such activities for free or at minimal cost to users. Its annual recreation budget of approximately \$700,000 is a line item in the power station’s budget (pers. comm., Gabriel 2004).

Northeast Utility System (NUS), NGC’s parent company deeded approximately 60 acres to the State of Connecticut along the Connecticut River. State recreation management staff installed a boat launch facility that was not NGC’s responsibility under FERC requirements

### **5.3.2 Potential Recreation Management Structure Options**

This section evaluates alternative management structures for managing recreation opportunities within the Oroville Facilities, including a discussion of potential models for potential stakeholder involvement.

Recreation management functions that may be considered relevant to potential agency management structures include:

- Operations and maintenance;
- Visitor monitoring and surveying;
- Fee collection;
- Management of concessionaires;
- Building of new facilities;
- Recreation planning;
- Enforcement;
- Visitor management control;
- Communication with the public; and
- Budgeting and staffing.

The following subsections discuss potential recreation management agency structures such as various alternatives for single-agency responsibility, multi-agency responsibility, increased local responsibility, increased responsibility by JPA, and increased presence of concessionaires. Alternative stakeholder models are also evaluated. Under any scenario, DWR would ultimately be responsible for providing recreation facilities and opportunities within the Project area under the terms and conditions of the FERC license order.

Current recreation management structure is outlined in Section 5.1, Agency Management within the Study Area, and includes local, State, and federal agencies and local organizations. Additional evaluation on recreational activities is discussed in Section 5.2.1 Overall Management Assessment. The current management structure is further evaluated in terms of multiple-agency responsibility below.

Marketing and economic development activities for the Oroville Facilities are outside the scope of this study and DWR's mission, and thus are not included in this management structure evaluation. Potential management actions may include public-private partnerships to hold special events or to provide more information about the Oroville Facilities to water-based recreationists in the Northern California region.

### **5.3.2.1 Potential Single-Agency Responsibility**

Recreation management of all lands within the Project boundary could potentially be retained solely by DWR. Certain aspects would still require that some agencies (such as DBW and Butte County Sheriff's Office) would still have a role even, if DWR were designated as the primary responsible agency.

Under a single-agency management scenario, the lands to be managed within the Project boundary could include those currently within the LOSRA, as well as those within the OWA (including Thermalito Afterbay), Thermalito Forebay, and Thermalito Diversion Pool. Currently, recreation lands within the Project area are managed by DPR (LOSRA), DFG (OWA), and DWR (all lands within the Project boundary), each according to its jurisdiction. DBW plans, designs, and constructs boating facilities within the study area. FRRPD manages lands outside the FERC boundary, but within the study area.

The Butte County Sheriff's office would likely continue to have some enforcement role, as the Project is located within the County. DWR has no law enforcement authority. The role of the Butte County Sheriff's office would need to be further defined and would require some degree of interagency coordination under this scenario.

DBW currently plans, designs, and constructs boating facilities in the study area, and its future role would also need to be determined under a single-agency structure. While DFG currently manages a significant portion of the Project area in overseeing the OWA, DFG manages primarily for fish and wildlife.

Single-agency management may provide for more efficient management of recreation facilities and opportunities within the Project boundary and eliminate some duplication of effort that currently takes place. Greater efficiency could potentially include more coordinated decision-making and more effective communication. Managers could be better informed about events or processes taking place within the Project boundary. Consistency of management, including signage, fee structure, and law enforcement throughout the Project area would be another potential advantage to single-agency

management. EBMUD, whose mission is similar to DWR's, manages all of the recreation facilities at its projects. Another benefit of this single-agency structure is the clarity of jurisdiction to the public.

Single-agency management, however, also presents some potential disadvantages. First, the expertise and experience of any single agency is likely to be less than that of the many agencies working together. For example, DWR may have less experience than DBW and DFG for constructing boating facilities and managing fish and wildlife, respectively. Second, each distinct geographic area within the Project boundary may have different goals and thus require different systems and structures and provides different types of recreational opportunities. Third, the current diversity of agency management provides for a diversity of funding sources, allowing a degree of flexibility that could be lost under the single-agency scenario. Fourth, any agency that would undertake recreation management within the Project boundary would likely need to significantly increase their local staff and infrastructure, initially creating a duplication of effort. Other potential disadvantages would need to be thoroughly analyzed and weighed if such a structure were to be pursued.

Overall, due to the difficulty inherent in consolidating responsibilities and funding, existing contracts and agreements already in place, and diversity of stakeholders that would be involved in the process, changing to a single-agency recreation management structure would likely be a complex and lengthy undertaking.

Single-agency management under DWR would be the least complex of the possible management scenarios, as any other likely scenario would require interagency coordination due to DWR's ultimate responsibility for the Project area. Management jurisdiction, accountability, and funding would potentially be more straightforward and comprehensible for the public. A process of moving from the current structure to a DWR sole-management scenario might also be easier than transferring to another agency such as DPR or FRRPD. Conversely, DWR currently manages a relatively small portion of the Project area. As a result, there would likely be considerable cost and time needed for DWR to assume direct recreation management of the entire Project area. DWR's primary mission is the SWP, of which providing recreation opportunities is secondary to providing water. DPR's primary mission is providing recreation opportunities, and thus has a greater breadth and depth of experience managing recreational facilities and SRAs throughout the State. An example of a duplication of effort would be the need to manage camping reservations. DPR already has a system in place while DWR does not and would likely need to create their own system.

### **5.3.2.2 Potential Multiple Agency Responsibility**

Recreation management of all lands within the Project boundary is currently the responsibility of multiple agencies. Under its FERC license, DWR has ultimate responsibility for providing adequate recreation opportunities within the Project boundary; however, some specific roles and recreation management activities have

been delegated or transferred to other agencies. Other agencies manage recreation in the study area according to their jurisdictions, including DPR, DFG, DBW, FRRPD, USFS, and BLM. Although there are efforts to coordinate among managing agencies, there is no single entity with oversight over all recreation management in the study area.

Changes to management structure could be made to increase the role of one of these agencies. The most likely candidates for assuming primary recreation management responsibility within the study area would be DWR, DPR or the FRRPD. If one of these agencies were to become primarily responsible for recreation management within the Project area, that agency would still be required to maintain a close, coordinated relationship with DWR, and would be required to comply with provisions of the FERC license. Ownership or possessory interests may potentially need to be transferred to the newly responsible agency, and additional agreements for recreation management of Thermalito Forebay and Diversion Pool would need to be put into place. Primary management of the Oroville Facilities by either DWR, DPR or the FRRPD is discussed below.

The Butte County Sheriff's office would likely continue to have some enforcement role, as the Project is located within the County; however, it would not be a candidate for being the primary responsible agency since it is not within its mission and goals to provide for recreation. The role of the Butte County Sheriff's office would need to be further defined. Law enforcement as it relates to the Butte County Sheriff's office would require some degree of interagency coordination under this scenario.

DBW currently plans, designs, and constructs boating facilities in the study area, and its future role would also need to be determined under a new agency structure. It is unlikely that DBW would be selected to manage all recreation, since its mission does not even nearly encompass the variety of recreation facilities and opportunities within the Project boundary, and otherwise its lack of experience in such widespread land and water management.

While DFG currently manages a significant portion of the Project area in overseeing the OWA, DFG typically manages primarily for fish and wildlife. Some of the established recreational uses in the LOSRA are not consistent with rules and regulations pertaining to Wildlife Areas, and thus DFG is an unlikely candidate as well.

Additionally, there are specific advantages and disadvantages associated with the three candidates for primary-agency management (DWR described above; DPR and FRRPD, as described below). Recreation management of the Kingsley Dam Project is structured similarly to the Oroville Facilities recreation management. This example demonstrates that a multi-agency structure can satisfactorily meet the public need for recreation opportunities.

### **California Department of Water Resources**

DWR could provide for the management of some recreation facilities currently within the LOSRA and within the OWA. A process of moving from the current structure to a DWR primary-management scenario would be less involved than transferring to another agency such as DPR or FRRPD. As stated earlier, DWR currently manages a relatively small portion of the Project area. As a result, there would likely be considerable cost and time needed for DWR to assume direct recreation management of significantly more of the Project area. DWR's primary mission is the SWP, of which providing recreation opportunities is secondary to providing water. Providing recreation opportunities is DPR's primary mission. DWR would need to hire additional recreation staff or contract some services under this scenario to handle the responsibilities of recreation management. These responsibilities would include: O&M, visitor monitoring and surveying, fee collection, management of concessionaires, building of new facilities, recreation planning, enforcement, visitor management control, communication with the public, and budgeting.

### **California Department of Parks and Recreation**

DPR manages a significant portion of the Project area. While DPR's budgeting process has made it difficult to distinguish costs of operation, it does provide an efficiency and consolidation of management activities. If all lands within the Project boundary were added to the LOSRA, a more consistent approach to recreation throughout the Project area might be realized. Transfer of responsibility of the portions of the OWA that are within the Project boundary could be transferred to DPR. The portions of the OWA outside of the Project boundary could also become part of the LOSRA. Legal ramifications of removing lands from State Wildlife Area status would need to be examined prior to such a transfer, but DPR also has specially-qualified natural resource managers within their organization and a broad responsibility for natural and cultural resource management at diverse locations around the State. Furthermore, funding, responsibility, and accountability would need to be negotiated, perhaps on a periodic basis, between DWR, DPR, and the SWC. Under this scenario, where DPR would manage recreation opportunities on all project lands, DWR would still be ultimately responsible for complying with FERC recreation-related license articles. Thus, DWR and DPR would constitute multi-agency responsibility.

### **Feather River Recreation and Parks District**

FRRPD is locally-based and recreation is its central mission. If it was determined that FRRPD would be responsible for managing the LOSRA, this could perhaps allow staff to respond more readily to the needs of the population that the Oroville Facilities serve (Butte County accounts for the majority of visitors to the study area). In order for the FRRPD to be the primary agency responsible for recreation within the Project boundary, their staff and budget would need to be increased substantially. The small size of FRRPD may potentially make this transition particularly dramatic. Currently, FRRPD

manages smaller-acreage parks within the Lake Oroville area within the City of Oroville and Butte County; thus, the nature of this agency would be significantly changed. FRRPD was formed as a special use district for a specific purpose. The purposes and jurisdiction of FRRPD would need to be revised for this agency to adopt the new responsibilities. For example, FRRPD has no law enforcement authority. Rapid growth and transition of authority would likely cause significant issues for FRRPD. Such transition would need to be addressed through coordination and input from other agencies and local stakeholders.

As an alternative to FRRPD managing the LOSRA, their recreation management role could be increased. This alternative is discussed below. In any case, DWR would continue to be ultimately responsible for complying with FERC recreation-related license articles.

### **5.3.2.3 Increased Local Responsibility**

Currently, agencies of the State of California (DWR, DPR, and DFG) manage all lands within the Project boundary. FRRPD manages recreation lands within the study area. Local entities and citizens have input in an advisory capacity. Stakeholder scrutiny and participation has increased over the years, well preceding but particularly during the relicensing effort. Currently, local agencies and NGOs are represented by JPA and ORAC. Individual citizens may represent themselves at ORAC meetings, or through letters to local, State, and federal authorities.

One way to increase local responsibility would be through FRRPD. FRRPD could adopt a centralized advising role to DPR and/or DWR in voicing local concerns regarding recreation management. FRRPD does not currently have a significant role in recreation planning within the Project area. As a stakeholder with a lot of knowledge of other recreation opportunities and facilities adjacent to the Project, FRRPD could facilitate provide increased input for more coordinated recreation planning.

Alternatively, FRRPD, as a local entity, could adopt an increased role for management of recreation facilities and opportunities within the Project area. Under this scenario, FRRPD would not necessarily be required to expand into a large agency. Some nominal growth could occur that would enable the FRRPD to add certain management functions to their current responsibilities. FRRPD could take over management of a smaller area, such as all or part of the OWA. Potential management responsibilities that could be adopted by FRRPD, or in which FRRPD could play an increased role, may include:

- Visitor monitoring and surveying;
- Fee collection;
- Recreation planning; and
- Communication with the public.

Some stakeholders have suggested that there is an inadequate level of monitoring of visitor use levels, surveying of public perceptions, and communication with the public. By assigning these responsibilities to a local entity that has increased local visibility and a more detailed understanding of local concerns, these management functions might be more satisfactorily implemented than under the current arrangement. Coordination of these efforts with DWR would be required to avoid any duplication of effort, since DWR provides these functions under current FERC requirements.

Currently, the JPA functions as a local forum for recreation goals and objectives including a primary goal of facilitating local economic development. Increased responsibility by the JPA for recreation management could include contracting with additional private service providers.

A continued role of the JPA could be enhanced communication with the public, as well as a continued project-proponent role for economic development-oriented projects inside or outside the Project boundary. To the degree that JPA has the resources, enhancing publicity of events and other features of the Lake Oroville area could be undertaken by JPA. Whereas DWR's jurisdiction ends at the Project boundary, JPA could facilitate communication and coordination of projects for geographic areas inside and outside the Project boundary. However, the JPA lacks staff and financial resources.

#### **5.3.2.4 Increased Presence of Concessionaires**

Under this scenario, additional concessionaire contracts could be offered to private businesses for some of the management functions. The most likely management functions that could be transferred to concessionaires would be those that the private sector would perceive as potentially profitable. If a specific item were to be placed under private management, new or higher user fees may be initiated to pay for the new private management of the area. Locations that currently require entry fees could also be managed by concessionaires. Entrance to areas that do not presently require entry fees could become fee-based if contracted to concessionaires.

DPR resources for concessionaire management would likely need to be increased if a significant portion of the areas currently managed by DPR were to be leased to concessionaires. The services provided by any concessionaire would have to be compatible with the other uses of the Project and compliant with the FERC license, and all other applicable plans, policies, and regulations.

#### **5.3.2.5 Alternative Stakeholder Involvement Programs**

The following describes models for partnership programs between stakeholders, managing agencies, and decision makers. Any of the alternatives presented below have the potential to benefit the members of the community, recreationists, and help recreation managers by providing an opportunity for citizen involvement. A "friends group," recreation commission, advisory committee, and/or public outreach program

could foster a further sense of ownership of the Project by the community and create greater synergy and acceptance with existing management activities. These types of groups would be autonomous to varying degrees from State agency management and would have the ability to initiate projects outside the scope and mission of DWR, DPR, and DFG, for example, much the way neighborhood watch programs are organized. Some of the problems discussed under 5.2.1 Overall Management Assessment could be solved, at least in part, by the implementation of an alternative stakeholder program. Members of these groups could participate in a variety of ways at the Oroville Facilities, depending on needs for volunteer activities or commission-type activities and individuals' interests.

### **Friends Group Model**

One model for stakeholder involvement with public land-management agencies is known as "Friends" groups. USFWS is one of the many agencies that have used this model to increase stakeholder involvement and augment their ability to implement and fund programs. Friends groups are organizations of community volunteers who work closely with agency staff to perform stewardship activities such as trail improvements or habitat enhancements. Friends groups work directly with agency personnel to prioritize projects and determine how to implement the projects. Consensus is developed between the land-managing agency staff and the community members through regular meetings and a clear mission statement and agenda of what the group is trying to accomplish. Friends groups are separate from agencies, with distinct governance and organizational structures. Their missions typically include the enhancement and protection of an area under management of a local, State, or federal agency.

This model could potentially provide a mechanism to augment the ability to perform needed management activities at the Oroville Facilities, such as basic maintenance projects or other recreation facility-related projects needed to support recreation. The work could be based in particular locations such as LOSRA or OWA. Strong partnership arrangements such as Friends groups are working successfully with many different agencies in many locations throughout the State and nation. A strong partnership with a community-based group may assist in diversifying funding opportunities, as some grants and programs are available only to such groups or partnerships and not a licensee. Furthermore, some funding programs consider the relationship between agencies and community members when making grants.

Members of a Friends group could participate in a variety of ways at the Oroville Facilities, depending on needs for volunteer activities and individuals' interests. This type of group could help facilitate communication with the public through docent or tour activities, as well as dissemination of information that could assist in enforcement of regulations. Also, simply the presence of volunteers could help to prevent vandalism or other undesirable activity at certain times and places. A Friends group could also organize additional special events and/or participate in maintenance events such as a litter pick-up day that would not otherwise take place. Members of a Friends group

could also perform other activities that would expand the scope of existing management efforts, such as collection of visitor attendance data. Members could collect data on additional days when staff would not be able to do so.

As mentioned, additional funds through granting entities may be available for such a group that would not be available to the State. Maintenance or development activities that may be postponed by the State due to budget shortfalls could be adopted as a priority by such a group. A potential example is the cultural site stewardship program, administered by DPR, to assist with the protection of cultural sites at LOSRA.

This type of group, however, would not be structured to have input into management decisions in the same way that other types of stakeholder involvement programs would. Those are discussed below. Also, a recent labor law affecting use of volunteers by public entities may limit volunteer activities. This issue would need to be resolved prior to creation of a Friends group.

### **Recreation Commission Model**

Stakeholder groups such as ORAC have asked for a forum whereby issues related to recreation and associated facilities could be addressed directly to DWR, DPR, and other land-managing agencies. Many cities provide for such direct citizen input through planning boards or commissions, which allow citizens to provide input in evaluating applications for development and other types of permits. A similar group could be formed to provide public review of recreation planning in Oroville. A group such as a Recreation Commission could be established around a specific project or issue within the study area, or it could take a broader, area-wide approach. If established, the Recreation Commission would provide a recurrent and formalized mechanism for community groups or individuals to present a request for a new facility, discuss a maintenance or enforcement issue, or simply voice their opinions relating to the management and enforcement of recreation and related facilities. The Recreation Commission could include officials of the land-managing agencies (DWR, DPR, and DFG), as well as representatives from the City of Oroville, County of Butte, FRRPD, and the community at large.

The specific structure and processes of the Recreation Commission would need to be determined with input from a broad array of stakeholders. One possible structure, based on the model of the municipal Planning Commission, would allow any community member to submit an application with a description and background information for a proposed project. The Recreation Commission would consider the application and decide whether to recommend the project to the managing agency. The Commission would meet on a regular basis, perhaps three or four times per year, and would prepare an agenda based on the applications received. Criteria for recommendation and for public hearings would be clear to the public and to applicants. All relevant rules and requirements for Commission meetings would be followed. The mission of the Commission would be to create a public forum and prioritization process for recreation-

related issues and potential projects in the Oroville area, subject to consistency with the new FERC license. However, it must be acknowledged that FERC has been reluctant to cede significant authority for recreation away from itself and the licensee.

A Recreation Commission formed to address a specific issue or project could implement activities in ways similar to a Friends group but could have more authority if members of the stakeholder agencies were involved. A Commission that would operate to recommend or discourage certain types of projects would require a more involved effort to establish the decisions and consensus needed regarding the scope, mission and rules of such a group. The timing of projects would require close coordination with a Recreation Commission so that significant delays in project approval would be avoided. The issue of how commissioners would be compensated and selected would also need to be resolved prior to forming such an entity.

### **Advisory Committee**

An Advisory Committee would function with less direct oversight of potential projects than a Commission, but could provide an important role as a clearinghouse for information and concerns and make recommendations to recreation managers. An Advisory Committee could function to monitor scheduled activities directed by the new license. Members could be included from the land-managing agencies (DWR, DPR, and DFG), as well as representatives from the City of Oroville, County of Butte, FRRPD, and the community at large. Meetings could be scheduled on a periodic basis, such as quarterly, and could be facilitated by a third-party. The Advisory Committee could be scheduled to function for a period of time, such as five years, with a reevaluation of the Committee's effectiveness at the end of the five year period. Or the Advisory Committee could be set up to continue through the next license period; however, periodic reevaluation would be advisable. Subcommittees could be assigned to address specific topics, such as monitoring of visitor attendance numbers, for efficiency. If an Advisory Committee were to be developed, DWR would need to outline the process and identify staff for handling the information and recommendations developed by the Committee.

An Advisory Committee would benefit the community and agencies by tracking the implementation of the Recreation Plan (forthcoming) and FERC Orders. This type of tracking could help facilitate progress. It could provide a forum for citizen input into management activities. However, such a committee would have somewhat less ability to participate directly in management activities compared with a Friends Group or a Recreation Commission. On the other hand, FERC has previously demonstrated support for groups such as Advisory Committees.

### **Public Outreach Program**

A public outreach program could be designed to incorporate stakeholder input in a variety of forms including those described above ("Friends" group, Recreation

Commission, or Advisory Committee) as part of a comprehensive outreach or communication approach. This approach could continue activities that have been pursued during relicensing, such as regular public meetings during the next license period and continued dissemination of information through the Internet. Additionally, a means for stakeholders to communicate more directly with DWR aside from meetings, such as through a recreation hotline or recreation office, could improve satisfaction with recreation management. Mediation for long standing concerns could also provide a means for conflict resolution, as needed.

## **5.4 POTENTIAL SUPPLEMENTAL RECREATION FUNDING**

Funding is a critical element of recreation management effectiveness. Additional funding could help enhance recreation opportunities in the study area. This section identifies potential sources of additional funding for the Oroville Facilities and surrounding areas that are available through grants and similar programs, and/or through alterations in the existing fee structure.

### **5.4.1 State Grants and Similar Programs**

DFG and DPR both have substantial programs that distribute funding throughout the State for various purposes. Funding for these programs comes from the State as well as other sources often from General Obligation Bond grants and loans. This section identifies the grant programs applicable to the study area and describes their parameters. Table 5.4-1 summarizes those funding opportunities. It should be noted that many more private and federal grant sources are available. This list is not meant to be exhaustive. A complete list of available grants could be compiled later to support grant-seeking efforts.

#### ***5.4.1.1 Grants from California Department of Parks and Recreation***

The Resources Bond Act was created through Proposition 40 and provides funding through DPR for certain funding programs (DPR 2003b). Funding is also available through the Habitat Conservation Fund Grant Program under the California Wildlife Protection Act of 1990. Funds can also be obtained through DPR from the Land and Water Conservation Fund and the Recreation Trails Program.

#### **Per Capita Grant Program**

The Per Capita Grant Program was created by the Resources Bond Act, Proposition 40 passed in 2002, and is administered by DPR's Office of Grants and Local Services. Only capital projects are eligible. The Program provides for a one-time allocation of funds.

**Program Intent.** The Per Capita Grant Program is intended to maintain a high quality of life for California's growing population by providing a continuing investment in parks and recreational facilities. Specifically, it is meant for the acquisition and development of neighborhood, community, and regional parks and recreation lands and facilities in

urban and rural areas. This program was created by the passage of Proposition 40, a 2002 Resources Bond.

**Funds Available and Eligible Applicants.** \$326.7 million were available at the outset of this program. \$196,035,000 was allocated for the following entities based on population:

- Cities; and
- Eligible districts, other than a regional park district, regional park and open-space district, and regional open-space district.

**Table 5.4-1. Summary of potential funding sources.**

Granting Agency	Grant Name	Eligibility
DPR (Prop. 40)	Per Capita Grant	Cities, counties, regional park districts, regional park and open-space districts, regional open-space districts, and other eligible districts
DPR (Prop. 40)	Roberti-Z'Berg-Harris (RZH) Grant	Varies depending upon subprogram
DPR (Prop. 40)	Youth Soccer & Recreation Development	Cities, counties, city and county park and recreation districts, open-space districts, school districts, and nonprofit community-based organizations
DPR (Annual)	Habitat Conservation Plan	Cities, counties, cities and counties, or districts as defined in Subdivision (b) of Section 5902 of the Public Resources Code
DPR (Annual)	Land & Water Conservation Plan	Counties, cities, recreation and park districts, and special districts with authority to acquire, develop, operate, and maintain public park and recreation areas
DPR (Annual)	Recreational Trail Program	Cities, counties, districts, state agencies, and nonprofit organizations with management responsibilities over public lands
DFG (Wildlife Control Board [WCB])	Riparian Habitat Conservation Program	Nonprofit organizations; Federal, State, and local governmental agencies; Resource Conservation Districts; other special districts (e.g., Reclamation, Water, Irrigation)
DFG (WCB)	Inland Wetlands Conservation Program	Nonprofit organizations; Federal, State and local governmental agencies; Resource Conservation Districts; other special districts (e.g., Reclamation, Water, Irrigation)
DFG (WCB)	Public Access Program	Cities, counties, and public districts or corporations

Sources: DPR 2003b; Wildlife Conservation Board (WCB) 2004.

Notes: Prop. = Proposition;

The minimum allocation for these agencies is \$220,000.

An amount of \$130,690,000 (40 percent of the \$326,725,000) was allocated to the following entities:

- Counties;
- Regional park districts;
- Regional park and open-space districts; and
- Open-space districts.

The minimum allocation for counties only is \$1.2 million.

**Eligible Projects.** Eligible projects include acquisition, development, improvement, rehabilitation, restoration, and enhancement of interpretive facilities, local parks, and recreational lands and facilities. Per capita grant funds can be used only for capital expenditures.

**Application to study area.** Examples of potential projects in the study area could include development of new parks, an additional visitor center, or supplementary interpretive signs and kiosks. New parks or a new visitor center could be located in the City of Oroville or along major highways. Additional interpretive signs could be located at key locations within the study area, within the LOSRA or at existing parks such as Riverbend and Bedrock Parks. Potential applicants for these projects would include Butte County, City of Oroville, or FRRPD.

### **Roberti-Z'Berg-Harris Grant Program**

The Roberti-Z'Berg-Harris (RZH) Grant Program was also created by the Resources Bond Act, Proposition 40 passed in 2002, and is administered by DPR's Office of Grants and Local Services. The bond provides for a one-time allocation of funds.

**Program Intent.** Funds for this grant program are to be allocated for projects pursuant to the Roberti-Z'Berg-Harris (RZH) Urban Open Space and Recreational Grant Program and are to be used for:

- High-priority projects that satisfy the most urgent park and recreation needs, with emphasis on unmet needs in the most heavily populated and most economically disadvantaged areas within each jurisdiction;
- Projects for which funding supplements, rather than supplants, local expenditures for park and recreation facilities and does not diminish a local jurisdiction's efforts to provide park and recreation services;
- Block grants allocated on the basis of population and location in urbanized areas; and
- Need-basis grants to be awarded competitively to eligible entities in urbanized and non-urbanized areas.

**Funds Available.** \$200 million (minus administrative costs). For the 2002 Resources Bond Act RZH Block Grant Program (see Subprograms below), the match requirement was eliminated.

**Eligible Applicants.** There are three separate subprograms (see below). Eligibility varies depending on the subprogram.

### **Annual Subprograms**

- RZH Block Grants: \$155 million fund for block grants allocated based on population;
- RZH Non-urbanized Grants: \$28 million fund for competitive grants for non-urbanized areas; and
- RZH Urbanized Grants: \$3.7 million fund for competitive grants for urbanized areas.

### **Eligible Projects**

- Acquisition of park and recreation lands and facilities;
- Development/rehabilitation of park and recreation lands and facilities;
- Special Major Maintenance of park and recreation lands and facilities; and
- Innovative recreation programs. (Note: Special major maintenance and/or innovative recreation programs may not exceed 30 percent of grant funds.)

**Application to study area.** Examples of potential projects in the study area could include improvements to the Nature Center, a warmwater swimming area, or extending the Enterprise boat ramp. Potential applicants for these projects would include Butte County, City of Oroville, or FRRPD.

### **California Youth Soccer and Recreation Development**

The California Youth Soccer and Recreation Development Grant Program was also created by the Resources Bond Act, Proposition 40 passed in 2002, and is administered by DPR's Office of Grants and Local Services. The bond provides for a one-time allocation of funds.

**Program Intent.** The intent of the Youth Soccer and Recreation Development program is to provide financial assistance to local agencies and community-based organizations to foster the development of new youth soccer, baseball, softball, and basketball recreation opportunities in California.

**Funds Available.** \$50 million was available at the outset of this program to be split between this program and State Urban Parks and Healthy Communities Program. The

funding is to occur in a future State budget. Applicants that provide a commitment for matching contributions will be more competitive in this program.

**Eligible Applicants.** Cities, counties, city and county park and recreation districts, open-space districts, school districts, and nonprofit community-based organizations are eligible. All community-based organizations shall have a current tax-exempt status as a nonprofit organization under Section 501(c)(3) of the federal Internal Revenue Code.

**Eligible Projects.** Acquisition (from willing sellers only) or development of land and/or facilities to improve the property's public usage and access for new youth soccer, baseball, softball, and basketball opportunities would be eligible projects.

**Application to study area.** This grant program is applicable to the City of Oroville, but is outside the scope of DWR's mission. Potential applicants for this grant would include Butte County, City of Oroville, or FRRPD.

### **Habitat Conservation Fund Grant Program**

The Habitat Conservation Fund Grant Program was created by the California Wildlife Protection Act of 1990. It is also administered by DPR's Office of Grants and Local Services. The bond provides for annual allocation of funds.

**Program Intent.** The program provides funds to local governments from the Habitat Conservation Fund Grant Program under the California Wildlife Protection Act of 1990.

**Funds Available.** \$2 million is available annually under the program. The Habitat Conservation Fund Program requires a dollar-for-dollar match from a non-State source. Grants for acquisition shall be matched only by non-State money or property made available as part of the acquisition project.

**Eligible Applicants.** Only local units of government are eligible. These are cities, counties, cities and counties, or districts as defined in Subdivision (b) of Section 5902 of the Public Resources Code.

### **Eligible Projects.**

The following types of projects are eligible:

1. Acquisition of:

- Deer and mountain lion habitat, including oak woodlands;
- Habitat for rare and endangered, threatened, or fully protected species;
- Wildlife corridors and urban trails;
- Wetlands;

- Aquatic habitat for spawning and rearing of anadromous salmonid and trout resources; or
- Riparian habitat.

Acquisition includes, but is not limited to, gifts, purchases, leases, easements, the exercise of eminent domain if expressly authorized, the transfer or exchange of property for other property of like value, transfers of development rights or credits, and purchases of development rights and other interests. Before recommending the acquisition of lands located on or near tidelands, submerged lands, swamp or overflowed lands, or other wetlands, whether or not those lands have been granted in trust to a local public agency, any State or local agency or nonprofit agency receiving funds under this program shall submit to the State Lands Commission any proposal for the acquisition of those lands. The State Lands Commission shall, within 3 months of submittal, review the proposed acquisition, make a determination as to the State's existing or potential interest in the lands, and report its findings to the entity making the submittal and to the State Department of General Services.

2. Enhancement and restoration of:

- Wetlands;
- Aquatic habitat for spawning and rearing of anadromous salmonid and trout resources; or
- Riparian habitat.

Adequate tenure to the property is required for enhancement or restoration projects. Adequate tenure means the applicant owns the land or holds a lease or other long-term interest that is satisfactory to DPR.

3. Programs that:

- Provide for the interpretation of California's park and wildlife resources; or
- Bring urban residents into park and wildlife areas.

Programs include those proposals designed to provide opportunities for urban residents to use park and wildlife areas. Programs also include nature interpretation programs that are designed to increase people's awareness of and appreciation for park and wildlife resources.

**Application to study area.** Examples of potential projects in the study area could include additional fishery education programs at the Feather River Fish Hatchery, interpretive walks/talks in the OWA discussing the wildlife in the area, or educational school programs in the OWA regarding wetlands, fish, and endangered/threatened species. Potential applicants for these projects would include the City of Oroville or Butte County (matching non-State money is required).

## **Land and Water Conservation Fund**

The Land and Water Conservation Fund Grant Program was also created by the California Wildlife Protection Act of 1990 and is administered by DPR's Office of Grants and Local Services. The bond provides for annual allocation of funds.

**Program Intent.** The Land and Water Conservation Fund program provides funds to federal agencies, and to the 50 states and 6 territories. The money allocated to the states may be used for statewide planning, and for acquiring and developing outdoor recreation areas and facilities.

The program, which is administered nationally by the National Park Service (NPS), became effective in January 1965, was initially authorized for a 25-year period, and has been extended for another 25 years, to January 2015. Under the provisions of the California Outdoor Recreation Resources Plan Act of 1967, the expenditure of funds allocated to California is administered by the State Liaison Officer, who is the Director of DPR.

**Funds Available.** California's allocation for fiscal year 2003 was \$8,163,535. About \$4.4 million was available for grants to local agencies: 60 percent for Southern California and 40 percent for Northern California. The program requires a dollar-for-dollar non-federal match.

**Eligible Agencies.** Local agencies eligible to share in the fund are counties, cities, recreation and park districts, and special districts with authority to acquire, develop, operate, and maintain public park and recreation areas. DWR also receives five percent of California's share annually, which over the past several years has averaged about \$125,000 for DWR-related projects.

**Eligible Projects.** The Land and Water Conservation Fund program is limited to outdoor recreation purposes, and to indoor facilities that support outdoor recreation activities.

The types of projects most often funded by local agencies are acquisition or development of neighborhood, community, and regional parks that include top priority recreation projects or acquisitions of wetlands. (Combination acquisition and development projects are not eligible.)

Ineligible for funding are projects such as restoration or preservation of historic structures; construction of employee residences; development of interpretive facilities that go beyond interpreting the project site and its immediate surrounding area; development of convention facilities, or of commemorative exhibits; construction of facilities marginally related to outdoor recreation; and construction of indoor facilities such as community center, gymnasiums, and facilities used primarily for spectator sports.

Projects funded by State agencies include additions to State parks and recreation areas, wildlife areas, boating facilities, and wetlands projects.

**Application to study area.** An example a of potential project in the study area could include acquiring gravel mining land adjacent to the Feather River and the OWA for future wetland restoration. Potential applicants for this project could include Butte County, the City of Oroville, or FRRPD.

### **Recreational Trails Program**

The Recreational Trails Program (RTP) is a federally-funded competitive grant program that provides financial assistance to agencies of city, county, state, or federal governments, and organizations, approved by the State or Indian tribal governments, for the development of recreational trails, trailheads and trailside facilities. The program provides for annual allocation of funds.

**Program Intent.** The RTP provides funds for recreational trails and trails-related projects. The RTP is administered, at the federal level, by the Federal Highway Administration. It is administered at the State level by DPR. Non-motorized trail projects are administered by DPR's Planning and Local Services Section. Motorized-trail projects are administered by DPR's Off-Highway Motor Vehicle Recreation Division.

**Funds Available.** California's allocation for the 2003 grant cycle was approximately \$3.2 million. About \$2.2 million was available for non-motorized trails projects and \$1.0 million for motorized trails projects. The RTP is a matching program that provides up to 80 percent of the project costs.

**Eligible Applicants.** Cities, counties, districts, state agencies, and nonprofit organizations with management responsibilities over public lands are eligible. A nonprofit organization is deemed to have management responsibilities over public lands when a written agreement exists between the nonprofit organization and a public-land management agency that identifies the nonprofit organization's responsibilities over public lands to include either planning, development or construction, acquisition, operations, or maintenance of trails or trails-related facilities.

Applicants must have adequate tenure to the property to be improved with grant funds, either by ownership, lease, or other long-term interest in the property. The length of the tenure must be sufficient to complete the project and to meet the program requirements for ongoing maintenance and operations. For capital expenditure projects (permanent additions or improvements to property), the total tenure requirements are 10 years for grants of less than \$100,000, 15 years for grants between \$100,000 and \$200,000, and 20 years for grants over \$200,000. With DPR approval, the applicant may transfer the responsibility to maintain and operate the property to a public agency. If the applicant's

tenure is less than the time required, the public agency that assumes operations responsibility for the remaining time must do so in writing.

For non-capital expenditure projects (maintenance, equipment purchase, safety education), the length of the applicant's tenure, if applicable, must be sufficient to complete the proposed project and justify the investment of grant funds. For equipment purchases over \$30,000, the tenure requirement is 10 years. Only motorized-trail projects are eligible for non-capital expenditures.

### **Eligible Projects**

- Maintenance and restoration of existing recreational trails (motorized projects)<sup>8</sup>;
- Development and rehabilitation of trailside and trailhead facilities and trail linkages for recreational trails;
- Purchase and lease of recreational trail construction and maintenance equipment (motorized projects)<sup>8</sup>;
- Construction of new recreational trails;
- Acquisition of easements and fee-simple title to property for recreational trails or recreational trail corridors; and
- Operation of educational programs to promote safety and environmental protection as those objectives relate to the use of recreational trails, but in an amount not to exceed 5 percent of the apportionment made to the State for the fiscal year (motorized projects)<sup>8</sup>.

**Application to study area.** Examples of potential projects in the study area could include maintenance and restoration of trails within the Clay Pit SVRA, new trails around the Thermalito Forebay, Thermalito Afterbay and trails which connect the facilities at the Lime Saddle complex, or an easement for use of the railroad land near the Diversion Pool. Potential applicants for these projects would generally include DWR and/or DPR, because they have tenure of the land to be improved.

#### ***5.4.1.2 Grants from DFG, Wildlife Conservation Board***

DFG provides funding through several programs that are potentially applicable to lands within the Project area, including the California Riparian Habitat and Conservation Program, the Inland Wetlands Conservation Program, and the Public Access Program.

#### **California Riparian Habitat Conservation Program**

The California Riparian Habitat Conservation Program was created within the Wildlife Conservation Board (WCB) by legislation in 1991. In recognition of major losses of California's riparian habitat and in an effort to reverse this trend to the extent possible,

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<sup>8</sup> State law, CCR Chapter 964, places limits on the use of funds for non-motorized trails.

conservation organizations are actively developing programs to protect these valuable ecosystems.

**Program Intent.** The goal of the program is to protect, preserve, restore, and enhance riparian habitat throughout California. The WCB is authorized to acquire interest in real property and water rights through gift, purchase, lease, easement, and transfer or exchange of easements, development rights or credits, and other interests in real property.

### **Program Authority**

- Restore and enhance riparian areas;
- Acquire interest in land in fee or less than fee interest;
- Award grants and loans;
- Accept donations of cash and land;
- Accept federal funds and grants; and
- Accept private foundation grants.

### **Eligible Applicants**

- Nonprofit organizations (Section 501[c][3]);
- Federal, State, and local governmental agencies;
- Resource conservation districts; and
- Other special districts (e.g., reclamation, water, irrigation).

### **Eligible Projects**

Restoration and enhancement projects, such as:

- Bank stabilization and revegetation to control erosion and establish riparian corridors;
- Conversion of existing floodplain agricultural crops to riparian vegetation;
- Fencing of riparian corridors to control and/or manage livestock or wildlife impacts on habitat/channel stability; and
- Implementation of changes in land uses to allow natural stream function to return (for example, breaching a levee or setting the levee back to reconnect the stream with its floodplain).

**Application to study area.** An example of a potential project in the study area could include revegetation of the OWA gravel piles and disturbed mining land, especially along the Feather River riparian corridor. Potential applicants for this project would include DFG, DWR, or FRRPD.

## **Inland Wetlands Conservation Program**

California is the winter home to more than 60 percent of the migratory waterfowl in the Pacific Flyway. Over the years, approximately 95 percent of this wintering habitat for ducks, geese, swans, and millions of other birds that utilize the Pacific Flyway has been lost. Many of those losses have occurred in the Central Valley between Red Bluff in the north and Bakersfield in the south. In recognition that public funds alone are not sufficient to arrest the continuing decline of existing wetlands and waterfowl habitat, the Central Valley Habitat Joint Venture (CVHJV) was established.

**Program Intent.** The protection, restoration or enhancement of wetlands in the Central Valley, which extends approximately 400 miles from Red Bluff in the north to Bakersfield in the south and encompasses the following nine basins: Butte, Colusa, Sutter, Yolo, American, Suisun Marsh, Delta, San Joaquin, and Tulare Lake area. The WCB is authorized to acquire, lease, rent, sell, or exchange any land or options acquired, with the proceeds going directly to the Inland Wetlands Conservation Fund to further support the efforts of the Inland Wetlands Conservation Program and the Central Valley Habitat Joint Venture.

### **Eligible Applicants**

- Non-profit organizations (Section 501[c][3]);
- State and local governmental entities;
- Resource conservation districts; and
- Special districts.

### **Eligible Projects**

#### 1. Acquisition projects:

- Fee-simple acquisitions;
- Leases from landowners for a specified period; and
- Acquisition of perpetual, less than fee-simple interests (easements).

2. Restoration and enhancement projects: The Inland Wetlands Conservation Program is authorized to restore and enhance wetlands and other waterfowl habitats through the following and other methods:

- Develop wetland habitat for migrating and wintering waterfowl: construct levees, swales and islands; develop water conveyance and drainage systems; install water control structures; and prepare soil and plant desirable vegetation;
- Develop waterfowl breeding habitat: construct brood water ponds, establish and fence upland nesting habitat, and provide cover and feeding areas;

- Develop waterfowl friendly agricultural practices: fence upland nesting habitat, encourage wildlife friendly grazing practices, and promote winter flooding of croplands; and
- Assist with the development of conjunctive use projects by which multiple objectives are achieved, e.g., restore wetlands to assist with flood control and groundwater recharge efforts.

**Application to study area.** An example of a potential project in the study area could include enhancement of the brood areas at the northern portion of the Thermalito Afterbay. Potential applicants for such a project could include DWR or DFG.

### **Public Access Program**

The Wildlife Conservation Board (WCB) carries out a program which includes the development of facilities in cooperation with local agencies for public access to hunting, fishing or other wildlife-oriented recreation.

**Program Intent.** Financial assistance is available to cities, counties, and public districts or corporations for development such as fishing piers or floats, access roads, boat launching ramps, trails, boardwalks, interpretive facilities, and lake or stream improvements. Support facilities such as restrooms and parking areas are also eligible for funding under this program. Applications for project funding are accepted on a year-round continuous basis. The WCB normally meets every three months for the purpose of considering proposals. Meetings are typically held in February, May, August, and November and are open to the public.

### **Eligible Projects**

- The project provides recreation primarily for hunting or fishing use or other wildlife-associated recreation of Statewide or regional significance;
- DFG supports the funding of the project;
- There is an identifiable need for the facilities;
- The project is located on land owned by the local agency, or some other public agency, which will provide the State with a free lease, or other proprietary interest, for a minimum of 25 years;
- The local agency/sponsor will agree to enter into an agreement for operation and maintenance of the project for a minimum of 25 years;
- The local agency/sponsor will provide matching funds for pier project development; and
- Project costs are reasonable and funding is available for the proposed project.

**Application to study area.** Examples of potential projects in the study area include adding an ADA accessible fishing pier at One Mile Pond in the OWA, additional shoreline fishing access at the North Thermalito Forebay with a trail to it from the North

Thermalito Forebay BR/DUA. Potential applicants for this project could include DPR or DWR.

#### **5.4.2 Alternative Fee Structures**

Under FERC regulations, licensees may collect reasonable fees for recreation facilities to help offset the cost of operating those recreation facilities. DPR currently collects fees for entrance to its public parks and use of its amenities, such as camping areas, boat ramps, and parking lots. DPR collects entrance fees and camping fees at some of the facilities within the Lake Oroville area; however, DFG collects no fee for camping or other use of the OWA.

Table 5.4-2 below describes the fees that are charged by DPR for the use of the recreation sites and their associated facilities at Lake Oroville. It should be noted that the fees listed are for 2002-2003. The fees for most uses are scheduled to increase on July 1, 2004. Annual Day Use passes cost \$67. Annual Day Use passes that also include Boat Use cost \$112 a year. Senior Citizens receive \$1 off of day use fees and \$2 off of camping fees (per day) at Lake Oroville and at all California State Parks.

The kiosks located at Loafer Creek, Bidwell Canyon, Spillway, Lime Saddle, and North Thermalito Forebay are staffed with fee collectors only during the park season, May 15-September 15. During the off-season, the honor system is employed through the use of collection boxes located near the kiosks.

In more than 1,900 responses to the Recreation On-Site Survey by visitors at Lake Oroville in 2002 and 2003, visitors stated that they paid an average of \$22 for parking fees and tolls, and an average of \$52 on camping fees for each visit to Lake Oroville. The revenue for Lake Oroville from fiscal year 2002 generated by user fees was \$784,198 (pers. comm., Feazel 2003).

##### ***5.4.2.1 Fee Implementation***

Alternative fee structures could be implemented at areas where DPR or DFG do not currently collect fees, such as in the OWA. A new or modified fee structure could provide supplemental funding for recreation and could increase the existing fees at selected recreation areas during both peak and off seasons. Kiosks could potentially be staffed during off-season weekends to collect fees not being paid and to more closely monitor off-season use levels.

As discussed previously, if a specific type of management responsibility or geographic area were to be placed under private management, new or higher user fees may be initiated to pay for the new private management of the area, though not necessarily. Locations that currently require entry fees could also be managed by concessionaires. Entrance to areas that do not currently require entry fees could become fee-based if contracted to concessionaires.

**Table 5.4-2. Daily recreation fees charged by DPR at Lake Oroville in 2002-03.**

Recreation Sites	Current Fees		Fees as of July 1, 2004	
	Peak Season Fee (May 15–Sep 15)	Off-Season Fee (Sep 16–May 14)	Peak Season Fee (May 15–Sep 15)	Off-Season Fee (Sep 16–May 14)
Loafer Creek				
DUA (per car)	\$ 2	\$ 2	\$4	\$4
BR (per boat)	\$ 2	\$ 2	\$5	\$5
Campgrounds	\$ 14	\$ 10	\$18	\$13
Equestrian camp	\$ 17	\$ 14	\$30	\$25
Group camp	\$ 36	\$ 36	\$60	\$60
Bidwell Canyon				
DUA (per car)	\$ 2	\$ 2	\$4	\$4
BR (per boat)	\$ 2	\$ 2	\$5	\$5
Campgrounds	\$ 20	\$ 16	\$24	\$19
Spillway				
DUA (per car)	\$ 2	\$ 2	\$4	\$4
BR (per boat)	\$ 2	\$ 2	\$5	\$5
RV En Route Camping	\$ 10	\$ 10	\$12	\$12
Lime Saddle				
Campgrounds – hook-ups	\$ 20	\$ 16	\$24	\$19
Non-hook ups	\$ 14	\$ 10	\$18	\$13
DUA (per car)	\$ 2	\$ 2	\$4	\$4
BR (per boat)	\$ 2	\$ 2	\$5	\$5
Group	\$ 36	\$ 36	\$60	\$60
North Thermalito Forebay				
RV En Route Camping	\$ 10	\$ 10	\$12	\$12
DUA (per car)	\$ 2	\$ 2		
Primitive Boat-in Camping	\$7	\$7	\$12	\$12
Bloomer Group BIC	\$ 54	\$ 54	\$90	\$90
Floating Campsites	\$ 67	\$ 67	\$100	\$100

Source: pers. comm., Feazel 2004.

As mentioned, in a survey of the study area, 88 percent of study area Mailback Survey respondents did not rate “cost to use facilities” as a problem, whereas approximately 6 percent of respondents considered cost to be a moderate to big problem. Based on these results, it would appear that recreation managers are administering costs that are considered reasonable by a large majority of recreationists. However, a majority of recreationists may be willing to pay more than is currently being charged and may be willing to pay at areas that are currently free to the public, such as the OWA, to have additional services such as improved litter management. This appears to be the case in

spite of opposition by some vocal opponents. Opponents may or may not be willing to pay the increase in fees proposed by DPR.

#### **5.4.2.2 Case Study**

Other federal agencies, such as NPS, USFWS, USFS, and BLM, also collect visitor fees. Whereas some fee programs do not specify that fees collected at a specific park unit may be spent at the collecting unit, the Recreational Fee Demonstration Program (Fee Demo) implemented by these four agencies allowed NPS to retain 100 percent of the revenues it generated, with 80 percent of the revenues retained by the collecting unit (Field et al. 1998).

Studies have determined that increased fees associated with the Fee Demo did not affect visitation patterns. Surveys show that 75 percent of park managers felt that the new fee did not cause a shift in visitation patterns, and 60 percent of managers have a positive view of the contribution of the Fee Demo on their park's base budget situation (Field et al. 1998).

## **6.0 CONCLUSIONS**

This section concludes the assessment of recreation management within the study area and offers some recommendations. Section 6.1 summarizes the current management structure. Section 6.2 provides conclusions regarding assessment of recreation management within the Project area. A variety of issues are addressed including O&M, communication with the public, interagency management and recreation funding structure. Section 6.3 discusses effects of management actions on recreational activities. Section 6.4 presents conclusions and recommendations regarding the management structure evaluation.

This report was prepared under the general direction of DWR staff. Opinions, findings, and conclusions expressed in this report are those of the authors. This report does not express the official position of DWR unless specifically approved by the Director or his designee.

### **6.1 MANAGING AGENCIES AND COORDINATED PLANS**

Lands, facilities, and recreational interests in the study area are owned and managed by a number of State, local, and federal agencies, including DWR, DPR, DFG, DBW, FRRPD, USFS, and BLM. The land and management responsibilities of each agency are detailed in a series of deeds, agreements, and transfers between the agencies involved. Under regulations of the FERC, DWR is ultimately responsible for managing and providing adequate public access, recreation opportunities, and associated development within the Project 2100 boundary.

The variety of management jurisdictions within the study area has led to an overlay of management plans, goals, responsibilities, and actions. Current planning efforts are being coordinated by DPR and DWR in concert so that each agency's management plan within their jurisdictions are consistent. DPR's updated LOSRA General Plan (under development) will address the broad mission and management goals for the LOSRA. DWR's Recreation Management Plan (RMP) will define specific programs for the entire Project area, such as new development and O&M. Both plans are being developed concurrently and are being coordinated with one another. This type of coordinated planning effort should be continued into the implementation phase and should also include DFG managers responsible for recreation opportunities within the OWA.

### **6.2 RECREATION MANAGEMENT ASSESSMENT**

In general, recreation management in the study area has been operating effectively, however some responsibilities need to be clarified and improved. The current management structure has led to some problems because of the multiple jurisdiction inconsistencies. Confusion for recreationists as to which regulations apply at the Afterbay or OWA due to multiple jurisdictions illustrates one problem resulting from the

current management structure. However, many of the problems that have been identified are more likely attributed to understaffing, such as enforcement efforts relative to litter and dumping in the OWA. One area of management structure that could be improved would be a better system for communication between State agencies and between these agencies and the public.

The O&M issues addressed in this section include visitor safety, litter and sanitation, use levels, costs paid by recreationists, service and staffing, landscape and maintenance, shoreline access and water level, and data collection and monitoring. Communication with the public, interagency management, and recreation funding structure are also discussed.

### **6.2.1 Operations and Maintenance**

Several categories of issues fall under the overall heading of operations and maintenance including visitor safety, litter and sanitation, user fees, service and staffing, and landscape and maintenance.

#### **6.2.1.1 Visitor Safety**

Survey results appear to indicate that current recreation management is operating effectively in terms of safety and law enforcement at most times and places in the study area. Potential safety issues should continue to be monitored, in case an increase in the presence or type of law enforcement may be needed at certain times and places.

#### **6.2.1.2 Use Levels**

Use levels and perceived crowding indicate to managers if, when, and how often facilities are reaching capacity. The majority of respondents did not consider the number of people at developed facilities to be a problem. Very few respondents considered encounters between visitors and residents as a problem. It is most likely that incidents that may have motivated respondents to indicate a problem occurred during the highest use times and at the most popular sites. This is consistent with the responses relating to numbers of people at developed facilities, which was rated as a moderate to big problem by only 15 percent of respondents. Relicensing Study R-8 – *Recreation Carrying Capacity* details the capacity of existing facilities. Further analysis of capacity and needs within the Project area will be discussed in Relicensing Study R-17 – *Recreation Needs Analysis*.

#### **6.2.1.3 Litter and Sanitation**

Keeping facilities and recreation areas clean and free from debris is a responsibility of recreation area managers. Based on site conditions within the LOSRA and OWA (especially the latter) and based on survey responses, it appears that recreation area managers have not been as effective as recreationists would like, and litter and sanitation management is a cause for “moderate” concern (EDAW 2003b). The current problems with litter can mainly be attributed to lack of State general funding and

consequent understaffing. Lack of enforcement staff time dedicated to preventing dumping and littering, and lack of staffing to clean up litter and trash, contribute to the current situation. Additional staffing to prevent and clean up litter could improve the problem within the study area. Some staff time could also be spent recruiting and organizing volunteers to help clean up litter and could help get the community involved. Community involvement could help to prevent or identify people who illegally dump garbage.

#### **6.2.1.4 Costs Paid by Recreationists**

Based on survey results, it would appear that local recreation fees are considered reasonable by a large majority of recreationists. Furthermore, a majority of recreationists may be willing to pay more than is currently being charged and may be willing to pay at areas that are currently free to the public to have additional services, such as improved litter management. DPR is currently raising fees throughout the State. Based on visitor willingness to pay, fee increases would not be expected to significantly affect attendance.

#### **6.2.1.5 Service and Staffing**

Only 11 percent of those surveyed on-site considered current service and staffing levels to be a moderate to big problem. Based on the relatively low rate of dissatisfied response to this question, it appears that area recreation managers and service providers are generally effective when it comes to service and staffing. It is likely that the majority of perceived problems with service and staffing occurred at the busiest times and places during the recreation season. This would be consistent with the survey responses regarding potential problems with safety, which indicate that although there is not widespread concern over safety, there are some potential problems at certain times and places.

As demand for recreation use increases in the Lake Oroville area (as projected in Relicensing Study R-12 – *Projected Recreation Use*), demand for services and staffing will likely increase. It is in the best interest of recreation area managers and service providers to monitor and remain abreast of what new services may be needed, if any.

#### **6.2.1.6 Landscape and Maintenance**

In general, survey results indicate that the landscaping provided is adequate. Sensitivity to adequacy of landscaping may vary among those surveyed; however, there may be some sites that could be better landscaped. Future management plans could include plans for improving maintenance and developing additional landscaping in key areas.

#### **6.2.1.7 Shoreline Access and Water Level**

Adequate access to the Project is not only mandated by FERC, but access to shoreline and water is fundamental to providing water-based recreation. This topic is discussed

in detail in Relicensing Study R-3 – *Assessment of the Relationship of Project Operations and Recreation*. Although water level is determined predominantly by factors other than recreation, managers could work to communicate more effectively. Optimum water levels could be publicized during the recreation season so that recreationists have more opportunity to experience the reservoir when it is at optimum conditions. Recreation managers could also provide alternative suggestions directing visitors to areas, within the Lake Oroville area, that may be less affected by periodic low water levels.

#### **6.2.1.8 Data Collection and Monitoring**

As outlined in Relicensing Study R-9 – *Existing Recreation Use*, monitoring of recreation use levels and activities could be improved in the future. Relicensing Study R-8 – *Recreation Carrying Capacity* identifies when recreation facilities are expected to reach capacity in the future. Recreation managers should develop an effective monitoring program as part of the upcoming recreation plans (DWR's RMP and perhaps DPR's LOSRA General Plan). Adaptive management, relying on adequate monitoring data, should be a key element in future recreation management and planning in the project area.

#### **6.2.2 Communication with the Public**

DWR and DPR communicate with the public through various means. The DWR and DPR websites on the Internet provide a large amount of information as well as opportunities for contacting staff at each of the agencies. However, if management structure changes, or there are alternative stakeholder forums or volunteer groups (which is recommended), these could potentially be very effective opportunities to improve the level of communication with the public.

#### **6.2.3 Interagency Management**

Due to the various roles and responsibilities of the State agencies, communication between staff members of each of the managing agencies is essential for recreation opportunities in the study area to be adequately provided to the public. Interagency coordination is important for recreation management issues that may arise around timing of events and changes in facility conditions and reservoir levels. Scheduling of events during hunting seasons requires communication for safety reasons. Clear divisions of responsibility are important for efficiency of O&M and for recreation managers to be prepared to manage the unexpected.

Currently, recreation managers from DWR, DPR, and DFG have been meeting regularly to address this interagency management. However, more coordination and higher-level involvement may be needed to address all of the issues including funding sources and long-term planning.

#### **6.2.4 Recreation Funding Structure**

Limited State funding for the development and long-term maintenance of recreational opportunities and facilities is a concern for recreation managers, and has the potential to affect recreation development and management in the study area. The appropriate source of funding for the development of recreation facilities has been confused through conflicting interpretations of the FERC license agreement and the Davis–Dolwig Act. The legal responsibilities under the Davis-Dowlig Act are generally inconsistent with recreation management requirements under the Federal Power Act. A new MOA between the agencies and the SWC, specifically outlining agreements regarding future recreation funding, could help establish a more clearly defined funding structure.

#### **6.3 EFFECT OF MANAGEMENT ACTIONS ON RECREATIONAL ACTIVITIES**

One of the responsibilities of Project area management is to provide adequate recreational opportunities at the Oroville Facilities. Opportunities for recreational activities are created by providing access to areas with recreation potential, developing the appropriate facilities to engage in those activities, and maintaining access and facilities over time.

The study area offers a wide variety of recreational opportunities, including boating, camping, fishing, hiking, bicycling, horseback riding, hunting, interpretive programs and nature study, off-highway vehicle (OHV) use, picnicking, shooting, swimming, and wildlife viewing. Lands within the LOSRA contain extensive recreation facilities, and DPR manages a wide variety of the facilities and programs supporting recreation in the area, as detailed below. In addition, recreational activities occur on other lands and waters within the study area, including the OWA managed by DFG.

The following conclusions have been arrived at by examining the effectiveness of current management actions as they relate to primary activities engaged in at the study area. For all of the recreational activities except hunting, it is expected that use levels in the study area will increase in the future. Periodic monitoring of use levels and any potential problems will be necessary to refine management actions in the future. Attendance monitoring can support the timely development of any needed facilities. There may be a need for increased management presence and/or law enforcement at certain times and locations. This issue is addressed more directly in Relicensing Study R-8 – *Recreation Carrying Capacity*. As for management actions aside from development of new facilities, there may be a need for continued monitoring of potential concerns such as with maintenance. There may be a need for management to reassess capacity, maintenance, cost to recreationists and amenities at facilities on a periodic basis.

The focus of the following discussion is an overall assessment of management actions and recommendations that are related to recreational activities in the study area. More detail on these suggestions, as well as specific considerations for development of recreation facilities will be found in Study R-17 *Recreation Needs Analysis*.

### **6.3.1 Boating**

Increased management presence at the boat ramps, to facilitate launching at crowded times, could relieve dissatisfaction at boat ramps. However, such dissatisfaction was expressed by a minority of survey respondents, so this may only be a priority on the highest-use days. Increased education and information would also be helpful in high use periods to better direct boaters and keep traffic flowing. Increased on-water patrols may also help reduce concerns associated with periodic overcrowding and boating on the water during peak times. Although survey respondents have identified exposed land, shallow areas, and water level fluctuations as periodic problems, water levels are generally determined by factors other than recreation needs. Management may also want to consider building additional boarding docks and additional temporary moorage, consistent with general facilities standards (Ohio DNR) as discussed in Relicensing Study R-7 – Reservoir Boating.

More on-the-water patrols at peak periods may also contribute to a reduction in the number of at-risk encounters, by citing more boaters who are disobeying rules and boating too close or too fast.

Although survey respondents have identified exposed land, shallow areas, and water level fluctuations as periodic problems, these issues will likely remain because of the primary purposes of the Oroville Facilities. Management agencies could help reduce boating concerns by placing additional warning buoys over shallow areas and informing the public about upcoming reservoir level fluctuations.

### **6.3.2 Camping**

In general, potential solutions to more effectively manage camping opportunities are discussed in Section 6.2.1, Operations and Maintenance, which includes potential solutions for issues related to safety, litter and sanitation, recreation costs, service and staffing, landscaping, and access to shoreline. Periodic surveying of visitors and monitoring of campground attendance numbers could allow managers to identify trends and anticipate more accurately when facilities may require modification, expansion, or management actions.

### **6.3.3 Day Use/Picnicking**

In general, potential solutions to more effectively manage day use opportunities are discussed in Section 6.2.1, Operations and Maintenance, which includes potential solutions for issues related to visitor safety, litter and sanitation, user fees, service and staffing, landscape and maintenance, and access to shoreline. Periodic surveying of visitors and monitoring of day use attendance numbers could allow managers to identify trends and anticipate more accurately when facilities may require management actions.

#### **6.3.4 Fishing and Hunting**

The division of responsibilities between DFG and DWR and the corresponding regulations should be clarified within the OWA for the benefit of recreationists. Based on survey results and interviews with area managers, there is a need for increased staffing within the OWA for maintenance and potentially for habitat improvement activities. There is also a need for increased law enforcement activities related to fishing and hunting, particularly at the Afterbay outlet and other areas at peak use periods. Periodic monitoring in the future will help assess effectiveness of future management actions.

Management should periodically evaluate whether habitat needs to be improved and whether habitat could support an increase in the bird population for hunting purposes. In terms of user access, management should assess whether additional access points are necessary or beneficial, as they would require more patrol and maintenance, which would require more staff time and budget. Occasional hunter crowding should be reevaluated in the future. As for reported unsafe hunters, more patrol, education, and hunting regulation signs may be posted during the hunting season. These actions may help reduce dissatisfaction.

DFG should evaluate whether it is possible to keep the OWA gates open longer each day during hunting and fishing seasons. This action would require staff working longer hours and therefore would cost more money to keep the facilities open longer. Additional trash pickups are likely needed during peak-use periods.

#### **6.3.5 Trail Use**

Survey results also indicate that some trail users are concerned with trail signage, drinking water, and litter problems on the trails. Management should evaluate these concerns. These issues should be further explored in a comprehensive trails plan.

In general, potential solutions to more effectively manage trail opportunities are discussed in Section 6.2.1, Operations and Maintenance, which includes potential solutions for issues related to visitor safety, litter and sanitation, user fees, service and staffing, landscape and maintenance, and access to shoreline. Periodic surveying of visitors and monitoring of day use attendance numbers could allow managers to identify trends and anticipate more accurately when facilities may require management modification. A comprehensive trails plan for the entire study area could allow managers to manage the trails program holistically.

#### **6.3.6 Wildlife Viewing, Interpretive Programs and Nature Study**

There is demonstrated demand for interpretive programs and signs and for more educational opportunities within the study area. More diverse types of programs could be provided, including more education about regulations such as for boating, fishing,

and hunting; and more interpretation and education regarding cultural resources. The main management action that may be needed is development of an interpretation and education plan for the area that would likely incorporate these ideas.

## **6.4 MANAGEMENT STRUCTURE EVALUATION**

The management structure at the Oroville Facilities is complex, involving agencies at the federal, State, local, and regional level, as well as community organizations and interested individuals. To evaluate the effects of this management structure on public recreation opportunities at Lake Oroville, it is useful to understand other potentially viable management structures, compare the current recreation management structure with that of other similar areas, and investigate means to fund these management activities in the future. Based on this comparative review, there are some specific actions that management may want to consider, such as creating an improved public outreach and communication program, institutionalizing additional stable funding, and resolving OWA management issues.

### **6.4.1 Comparison with Other Similar Projects**

Four other entities were investigated for comparison of recreation management structure with the Oroville Facilities. Two of these four entities represent a cross section of water-based recreation in the Northern California region. The other two are located in other regions of the United States.

The most beneficial aspect of the EBMUD recreation management structure is the clarity of jurisdictions for recreationists. Through a single-agency structure and through adequate numbers and experienced staff, EBMUD has been able to maintain relatively high levels of satisfaction with the recreating public.

SMUD Upper American River Project is an example of multiple jurisdictions functioning to provide recreation opportunities in one area. Recreation projects have been developed in phases as population growth has necessitated. This is a useful model for the Oroville Facilities. A combination of monitoring and planning can allow for facilities to be developed as needed in the future.

Management of recreation at Central Nebraska Public Power and Irrigation District's project is structured similarly to the Oroville Facilities in that the operation of recreation facilities has been delegated to a state agency, Nebraska Game and Parks Commission. Recreation managers have been able to operate effectively under this multiple jurisdiction structure.

Northeast Generation Company in Connecticut and Massachusetts created the Recreation and Environment Center that facilitates access to a variety of year-round recreation opportunities and manages all recreation for NGC on their facilities. This type of center, focused specifically on recreation, could be a potential option at Lake Oroville, although NGC is a private company whereas DWR is a public agency. A

recreation center would likely be managed and funded through public sources. A center could provide a main location for recreation agencies to be housed and could lead to improved communication with the public. Interagency communication regarding recreation could be streamlined by providing and staffing a recreation center.

#### **6.4.2 Potential Management Structure Solutions**

Alternative management structures were evaluated. Management functions that are affected by management structure include:

- Operations and maintenance;
- Visitor monitoring and surveying;
- Fee collection;
- Management of concessionaires;
- Building of new facilities;
- Recreation planning;
- Enforcement;
- Visitor management control;
- Communication with the public; and
- Budgeting and staffing.

Potential management structures that were examined include: (1) single agency responsibility, (2) multi-agency responsibility, (3) increased local responsibility, (4) increased presence of concessionaires, and (5) Alternative Stakeholder Involvement Programs. Under any scenario, DWR is ultimately responsible (under its FERC license) for providing recreation facilities and opportunities within the Project area. However, opportunities for public input and better coordination among current agencies and the public is needed under all potential scenarios considered.

A multi-agency structure, similar to the current management structure is recommended. While some improvements in management need to be addressed and some responsibilities need to be further defined and assigned, in general the current divisions of responsibilities are appropriate and functional. A single-agency structure is not recommended for managing recreation resources within the study area. Although recreation is a component of DWR's mission to manage water resources for the SWP, DPR has recreation as its main purpose. DPR has experience managing large recreation facilities. However, if the Oroville Facilities continue to be managed under a multi-agency structure, it will be important to provide a more functionally-seamless integrated management structure for the public.

General Project area enhancements and needs for facilities are addressed in R-17 – *Recreation Needs Analysis*. The management responsibilities that may need to be redefined or reassigned include:

- Management authority for the OWA;
- Boating regulations on the Afterbay;

- Financial accountability for recreation spending within the LOSRA;
- Law enforcement within the study area;
- Local input such as FRRPD's role in recreation management within the study area; and
- Communication with the public.

Management authority for the OWA was not examined as part of this study. This issue will require resolution between agency management decision makers and with local input. Boating regulations on the Afterbay should be made consistent either through additional policy or through enforcement of existing restrictions. This decision should be made jointly by DWR and DFG also in conjunction with local input. DPR should implement accounting practices that will allow for regular review of expenditures within the LOSRA, separate from other Park units. The FRRPD and other local representatives have a role as a part of stakeholder involvement. Further, DWR could implement a comprehensive public outreach program that could provide various avenues for communication with the public. This outreach program could include a friends group, a recreation commission, an advisory committee, and/or a recreation center.

#### **6.4.3 Potential Supplemental Recreation Funding**

Funding is a critical element of management effectiveness. Over time, it is presumed that additional funding will be needed to enhance recreational opportunities in the study area. Additional funding should be synchronized and prioritized with future recreation plans for the area. Funding that supports ongoing maintenance is not as readily available through granting organizations when compared with grants that fund new development of park lands, or for parks to be rehabilitated. Therefore, a new recreation funding structure that maximizes the use of all available funding sources and mechanisms (including cost sharing, partnerships, and grant opportunities) could benefit the study area. This funding structure must address both new development and adequate long-term maintenance and operations.

A funding structure that uses fees collected within the Project are to be used only within the Project area could support an understanding from the public as to the purpose behind user fees. Expanding the current user fee system to help offset costs for maintenance and operations could also have a two-fold benefit: (1) recreationists would be able to see a direct benefit from fees paid (if collected funds were used in the Project area) , and (2) agency budget variability would be less likely to cause gaps in maintenance and operations. New funding structures would need to be carefully examined by DWR, DPR, DFG, and DBW. As mentioned, DPR is scheduled to increase visitor fees as of July 1, 2004.

Further legal review of the Davis–Dolwig Act and FERC requirements will likely be necessary to resolve conflicts between the two. It is possible that some negotiations

between FERC, DWR, DOF, SWC and the State Legislature may be necessary to resolve conflicts between the policies and clarify funding responsibilities for the future.

The positions of a grant writer and development coordinator could be created to identify and apply for various grants and funds that may be available for recreation within the study area. This position could be self-funded through the acquisition of grant monies. Perhaps the Oroville Area Chamber of Commerce, JPA, or FRRPD would be an appropriate entity to support such a position. Study R-17 – *Recreation Needs Analysis* could be a useful tool in applying for grants as this study shows the potential projects and programs that should be considered within the study area as well as their justification.

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## ***Appendix A***

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### History of DWR's Implementation of FERC-Ordered Recreation Mandates

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## **APPENDIX A HISTORY OF DWR'S IMPLEMENTATION OF FERC-ORDERED RECREATION MANDATES**

### **1965**

Federal Power Commission (FPC) Order No. 313 (Dec. 27, 1965): All existing licensees whose projects included land and water resources with the potential to provide outdoor recreational opportunities (including DWR for the Oroville Facilities) have a responsibility for the development of, and provision of public access to, those resources in accordance with area needs, to the extent that such development would not be inconsistent with the primary purpose of the project. Existing licensees were therefore encouraged to submit a recreation plan for FERC approval and incorporation into their licenses.

### **1966**

FPC Order No. 1030 (Dec. 12, 1966): FPC amended its regulations to require all licensees to file Form No. 80: Licensed Projects Recreation Report.

### **1967**

DWR Bulletin 117-6 (July 18, 1967): DWR filed its first set of Form No. 80 Reports. Separate reports were filed for each reservoir (Lake Oroville, Thermalito Forebay, Thermalito Afterbay, Thermalito Diversion Pool), but attached to each was a copy of Bulletin 117-6 (*Oroville Reservoir Thermalito Forebay and Thermalito Afterbay Water Resources Recreation Report*). Bulletin No. 117-6 set forth a recreation plan for the Project area through 2017, which FERC adopted and approved as the recreation plan for the Oroville Facilities. The bulletin reviewed projected recreational demand and available space at the project, and identified specific recreation areas and facilities to be provided by the end of 1977, and more to be provided in the future. However, it should be noted that Bulletin 117-6 was developed for State purposes and not for FPC purposes.

### **1980**

Commission Inspection (July 1980): FERC conducted its first inspection following the date specified for construction of facilities included in Bulletin 117-6. The inspection report concluded that, while certain concessionaires at the project were providing less than adequate services, the recreation facilities operated by DPR were "in excellent condition and adequate to meet the needs of the public."

### **1983**

Commission Inspection (August 1983): FERC conducted its next inspection of recreational facilities. The inspection report noted that recreational figures had not lived up to the estimates and that for every \$1 of recreation revenue collected, DPR spent \$3 in management and maintenance costs. The report concluded that while not all proposed recreation facilities had been developed, the existing facilities were being maintained in good condition.

## 1989

Commission Inspection (May 1989): FERC conducted its third inspection of recreational facilities. The inspection report indicated that the recreation facilities constructed at the project differed from those identified in Bulletin 117-6, the approved recreation plan. The report showed that at some of the planned recreation areas, none of the approved facilities had been built, while at other recreation areas only 20–50 percent of the approved facilities had been built. DWR was asked to explain the differences in planned and constructed facilities and to provide a description of any proposals to construct the remaining facilities.

DWR Response to Commission Report (September 6, 1989): DWR did not dispute the differences between planned and constructed recreation facilities, but responded by stating that Bulletin 117-6 was “essentially a general plan based on resource potentials, recreation demands, future population growth, and future funds availability, as [DWR] saw them at the time.” DWR also noted that the intent of Bulletin 117-6 was not to provide and construct all included facilities according to the bulletin’s timeline, but to provide an outline for recreation development. Furthermore, DWR noted that under State law, DPR is responsible for all recreation planning and development at the project. DWR suggested the development of a revised recreation plan.

Commission Response by Division Director (December 14, 1989): The division director concurred with DWR’s proposal to revise the recreation plan for the project, but reserved FERC’s authority to assess penalties to DWR for failure to implement the approved plan in full. The division director stated that the revised plan should include a description of (1) all existing recreation facilities; (2) any proposed improvements and additions to those facilities, including a construction schedule; and (3) the methodology and resource data used in developing the revised plan. The Division Director also noted several uses that were either unsafe or undesirable, including high-impact uses at OWA.

## 1990

Proposed Revised Recreation Plan (April 20, 1990; Supplemented January 23 and July 3, 1991): The revised plan reiterated the State-designated responsibilities for recreation development, as well as DFG’s responsibilities for fish and wildlife protection and enhancement. The revised plan also stated that the level of recreation development was less than outlined in Bulletin 117-6 and was the result of unforeseeable inaccuracies in projections of future recreation demand used in Bulletin 117-6, the slower-than-projected population growth in the area, and the availability of similar facilities closer to the San Francisco and Sacramento areas. The revised plan also noted that appropriate funding for the recreation development at the project had not been granted by the State Legislature. The revised plan did include the three elements desired by the Division Director (see above); however, the plan concluded that there were no definitive plans to develop additional facilities at the project, and that future development would be dependent on increased use of existing facilities and the availability of funding.

### **1991**

Comments (1991): Comments were received from State and federal agencies and the public on the revised recreation plan. Interventions were made by the Lake Oroville Fish Enhancement Committee and the California Sportfishing Protection Alliance jointly, as well as the City and the Oroville Area Chamber of Commerce. In addition, FPC received several thousand letters from local citizens stating that the project's existing recreation facilities were insufficient and that additional recreation facilities were needed. The majority of comments focused on the need for more camping and picnicking sites and improved fishing conditions.

### **1992**

FERC Order on Proposed Revised Recreation Plan (October 1, 1992): FERC rejected the proposed revised plan and required DWR to amend the plan to provide additional recreational development at appropriated locations, including Thermalito Afterbay and areas of Lake Oroville, and to provide for a fish stocking program in Lake Oroville.

### **1993**

Amended Revised Recreation Plan (June 1, 1993; Supplemented September 27, 1993): The 1993 proposed plan identifies additional day-use areas, overnight facilities, boat launching ramps, and floating campsites and restrooms to be provided at the project. DWR's plan was to have the majority of the proposed facilities constructed by June 30, 1994. By June 9, 1994, DWR had completed several of the facilities and stated that the fate of the facilities that had not yet been completed would be decided upon by proposed advisory groups based on the need and implementation priority for these and other improvements.

### **1994**

FERC Order on Proposed Revised Recreation Plan (September 22, 1994): FERC accepts the Proposed Revised Recreation Plan with revisions which include addressing four major issues: (1) the adequacy of the existing facilities, together with the new facilities proposed in the 1993 plan, and the need for more facilities than those in the plan, (2) the adequacy of the proposed 1993 fish stocking plan, (3) the need for adequate funding construction, operation, and maintenance of existing and proposed recreation facilities, and (4) the adequacy of the authority of the proposed advisory committee.

### **1995**

Amended Revised Recreation Plan (March 1, 1995): DPR requests that the required completion dates for certain facilities be extended. Proposed completion dates for these facilities are extended by FERC into 1996 and 1997. DPR was also instructed to expand or modify the portable restrooms at the North Thermalito Forebay by June 1, 1995.

Amended Revised Recreation Plan (August 28, 1995): DPR requests to extend the Chinook salmon stocking portion of the plan one year due to fish that were lost from bird

predation at the Feather River Hatchery. Under the revised stocking schedule, DPR would stock 90,000 fish in 1995 and 150,000 fish in 1996. DPR also proposed to alter the design of the existing rearing area gates to prevent predatory birds from entering the rearing pond area. An Order Extending Fish Stocking Study and Fish Habitat Improvement Plan was issued on May 10, 1999.

### **1996**

Order Modifying and Approving Fish Habitat Improvement Plan (January 22, 1996): DWR proposes to construct brush shelters and plant willow trees in the Lake Oroville littoral zone in order to provide adequate spawning and nursery habitat and protective cover to the warmwater fish population. FWS, LOFEC and CSPA all recommend that DWR propose habitat improvements for the Lake Oroville coldwater fishery as well. DPR stated that they would conduct a five-year fish study to evaluate the coldwater fishery. An Order Extending Fish Stocking Study and Fish Habitat Improvement Plan was issued on May 10, 1999.

### **1997**

Order Approving Plan for Fish Hatchery Expansion (December 8, 1997): DWR proposes two components for hatchery expansion within the project boundary: (1) a quarantine facility to hatch out disease-free Chinook salmon eggs and raise the fry to the fingerling size, and (2) a yearling grow-out component to raise fingerling fish to the yearling size.

### **1999**

Order Amending Revised Recreation Plan (June 21, 1999): DWR proposes to design and construct facilities for a 50-unit campground on a peninsula across the cove from the Lime Saddle Marina. DWR proposes to begin construction of the facilities in early 2000 and to complete work in about 6 months.

## ***Appendix B***

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### Recreation Funding Background

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## APPENDIX B RECREATION FUNDING BACKGROUND

Funding for the development of recreational opportunities and facilities at State Water Projects (SWP) is a major concern for recreation managers, often limiting recreation development and constraining recreation management in the study area. DWR and the SWC have assumed a FERC-mandated responsibility for funding within the study area; however, DWR also operates pursuant to the Davis–Dolwig Act. The Davis–Dolwig Act states:

The Legislature finds and declares that due to insufficient funds recreation and fish and wildlife enhancement facilities of state water projects are generally inadequate to accommodate the demands made upon them at the present time and will become critically inadequate as time progresses and that this condition is not in accordance with the policy of the Legislature... (Water Code Section 11922)

In addition to declaring that recreation and fish and wildlife enhancement are the “purpose of state water projects” and assigning the associated responsibilities to DWR, DPR, DFG, and DBW, the Davis–Dolwig Act details the source of funding for recreation and fish and wildlife enhancement associated with SWP facilities. The Davis–Dolwig Act states:

The Legislature...finds and declares it to be necessary for the general public health and welfare that facilities for storage, conservation or regulation of water be constructed in a manner consistent with the full utilization of their potential for the enhancement of fish and wildlife and to meet recreational needs; and further finds and declares that the *providing for the enhancement of fish and wildlife and for recreation in connection with water storage, conservation, or regulation facilities benefits all of the people of California and that the project construction costs attributable to such enhancement of fish and wildlife and recreation features should be borne by them.* (Water Code Section 11900; italics added)

By stating that the enhancement of fish and wildlife and recreation in conjunction with the SWP “is necessary for the general public health and welfare” and that the “costs attributable to such enhancement...should be borne by them,” the Davis–Dolwig Act indicates that these are to be funded by the State from the General Fund (SWC 1998; DWR 1966; DWR 2002). Both the historical interpretation of the Davis–Dolwig Act and further elaboration within the act substantiate this implication. Section 11912 of the Davis–Dolwig Act, as amended in 1966, states:

The department, in fixing and establishing prices, rates, and charges for water and power, shall include as a reimbursable cost of any state water project an amount sufficient to repay all costs incurred by the department, directly or in contract with other agencies, for the *preservation* of fish and wildlife and

determined to be allocable to the costs of the project works constructed for development of that water and power, or either. Costs incurred for the *enhancement* of fish and wildlife or for the development of public recreation shall not be included in the prices, rates, and charges for water and power, and shall be non-reimbursable costs (Water Code Section 11912; italics added).

Thus, under a strict interpretation of the Davis–Dolwig Act, costs associated with the recreational development at SWP facilities should not be included in rates paid by the SWC. Although DWR is directly responsible for planning for public recreation in connection with all SWP development, including acquisition of all lands and location and construction of all works and project features so as to allow for maximum recreational uses following completion of the project, DWR should not charge ratepayers for costs associated with recreation planning and land acquisition. DWR states this directly in its Bulletin 132, *Management of the California State Water Project*, an annual publication that includes a summary of the costs of recreation and fish and wildlife enhancement. Bulletin 132-01, published by DWR in December 2002, cites the Davis–Dolwig Act and adds that “the costs of these recreation activities are not borne by the water supply contractors” (DWR 2002).

Finally, Section 11913(a) of the Davis–Dolwig Act, as amended in 1966, provides for appropriation from the General Fund:

The Legislature hereby declares its intent that...there shall be included in the budget for the department for each fiscal year, and in the Budget Act for each fiscal year, an appropriation from the General Fund for the funds necessary for enhancement of fish and wildlife and for recreation in connection with state water projects as provided in this chapter (Water Code Section 11913[a]).

Accordingly, funding for fish and wildlife enhancement and recreational development are General Fund obligations, and their costs are not to be reimbursed by the SWC (SWC 1998; DWR 1966). Although the costs of fish and wildlife enhancement and recreation are explicit General Fund obligations, the State Legislature found that the General Fund was unable to appropriate sufficient funds for all necessary projects, operations, and maintenance. Thus, in 1966, Section 11915 of the Water Code was amended to provide for additional fish and wildlife enhancement and recreation funding to supplement what could be appropriated from the General Fund (SWC 1998). AB 12, which also amended Water Code Sections 11912 and 11913, amended Section 11915 to require that \$5 million from the tideland oil and gas revenues be deposited each year into the Central Valley Project Construction Fund. This, along with the existing annual obligation of \$11 million from tideland oil and gas revenues, is deposited into the California Water Fund (SWC 1998). Thus, additional recreation and fish and wildlife enhancement funding is received from tideland oil and gas revenues.

Two additional sources of funding for recreation at SWP facilities were established by the Legislature following the 1966 amendment of the Davis–Dolwig Act. First, under

SB 1268, approved by California voters in 1970, issuance of \$60 million in General Obligation Bonds for the funding of SWP-related fish and wildlife enhancement and recreation was approved. SB 1268 provided for up to a total of \$54 million in bond revenues to be allocated for the development and operation of recreation and up to \$6 million to be allocated to fish and wildlife enhancement associated at SWP facilities.

Second, AB 1442 (Statutes of 1989, Chapter 716) allows for automatic offset, upon approval by the State Legislature, of Davis–Dolwig expenditures against any SWP debt to the California Water Fund. Although AB 1442, known as “Offset Legislation,” does not fully provide an additional source of funding, it does allow for expedited funding of projects required by the Davis–Dolwig Act.

Finally, operating and managing agencies may charge reasonable fees for use of recreational facilities at SWP facilities comparable to those at other facilities not related to SWP, and this currently takes place within developed sites of LOSRA. However, no fees are charged at OWA, Thermalito Afterbay, or undeveloped LOSRA access points.

In contrast to the conclusions and interpretations drawn from the Davis–Dolwig Act, FERC requires that each licensee, in this case DWR, be ultimately responsible for all license provisions, including those pertaining to project-related recreational development, facilities, operation, and maintenance. Although California law dictates the above funding sources and responsibilities for recreation-related costs of SWP facilities, the provisions of FERC’s license to operate the Oroville Facilities dictates that all responsibilities for recreational development, operation, and maintenance rest with DWR (SWC 1998). Accordingly, DWR may contract with or delegate responsibilities to separate agencies or entities, such as DPR, and may obtain funding through all available avenues. Conversely, FERC will penalize DWR, and DWR only, for license violations—including those related to recreation. In Project Order No. 2100-054, FERC stated:

DWR may solicit funding or service from [DPR], [DFG], [DBW], and other entities for the construction, operation, and maintenance of the project’s recreation facilities. However, as [DWR] acknowledges, the project licensee is ultimately responsible for the construction, operation, and maintenance of all the required facilities and recreation areas, and for the implementation of the [Amended Recreation Plan].

In a memorandum signed on May 23, 1995, by DWR and DPR, entitled *Memorandum of Agreement between California Department of Parks and Recreation and California Department of Water Resources regarding Coordination of Planning, Development, and Operation of Recreational Facilities at Lake Oroville State Recreation Area*, DWR formally acknowledged to DPR that DWR will comply with FERC’s license agreement regarding funding:

As part of the FERC-ordered proposed amended recreational plan for LOSRA, DWR acknowledges that it bears the ultimate responsibility for ensuring funding, development, and management of current and additional recreational facilities at [LOSRA].

DWR's FERC license as amended requires that DWR take ultimate responsibility for the implementation, operation and maintenance, and funding of recreation-related projects and Orders. Conversely, California's Davis–Dolwig Act states that recreation at SWP facilities is the responsibility of DPR and that funding for recreation at SWP facilities is to be from the General Fund. This direct conflict between funding responsibilities as detailed by FERC and by the Davis–Dolwig Act has created confusion and conflicts between agencies and the public. DOF, which serves as the Governor's chief fiscal policy advisor, used the above statement regarding DWR's acknowledgement of ultimate funding responsibilities to justify not appropriating monies from the General Fund for the 1997-98 Lake Oroville Recreation operation costs (SWC 1998). Because of DWR's acknowledgement of ultimate financial responsibility, under FERC, for recreation-related expenditures, DOF determined that these expenditures were no longer a General Fund obligation and funding was therefore not appropriated.

Because the Davis–Dolwig Act specifies that these costs are a General Fund obligation, the appropriate source of funding has been confused through multiple interpretations of the FERC license agreement, the Davis–Dolwig Act, and the above acknowledgement. In addition, reinterpretation of the FERC license and Davis–Dolwig Act has resulted in SWC funding of recreation-related expenses at SWP facilities, in conflict with the Davis–Dolwig Act (Water Code Section 11912).