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State of California  
The Resources Agency  
Department of Water Resources

**SETTLEMENT AGREEMENT  
RECREATION MANAGEMENT PLAN**

**Oroville Facilities  
FERC Project No. 2100**



March 2006

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RECREATION MANAGEMENT PLAN**

**Oroville Facilities  
FERC Project No. 2100**

March 2006

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This Settlement Agreement Recreation Management Plan (RMP) was prepared to support the Settlement Agreement between the Department of Water Resources (DWR) and other parties. This RMP contains several proposed recreation enhancement measures and programs that were identified during relicensing recreation settlement discussions in 2004 and 2005, some of which exceed the recreation needs identified in Study R-17 – *Recreation Needs Analysis*.

## EXECUTIVE SUMMARY

The California Department of Water Resources (DWR) has prepared this Settlement Agreement Recreation Management Plan (RMP) as an amended component of its Application for a new Federal Energy Regulatory Commission (FERC) License to operate the Oroville Facilities (FERC Project No. 2100 or project). The Oroville Facilities are located on the Feather River at the foothills of the Sierra Nevada in Butte County, California and include Lake Oroville, the second largest reservoir in California and the primary water storage facility of the State Water Project (SWP). Lake Oroville and three other project reservoirs, as well as the Feather River, provide numerous water supply, power generation, and flood control benefits. In addition, the Lake Oroville State Recreation Area, Oroville Wildlife Area, 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 day use and overnight facilities, trails, boating facilities, and primitive use areas within the project area. This RMP focuses on these water- and reservoir-based recreation resources within the FERC project boundary that are under authority of DWR as the licensee of the Oroville Facilities.

The purpose of the RMP is to guide and facilitate the management of existing and future recreation resources associated with the Oroville Facilities. The RMP provides a vision of the desired future condition for recreation resources in the project area, establishes long-term goals and objectives for managing recreation resources in the project area, and identifies both site-specific and programmatic recreation measures to be implemented over the term of the anticipated new license. Several programs are presented in the RMP that implement these proposed measures. The cost estimates herein are preliminary and were derived from general reconnaissance-level analyses. While the proposed measures and actions identified in the RMP reflect the Licensee's recreation resource goals in the new license, the dollar amounts estimated herein are not a specific or actual funding level commitment.

Taken as a whole, the RMP represents a single "umbrella" protection, mitigation, and enhancement (PME) measure for recreation resources in the project area. The RMP is intended to be specific to DWR's recreation resource roles and responsibilities for the term of the new FERC license. The RMP does not make management or resource commitments for other entities such as federal and State agencies, Tribes, or other stakeholders. However, the continued active involvement of these other recreation participants in the project area is important in helping to meet the overall recreation needs of all visitors and area residents during the term of the new license. As such, continued coordination and cooperation with these participants will continue as defined in the RMP.

In preparation for development of this RMP, DWR conducted a series of extensive recreation resource and related studies to assess and evaluate existing and potential future recreation resources associated with the Oroville Facilities. This RMP is the

culmination of the results of those studies and is intended to relate most comprehensively to Relicensing Study R-17 – *Recreation Needs Analysis*. This RMP also includes proposed actions and enhancements and other measures that are not directly detailed in Study R-17, but were identified by stakeholders and DWR as being mutually beneficial toward the goals of recreation resource development and completion of a Settlement Agreement (SA) addressing a range of relicensing issues.

This RMP complies with FERC's regulations per 18 CFR 4.51(f)(5) and includes the following components:

- Description of the existing recreation facilities of the project that will be continued as project-related facilities during the new license term.
- Identification of existing facilities to be rehabilitated.
- Proposed new facilities and enhancement of existing facilities to meet existing or new recreation needs.
- A schedule for development or rehabilitation of all facilities.
- Identification of entities that will construct, maintain, and operate the facilities.
- An estimate of the costs of construction, operation, and maintenance of the facilities.
- Drawings of each recreation site illustrating approximate locations of existing and proposed facilities, as applicable.
- Descriptions of programs and/or plans for public interpretation and education.
- A plan for monitoring the use and condition of recreation facilities.
- A plan for the periodic review, and revision as necessary, of the RMP.

This RMP is in effect an implementation guide to plan, design, construct, renovate, monitor, fund, operate, and maintain existing and future public recreation facilities and programs in the project area. The activities identified are to continue throughout the term of the anticipated new license (up to 50 years), except if noted otherwise.

DWR, with stakeholder input, has identified a number of proposed actions and enhancements to help meet existing and future recreation needs (see Appendix A of this RMP for a listing) that are associated with the Oroville Facilities. Future recreation needs, such as development of additional campground capacity at several locations, have also been defined. These needs will be validated in the future through periodic monitoring of public recreation facility use, capacity, and condition. To accomplish this purpose and to incorporate actions from the SA process, several RMP activity areas or programs are included in this RMP:

- A *Recreation Facility Development Program* that defines DWR's construction-related responsibilities to address existing and future project-related recreation needs, identifies proposed recreation development projects, provides estimated costs and scheduling for these recreation measures, identifies approximate locations and provides conceptual layouts of the

development measures, and discusses general facility development standards and design criteria to be used.

- *A Recreation Operations and Maintenance (O&M) Program* that defines DWR's existing and future recreation facility O&M responsibilities. This program addresses existing and future project-related O&M recreation needs, provides estimated costs for annual O&M, and discusses general facility and use area maintenance standards to be used. Other programmatic costs, such as visitor health and safety management, are also defined for RMP implementation. Anticipated agreements are mentioned that may be entered into between DWR and other entities to provide for O&M at Project No. 2100 recreation facilities.
- *A Recreation Monitoring Program* that defines how DWR will conduct recreation resource monitoring and how the monitoring information will be used in decision-making. This program discusses the use of monitoring standards and indicators, defines monitoring needs, identifies periodic monitoring and reporting responsibilities, and identifies a decision-making framework related to when new facility construction would be triggered or initiated. Periodic visitor surveys are also defined.
- *A Resource Integration and Coordination Program* that defines how DWR will integrate recreation resource needs with other resource management needs (such as cultural, wildlife, and aquatic resources) over time. This program discusses how parallel resource management programs and actions will be coordinated and information distributed through annual meetings.
- *A Plan Review and Revision Program* that defines how the RMP will be updated or revised over the term of the new license. RMP revisions may be based on results from monitoring and coordination meetings with other recreation providers in the project area.
- *An Interpretation and Education (I&E) Program* that defines how hydroelectric energy production, environmental, cultural, and informational interpretation and education will be coordinated and conducted by DWR at project facilities. This program involves several resource areas including recreation, aesthetics/visual, fisheries, water quality, terrestrial, geology, and cultural/historical. The I&E Program will complement and be conducted within the framework of existing and future DWR and California Department of Parks and Recreation (DPR) I&E programs, as described in and contemplated by the Lake Oroville State Recreation Area (LOSRA) General Plan (in the case of LOSRA) and in the future Oroville Wildlife Area Management Plan (to be developed by DFG). The basis for the I&E Program will be DWR's and DPR's extensive existing resources – specifically, coordination of existing Lake

Oroville Visitors Center programs and staff with new and existing programs administered by DWR's Public Affairs Office (formerly the Office of Water Education) and DPR's Interpretation and Education Division, aided by the Department of Fish and Game's (DFG) Office of Natural Resource Education. The overall intent of the I&E Program is to help visitors gain an understanding and appreciation of the area's significant natural, cultural, historical, water supply, hydroelectric, and recreational features through the use of consistent themes and messages at all project recreation facilities. This program will be aimed at project facilities but will be coordinated with other local recreation service and regional marketing providers (e.g., Feather River Recreation and Park District [FRRPD], City of Oroville, City of Paradise, Butte County, and Oroville Chamber of Commerce).

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## ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities
af	acre-feet
BBQ	barbecue
BIA	Bureau of Indian Affairs
BIC	boat-in campground
BISC	Boating Information and Safety Center
BLM	U.S. Bureau of Land Management
BR	boat ramp
Caltrans	California Department of Transportation
car-top BR	car-top boat ramp
CDEC	California Data Exchange Center
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulation
CHP	California Highway Patrol
CPR	cardiopulmonary resuscitation
CSU	California State University
CVP	Central Valley Project
DBW	California Department of Boating and Waterways
DFG	California Department of Fish and Game
DPR	California Department of Parks and Recreation
DUA	day use area
DWR	California Department of Water Resources
EC	Ecological Committee
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
FRRPD	Feather River Recreation and Park District
FRSA	Feather River Service Area
GIS	geographic information system
HPMP	Historic Properties Management Plan
I&E	interpretation and education
ISO	Independent System Operator
LCU	License Coordination Unit
LOSRA	Lake Oroville State Recreation Area
maf	million acre-feet
MOA	Memorandum of Agreement
mph	miles per hour
msl	mean sea level
NEPA	National Environmental Policy Act
NGO	Non-Governmental Organization
NHPA	National Historic Preservation Act

### **ACRONYMS AND ABBREVIATIONS (cont.)**

NOAA	National Oceanic and Atmospheric Administration
O&M	operations and maintenance
OHV	off-highway vehicle
ORCA	Oroville Recreation Coordinating Agencies
OWA	Oroville Wildlife Area
PG&E	Pacific Gas and Electric Company
PME	protection, mitigation, and enhancement
PRC	California Public Resources Code
project	Oroville Facilities Project No. 2100
PWC	personal watercraft
RA	Resource Action
RAC	Recreation Advisory Committee
RMP	Recreation Management Plan
ROW	right-of-way
RSWG	Recreation and Socioeconomics Work Group
RV	recreational vehicle
SA	Settlement Agreement
SBF	Supplemental Benefit Fund
SR	State Route
SVRA	State Vehicular Recreation Area
SWC	State Water Contractors
SWP	State Water Project
TA	trailhead access
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
WCB	Wildlife Conservation Board



**Lake Oroville**

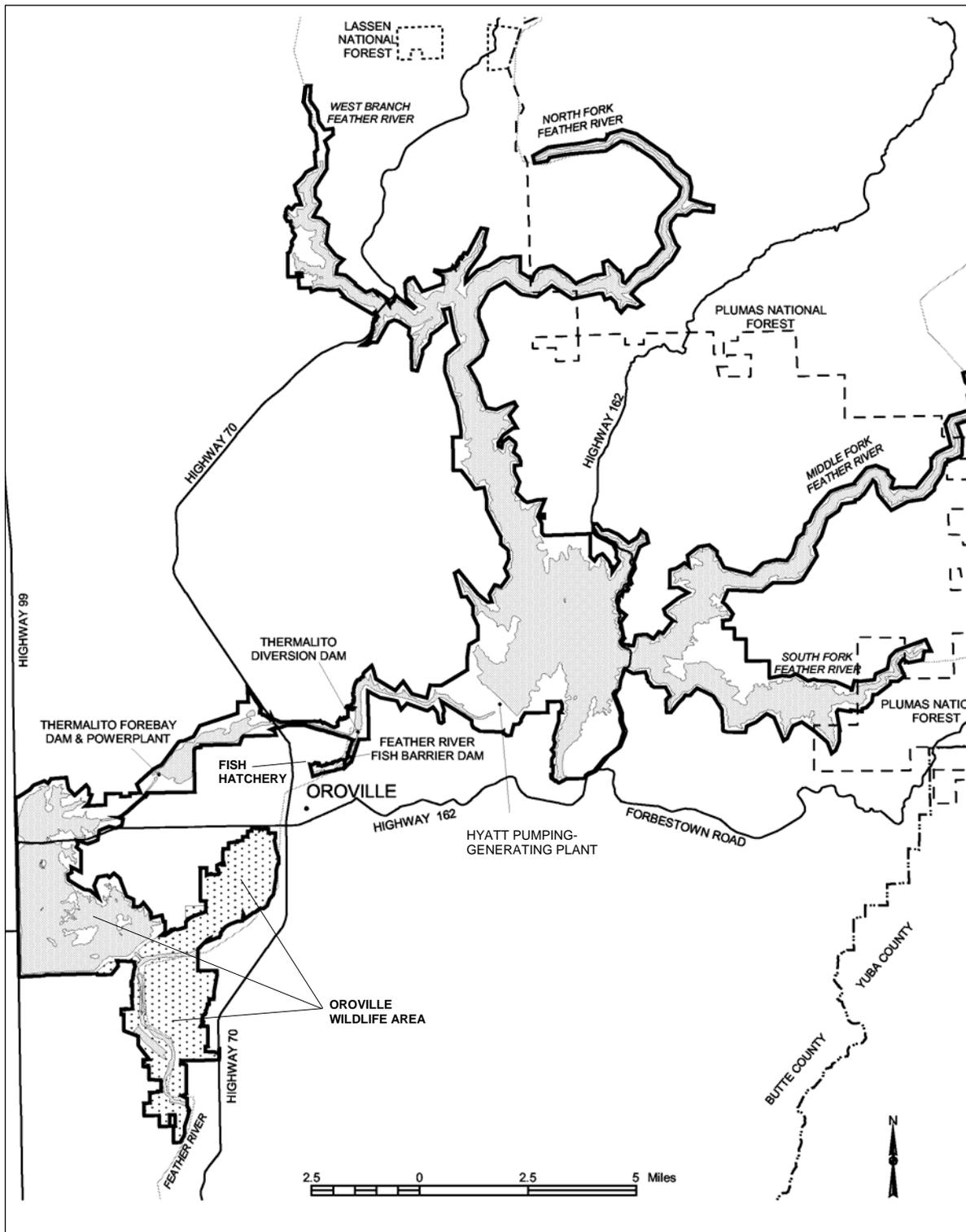
## 1.0 INTRODUCTION

The California Department of Water Resources (DWR) has prepared this Settlement Agreement Recreation Management Plan (RMP) as an amended component of its Application for a new Federal Energy Regulatory Commission (FERC) License to operate the Oroville Facilities (FERC Project No. 2100 or project). Over the past 3 years, in anticipation of the need for this RMP, a series of related studies have been conducted to assess and evaluate recreation resources associated with the Oroville Facilities. This RMP is the culmination of the results of those studies and is intended to relate most comprehensively to Relicensing Study R-17 – *Recreation Needs Analysis* (DWR 2004). This RMP also includes elements that are not directly detailed in Study R-17, but that were instead identified by stakeholders and DWR as being mutually beneficial toward the goals of recreation resource development and completion of a Settlement Agreement (SA) addressing a range of relicensing issues.

The Oroville Facilities are located on the Feather River at the foothills of the Sierra Nevada in Butte County, California. The Oroville Facilities include Lake Oroville, the second largest reservoir in California and the primary water storage facility of the State Water Project (SWP). Lake Oroville and three other project reservoirs, as well as the Feather River, provide numerous water supply, power generation, and flood control benefits. A graphic overview of these facilities is provided in Figure 1.0-1. 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.

This RMP complies with FERC's regulations per 18 Code of Federal Regulation (CFR) 4.51(f)(5) and includes the following components:

- A description of the existing recreation facilities of the Oroville Facilities that will be continued as project-related facilities during the new license term;
- Identification of existing facilities to be rehabilitated;
- Proposed new facilities and enhancement of existing facilities to meet existing or new recreation needs;
- A schedule for development or rehabilitation of all facilities;
- Identification of entities that will construct, maintain, and operate the facilities;
- An estimate of the costs of construction, operation, and maintenance of the facilities;
- Drawings of each recreation site illustrating approximate locations of existing and proposed facilities, as applicable;
- Descriptions of programs and/or plans for public interpretation and education;
- A plan for monitoring the use and condition of recreation facilities; and
- A plan for the periodic review, and revision as necessary, of the RMP.



Source: DWR 2003

**Figure 1.0-1. Oroville Facilities FERC Project No. 2100 Boundary (2005).**

Existing facilities at Lake Oroville offer a wide variety of recreational opportunities, principally within LOSRA lands managed by the California Department of Parks and Recreation (DPR). Camping experiences in the area range from fully developed campgrounds to primitive, less-developed sites; boat-in and unique floating campsites also exist. There are two full-service marinas, nine boat ramps, six car-top boat ramps, 10 floating campsites, seven floating restrooms, and a visitor center located around Lake Oroville. There are developed recreation facilities at Loafer Creek, Bidwell Canyon, Spillway, and Lime Saddle. Recreation facilities are listed in Table 1.0-1 and their locations depicted in Figure 1.0-2. Other recreation opportunities include picnicking, swimming, horseback riding, hiking, off-road bicycle riding, wildlife watching, and hunting. The area also offers visitor information sites with cultural and informational displays about project facilities and the area’s natural environment.

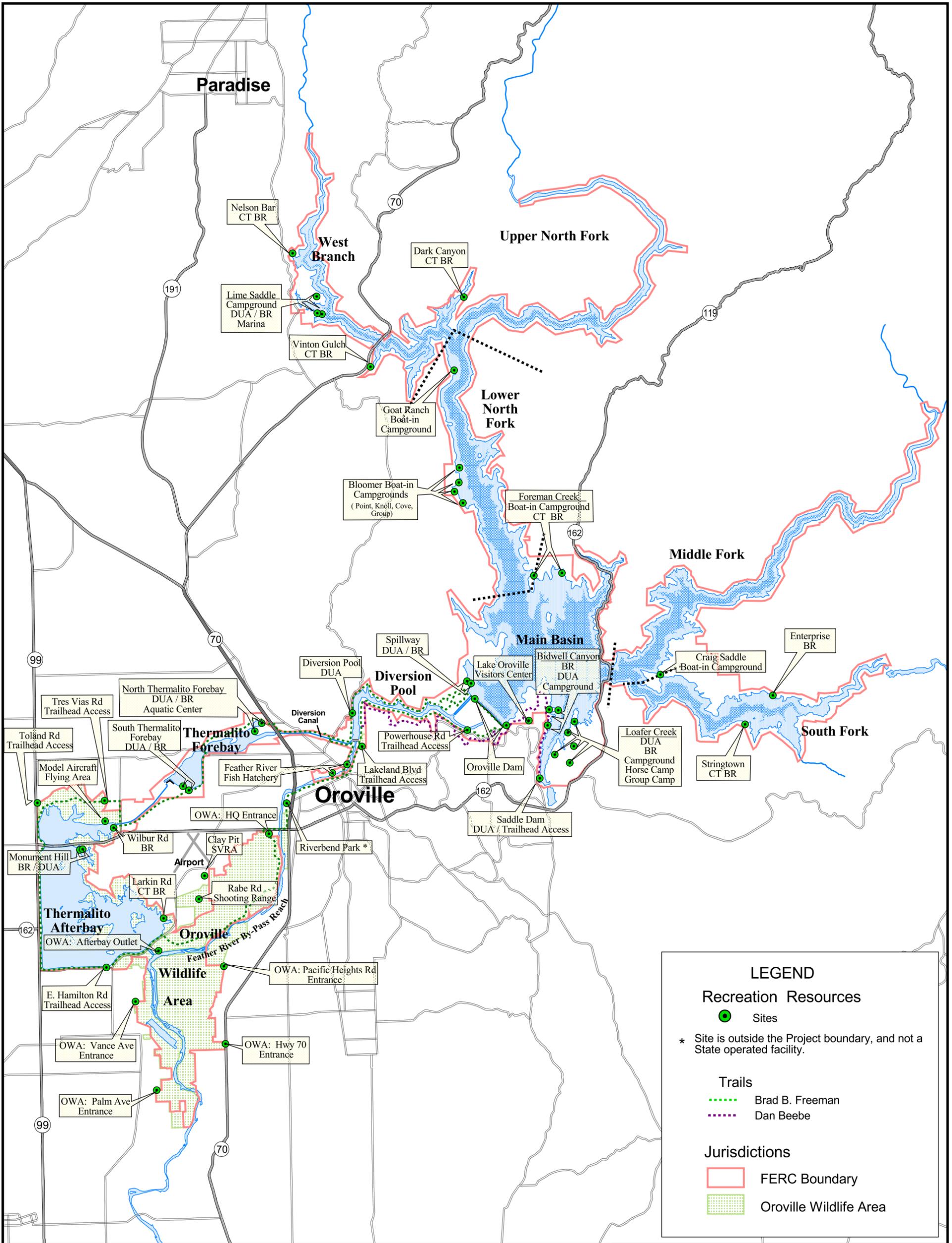
Additional recreational and visitor facilities are located at Thermalito Forebay, Diversion Pool, Thermalito Afterbay, and the OWA (Table 1.0-1 and Figure 1.0-2). Thermalito Forebay and most of the Diversion Pool area are part of the LOSRA and thus managed by DPR. Thermalito Afterbay, which is part of the OWA, and the OWA proper, are currently managed by the California Department of Fish and Game (DFG).

**Table 1.0-1. Existing recreation facilities within the project boundary.**

<b>Facilities</b>
<p><b><u>Campgrounds</u></b></p> <p><b>Individual, Group, and “En Route” Campsites</b></p> <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>• Spillway “En Route” RV Campground</li> <li>• North Thermalito Forebay “En Route” RV Campground</li> <li>• OWA Camping Area</li> </ul> <p><b>Boat-in Campsites (BICs) and Floating Campsites</b></p> <ul style="list-style-type: none"> <li>• Goat Ranch BIC</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>
<p><b><u>Day Use Areas (DUAs)</u></b></p> <ul style="list-style-type: none"> <li>• Diversion Pool (Burma Road) DUA</li> <li>• Feather River Fish Hatchery (DWR/DFG)</li> <li>• Lake Oroville Visitors Center (DWR/DPR)</li> <li>• Loafer Creek Boat Ramp (BR)/DUA</li> <li>• Oroville Dam DUA</li> </ul>

**Table 1.0-1. Existing recreation facilities within the project boundary.**

<b>Facilities</b>
<ul style="list-style-type: none"> <li>• Oroville Wildlife Area</li> <li>• Model Airplane Flying Facility</li> <li>• OWA Thermalito Afterbay Outlet DUA</li> </ul>
<p><b><u>Boat Ramps (BRs)</u></b></p> <p><b>Boat Ramps with Day Use Areas</b></p> <ul style="list-style-type: none"> <li>• Bidwell Canyon BR/DUA</li> <li>• Enterprise BR/DUA</li> <li>• Lime Saddle BR/DUA</li> <li>• Monument Hill BR/DUA</li> <li>• North Thermalito Forebay BR/DUA</li> <li>• South Thermalito Forebay BR/DUA</li> <li>• Spillway BR/DUA</li> </ul> <p><b>Boat Ramps</b></p> <ul style="list-style-type: none"> <li>• Wilbur Road BR</li> <li>• Larkin Road Car-top BR</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> <li>• Afterbay Outlet BR</li> <li>• OWA unimproved BRs</li> </ul>
<p><b><u>Trailheads and Trails</u></b></p> <ul style="list-style-type: none"> <li>• East Hamilton Road Trailhead Access, Thermalito Afterbay</li> <li>• Toland Road Trailhead Access</li> <li>• Lakeland Boulevard Trailhead Access</li> <li>• Saddle Dam DUA Trailhead Access</li> <li>• Tres Vias Road Trailhead Access, Thermalito Afterbay</li> <li>• Bidwell Canyon Trail</li> <li>• Brad B. Freeman Trail</li> <li>• Chaparral Interpretive Trail</li> <li>• Dan Beebe Trail</li> <li>• Lime Saddle Trail</li> <li>• Loafer Creek Loop Trail</li> <li>• Loafer Creek Day Use/Campground Trail</li> <li>• Sewim Bo Trail</li> <li>• Oroville Wildlife Area Trails</li> <li>• Potter's Ravine Trail</li> <li>• Roy Rogers Trail</li> <li>• Wyk Island Trail</li> </ul>



Source: DWR GIS / EDAW 2004



Original Scale 1 : 142,560  
1" = 2.25 miles

STATE OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

**Oroville Facilities  
FERC Project No. 2100**

Figure 1.0-2  
(RMP)

**Project Area and  
Associated Recreation Sites**



However, the land-based recreation facilities at the Afterbay, and patrol and security of those facilities and the Afterbay surface, have historically been the responsibility of DWR. Other recreation facilities exist outside but adjacent to the current project boundary, most notably DPR's Clay Pit State Vehicular Recreation Area (SVRA), DFG's Rabe Road Shooting Range, and the Feather River Recreation and Park District's (FRRPD) Riverbend Park and Bedrock Park.

As licensee, DWR currently has license responsibilities for facilities and designated recreation areas within the project boundary. DWR has agreements and supporting State legislation designating DPR and DFG to manage most recreational facilities and wildlife resources and areas within the project boundary. DPR has statutory management responsibilities at Lake Oroville, Diversion Pool, and Thermalito Forebay; DFG has statutory responsibilities at Thermalito Afterbay and the OWA. Several of the existing management agreements may need to be amended or otherwise superseded as a result of this RMP. Additional new agreements with DPR, DFG, and others may need to be negotiated to fully implement the RMP.

## **1.1 RECREATION PLANNING AND MANAGEMENT CONSTRAINTS**

Recreation is one of the purposes of the SWP and thus a purpose of the Oroville Facilities. However, recreation benefits are developed and managed subordinate to other primary purposes and other environmental constraints, and a review of this operating environment is important in understanding the context and role of recreation in the Oroville Facilities area.

### **1.1.1 General Operations**

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, diversion, 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 and the needs of the agricultural diverters in the Feather River Service Area (FRSA) has always been the primary consideration for determining Oroville Facilities operation (within the regulatory constraints specified for flood control, instream fisheries, and downstream uses) and will continue to be so. Power production is scheduled within the boundaries prescribed by the water operations criteria noted above.

Annual operations planning is conducted for multi-year 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 1,000,000 acre-feet (af); however, this does not limit drawdown of the reservoir below that level. If hydrology is drier or requirements 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 mean sea level (msl) in June and then lowered as necessary to meet downstream requirements, to a minimum level in December or January (approximately 700 feet 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 in Relicensing Study SP-E4 *Flood Management Study*.

### **1.1.2 Temperature Requirements**

The 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 the 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 are managed to be suitable for shad, striped bass, and other warm water fish.

The National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries) has also established explicit criteria for steelhead trout and spring-run Chinook salmon, memorialized in a biological opinion on the effects of the Central Valley Project (CVP) and 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 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.

### **1.1.3 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. Total annual entitlement of the Butte and Sutter County agricultural users is approximately 1.0 million acre-feet (maf). After meeting these local demands, flows into the lower Feather River (and outside of the Project No. 2100 boundary) continue into the Sacramento River and into the Sacramento-San Joaquin 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.

#### **1.1.4 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 the 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.

#### **1.2 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 the USACE, whichever requires the greater release. Decisions regarding such releases are made in consultation with the 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 (point at which specific flood release would have to be made) varies from about 2.8 to 3.2 maf to ensure adequate space in Lake Oroville to handle flood flows. 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 water supply 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.



**Bidwell Canyon Boat Ramp, Lake Oroville.**

## **2.0 OVERVIEW OF THE RECREATION MANAGEMENT PLAN**

This section presents an overview of the RMP. Specifically, it provides a user's guide and discusses the purpose and intent of the RMP, plan vision, methodologies used, monitoring, overview of the implementation programs, issues and assumptions, and defines terms used throughout the RMP.

### **2.1 USER'S GUIDE**

This section is intended to clarify potential conflicts or ambiguity in implementing the RMP during the term of the new license. If the authority or action is unclear or contradictory, the following prioritized list of agreements, plans, or documents will guide decision-makers. The priority is as follows (first to last):

- FERC License Order including terms and conditions, as amended.
- Project management plans, including the final RMP (after FERC approval) and associated detailed sections and appendices.
- Project management plans (including the final RMP) and associated broader goals, objectives, and vision statements.

Potential conflicts or ambiguity in implementing the RMP may be discussed and addressed during recreation coordination meetings (Sections 4.3, 4.4, 4.5, and 7.4) and during periodic RMP review (Section 7.5). Potential revisions to the RMP to clarify potential conflicts or ambiguity may occur when necessary at the discretion of the licensee or at least every 12 years to coincide with FERC Form 80 reporting associated with the Recreation Monitoring Program (Section 7.3).

### **2.2 PURPOSE AND INTENT**

The purpose of the RMP is to guide and facilitate the management of existing and future recreation resources associated with the Oroville Facilities. The RMP provides a vision of the desired future condition for recreation resources in the project area, establishes long-term goals and objectives for managing recreation resources in the project area, and identifies both site-specific and programmatic recreation measures to be implemented over the term of the new license.

Six programs are presented in the RMP that implement these proposed measures. The RMP also details estimated costs for development and operation, provides conceptual site designs, and provides an implementation schedule for recreation actions and enhancements. The cost estimates herein are preliminary and were performed at a general reconnaissance level. While the proposed measures and actions identified in the RMP reflect the Licensee's recreation resource goals in the new license, and the Licensee has committed to implementation of all specific measures (facilities and programs) described, the dollar amounts are preliminary estimates based on available information and not a specific or actual funding-level commitment. However, responsibility for implementing the RMP (including funding) ultimately rests with DWR,

as Licensee. For reference, additional PME implementation and funding commitments by the Licensee can be found in the Settlement Agreement Administrative Provisions and other articles.

Taken as a whole, the RMP represents a single “umbrella” protection, mitigation, and enhancement (PME) measure for recreation resources. The RMP is intended to be specific to DWR’s recreation resource roles and responsibilities for the term of the new FERC license. The RMP does not make management or resource commitments for other State or federal entities such as the USFS, other federal agencies, Tribes, or other non-SWP-related stakeholders. However, the continued active involvement of these other recreation participants in the project area is important in helping to meet the overall recreation needs of visitors and residents during the term of the new license. As such, continued coordination with these participants will continue as defined in the RMP.

### **2.3 PLAN VISION**

The RMP provides a long-term vision of how project-related recreation resources should be managed in the project area for the term of the new license. The RMP has benefited from the cooperative nature of the relicensing process, which included input and advice from the Recreation and Socioeconomic Work Group (RSWG) and other stakeholders. The RMP vision is provided below as a series of statements and is consistent with results and recommendations produced by FERC Project No. 2100 Relicensing Studies:

- DWR and other recreation providers in the area have a shared responsibility to help meet the needs of visitors and residents over the term of the new license.
- DWR will be an active recreation provider in the project area through implementation of the RMP.
- DWR recognizes the need to provide additional shoreline recreation opportunities at Lake Oroville and other project facilities.
- DWR will closely coordinate project-related recreation resource needs with other land and resource management agencies and recreation providers in the project area, particularly USFS, BLM, DPR, DFG, California Department of Boating and Waterways (DBW), and FRRPD.
- DWR will utilize appropriate coordination efforts aimed at balancing various resource needs to achieve the best outcome possible for the region’s resources within the terms and conditions of the new license.
- DWR acknowledges that conditions will change over time and that monitoring is an appropriate and necessary strategy to help manage project-related recreation resources in the future.
- DWR desires to maintain and/or improve the experience now enjoyed by area residents and visitors to the project area by providing and maintaining appropriate developed recreation facilities and dispersed recreation opportunities in suitable locations to address visitor needs.

- DWR will make all reasonable efforts to ensure that the other agencies that have a role in recreation implementation in the project area fulfill those responsibilities.

## 2.4 METHODOLOGIES USED

The methodology used to develop the RMP involved four principal tasks:

1. Conduct recreation-related technical studies and review the results with the RSWG and others;
2. Identify proposed recreation facility and operations and maintenance Resource Actions (RAs) with the RSWG and review these RAs as components of alternatives in the Draft License Application;
3. Select proposed RAs based on the results of Relicensing Study R-17 – *Recreation Needs Analysis*; and
4. Integrate the proposed RAs with other actions necessary to facilitate recreation management and a proposed Settlement Agreement between DWR and potential stakeholder signatories to that Settlement Agreement.

The RMP's six programs define DWR's responsibilities during the term of the new license and are summarized in Section 2.6.

## 2.5 MONITORING

Over the term of the new license, the RMP will be guided by a monitoring program that will be based on periodic review of recreation attendance and facility utilization, potential resource impacts, and consistency with local and regional plans. No long-term plan can reasonably predict exactly what is needed or foresee all events, particularly for a 30- to 50-year license term. As a result, actions taken will have to be adaptive within certain predictable limits. The Monitoring Program will be an interactive approach to decision-making that incorporates feedback mechanisms to evaluate actions and incorporate new information as it becomes available. Adaptations are necessary as conditions change and more is learned about resource constraints or how the resource is responding to planned activities or solutions. In general, the Monitoring Program has two main attributes: (1) it is a response to uncertainty about the resource being managed over time; and (2) future actions are dependent upon information acquired through monitoring the program or resource.

Not all recreational experiences are alike, and a mix of experiences over a large area such as the project area is desirable. As a result, several different monitoring variables (resource values, key indicators, management standards, management actions, and monitoring activities) will be used in different recreational settings. Specific areas or reaches of the project area have been defined for different recreational settings or uses.

To implement the proposed Monitoring Program, three types of uncertainty are addressed:

1. **Ecological Uncertainty**—dynamic nature of environmental systems, such as changes in viability and distribution of wildlife habitats and wetlands, changes in water quality, and new sensitive species listings;
2. **Social Uncertainty**—changing social values and visitor attitudes and preferences over time; and
3. **Measurement Uncertainty**—uncertainty in the estimation and use of parameters such as user densities, occupancy rates, and theoretical capacities.

The Monitoring Program needs to be both flexible and operate within set parameters. Flexibility is needed to make some necessary changes over time, either in the Monitoring Program itself, or in how data are interpreted. At the same time, there needs to be certainty for the licensee related to costs incurred in implementing the RMP over time as needs change. Some planned projects may accelerate or decelerate over time. However, the total costs incurred by the licensee should not exceed the estimated total costs in Appendix A.

To address uncertainty, the following monitoring and related management strategies will be used:

- The RMP will be reviewed and updated, as necessary, by DWR approximately every 12 years from its implementation (two FERC Form 80<sup>1</sup> cycles – Appendix E) to address changing conditions. Smaller modifications may be incorporated by DWR into on-the-ground actions earlier than every 12 years, as appropriate.
- Implementation plans at new or expanded recreation facilities will be further developed by DWR and DPR based on the results of periodic monitoring and identified recreation needs (see the Recreation Facility Development Program).
- Monitoring will be accomplished by continued collection of recreation use data and biennial interpretation of those data. In-depth recreation surveys, similar to some of those described in Relicensing Study R-13 – *Recreation Surveys* (DWR 2004), may be conducted every 10 to 12 years if needed throughout the term of the new license. Monitoring results will be evaluated against performance standards and indicators on a periodic basis (Section 7.3).
- Periodic interaction with other entities and stakeholders will be used to address potential resource management conflicts and to balance competing

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<sup>1</sup> FERC Form 80 – FERC requires that all hydroelectric project licensees prepare and file a FERC Form 80 once every 6 years to document current public recreation use within the project area. This form (Appendix E) describes the current use and capacity of project recreation sites based on a specific methodology and standardized timeframe. This form may be amended over time.

resource goals and values. This will be coordinated through the License Coordination Unit (LCU).

- DWR funding for recreation actions and enhancements may vary by implementation scheduling or scope depending upon changing needs, but should not exceed the overall identified maximum estimated budget over the term of the new license (Appendix A).

## **2.6 OVERVIEW OF RMP PROGRAMS**

The RMP includes six programs that define DWR's roles and responsibilities for recreation resources in the project area over the term of the new license. The six RMP programs include:

- *A Recreation Facility Development Program* that defines DWR's construction-related responsibilities to address existing and future project-related recreation needs, identifies proposed recreation development projects, provides estimated costs and scheduling for these recreation measures, identifies approximate locations and provides conceptual layouts of the development measures, and discusses general facility development standards and design criteria to be used.
- *A Recreation Operations and Maintenance (O&M) Program* that defines DWR's existing and future recreation facility O&M responsibilities. This program addresses existing and future project-related O&M recreation needs, provides estimated costs for annual O&M, and discusses general facility and use area maintenance standards to be used. Other programmatic costs, such as visitor health and safety management, are also defined for RMP implementation. Anticipated agreements are mentioned that will be entered into between DWR and other entities to provide for O&M at Project No. 2100 recreation facilities.
- *A Recreation Monitoring Program* that defines how DWR will conduct recreation resource monitoring and how the monitoring information will be used in decision-making. This program discusses the use of monitoring indicators and standards, defines monitoring needs, identifies periodic monitoring and reporting responsibilities, and identifies a decision-making framework related to when new facility construction would be triggered or initiated. Periodic visitor surveys are also defined.
- *A Resource Integration and Coordination Program* that defines how DWR will integrate recreation resource needs with other resource management needs (such as cultural, wildlife, and aquatic resources) over time. This program, facilitated by the LCU, will coordinate parallel resource management programs and actions, including meetings and workshops.

- *A Plan Review and Revision Program* that defines how the RMP will be updated or revised over the term of the new license. RMP revisions may be based on results from monitoring and coordination meetings with other recreation providers in the project area.
- *An Interpretation and Education (I&E) Program* that defines how hydroelectric energy production, environmental, cultural, and informational interpretation and education will be coordinated and conducted by DWR at project facilities. This program involves several resource areas including recreation, aesthetics/visual, fisheries, water quality, terrestrial, geology, and cultural/historical. The I&E Program will complement and be conducted within the framework of existing DWR and DPR I&E efforts, as described in and contemplated by the LOSRA General Plan, and as described in the proposed Oroville Wildlife Area Management Plan (to be developed). The basis for the I&E Program will be DWR's and DPR's extensive existing resources – specifically, coordination of existing Lake Oroville Visitors Center programs and staff with new and existing programs administered by DWR's Public Affairs Office, DPR's Interpretation and Education Division, and DFG's Office of Natural Resource Education. The overall intent of the I&E Program is to help visitors gain an understanding and appreciation of the area's significant natural, cultural, historical, hydroelectric, water supply, and recreational features through the use of consistent themes and messages at all project recreation facilities. This program will be aimed at project facilities but will be coordinated with other local recreation service and regional marketing providers (e.g., FRRPD, City of Oroville, Butte County, and Oroville Chamber of Commerce).

## **2.7 ISSUES AND ASSUMPTIONS**

Based on technical recreation studies conducted during relicensing, and on RSWG and other stakeholder consultation, several issues and assumptions were identified regarding the management of recreation resources in the project area. These issues and assumptions are important to consider when revising or modifying the RMP over time and include the following:

- The project has resulted in public recreation opportunities and needs along the shorelines of Lake Oroville, the Feather River, Diversion Pool, Thermalito Forebay, and Thermalito Afterbay. These opportunities and needs are located principally within or directly adjacent to the FERC project boundary at the project reservoirs. The operation of the project seasonally affects the availability of some recreation facilities and opportunities.
- DWR and other agencies provide public recreation facilities in the region and share areas of responsibility.

- To satisfy public recreation needs, several recreation providers, including DWR, have developed, operated, and maintained various public recreation facilities, principally within or adjacent to the FERC project boundary.
- New recreation development by DWR and sister agencies will be concentrated on State-owned land in suitable areas where it is compatible with land use plans and natural and cultural resources.
- The need for public recreation facilities and programs is anticipated to increase in the future, and these needs may change over time. New facility needs will occur during the term of the new license and will result in DWR having to construct, operate, and maintain new recreation facilities and programs, as well as renovate and upgrade existing project recreation facilities. Other recreation providers in the project area are also responsible for building, operating, and maintaining new recreational facilities, as well as renovating and upgrading their existing facilities.
- Public recreation providers must comply with the federal Americans with Disabilities Act (ADA), and the ADA Accessibility Guidelines for Buildings and Facilities (ADAAG), as amended. ADAAG, when fully amended, may mandate the upgrade of some existing recreation facilities when major maintenance is undertaken or when new facilities are constructed. DWR intends to make most upgrades in the first 10 years of the new license.
- Additional recreation facilities will be needed in the future. Some new construction will depend on future monitoring of recreation facility use levels and will rely upon monitoring to justify reaching capacity threshold levels and sustained trends, thereby resulting in the need for management actions and/or new facilities.
- Partnerships and/or cost sharing between DWR and other recreation providers is planned for cooperatively funding some measures in the project area that will benefit the general public and improve the overall recreation experience in the project area.
- The RMP concentrates new recreation development in suitable locations, thereby retaining as much of the natural open space as possible to protect a range of resource values, such as wildlife, aesthetics, and cultural resources.

## 2.8 EXPLANATION OF TERMS

Key terms used in the RMP and relevant to recreation planning for the project are defined below.

- Project - The DWR Oroville Facilities, FERC Project No. 2100.
- Project Boundary - The FERC project boundary.
- Project-Related Recreation Needs - Existing and future recreation needs that are associated with the development and operation of the project for the new license term.
- Project Area - The project area includes all waters and lands within the FERC project boundary, all recreation resources within the project boundary, and all facilities on those lands and waters. Recreation facilities and areas within the project boundary are listed in Table 1.0-1 and their locations shown in Figure 1.0-2.
- License - The FERC license for the Oroville Facilities, FERC Project No. 2100.
- Term of the New License - The length of the anticipated new license for the project to be ordered by the FERC, ranging from 30 years to up to 50 years.
- Recreation and Socioeconomics Work Group (RSWG) - A work group established by DWR during relicensing specifically to help develop issues, study plans, and recommendations for Resource Actions. This work group included representatives from State and federal agencies, the City of Oroville, City of Paradise, Butte County, local residents and landowners, and other resource and recreation stakeholders.
- FERC License Coordination Unit (LCU) - The licensee will recruit and assemble a pool of dedicated staff within the DWR Oroville Field Division office called the License Coordination Unit (LCU) to manage new license requirements. The LCU will be led by a management-level individual who will serve a variety of roles associated with implementing new license requirements. The LCU will coordinate all license projects, act as liaison with community and other governmental and Tribal agencies, disseminate information regarding project status, update the webpage, organize meetings, keep DWR management apprised of issues and problems, and work with the community to minimize conflicts. The LCU will also coordinate responses to FERC with DWR's FERC compliance section at Sacramento Headquarters.

The LCU is intended to give the community a direct point-of-contact for information and input on license issues.

- Recreation Advisory Committee (RAC) – A proposed public forum called the RAC is proposed by the licensee to encourage greater involvement by the general public. The proposed RAC, along with: (1) community workshops designed to share information; (2) a web-based bulletin board; and (3) a dispute resolution process, are all designed to encourage and improve local involvement in implementation of the final (FERC-approved) RMP.



**Equestrian and Bicycle Trail Users, Lake Oroville Area Trails.**

### 3.0 GOALS AND OBJECTIVES

The RMP is intended to satisfy FERC requirements to prepare a recreation plan and to define the responsibilities of parties when public recreation facilities are to be provided. To satisfy this need, the RMP has established goals and objectives for managing recreation resources. These goals and objectives are intended to guide DWR while managing, planning, designing, and constructing recreation resources and facilities in the project area, and in making appropriate resource decisions during the term of the new license. As questions arise regarding decisions about implementing the RMP, particularly future actions, resource managers may compare future actions against these goals and objectives to evaluate consistency with the original intent of the RMP. The goals and objectives are implemented through the specific actions contained herein, and do not constitute independent obligations of DWR under this RMP.

Seven RMP goals, and their respective objectives, are outlined below including:

- Help meet existing recreation resource needs in the project area;
- Help meet future recreation resource needs in the project area;
- Provide adequate public access along project shorelines;
- Preserve recreation resources;
- Coordinate recreation planning and needs;
- Provide cost-effective and diverse recreation opportunities; and
- Provide compatible recreation opportunities.

#### **Goal 1: Help Meet Existing Recreation Resource Needs in the Project Area**

Help provide a diverse spectrum of public and private recreational facilities, use areas, and opportunities within the project area that help meet existing project-related recreation needs.

- Objective 1a: Provide for the continued safe operation of existing public recreation facilities and use areas in the project area.
- Objective 1b: Provide public recreation facilities and use areas that respond to visitor facility preferences and needs as identified in visitor surveys conducted during relicensing.
- Objective 1c: Enhance existing public recreation facilities, as needed, by making necessary facility repairs and modifications and/or changes to facility operations and maintenance practices.
- Objective 1d: Comply with federal ADA guidelines (ADAAG, as amended) and provide for the public health and safety needs of all recreation visitors.

- Objective 1e: Manage existing project-related recreation resources in accordance with existing land and resource management plans and policies in the project area.
- Objective 1f: Develop an I&E Program and implement the program's actions at DWR facilities to enhance the visitor experience, inform visitors of facility use options, educate boaters about potential boating hazards, better distribute use amongst facilities, and educate visitors about sensitive resources and appropriate behavior.
- Objective 1g: Implement High priority recreation needs (existing needs) as defined in Appendix A. Initiate action on all High priority projects in the first 10 years after license issuance.

## **Goal 2: Help Meet Future Recreation Resource Needs in the Project Area**

Help provide a diverse spectrum of public recreational facilities, use areas, and opportunities within the project area that help meet future project-related recreation needs.

- Objective 2a: In the future, monitor changes in demand for lake- and reservoir-related recreation and help provide for public recreation needs consistent with resource values and monitoring indicators and standards. Changes may include the emergence of new recreation technologies, continuing trends toward larger recreational vehicles (RVs), greater mixed use, shorter day use hiking opportunities, increasing demand for water-based recreation opportunities, increased desire for educational/interpretive recreation opportunities, or others.
- Objective 2b: In the future, provide additional new public recreation facilities or use areas as justified by periodic monitoring of recreation facility and use area visitation, condition, sustained demand over time, and monitoring indicators and standards over time.
- Objective 2c: In the future, continue to implement the Recreation Monitoring Program using monitoring indicators and standards, monitor recreation use levels at periodic times, and update the visitor needs and preference survey periodically.
- Objective 2d: In the future, provide adequate funding to implement identified future project related recreation-related development projects and programs.

- Objective 2e: In the future, periodically review and update the recreation actions and enhancements within the project area (subsequently, the RMP will be reviewed approximately every 12 years, or two FERC Form 80 cycles).
- Objective 2f: In the future, periodically monitor dispersed shoreline recreational use in the project area and address related site impacts as necessary.
- Objective 2g: In the future, utilize I&E Program components to help distribute use amongst recreation facilities, if needed, and to educate the public about resource values, appropriate behavior, and potential boating hazards.
- Objective 2h: In the future, consider implementation of Moderate and Low priority recreation needs (future needs) as defined in Appendix A. When appropriate, initiate these actions after all High priority actions have been completed.

### **Goal 3: Provide Adequate Public Access Along Project Shorelines**

Provide adequate public access to, and use of, project water bodies and shorelines in the project area.

- Objective 3a: Provide adequate public access to the project's lake and river shorelines, and safe public recreation opportunities on project lands and waters as identified in the RMP (including campgrounds, viewpoints, shoreline trails, boat launches, swimming areas, and day use areas).
- Objective 3b: Through the I&E Program, provide adequate informational signs and programs to alert boaters, swimmers, anglers, and other users about operational or natural hazards in and around project facilities.
- Objective 3c: Support increased non-motorized trail opportunities, both multiple-use and/or single use where appropriate, in the project area by coordinating access opportunities across and adjacent to project lands.
- Objective 3d: Improve universal accessibility in the project area by adhering to federal ADA guidelines (ADAAG, as amended) at all existing and future project recreation facilities.
- Objective 3e: Through the I&E Program, communicate to the public the range of recreation facilities and use areas that are available in the project area.
- Objective 3f: Coordinate with local law enforcement agencies in the project area.

#### **Goal 4: Preserve Recreation Resources**

Avoid, minimize, or mitigate existing and future project-related impacts to recreation resources in the project area and help preserve the resource base.

- Objective 4a: Allow for recreation use of the project reservoirs by providing facilities that accommodate a range of reservoir pool levels.
- Objective 4b: Through the Recreation Monitoring Program, conduct periodic monitoring of recreation use at project water bodies to assess potential impacts to recreation, natural, and cultural resources over time and take appropriate corrective measures as needed.
- Objective 4c: Through the I&E Program, provide environmental and other education opportunities in the project area to foster a better understanding and stewardship of natural and man-made resources.
- Objective 4d: Allow for public access to appropriate project lands to help meet the long-term recreation goals and objectives in the project area and to maintain the existing recreational experience over time.
- Objective 4e: Focus future recreation development in suitable areas that do not significantly affect the existing recreation experience or sensitive resources at project facilities. Natural and cultural resource constraints will be considered in determining suitability in the adaptive management strategy.
- Objective 4f: In the I&E Program, help protect and interpret significant natural features and enhance the public's recreational experience in the project area (e.g., through interpretation, kiosks, signs, Watchable Wildlife programs, etc.).
- Objective 4g: Respect property rights and surrounding natural environments while addressing the need for additional recreation facilities and increased recreation use in the project area over time.

#### **Goal 5: Coordinate Recreation Planning and Needs**

Coordinate future DWR recreation planning efforts in the project area with federal, State, and local land and resource management agencies, public recreation providers, and private recreation stakeholders prior to making new recreation development decisions.

- Objective 5a: In the Recreation Monitoring Program, monitor recreation resources and visitation using monitoring indicators and standards, and

identify appropriate management actions and associated costs needed to address identified problems.

- Objective 5b: Provide adequate DWR staffing and resources to address recreation resource planning and permitting in the project area over the term of the new license.
- Objective 5c: Participate in other comprehensive planning efforts that may be undertaken by local agencies in the area to coordinate implementation of the RMP over the term of the new license.
- Objective 5d: Periodically consult with natural and cultural resource specialists to ensure that recreational planning, use, and facilities do not limit or unnecessarily infringe on the environmental characteristics necessary to sustain traditional cultural practices.
- Objective 5e: Review the RMP approximately every 12 years and update the RMP programs, as appropriate, to address changing conditions over time. Smaller revisions may be undertaken on a more frequent basis.

#### **Goal 6: Provide Cost-Effective and Diverse Recreation Opportunities**

Provide cost-effective recreation facilities and programs in the project area to maximize on-the-ground recreation improvements using available dollars, minimize operational and maintenance costs where possible while meeting standards, and provide for compatible and desirable facilities that help meet the needs of visitors.

- Objective 6a: Promote public recreation facilities and programs that are cost-effective, and work with others on larger public projects that benefit visitors to the project area and area residents.
- Objective 6b: Provide public facilities that minimize, to the extent feasible, long-term O&M costs.
- Objective 6c: Provide cost-effective public recreation facilities that generally accommodate existing visitor facility preferences, but also allow for future modification if preferences change over time.
- Objective 6d: Provide a range of public recreation opportunities, associated with project waters and shorelines that include developed fee sites and undeveloped or dispersed non-fee sites to allow for a diversity of visitor choice and experience.

- Objective 6e: Allow for appropriate public recreation-related opportunities and facilities in the project area, while managing the project area to exclude inappropriate or incompatible recreation activities in specific areas or at specific times.

### **Goal 7: Provide Compatible Recreation Opportunities**

Provide public recreation resources that are compatible with adopted land and resource plans and policies and sensitive resources in the project area.

- Objective 7a: Provide safe public recreation facilities and programs that are compatible with adopted land and resource plans and policies, as well as other project-related resource needs, goals, and objectives including water quality, cultural, terrestrial, aesthetic/visual, and aquatic resources.
- Objective 7b: Through the I&E Program at licensee facilities, provide environmental education opportunities (e.g., through viewpoints, interpretive signs or kiosks, environmental education programs, and nature trails) that demonstrate compatibility with and stewardship of natural and cultural resources in the project area.
- Objective 7c: Provide public recreation facilities that are compatible with project operations in the new FERC license.
- Objective 7d: Provide public recreation facilities and programs that are compatible with and supplement existing tourism and local residents' recreation needs in the project area.

## **4.0 RECREATION MANAGEMENT, PLANNING, COORDINATION, AND RESPONSIBILITIES**

Lands, facilities, and recreational interests of the Project No. 2100 study area are publicly owned and/or managed by a number of State, federal, and local agencies, most notably DWR, DPR, DFG, USFS, BLM, and FRRPD. The properties and management responsibilities of these agencies are detailed in a series of deeds, agreements, and transfers among the agencies involved. Relevant agency ownership, management responsibilities, and current management practices throughout the Project No. 2100 area are described below. Under FERC regulations, DWR is ultimately responsible for public access, recreation opportunities, and associated development within the Project boundary. Figures 4.0-1, 4.0-2, and 4.0-3 illustrate the land-based jurisdictions of each of the managing agencies.

### **4.1 DAVIS-DOLWIG ACT AND OTHER SWP RECREATION MANAGEMENT AUTHORITIES AND AGREEMENTS**

In 1961, the California Legislature passed the Davis-Dolwig Act (California Water Code Sections 11900–11925), which identified four State agencies (DWR, DPR, DFG, and DBW) as responsible for providing recreational opportunities and fish and wildlife enhancements as part of the SWP. Under Davis-Dolwig, 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 and DFG are charged with designing, constructing, operating, and maintaining public recreation facilities and managing fish and wildlife resources, respectively. DBW, in turn, is charged with planning, designing, and constructing boating-related facilities.

Because DWR has acknowledged ultimate responsibility for public recreation mandated by FERC regulations and the current Project No. 2100 Recreation Plan, DWR has assumed more direct involvement in implementation and operation and maintenance of new recreation facilities since 1994. Variabilities in State budget appropriations have resulted in the creation of interim agreements that provide for public recreation funding and service benefits, as directed by FERC Order. These funding and service benefits have been provided directly by DWR or by services delivered by several contracting entities.

### **4.2 ROLES AND RESPONSIBILITIES**

The Oroville Facilities—including Oroville Dam, Lake Oroville, Hyatt Pumping-Generating Plant, Thermalito Pumping-Generating Plant, Thermalito Diversion Dam, Thermalito Diversion Dam Power Plant, Thermalito Forebay, Thermalito Afterbay, Fish Barrier Dam, and Thermalito Power Canal—are owned by the State of California and are operated by DWR. In addition, DWR 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 SWP and provide significant water collection and storage, flood management, and power production capabilities. The SWP was authorized in 1960 under the Burns-Porter Act. In accordance with the California Water Code (Section 346), properties for recreation purposes were acquired by DWR at the same time that land was acquired for 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. Furthermore, some lands within the Project No. 2100 Boundary remain federal lands, subject to USFS and BLM planning and management, though most of the day-to-day management responsibilities have been delegated to the State by written agreement or other arrangement under the existing FERC license.

#### **4.2.1 Department of Water Resources**

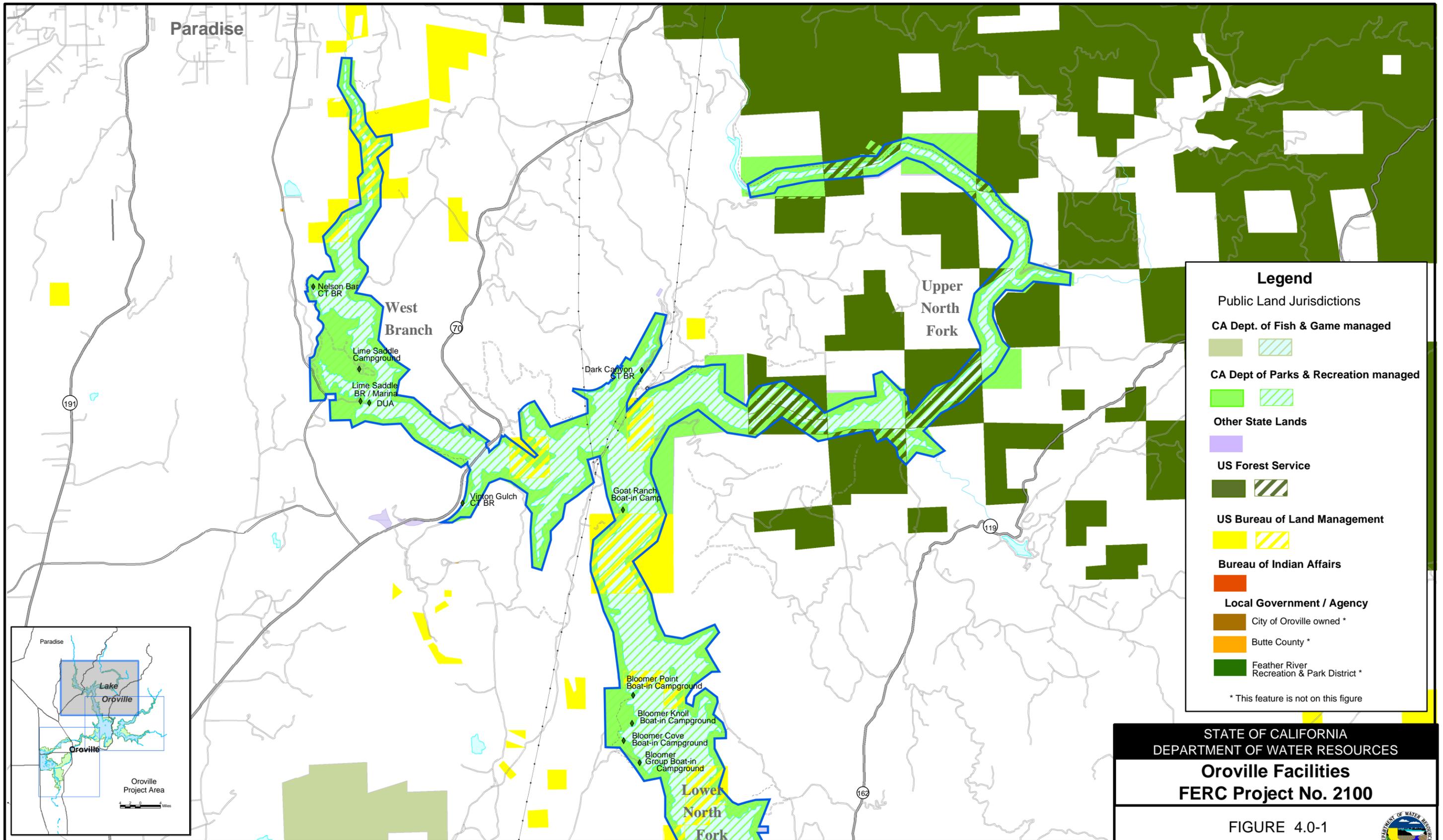
It is ultimately DWR's responsibility to ensure that all Project No. 2100 required improvements, maintenance, and studies mandated by FERC are properly carried out. Although DWR does not manage most of the recreational facilities in the study area, it is responsible for coordinating and implementing a variety of recreation-related projects and improvements. DWR has various statutory, administrative, and contractual responsibilities with various State agencies. However, FERC Orders articulating 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 amendments to the existing FERC License to operate the Oroville Facilities.

#### **4.2.2 Department of Parks and Recreation**

The official mission of DPR 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 2003). In addition, DPR's Northern Buttes District (which manages 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." 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;



**Legend**

Public Land Jurisdictions

CA Dept. of Fish & Game managed

CA Dept. of Parks & Recreation managed

Other State Lands

US Forest Service

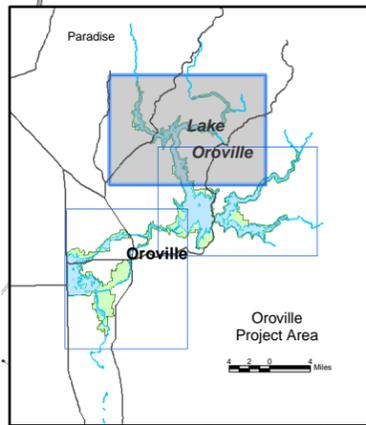
US Bureau of Land Management

Bureau of Indian Affairs

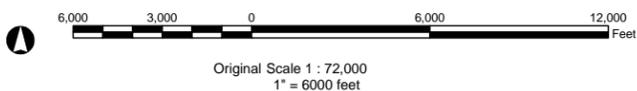
Local Government / Agency

- 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

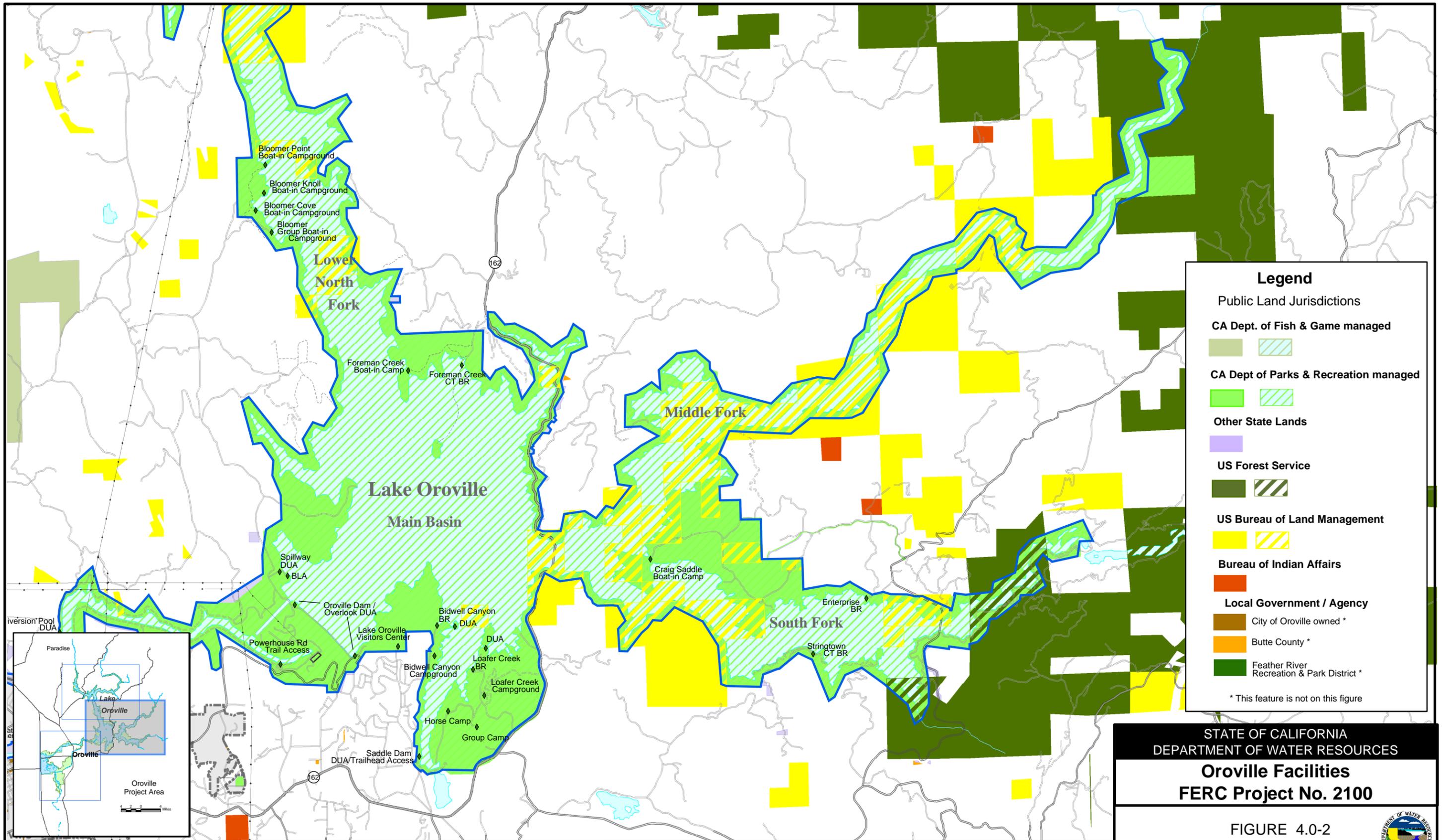
**Oroville Facilities  
FERC Project No. 2100**

FIGURE 4.0-1  
(RMP)

**Public Land Jurisdiction  
Reservoir -- North**

Prepared by: PJ -- EDAW, Inc. Date: 1/24/06

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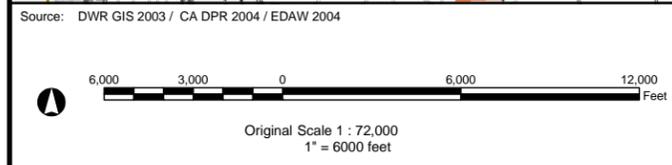
STATE OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

**Oroville Facilities  
FERC Project No. 2100**

FIGURE 4.0-2  
(RMP)

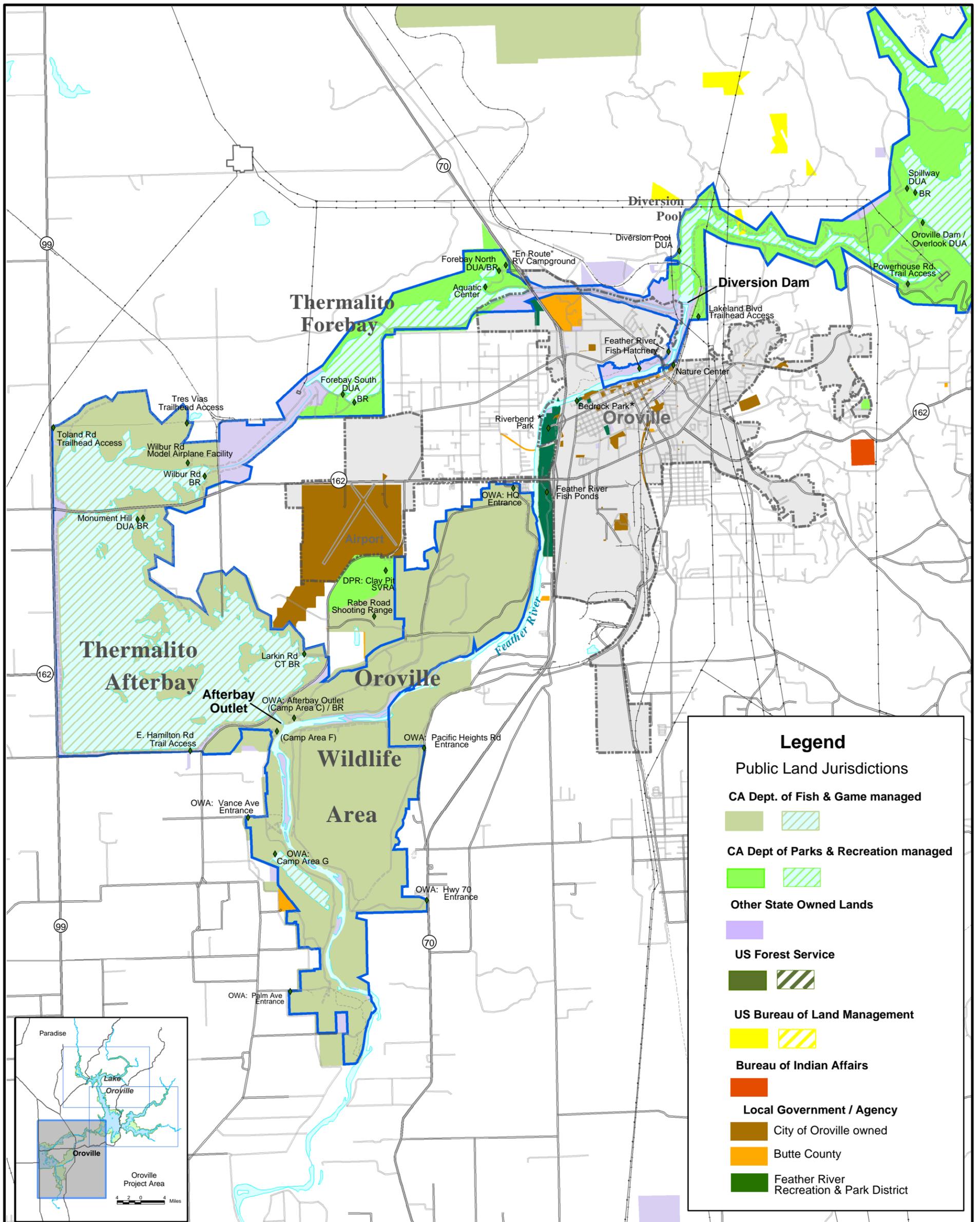
**Public Land Jurisdiction  
Reservoir -- South**

Prepared by: PJ -- EDAW, Inc. Date: 1/24/06 P:\2000\0s016.gis\arcmap\mgmt\_own\_res\_17x11.mxd



**General Reference**

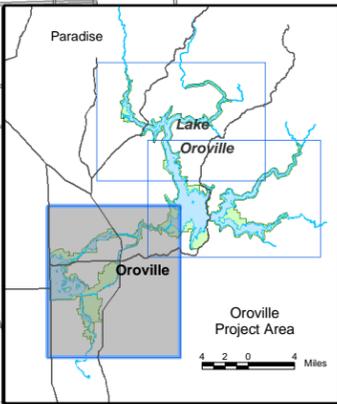
- FERC Boundary
- Oroville City Limits
- Recreation Sites



### Legend

**Public Land Jurisdictions**

- CA Dept. of Fish & Game managed
- CA Dept. of Parks & Recreation managed
- Other State Owned 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



Original 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 FERC Project No. 2100

FIGURE 4.0-3  
(RMP)

### Public Land Jurisdiction

River -- Below Oroville Dam

Prepared by: PJ -- EDAW, Inc. Date: 1/24/06  
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- 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 and servicing trash receptacles; maintaining camping and day use areas, including boat ramps, courtesy docks, and 47 miles of trails; monitoring and maintaining buoys and vessels; and maintaining recreation area grounds and landscaping. Although fish and wildlife management generally falls under DFG authority, DPR Rangers (sworn State peace officers) have the authority to enforce hunting and fishing regulations and the Fish and Game Code in the LOSRA; a number of Rangers are assigned specifically to LOSRA. DPR Resource Ecologists and related staff also plan and implement natural and cultural resource protection and enhancement projects within LOSRA.

DPR is also responsible for carrying out boat safety inspections and providing safety patrols at Lake Oroville, Diversion Pool, and Thermalito Forebay. Other 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 the Bidwell Canyon and Lime Saddle Marinas, subject to DPR contracts and oversight.

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

Consistent with the Statewide strategies and management practices outlined in *The Seventh Generation: The Strategic Vision of California State Parks* (DPR 2001), 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.

Within LOSRA, DPR manages interpretive programs, activities at the Lake Oroville Visitors Center, special events coordination, and general recreational opportunities consistent with the stated management strategies. The California Public Resources Code (PRC Section 5019.56) authorizes DPR to undertake improvements to provide for a number of recreational activities, including camping, picnicking, swimming, hiking, bicycling, horseback riding, boating, and water sports.

#### **4.2.3 Department of Fish and Game**

DFG's 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." The California Fish and Game Code empowers DFG to carry out all Code provisions via a number of management and regulatory avenues, including regulation of hunting and fishing, development of ecological reserves and management areas, review and permitting of proposed projects, and public education and habitat improvement programs. DFG is responsible for managing all fish and wildlife resources in the State. Fishing and hunting are important recreational activities associated with Project No. 2100, especially in the LOSRA and OWA and along the Feather River. In addition to fish and wildlife management, DFG regulates hunting and fishing throughout the project area, including within the LOSRA.

Front-line enforcement of fishing and hunting regulations, and the California Fish and Game Code in general, is conducted by DFG Wardens (sworn State peace officers). Wardens are typically assigned to a county, or a group of counties, and the Butte County assigned Wardens include the OWA and other project lands and waters within their routine patrols. In addition to routine patrols, Wardens often coordinate with or are supplemented by colleagues from adjacent counties and other jurisdictions in order to address particular or chronic violations on an as-needed basis.

DFG is the managing agency for the OWA (Figure 4.0-3), which was formally established in 1968. DWR acquired this area in the public interest in part 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 added to the OWA by DWR for inclusion in the OWA through a series of transfer agreements between 1973 and 1986, primarily in the vicinity of and including Thermalito Afterbay.

Management authority for the Thermalito Afterbay water surface and adjoining State shore land "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.” The OWA currently encompasses 11,870 acres, including Thermalito Afterbay and shoreline lands.

DFG also manages the Feather River Fish Hatchery both for fish stocking and salmon fishery mitigation and as an interpretive facility open to the public. The hatchery is operated by DFG, with substantial funding and maintenance provided by DWR. In addition, DFG studies and manages the warm- and coldwater 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 with the potential to affect wildlife or wildlife habitat. For example, DFG has permitting authority over certain projects throughout the project 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.

#### **4.2.4 Department of Boating and Waterways**

The mission of DBW is to improve access to California waters for the recreational boating public, and to make sure that boating is as safe as possible. It is estimated that 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, as DBW neither owns nor manages any recreational facilities or activities within the Project No. 2100 boundary.

DBW 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 Project No. 2100 related to boating and boating-related facilities, including boat-in facilities, boat 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 and water managing agency—at Project No. 2100, this has historically been DPR and/or DWR.

#### **4.2.5 California Highway Patrol**

The California Highway Patrol (CHP) provides uniform traffic law enforcement throughout California. Assuring the safe, convenient, and efficient transportation of

people and goods on the State's highway system is still the agency's primary purpose, but in 1995 the CHP was merged with the California State Police. In assuming those related duties, it statutorily became the primary agency responsible for security and law enforcement at all State facilities and lands (except lands of the State Park System). Per the explicit exception for State Park lands, CHP is not responsible for law enforcement in the LOSRA. CHP is, however, responsible for patrol and law enforcement on OWA lands and at all Project No. 2100 facilities and on DWR lands not otherwise part of the LOSRA.

#### **4.2.6 U.S. Forest Service**

The USFS manages approximately 2,039 acres of land located in the North, Middle, and South Fork arms of Lake Oroville inside the FERC project boundary (Figures 4.0-1 and 4.0-2). Many of the parcels are within the reservoir's inundation zone, but many also include shoreline and upland areas of the LOSRA. Almost all of these lands are within the Plumas National Forest and the remainder, located in the North Fork arm of Lake Oroville, are within the Lassen National Forest.

Local USFS lands are managed under the 1988 Plumas National Forest Land and Resource Management Plan (Forest Plan) (USFS 1988). In addition, management of these lands is influenced by the more recent Sierra Nevada Forest Plan Amendment (Plan Amendment) (USFS 2004). 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"). The Forest Plan also prescribes management practices for specified areas and time periods needed to obtain these objectives. The policies for the lands in the areas near the project primarily emphasize resource conservation, provision of high quality recreational opportunities, and protection of visual resources.

The USFS and DPR have an agreement concerning management of National Forest lands located within the Project No. 2100 boundary. The agreement, dated March 16, 1978, allows DPR to conduct and administer certain activities on those National Forest System lands. The USFS retains all other authorities. In the agreement, the USFS transferred an interest in National Forest System lands within the Project No. 2100 boundary shown in Exhibit K of the FERC license 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." 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). It is the licensee's preference and intent that National Forest System lands within the Project No. 2100 boundary continue to be managed as part of LOSRA.

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

In general, BLM-managed lands in the project area contain semi-primitive roads with views of Lake Oroville. Several disjunct parcels within the project total about 3,852

acres (Figures 4.0-1, 4.0-2, and 4.0-3). While BLM is currently implementing a coordinated resource plan with DWR to manage the Lake Oroville watershed, surplus public lands within the study area receive very little active management by BLM (BLM 1993). Recreation use of these lands is managed by DPR as part of the LOSRA (pers. comm., Williams 2003). No formal arrangements between BLM and State agencies exist regarding management of the project area, except the FERC License. The lands within the FERC Project boundary, primarily within the LOSRA, have been withdrawn from entry under a variety of public land laws due to a designated reservation for the project (pers. comm., Berg 2003).

At an operational level, BLM has prioritized the following management objectives for lands in and near the project area (pers. comm., Berg 2003): (1) identify what lands are of specific interest to the State of California within the FERC boundary; (2) design the mechanism(s) to effectuate transfer of surplus federal lands to the State of California; and (3) complete such transfer.

BLM has communicated its interest to surplus properties with public jurisdictions. DPR, DWR, and the U.S. Bureau of Indian Affairs (BIA, on behalf of four federally recognized tribes) have submitted applications to BLM for land transfer sites within the project area. However, the timing of future progress on these issues is unknown. Nevertheless, it is the licensee's intent that BLM-managed lands within the Project No. 2100 boundary continue to be managed as part of LOSRA, and that transfer of ownership to the State of California (under the Recreation and Public Purposes Act) occur when feasible.

#### **4.2.8 Feather River Recreation and Park 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 10 parks, three community buildings, two public pools, and several sports fields, playgrounds, picnic areas, and assorted park amenities, several of which are 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).

Although most FRRPD facilities are outside of the Project No. 2100 boundary (portions of the existing and planned expansion of Nelson Park are within the project boundary), FRRPD coordinates with DWR, DFG, and DBW to enhance the recreational opportunities available in and around the vicinity of the project (pers. comm., Lawrence 2003). Coordination with State agencies includes the FRRPD's leasing and management of several areas owned by DWR and DFG. The licensee proposes to

continue and potentially expand the relationship with FRRPD as it relates to the aforementioned leased and managed lands, pursuant to existing agreements and any subsequent or revised agreements that may arise in both agencies' mutual interests.

#### **4.2.9 State Water Contractors**

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

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).

The 27 water contractors fund all water supply-related costs of the SWP for an annual allocation of approximately 3,000,000 af. These costs amounted to \$866 million 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 repay about 89 percent of SWP capital expenditures, generally funded by bonds; repayment of the remaining 11 percent comes from the federal government for flood control (2 percent), the State General Fund for some recreation and fish and wildlife enhancement per the Davis–Dolwig Act (5 percent), and the rest from miscellaneous sources (DWR 2004).

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, such as the costs for energy used to pump water to their respective aqueducts (DWR 2004). The current long-term water supply

contracts between the 29 SWP contractors and DWR are scheduled to terminate in 2035; however, they are expected to be renewed prior to expiration.

#### **4.2.10 Concessionaires and Contractors**

DPR and concessionaires have entered in to agreements to provide specific services in the project area as noted below.

##### ***Concessionaires***

DPR contracts with concessionaires to provide additional services that support recreation in the LOSRA. Current DPR concessionaires located at LOSRA include the following but are subject to change:

- 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 liquor, boating supplies, sundries, and souvenirs.
- Lime Saddle Marina – Forever Resorts LLC, located at the north end of Lake Oroville at Lime Saddle, offers marina services 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.
- Advanced Diving Services, Inc. – Provides service anywhere within LOSRA and is contracted through 2009. Advanced Diving Services, Inc. provides hull cleaning, salvage services, deep water diving, and object or body recovery.

##### ***Contractors***

Both DWR and DPR contract with various vendors and other business and governmental interests and authorities to provide some services. Important recreation-related contractors currently include (but are subject to change) DPR's Reservation System, a campground and tour reservation system that has been in place since 1970. The current vendor is ReserveAmerica, contractor to DPR for State Park System reservations Statewide. Reservations using this system can be made over the phone or through DPR's website and can be made 7 months in advance.

#### **4.3 FERC LICENSE COORDINATION UNIT**

DWR intends to have appropriate staff in Oroville to manage the terms and conditions of the new license. This unit, called the FERC License Coordination Unit (LCU), will serve three functions:

1. Manage the recreational, environmental, and other terms and conditions of the license;
2. Ensure compliance with the regulatory framework defined by FERC and other regulatory agencies; and
3. Provide a local point of contact for the community.

To ensure compliance with the terms and conditions of the new license, the LCU will manage the projects and programs required by the license. LCU staff will coordinate and manage construction and maintenance activities; coordinate and manage the functions and recommendations established by the RAC and Ecological Committee (EC); and manage studies and monitoring programs.

To ensure regulatory compliance, the LCU will prepare correspondence to FERC and other agencies as required by the regulatory framework. Studies, reports, surveys, and permits will be prepared and managed locally by the LCU.

As the local point of contact for the community, the LCU will provide a single point of contact for interested parties to request information and/or to provide recommendations. The LCU will have the capacity to make decisions concerning the implementation of the terms of the license, and will provide a local resource for dispute resolution if needed.

To encourage and facilitate more local awareness and involvement in implementation of the terms and conditions of the new license and specifically the RMP, the LCU will be responsible for several key public-oriented elements, including:

1. Community workshops designed to share information;
2. Web-based bulletin board; and
3. Dispute resolution process.

All of these elements are aimed at improving community involvement in implementing this RMP and are described below in more detail.

#### **4.3.1 Community Workshops**

Initially, DWR will hold and facilitate Community Workshops twice per year in the City of Oroville/Oroville area. These meetings will be used to inform the community on progress of projects associated with license requirements, reservoir conditions, operations, and other issues related to implementation of the RMP. Interested citizens and members of the public will be encouraged to discuss recreation-related items and issues during these meetings. Community Workshops may also include information from the Ecological Committee that is also proposed as part of the new license.

#### **4.3.2 Web-Based Bulletin Board**

The licensee will maintain a web-based Bulletin Board, updated monthly or as needed with project status reports, milestones, community events, license events, Community

Workshop notes, and RAC summaries (Section 4.4), covering all resource areas of the new license.

### **4.3.3 Dispute Resolution Process**

Disputes associated with the new FERC license will be brought to the attention of the LCU. The LCU will investigate and evaluate disputes and recommend a course of action to resolve each dispute. The licensee will be the final arbitrator of license proposals and compliance disputes and, as such, will accept or deny proposed projects or expenditures as appropriate. Stakeholders retain the option of taking unresolved disputes through the Administrative and Dispute Resolution Process provided in the Settlement Agreement or ultimately to FERC.

## **4.4 RECREATION ADVISORY COMMITTEE**

DWR has proposed that a Recreation Advisory Committee (RAC) be created to advise the licensee on implementation of the RMP components, review recreational use data for Project No. 2100 facilities, and recommend modifications to the RMP over time throughout the term of the new license. Specific elements of the RAC are listed below.

### **Participation/Communication:**

- Meetings to be held in Oroville.
- Meeting announcements/agendas will be posted on DWR's website and noticed in the local paper.
- Meeting summaries will be posted on the web and available at the Butte County Library or other suitable location. Meeting summaries are also intended to capture concerns of the participants.
- Each member bears its own costs for attendance.
- Meetings will be open to the public, and the public will be appropriately allowed to address the RAC with recreation-related questions and potential solutions to issues.

### **Membership:**

- One representative will be requested from each of the following local entities: City of Oroville, City of Paradise, Butte County, FRRPD, and Oroville Chamber of Commerce.
- Two at-large public representatives, with one each being chosen by the RAC from lists of candidates supplied by the City of Oroville and Butte County. These appointees will serve a two-year term.
- One representative each from DPR, DFG, DBW, DWR, and SWC.
- One non-governmental agency (NGO) representative from American Rivers.
- One Native American representative, collectively selected by agreement amongst the Tribes in the project vicinity.

- All members must be Settlement Agreement signatories.

#### Governance:

- The LCU will arrange, administer, and permanently chair the meeting.
- DWR will provide a facilitator during meetings if the RAC determines that there is a need.
- RAC advice and recommendations to DWR's LCU will be through majority plus one vote. Quorum is two-thirds or 10 members.
- DWR will provide the RAC an annual report on attendance and other monitoring of Project No. 2100 recreational facilities.
- Project No. 2100 recreational usage monitoring data and reports, along with a record of all recommendations made by the RAC, will be provided to FERC every two years.
- As licensee and pursuant to FERC guidelines, DWR retains the decision-making role and responsibility in Project No. 2100 operations and maintenance.

#### Meeting Frequency:

- The RAC will meet at least three times per year during the first two years of the new license and a minimum of two times per year thereafter.
- The RAC can recommend and request additional meetings in writing as necessary to address license conditions and pursuant to the RAC's role in making recommendations to DWR.
- Joint meetings of the RAC and EC can be scheduled if needed and recommended by both committees, either in lieu of meetings stipulated above or as a separate meeting.

#### Scope of Committee:

- RAC determinations regarding recreation license compliance items will be recommendations to the LCU.
- Use Project No. 2100 RMP and other recreation license requirements as a guidance document while recognizing some aspects of the RMP will involve adaptive management.
- Advise licensee on compliance and implementation of the RMP and other recreation license requirements, including priorities, schedules, public workshops, and operational issues associated with recreation.
- Recreational facilities within the Project No. 2100 boundary; relevant information on Supplemental Benefit Fund (SBF) projects can be agendaized particularly if non-project use of Project No. 2100 lands is being sought through the SBF.

- Review and assess usage survey/monitoring results of existing Project No. 2100 recreational facilities and/or recreation studies and provide recommendations to the LCU for inclusion in licensee's reports to FERC.
- Make recommendations on goals and/or objectives regarding recreational resources to the LCU.
- Assist in addressing comments/issues raised in the Community Workshops through recommendations to the LCU.
- RAC will periodically review its operations, and modify them if needed.

#### **4.5 INTERAGENCY/DEPARTMENTAL COORDINATION AND PLANNING**

Because of the differences in the specific missions and responsibilities of various State agencies, communication among staff of each of the managing agencies is essential to ensure that recreation opportunities in the study area are adequately and efficiently provided to the public. Interagency coordination is important for recreation management issues that may arise around the timing of events and as they relate to facility conditions and reservoir levels. Clear divisions of responsibility are important for efficiency of O&M and to enable recreation managers to be prepared to manage unforeseen events.

The general responsibilities assigned to the respective State of California Departments of the Resources Agency, as they relate to SWP facilities, are articulated in the Davis-Dolwig Act (California Water Code Sections 11900-11925). The cooperative relationship between these Departments is further described in Resources Agency Order No. 6. Local (project) staff from DWR, DPR, DFG, DBW, and CHP meet regularly to address project and non-project interagency management via a staff forum currently termed Oroville Recreation Coordinating Agencies (ORCA). The ORCA forum, or its equivalent, will continue to meet periodically as needed during each year, and throughout the license term, to facilitate short- and intermediate-term interagency and inter-Departmental operations coordination and planning.



**Lake Oroville Floating Campsite.**



**Bidwell Canyon Marina, Lake Oroville.**

## 5.0 MANAGEMENT UNITS

For purposes of long-term recreation planning and monitoring, six geographic management units have been defined for the project area. These separate units represent distinct geographic areas, as well as distinct recreation experiences for visitors within the project area. These management units have been primarily designated for use in the Recreation Monitoring Program and are generally consistent with similar geographic divisions used during Project No. 2100 relicensing recreation studies. Data collected and analyzed within each of these separate units, as well as data compiled and analyzed for the entire project area, will help guide future RMP decision-making on a unit-by-unit basis. These six management units are presented in Figure 5.0-1 and are further listed and described below.

- Lake Oroville (land area);
- Lake Oroville (reservoir surface water area with six subdivisions);
- Diversion Pool (includes Feather River Fish Hatchery);
- Thermalito Forebay;
- Thermalito Afterbay; and
- Oroville Wildlife Area.

### 5.1 LAKE OROVILLE

The main management unit in the project area is Lake Oroville and includes both a land component and a reservoir surface water area component.

#### **5.1.1 Lake Oroville—Land**

The Lake Oroville land management unit includes all of the large developed public RV and tent campgrounds including Bidwell Canyon, Loafer Creek, and Lime Saddle Campgrounds, as well as a number of small semi-primitive boat-in campsites (BICs), moored floating campsites, and "en route" campsites within parking areas. Camping data will be collected on a per-site or facility basis, as well as aggregated for all like or similar facility camping experiences within this management unit.

There are also a number of larger day use/picnic facilities within this management unit including Spillway, Bidwell Canyon, Loafer Creek, Lime Saddle, and Oroville Dam Overlook. Additionally, there are a number of larger developed boat ramps and/or marinas, smaller car-top boat ramps, and dispersed reservoir shoreline access sites within this management unit. Day use recreation data will again be collected on a per-site or facility basis, as well as aggregated for all like or similar facilities in this management unit.

#### **5.1.2 Lake Oroville—Water**

The Lake Oroville water management unit includes six reservoir surface (water area) subunits:

- Main Basin
- West Branch
- Upper North Fork
- Lower North Fork
- Middle Fork
- South Fork

Boat launching data will be collected and analyzed for each of the land-based sites described above on an access point basis (Figure 5.0-1), as well as compiled for the overall Lake Oroville reservoir area.

## **5.2 DIVERSION POOL**

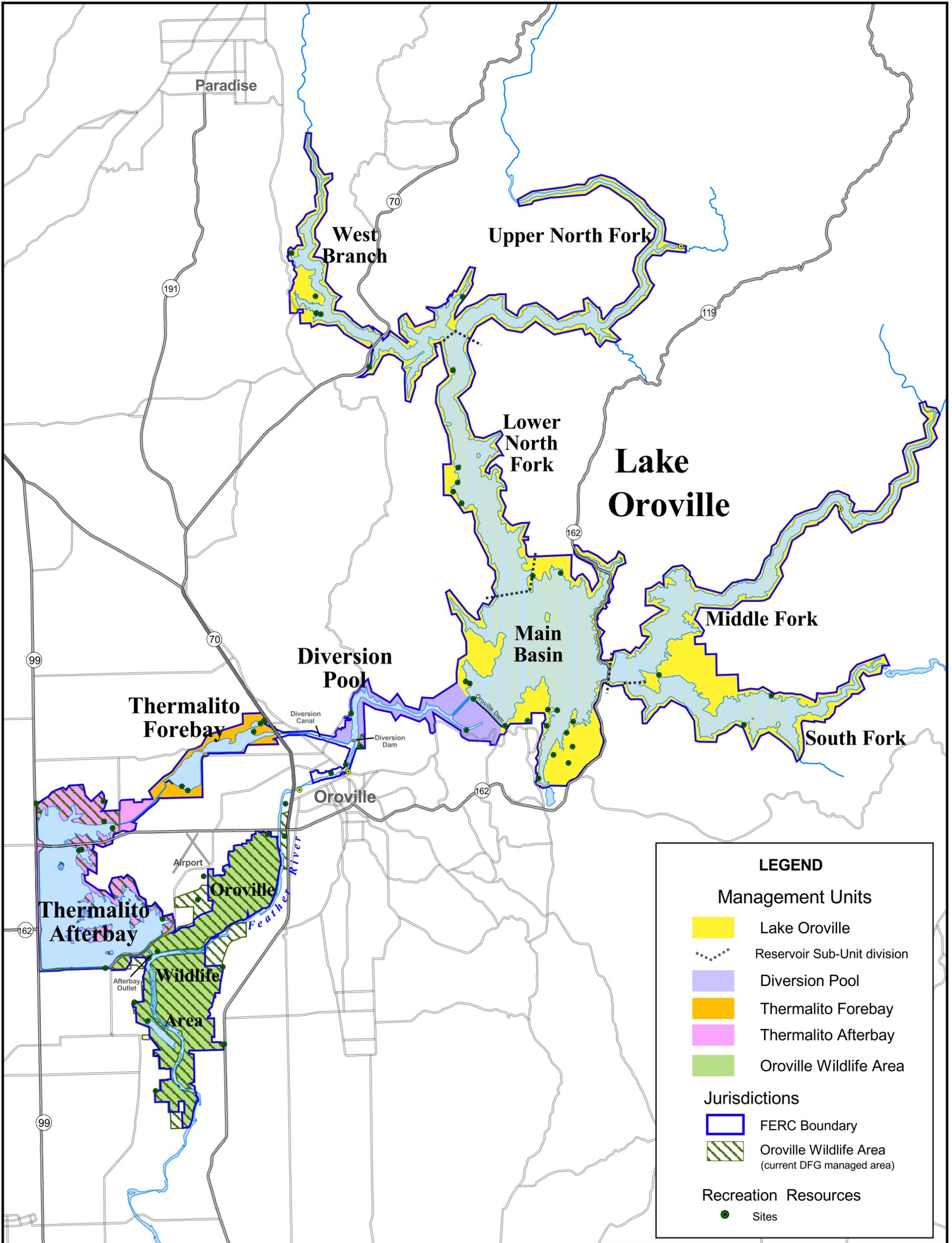
The Diversion Pool management unit is unique among the project reservoirs in that it provides a semi-primitive recreation experience. Access is limited primarily to trail and non-motorized watercraft (electric motors are allowed). No camping is allowed in this management unit, only day use. Day use recreation data will be collected on a per-site basis (two new shoreline day use sites will be developed under the RMP) and on-water basis, as well as aggregated for the entire management unit. The Feather River Fish Hatchery site is included in this management unit, although it is actually located within the Low Flow Channel of the Feather River.

## **5.3 THERMALITO FOREBAY**

The Thermalito Forebay management unit (North and South) provides another unique recreation experience compared to the other geographic areas of the project. Its relatively stable pool level, near-town location, and developed day use facilities provide an experience that is much different compared to Lake Oroville. Access is good by existing roads, trails, and by motorized (South Forebay only) and non-motorized watercraft. No camping is allowed in this management unit, except “en route” RV camping in the North Forebay Day Use Area (DUA). Day use recreation data will be collected on a per-site basis, as well as aggregated for the entire management unit; en route camping use will also be monitored.

## **5.4 THERMALITO AFTERBAY**

The Thermalito Afterbay management unit (most portions are within the OWA) is similar to the Thermalito Forebay management unit, but also has notable differences including more extensive motorized watercraft use and greater focus on preservation and enhancement of wildlife habitat areas. It also has a relatively predictable pool level (on a daily basis, the Afterbay typically fluctuates between one and two feet, with changes more frequently in the one-foot range; on a weekly basis, the Afterbay is generally at its lowest elevation on Monday and storage is increased over the week to reach a maximum elevation on Saturday), near-town location, and has a few developed day use facilities. There are also several undeveloped dispersed boat-in day use sites and a water-ski course. Access is good by existing roads, trails, and watercraft.



Source: DWR GIS / EDAW 2004



Original Scale 1 : 142,560  
1" = 2.25 miles

STATE OF CALIFORNIA  
DEPARTMENT OF WATER RESOURCES

**Oroville Facilities  
FERC Project No. 2100**

Figure 5.0-1  
(RMP)

Project Area Management Units



Day use recreation data will be collected on a per-site basis, as well as aggregated for the entire management unit. When a proposed new campground is developed, camping use data will also be collected.

## **5.5 OROVILLE WILDLIFE AREA**

The Oroville Wildlife Area (OWA) management unit includes that area of the OWA currently managed by DFG (portions of the OWA are outside of the project boundary), but excludes the Thermalito Afterbay OWA component (Figure 5.0-1). The OWA management unit is primarily a primitive wildlife area and provides visitors to the project area with a non-reservoir outdoor experience. Pursuant to the OWA status as a state designated wildlife area, recreational components must be carefully considered and planned for specific areas or locations that minimize potential adverse impacts to wildlife habitat in general, and special status species specifically. The OWA allows for different outdoor recreation activities compared to the other management units, such as hunting, river-oriented fishing and boating, and wildlife observation and photography. Shoreline fishing at or near the Afterbay outlet, within the OWA, is one of the most popular fishing sites in the State. Public access within the OWA is provided by both developed and primitive roads, some of which also serve as trails, and by boat along several miles of the Feather River. Primitive camping is allowed in a limited, designated area of this management unit. In the future, developed camping is proposed within a 40-acre site of this management unit. Day use and overnight camping data will be collected at defined sites or use areas on a per-site/area basis, as well as aggregated for the entire management unit.



**Lime Saddle Boat Ramp, Lake Oroville.**

## 6.0 PROJECT RECREATION FACILITIES

This section presents existing and proposed recreation facility improvements and enhancements by type of site: campgrounds, BICs, DUAs, BRs, and trails and trailheads. Figure 1.0-2 identifies the locations of these recreational facilities and sites. Tables presented in this chapter summarize existing facility features at each site. Appendix A includes additional detail regarding proposed recreation measures, schedules, and estimated costs at each recreation facility within the FERC project boundary (Appendix B provides details for recreation facilities outside the FERC project boundary). Phasing is described in Appendix A in 10-year increments (L1 to L5) with the first 10 years of the new license period being referred to as L1, the second 10-year phase referred to as L2, etc. Detailed figures illustrating existing site layouts and preliminary conceptual locations or notations of proposed facility expansions, additions, or enhancements are presented in Appendix C. Existing and proposed trails, including trail use designations, are discussed in Appendix D.

### 6.1 CAMPGROUNDS

Project recreation facilities described in this section (and listed in Table 6.1-1) include:

- Bidwell Canyon Campground;
- Loafer Creek Campground;
- Loafer Creek Group Campground;
- Loafer Creek Equestrian Campground;
- Lime Saddle Campground;
- Lime Saddle Group Campground;
- Spillway RV “En Route” Campground;
- North Thermalito Forebay RV “En Route” Campground; and
- OWA Thermalito Afterbay Outlet Camping Area.

#### **6.1.1 Bidwell Canyon Campground**

**Existing Resources:** Bidwell Canyon is located along the southern shore of Lake Oroville, west of Oroville Dam. It is a fishing area as well as a base for many boaters. This facility has 75 campsites for either tents or RVs, all with full hookups. There is a seasonally staffed booth at the entrance to greet visitors and collect fees. Two flush restrooms, piped water, six showers, shade trees, and fire rings with grills are available (Table 6.1-1). Bidwell Canyon Campground is one of the major attractions within the project area.

**Proposed Actions and Enhancements:** The licensee will construct a new replacement campground loop adjacent to the remaining “Gold Flat” loop (to mitigate for the loss of campground space due to expansion of Bidwell Marina parking facilities, Section 6.4.1). This action requires clearing, grading, and paving, as well as the installation of new campground improvements. An existing trail would need to be relocated in the campground expansion area (trail relocation is subject to future detailed design

**Table 6.1-1. Campground and dispersed camping facilities.**

Recreation Site	Overnight Use			Health & Safety									Other			
	Campsites with Table, Fire Ring, & Grill	Tent Pads	RV sites	Portable Toilets	Vault Toilets	Flush Toilets	Showers	Potable Water Available	Gray Water Sump	RV Dump Station	Trash Receptacles	Telephone	Shade Trees	Entrance Booth/Kiosk <sup>1</sup>	Amphitheater	Parking
Bidwell Canyon Campground	75	—	75 <sup>2</sup>	—	—	2	6	Yes	—	—	3		Yes	1	—	4 <sup>3</sup>
Lime Saddle Campground	44	—	16	—	—	6	4	Yes	—	1	6	2 (1 ADA)	Yes	1	—	9 (1 ADA) <sup>3</sup>
Lime Saddle Group Campground	6 (3 ADA)	—	—	—	—	3 (all ADA)	2 (all ADA)	Yes	—	—	2	—	Yes	1	—	16 (2 ADA) <sup>3</sup>
Loafer Creek Campground	137 (6 ADA)	137 <sup>4</sup>	—	—	—	20 (12 ADA)	16	Yes	12	—	21	1	Yes	1	1	16 <sup>3</sup>
Loafer Creek Group Campground	6	30	—	—	—	8 (4 ADA)	8 (all ADA)	Yes	—	—	5	—	Yes	1	—	48
Loafer Creek Equestrian Campground <sup>5</sup>	15	—	—	—	—	2 (1 ADA)	2 (1 ADA)	Yes	—	—	11	—	Yes	1	—	15
OWA Dispersed Camping: Area C	None	—	—	—	2 (all ADA)	—	—	—	—	—	Unknown	—	Yes	—	—	Undefined
Area F	None	—	—	—	1 (ADA)	—	—	—	—	—	Unknown	—	Yes	—	—	Undefined
North Forebay RV “En Route” Campground <sup>6</sup>	—	—	15	—	—	—	—	—	—	—	—	—	—	1	—	—
Spillway RV “En Route” Campground <sup>6</sup>	—	—	40	—	—	—	—	—	—	—	—	—	—	1	—	—

<sup>1</sup> All entrance booths/kiosks are shared with other recreation facilities at that location (DUAs, BRs, other campgrounds).

<sup>2</sup> Campsites are generally used by RVs, but tent campers are allowed. Full hookups are available.

<sup>3</sup> Number of parking spaces in addition to the spaces provided at campground.

<sup>4</sup> Campsites are generally used by tent campers, but RVs are allowed. No hookups are available.

<sup>5</sup> Other facilities specifically for horses are not listed in the table.

<sup>6</sup> “En Route” campgrounds consist of parking spaces with no hookups. North Forebay has six picnic tables surrounding the parking sites. See Sections 6.1.8 and 6.1.9 for more information on facilities at these sites.

Note: The dash indicates that there is no facility or that the category does not apply.

Source: EDAW 2003

analysis). Additional future capacity, when and if needed based on monitoring, would be accommodated at the nearby Loafer Creek Campground because of limited developable area at the Bidwell Canyon Campground area. DWR will coordinate with DPR to ensure that the existing Bidwell Canyon Campground activity center facility is operational and available for public use.

### **6.1.2 Loafer Creek Campground**

**Existing Resources:** Loafer Creek Campground includes 137 campsites (six ADA accessible) for tents and RVs (Table 6.1-1). There is a staffed entrance booth for visitor information and fee collection. Campsites have tables, fire rings with grills, tent pads, shade trees, and nearby drinking water. There are 20 flush toilets (12 ADA accessible), 16 showers with hot water, 12 gray water sumps, and a telephone.

**Proposed Actions and Enhancements:** If 38 campsites being relocated at the Bidwell Canyon Complex cannot be sited at that location during the initial phase (L1), then DWR will immediately fund the construction of up to 15 new RV campsites at the Loafer Creek Complex in compensation for potential lost campground capacity in the Bidwell Canyon Campground area. If these approximately 15 new individual campsites are constructed as a result of campsite relocations and potential lost campground capacity at Bidwell Canyon Campground, then up to approximately 35 additional new campsites (RV and/or tent) may be constructed in the future at Loafer Creek Campground.

Over the term of the new license in phases L2 to L5, based on monitoring results and a demonstrated need, the licensee may potentially construct up to a total of approximately 50 new individual RV and tent campsites in the future. This proposed action would be implemented only if results and threshold criteria have been met (Section 7.3). These additional facilities would be constructed adjacent to existing facilities and, for the most part, would be serviced by existing campground infrastructure (Table 6.1-1; Appendices C and A). In addition, the existing RV and tent campsite mix would be re-evaluated and campsite designs modified to meet current demand, if needed.

When triggers for new campground construction are reached in the future at the Loafer Creek Complex, additional campground capacity will be added in increments of 25 campsites, or to build-out if the capacity of the total remaining area for new campsite development is closer to 25 campsites than to 50 campsites. If and when campsite capacity for both the Bidwell Canyon and Loafer Creek Complex is reached, because of limited developable area, other Lake Oroville recreation facility locations will be evaluated for their campground-development potential to meet future need.

### **6.1.3 Loafer Creek Group Campground**

**Existing Resources:** This area is adjacent to the Loafer Creek Campground and shares the staffed entrance booth for contacting visitors and collecting fees. There are six separate group sites, each able to accommodate 25 people, that share restrooms and showers (Table 6.1-1). There are eight flush toilets (four ADA accessible) and eight

showers (also ADA accessible). Each unit has several tables, a sink with running water, a large barbecue (BBQ), a large campfire ring, shade trees, five large tent pads, nearby water spigots, and parking spaces for eight vehicles.

Proposed Actions and Enhancements: The licensee will enhance ADA accessibility at the existing group campground.

The licensee will also construct two new separate group RV/tent campsites, each able to accommodate at least 25 people, that will share a new combination shower/restroom building. These additional group campsites will be constructed in the general vicinity of the existing group campsites (Figure 1.0-2) though they are likely to be constructed as part of a new campground loop. In any case, they will, for the most part, be serviced by existing area infrastructure (Appendix C). The existing group campground, as well as the new group campsites, will meet current standards for ADA accessibility.

In the future in phases L2 to L5, if needs warrant based on monitoring results, an additional two new group campsites, each able to accommodate at least 25 people, will be constructed adjacent to those described above or near the DUA. The two future sites, possibly near the existing day use area, will share a future combination shower/restroom building and, for the most part, will be serviced by existing area infrastructure (Figure 1.0-2, Appendix C). The monitoring and threshold criteria for determining and establishing future need are described in Section 7.3.

#### **6.1.4 Loafer Creek Equestrian Campground**

Existing Resources: This area is located adjacent to the campground and group camp, sharing the staffed entrance booth for contacting visitors and fee collection. The equestrian camp has 15 sites, each with horse trailer parking, a fire ring with cooking grill, and a table (Table 6.1-1). Additionally, each campsite has a corral to feed and secure horses. There are two flush toilets (one is ADA accessible) and two showers (one is ADA accessible). There is a horse washing area that can accommodate two horses at a time. In 2002, there were several upgrades to the site including an equestrian exercise ring (50-foot round pen), corrals with feeder boxes, and the entrance road was paved. The Roy Rogers Trail can be accessed directly from the site (Figure 1.0-2).

Proposed Actions and Enhancements: The licensee will provide ADA-related enhancements at the Loafer Creek Equestrian Campground based on a future detailed design analysis.

#### **6.1.5 Lime Saddle Campground**

Existing Resources: Lime Saddle Campground is located on the western shoreline of the West Branch of the North Fork arm of Lake Oroville and is accessed from State Route (SR) 70 and Pentz Road. This is the newest of the project campgrounds, opened in July 2001. There is a staffed visitor information and fee-collection kiosk. Adjacent to

the entrance kiosk are telephones (one is ADA accessible) and nine single-vehicle parking spaces (one is ADA accessible). Between the entrance kiosk and the individual campsites is an RV dump station with two stalls. The campground has 50 total campsites: 44 individual campsites (28 individual car/tent sites and 16 that are available for RVs with full hookups) and group sites (Section 6.1.6). Each individual campsite has a table and a fire ring with grill. There are two restroom/shower buildings located among the 44 campsites. Within the two buildings there are six flush toilets and four showers (Table 6.1-1). There are numerous water spigots, gray water sumps, and dumpsters throughout the campground.

**Proposed Actions and Enhancements:** In the initial implementation phase of the final (FERC-approved) RMP, the licensee will fund the construction of 10 new RV campsites at or adjacent to the Lime Saddle Campground to expand its immediate capacity.

In the future in phases L2 to L5, based on monitoring results and a demonstrated need, the licensee may potentially construct up to approximately 25 to 40 additional new RV and tent campsites (up to 50 total new campsites in the future) as needed based on monitoring results and threshold criteria being met (Section 7.3). These additional facilities will be constructed adjacent to existing facilities and, for the most part, will be serviced by existing campground infrastructure (Figure 1.0-2, Appendix C).

If new campground capacity has been reached at both Bidwell Canyon and Loafer Creek Campgrounds, additional campground capacity will then be added at Lime Saddle Campground (for a total of approximately 50 new individual RV and/or tent campsites). If all three of these Lake Oroville campgrounds reach their collective capacity in the future, then additional campground capacity (beyond 50 new sites) may be considered at a new undeveloped campground site (to be determined).

### **6.1.6 Lime Saddle Group Campground**

**Existing Resources:** The group campground is located separate from the 44 individual campsites described above. Essentially, the group campground is composed of six individual sites in two groups, designed with a central parking and restroom/shower area with an island in its center with a picnic table. The parking area has 16 single-vehicle parking sites (two are ADA accessible) with two trash dumpsters (Table 6.1-1). The central restroom/shower building has three ADA accessible flush toilets and two ADA accessible showers. The group campground is split into two areas, Pinecone and Acorn. Each has a shade structure with three tables underneath along with a trash receptacle, large BBQ, and a water fountain/spigot. Among the Pinecone and Acorn sites, there are six campsites (three are ADA accessible). Two of the ADA accessible campsites are in the Pinecone area and are accessed with a multi-level ADA accessible ramp system that allows a tent camper to be a bit further away from the main area (shade structure). In contrast, the ADA accessible campsite in the Acorn area is directly adjacent to the main area (shade structure).

Proposed Actions and Enhancements: The licensee will construct one six-unit group (50-person) RV campsite during the L1 phase. Based on monitoring results and a demonstrated need (Section 7.3) during the L2 to L5 phases, the licensee may construct one additional new group campsite in the future. These additional group campsites would be constructed adjacent to the existing tent/RV campground and, for the most part, would be serviced by existing campground infrastructure (Figure 1.0-2, Appendix C).

#### **6.1.7 Spillway RV “En Route” Campground**

Existing Resources: This campground consists of 40 parking spaces that have been reserved for RV “en route” (self-contained) camping (Table 6.1-1). These spaces are located in the upper parking lot at Spillway. There are no hookups for these spaces. Other facilities, including restrooms, located at Spillway are described in Section 6.4.4, Spillway BR/DUA.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility. Based on low current and future projected use estimates, the number of designated sites could be modified. Appropriate use of this area will be periodically reassessed and will be subject to periodic security reviews. As long as the practice of en route camping in this area remains consistent with normal security practices, and there remains no significant cost to continuing this recreation opportunity as it has become established, no immediate changes are proposed at this facility.

#### **6.1.8 North Thermalito Forebay RV “En Route” Campground**

Existing Resources: The North Forebay area covers roughly half (300 surface acres) of the Thermalito Forebay’s 630 surface acres and hosts non-motorized boating and other recreational activities (DWR 2000). There are 15 “en route” (self-contained) RV parking spaces with no hookups (Table 6.1-1) adjacent to the popular day use area. Other facilities, including restrooms, at the North Forebay are described in Section 6.4.5, North Thermalito Forebay BR/DUA.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility. Based on low current and future projected use estimates, the number of designated sites could be modified; alternatively, this facility could be upgraded to a traditional campground if future campground capacity expansion is not possible elsewhere. However, as long as capacity expansion (when warranted by monitoring and achievement of use thresholds, as described in Section 7.3) is anticipated in other project areas, and there remains no significant cost to continuing this recreation opportunity as it has become established, no immediate changes are proposed at this facility.

### **6.1.9 OWA Thermalito Afterbay Outlet Camping Area**

**Existing Resources:** Located southwest of Lake Oroville, the OWA contains a series of ponds and levees adjacent to the Feather River. Fishing, hunting, nature study, and river-associated recreation are the primary activities at the Wildlife Area. This area is managed by DFG under a series of agreements with DWR. The Thermalito Afterbay outlet is one of the most popular river fishing areas in the project area and the State, particularly during salmon runs.

There are an undetermined number of primitive campsites (places to park an RV or stake a tent) at an area just north of and adjacent to the Afterbay outlet (Figure 1.0-2) that is also used for day use. At Area C, on the north side of the outlet, there is an unimproved one-lane boat ramp, two ADA accessible vault toilet buildings, and several trash receptacles (Table 6.1-1). At Area F (day use only), on the south side of the outlet, there is an ADA accessible vault toilet building and several trash receptacles (Table 6.1-1). The OWA Thermalito Afterbay Outlet Camping Area also provides shoreline and fishing access to the Feather River. A former OWA primitive camping area (Area G) was closed March 1, 2004, to help combat unlawful dumping in the area and to help eliminate non-recreational camping.

**Proposed Actions and Enhancements:** The licensee will construct new developed (but primitive, no hook-up) tent and RV campsites within a 40-acre area of the OWA adjacent to the northern parking and day use area. This new camping area would be within an existing disturbed area north of the Thermalito Afterbay outlet channel (Appendix C). Based on site constraints, a minimum of 20 campsites and up to a maximum of 40 campsites will be developed initially. Additional campsites may be considered in the future if monitoring results demonstrate a clear need and if the 40-acre area can accommodate the increase. Campsites will include picnic tables and gravel campsite spurs (open fires, including pole stoves/grills, are expressly prohibited by DFG in this area; however, gas-style camp stoves are allowed). Existing access roads will be re-graveled and signed with vehicle access barriers. Native arid landscaping will be planted or seeded to help restore disturbed areas and to increase opportunities for shade for use by visitors. Additional vault toilet buildings will be added to existing ones if and when use levels and the total number of future campsites warrant. Roadside directional signs will be provided for easier locating of the new facilities. All site enhancements and improvements will be sited to minimize potential impacts to special status species and their habitat.

## **6.2 BOAT-IN CAMPGROUNDS AND FLOATING CAMPSITES**

Boat-in campgrounds (BICs) are most usable when Lake Oroville storage is at higher pool levels (850 feet msl and above). At lower pool levels, the campsites are inconveniently far from the water; as there are no established pathways to the BICs, their use requires walking up steep slopes if water levels are low. The boat-in camps do not generally receive many visitors when the reservoir is below 850 feet msl. Visitor

access will be restricted within the inundation zone to specific BICs, as appropriate, during periods of low reservoir levels to minimize impacts to cultural resources.

Recreation facilities described this section (Table 6.2-1) include:

- Bloomer Cove BIC
- Bloomer Knoll BIC
- Bloomer Point BIC
- Bloomer Group BIC
- Craig Saddle BIC
- Foreman Creek BIC
- Goat Ranch BIC
- Floating Campsites

**Table 6.2-1. Boat-in and floating campsite facilities.**

Recreation Site	Overnight Use	Health & Safety						Other		
	Campsites with Table, Fire Ring, & Grill	Pit Toilets	Vault Toilet Bldgs.	Chemical Toilets	Potable Water Available	Gray Water Sump	Trash Receptacles	Shade Trees	Self-registration Pay Station	BBQ Grills
Bloomer Cove BIC	5	2	—	—	—	—	6	Yes	—	—
Bloomer Knoll BIC	6	2	—	—	—	—	4	Yes	—	—
Bloomer Point BIC	25	2	2	—	—	—	14	Yes	1	—
Bloomer Group BIC	1	2	—	—	—	—	9	Yes	—	Unknown number
Craig Saddle BIC	18	2	2	—	Yes	—	19	Yes	1	—
Foreman Creek BIC	26	2	2	—	Yes	1	16	Yes	1	—
Goat Ranch BIC	5	2	2	—	—	—	5	Yes	—	—
Floating Campsites	10 <sup>1</sup>	—	—	10	—	—	—	—	—	1 each

<sup>1</sup> Floating campsites have a table and grill, but no fire ring. They also have a sink, but no potable water.  
 Note: The dash indicates that there is no facility or that the category does not apply.  
 Source: DWR 2003

### 6.2.1 Bloomer Cove BIC

**Existing Resources:** Bloomer Cove is located on the North Fork arm of Lake Oroville (Figure 1.0-2). There are five individual campsites in this area with tables and fire rings with cooking grills (Table 6.2-1). The site has shade trees, two pit toilets, and about six trash receptacles.

**Proposed Actions and Enhancements:** Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.

### **6.2.2 Bloomer Knoll BIC**

Existing Resources: This campground is adjacent to Bloomer Cove on the North Fork arm of Lake Oroville (Figure 1.0-2). There are six individual campsites in this area with tables and fire rings with cooking grills (Table 6.2-1). The site has shade trees, two pit toilets, and about four trash receptacles.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.

### **6.2.3 Bloomer Point BIC**

Existing Resources: This campground is adjacent to Bloomer Cove on the North Fork arm of Lake Oroville (Figure 1.0-2). There are 25 individual campsites in this area with tables and fire rings with cooking grills (Table 6.2-1). The site has shade trees, two vault toilets and two pit toilets, about 14 trash receptacles, and a self-registration pay station.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.

### **6.2.4 Bloomer Group BIC**

Existing Resources: This campground is adjacent to Bloomer Cove on the North Fork arm of Lake Oroville (Figure 1.0-2). There is one group campsite with a 75-person capacity. There are also several shared group BBQ cooking grills (Table 6.2-1). The site has shade trees, two pit toilets, and about nine trash receptacles.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.

### **6.2.5 Craig Saddle BIC**

Existing Resources: This campground is located between the Middle Fork and South Fork arms of Lake Oroville (Figure 1.0-2). There are 18 individual campsites in this area with tables and fire rings with cooking grills (Table 6.2-1). The site has shade trees, two vault toilets and two pit toilets, about 19 trash receptacles, potable water, and a self-registration pay station.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.

### **6.2.6 Foreman Creek BIC**

Existing Resources: This campground is located at the north side of Lake Oroville, west of the Foreman Creek Car-top BR (Figure 1.0-2). There are 26 individual campsites in this area with tables and fire rings with cooking grills (Table 6.2-1). The site has shade

trees, two vault toilets and two pit toilets, 16 trash receptacles, potable water, a gray water sump, and a self-registration pay station.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility. However, due to modifications proposed for the Foreman Creek Car-top BR, and rerouted access to surrounding day use lands, the Foreman Creek BIC facility may see increased informal day use and land-based overnight walk-in camping during low-water conditions.

### **6.2.7 Goat Ranch BIC**

Existing Resources: This campground is located on the North Fork arm Lake Oroville between the Bloomer campgrounds, where the West Branch splits off of the North Fork arm (Figure 1.0-2). The area has five individual campsites with tables and fire rings with cooking grills (Table 6.2-1). The site has shade trees, two vault toilets and two pit toilets, and about five trash receptacles.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.

### **6.2.8 Floating Campsites**

Existing Resources: Lake Oroville has 10 boat-in floating campsites (Table 6.2-1). These popular floating campsites are dispersed among different areas of the reservoir, generally anchored in a protected cove. Each floating campsite is a two-story structure that can accommodate up to 15 people, with living space and amenities such as a gas cooking grill, table, sink, restroom, shelves, storage room, cabinets, and a sleeping area. The user must bring potable water, although sink water is provided (DPR 2000a). Floating campsites developed to this degree are not known to be available anywhere else in the West.

Proposed Actions and Enhancements: The licensee will install three additional new floating campsites (two to be deployed in the Lime Saddle area and one to be deployed in the West or North Fork areas of the reservoir). These new floating campsites will be deployed so that they are more easily accessible from the Lime Saddle Marina and Boat Ramp (Figure 1.0-2). These new floating campsites will be operated and maintained in the same manner as the other existing floating campsites.

## **6.3 DAY USE AREAS**

Recreation facilities discussed in this section (Table 6.3-1) include:

- Lake Oroville Visitors Center
- Feather River Fish Hatchery
- Oroville Dam
- Floating Restrooms
- Diversion Pool DU

**Table 6.3-1. Day use area (DUA) and other recreation area facilities.**

Recreation Area	Use	Shoreline Access	Day Use					Health & Safety						Other	
			Tables	BBQ	Shade Trees	Sun Shelters	Interpretation Displays	Vault Toilets	Portable Toilets	Flush Toilets	Drinking Water	Telephone	Trash Receptacles	Parking Spaces	Other Facilities
Lake Oroville Visitors Center	Day use trailhead access	No	18 (10 ADA)	—	Yes	—	Yes	—	—	6 (all ADA)	Yes	1	6	90 car & 17 car/trailer	viewing tower, gift shop
Feather River Fish Hatchery	Fish viewing	Yes	1	—	Yes	—	Yes	—	—	2	Yes	1	Yes	100	viewing platform and window
Oroville Dam	Driving, sightseeing, walking, biking	Yes	8	—	—	—	Yes	—	—	4 (1 ADA)	Yes	—	1	20 approx.	—
Floating Restrooms		—	—	—	—	—	—	14	—	—	—	—	—	—	—
Diversion Pool DUAs	Non-motorized boating, hiking/walking, swimming	Yes	—	—	—	—	—	1	—	—	—	—	—	Road Parking	—
Aquatic Center	Non-motorized boating, storehouse for boats, area for holding classes	Yes	117	—	Yes	—	Yes	—	—	10 (3 ADA) <sup>1</sup>	Yes	1	Yes	217 <sup>1</sup>	Pay Station <sup>1</sup>
Model Aircraft Flying Facility	Flying model aircraft	Yes	6	1	—	2	—	1	1	—	—	—	—	20 approx.	Runway
Clay Pit SVRA	OHV riding	No	—	—	—	—	—	—	—	—	—	—	—	20 approx.	—
Rabe Road Shooting Range	Range and target shooting	No	7	—	—	—	—	1	—	—	—	—	—	20 approx.	—
OWA Thermalito Afterbay Outlet DUA	Fishing and swimming	Yes	---	---	Yes	---	---	2	---	---	---	---	Yes	Undefined	---

<sup>1</sup> Facilities are associated with the North Thermalito Forebay BR/DUA (Section 6.4.5).

Note: The dash indicates that there is no facility or that the category does not apply.

Source: DWR 2003. Updated 2004

- Aquatic Center
- Model Aircraft Flying Facility
- Clay Pit SVRA
- Rabe Road Shooting Range
- Lake Oroville Scenic Overlook
- OWA Thermalito Afterbay Outlet DUA

The following DUAs are not discussed in this section, but with the associated boat ramps (BRs) in Section 6.4:

- Bidwell Canyon DUA
- Loafer Creek DUA
- Lime Saddle DUA
- Spillway DUA
- North Thermalito Forebay DUA
- South Thermalito Forebay DUA
- Monument Hill DUA

### **6.3.1 Lake Oroville Visitors Center**

**Existing Resources:** Located east of Oroville Dam on Kelly Ridge, the 10,000 square-foot, award-winning Lake Oroville Visitors Center features exhibits on the engineering and construction of the hydropower and water supply facilities (Figure 1.0-2).

Interpretive displays explain how Lake Oroville and the associated project area facilities distribute water and electrical power to their destinations (DWR 2000). Additionally, there are interpretive displays on the native culture and the natural resources of the area (DPR 2000a). The Visitors Center hosts individual visitors as well as large groups such as school fieldtrips. In addition to the informational displays inside the Visitors Center, there is a 47-foot viewing tower that provides a panoramic view of Lake Oroville and its surroundings. The Visitors Center is ADA accessible and has 18 picnic tables (10 ADA accessible), shade trees, drinking fountains, a gift shop, a telephone, six toilets (all ADA accessible), parking for 90 vehicles, and 17 spaces for either vehicle/trailer combinations or buses (Table 6.3-1). The Dan Beebe Trail can be accessed from the Visitors Center (Section 6.5.9).

**Proposed Actions and Enhancements:** The licensee will provide some enhancements to existing interpretive materials, programs, and facilities at the Visitors Center.

Potential future uses and activities at this existing facility will be periodically reviewed and considered within the ORCA and/or RAC forums as part of future development of the I&E Program. Based upon monitoring results during L2 to L5 phases and determination of needs, the licensee will provide additional parking capacity at this facility in the future if and when needed.

### **6.3.2 Feather River Fish Hatchery DUA**

Existing Resources: Anadromous fish migration up the Feather River is stopped at the Fish Barrier Dam, just downstream from the Diversion Pool and Dam. Salmon climb the fish ladder into the Feather River Fish Hatchery where DFG selects fish for breeding.

Recreation and public use facilities on the north bank of the Feather River include a visitor area with a landscaped parking lot, restrooms, and an observation platform overlooking the Diversion Dam and its flow over the dam (Table 6.3-1). There is an area with windows into the fish ladder, making it possible to observe fish as they swim up the ladder. Windows are also provided along the spawning building to allow visitors to watch the spawning process. A visitor observation area is also provided at the gathering and holding tanks.

The Feather River Fish Hatchery is ADA accessible. The amenities include designated parking areas, restrooms, and accessible ramps (Table 6.3-1). The ramps provide access to the viewing platform, viewing window, and the gathering tank at the top of the fish ladder.

Proposed Actions and Enhancements: The licensee will provide ongoing periodic updates of the interpretive materials and possible new interpretive signs and/or kiosks and paths. Otherwise, no changes are proposed at this facility. This site will be considered for additional enhancements during later review of the I&E Program within the ORCA and/or RAC forums.

In addition, the licensee will enhance an existing non-motorized boater put-in within the Feather River Fish Hatchery DUA or vicinity, in coordination with DBW. Site selection for boater put-ins will include one or two other sites downstream, pending completion of an analysis of potential non-motorized water trail shoreline access sites (Table B-2, Appendix B). The Feather River Fish Hatchery DUA site for a put-in may be substituted in favor of another nearby put-in site in the vicinity. Improvements will include a small gravel shoreline access site to accommodate the launching of hand-carried non-motorized watercraft, signage, vehicle access barriers, and minor roadway or trail grading and graveling. Use of existing facilities or disturbed areas, including parking and roadway access, will be maximized.

### **6.3.3 Oroville Dam Overlook DUAs**

Existing Resources: Located on the southwest shoreline of the reservoir, the crest of Oroville Dam is used for driving and sightseeing, walking, jogging, bicycling, and rollerblading (Figure 1.0-2). Some fishing takes place at the edge and can be undertaken at any reservoir level. Oroville Dam is the tallest earthfill dam in the nation with a height of 770 feet (DWR 2000). At night, lights accent the 6,920-foot-long roadway along the dam's crest.

The Oroville Dam Overlook DUAs are located on the east and west ends of the dam, all of which are east of the Spillway BR. There are picnic tables on the east and west ends (eight tables total). There are four flush toilets (one ADA accessible) at the east end of the dam (Table 6.3-1). There is a drinking fountain. There are approximately 400 parking spaces across the top of the dam (two are ADA accessible), but parking here has not been allowed since heightened security was implemented following the September 2001 terrorist attacks. Parking (approximately 20 vehicle spaces) remains open at the east end of the dam. Additionally, the DUA facilities at the western end of the dam were closed in the fall of 2002 for security reasons; appropriateness of use of this area may be reviewed in the future under certain water conditions.

Proposed Actions and Enhancements: The existing parking spaces nearest the south abutment of Oroville Dam and the existing restroom will be modified to enhance ADA-compliant access. Other improvements to be installed (adjacent to the existing parking area; Appendix C) will include shade ramadas, four picnic tables, and interpretive panels (ADA accessible scenic overview). Roughly 100 parking spaces will be provided on the terrace to the south of the dam, with surface improvements to the walkway that connects this parking lot to dam crest level.

#### **6.3.4 Floating Restrooms**

Existing Resources: To preserve water quality and provide convenience for boaters, DPR maintains seven floating restrooms on Lake Oroville (Table 6.3-1). Floating restrooms in California are most often of a standard design provided by DBW, and are constructed on floating platforms where several boats can tie up at the same time. Each floating restroom has two individual stalls with vault-style toilets. At Lake Oroville, they are deployed in strategic and convenient positions around the reservoir.

Proposed Actions and Enhancements: Apart from periodic updates of the informational materials, and replacement of existing facilities as needed, no changes are proposed at these facilities. However, if monitoring results demonstrate a need for additional or modified floating restrooms in the future, then new facilities will be deployed where appropriate.

#### **6.3.5 Diversion Pool DUAs**

Existing Resources: The Diversion Pool and its shoreline, located below Oroville Dam and above Thermalito Diversion Dam, are open for day use activities such as swimming, fishing, non-motorized boating, trail use, and picnicking (Figure 1.0-2, Table 6.3-1). The current Diversion Pool DUA (north) is located along Burma Road, which runs on the north and west sides of the Diversion Pool. Only non-motorized boats are allowed on the Diversion Pool (electric motors are also allowed). The only developed facility at this area is a vault toilet building; one small shoreline access point has been enhanced with gravel to facilitate car-top boat launching. Burma Road is also a trail corridor. A second new DUA is proposed along the southern Diversion Pool shoreline with access from the Lakeland Boulevard Trailhead Access (TA).

Proposed Actions and Enhancements: The licensee will enhance the existing (north) Diversion Pool DUA by installing 10 concrete picnic tables in suitable locations along Burma Road and upstream from the Diversion Dam. Each picnic table will be paired with a pole stove/grill (Appendix C).

An ADA accessible fishing platform or pier will be constructed at a suitable Diversion Pool location, such as along Burma Road near the vault toilet building in an area known for fishing success, or at the new southern shoreline DUA.

DWR will enhance trail and vehicular access to the Diversion Pool (south shoreline) from the Lakeland Boulevard TA by relocating and/or constructing a new road to the old railroad grade trail corridor north of the Union Pacific Railroad (UPRR) crossing of the Diversion Pool (Figure 1.0-2, Appendix C). The licensee will construct limited day use facilities on the old railroad grade to include a gravel parking area with space for vehicles pulling small trailers, vault toilet building, 10 picnic tables with pole stoves/grills, a gravel car-top boat ramp, and pedestrian trail access to the water. The licensee will install fencing as appropriate to separate the access road and proposed day use facilities from the railroad tracks.

The licensee proposes to open the Burma Road and adjacent portions of the Brad Freeman Trail to equestrian use. The licensee will also evaluate the feasibility of providing trail crossing(s) of the Diversion Pool, to complete a shorter Diversion Pool trail loop.

### **6.3.6 Aquatic Center**

Existing Resources: The Aquatic Center at the North Thermalito Forebay BR/DUA (Table 6.3-1) is managed by DPR for the use of boating clubs and educational institutions (Figure 1.0-2). The site is accessed using the same road (Garden Drive) as North Thermalito Forebay. The 1,200 square-foot facility was constructed in 1995 to provide area sailing and rowing clubs with a boathouse and an area for holding classes (DWR 2000). In 2004, DPR entered into an agreement with California State University, Chico (CSUC), to conduct water- and boating-related educational programs for students and other LOSRA visitors. Aquatic Center users generally access the Thermalito Forebay using one of the two boat ramps shared with other day use visitors.

DWR, DPR, and DBW have recently expanded the Aquatic Center, under the existing Amended Recreation Plan and current FERC license, to support the CSUC-based programs at this site. Additional boat storage capacity was required to make adequate watercraft available at this facility; so a 7,500 square-foot boat storage building was added in 2005 near the existing building (Figure 1.0-2). This building now provides program support and associated security for boats and equipment. Other recent improvements include installation of a 16-by-60 foot low-freeboard floating dock attached to three new steel piles, accessed by a new 8-by-60 foot gangway, and additional ADA-designated parking.

Proposed Actions and Enhancements: The licensee will maintain the facility improvements at the Aquatic Center to help meet basic needs. The licensee will not be involved in Aquatic Center staffing or its programs that are managed by others (CSUC, or other educational institutions).

### **6.3.7 Model Aircraft Flying Facility**

Existing Resources: Model aircraft enthusiasts have use of a 350-by-300 foot runway for take-offs and landings near North Wilbur Road at the Afterbay Canal (Figure 1.0-2). The site has a paved runway for model aircraft take-offs and landings that was upgraded in 2002, as well as a vault toilet building, six picnic tables, a BBQ, and two shade ramadas (Table 6.3-1). The site is located off Wilbur Road, north of SR 162 with access just north of the power canal that runs between Thermalito Forebay and Afterbay. Off Wilbur Road, a gated, gravel road runs for approximately ¼ mile to the Model Aircraft Flying Facility. The area can be accessed from the water as well (boats using Thermalito Afterbay can beach at the site). The site is mainly used by Oroville Model Airplane Club members, with other access occasionally arranged for special groups, activities, or events.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials/bulletin boards, no changes are proposed at this facility. If vehicular damage is observed along the north side of the access road to this site in the future, barriers and/or fencing may be included as a routine O&M component to minimize or avoid potential impacts to vernal pools and wildlife habitat.

### **6.3.8 Clay Pit State Vehicular Recreation Area**

Existing Resources: Located adjacent to the OWA and outside the Project No. 2100 boundary, the Clay Pit SVRA provides a riding area for off-highway vehicle (OHV) enthusiasts (Figure 1.0-2). The site is accessed from Larkin Road and is south of SR 162 and the Oroville Municipal Airport. The clay used to build the core of Oroville Dam was taken from this area. The resulting depression, a wide and broad sunken pit ringed with low hills, is the site of this 220-acre OHV recreation area. It is a motorcycle, all-terrain vehicle, and dune buggy use area (DPR 2000b). There is a well-marked entrance road that leads to a paved staging area used for loading and unloading OHVs (Table 6.3-1). Aside from the paved staging area and the entrance road, the entire site is one large open dirt area where OHVs (including trucks) can explore.

Proposed Actions and Enhancements: Located outside the Project No. 2100 boundary, the licensee will coordinate with DPR managers of the Clay Pit SVRA. Information directing OHV enthusiasts to this facility will be posted at project recreation areas, especially in the OWA, to help reduce illegal OHV use in adjacent and other areas. DWR will coordinate with DPR and DFG in the development and periodic update of consistent project-related information and interpretive materials.

### **6.3.9 Rabe Road Shooting Range**

**Existing Resources:** This shooting range is located outside of the Project No. 2100 boundary and is managed by DFG. It is an unstaffed public shooting area with unmarked backstops (undefined places to place paper targets) reported to facilitate a range up to 500 yards in distance. It is technically a rifle range, but pistol use commonly occurs here as well. The shooting range is on Rabe Road, directly adjacent to the Clay Pit SVRA (Figure 1.0-2). Seven concrete picnic tables and a vault toilet building were installed at the gravel parking lot in spring 2003. There is a small sign that says “public shooting area” on Rabe Road.

**Proposed Actions and Enhancements:** As this facility is outside the Project No. 2100 boundary, the licensee proposes no changes to this facility. However, DWR will coordinate with DFG in the development and periodic updates of any posted information or interpretive materials available within the project area.

### **6.3.10 Lake Oroville Scenic Overlook (SR 162)**

**Existing Resources:** Located along SR 162 immediately north of the highway bridge across the Middle Fork arm of Lake Oroville, this highway pullout provides a scenic overlook of Lake Oroville toward Bidwell Canyon. Recent enhancements to this overlook have been completed. The licensee has removed the old cyclone-style fencing and replaced it with a Caltrans-approved auto safety barrier. In addition, the licensee has provided two new interpretive signs at this location (see Appendix C).

**Proposed Actions and Enhancements:** The licensee will provide a trash receptacle and trash pickup service in coordination with the Berry Creek Citizen’s Association. Minor grading improvements (filling larger holes) at the head of the old construction road will also be made -- this remnant project construction feature is informally used as a trail for shoreline access by some visitors, especially during periods of higher lake levels.

### **6.3.11 OWA Thermalito Afterbay Outlet DUA**

**Existing Resources:** The existing use area provides unpaved vehicular and pedestrian day use access to the Feather River shoreline, a very popular river fishing site adjacent to the Thermalito Afterbay outlet. A vault toilet building and trash receptacles are provided in this area (Appendix C).

**Proposed Actions and Enhancements:** The licensee will designate a day use area near the river on the south side of the outlet channel, and will install five to 10 (exact number depending on site capacity) new picnic tables. (Open fires, including pole stoves/grills, are expressly prohibited by DFG in this area; however, gas-style camp stoves are allowed). Additional roadside directional signs will be provided to aid users in locating this river access site. Existing access roads and parking will be re-graveled. Native arid landscaping or seeding will be provided to help revegetate disturbed areas and to provide some shade for visitors. This new development will be completed in

conjunction with the design, permitting, and construction of the proposed new OWA Thermalito Afterbay Outlet Camping Area on the north side of the outlet channel.

### **6.3.12 OWA Dispersed Use Sites and Dispersed River and Pond Access Sites**

Existing Resources: Most of the OWA is undeveloped with a network of dirt and gravel roads providing access to the river and pond shoreline, floodplain, and upland areas. Within the overall OWA, few recreation facilities exist. However, dispersed recreation use is seasonally common among hunters, anglers, hikers, and other passive recreationists.

Proposed Actions and Enhancements: The licensee will provide two new "Watchable Wildlife" sites, with associated trash receptacles, vehicle barriers, signs, gravel shoulder parking, and possible site hardening and closure measures. The establishment of these sites will occur within the existing footprint of an established road shoulder; precise location of these sites will be determined but may include popular interpretive destinations (such as adjacent to the Monument Hill DUA or off of SR 162 overlooking Thermalito Afterbay). All site enhancements and improvements will be sited to minimize potential impacts to special status species and their habitat.

In addition, the licensee will enhance two existing non-motorized boater put-ins/take-outs within the OWA and project boundary and designate them as access sites for the proposed "River Trail" (in coordination with DBW). Site selection is pending completion of an analysis of potential non-motorized water trail shoreline access sites (Table B-2, Appendix B). Potential boater put-in/take-out sites within the OWA include the existing boat ramp near the Afterbay Outlet and/or an undeveloped site with adjacent existing road access at the southern end of the OWA. Improvements include a small gravel shoreline access site to accommodate the launching of hand-carried, non-motorized watercraft, signage, vehicle access barriers, and minor roadway or trail grading and graveling.

## **6.4 BOAT RAMPS**

The following boat ramps with associated day use areas are discussed in this section (Table 6.4-1):

- Bidwell Canyon BR/DUA
- Loafer Creek BR/DUA
- Lime Saddle BR/DUA
- Spillway BR/DUA
- North Thermalito Forebay BR/DUA

**Table 6.4-1. Boat ramps and day use areas.**

Recreation Area	Pay Station (self-registration or staffed booth)	Boating		Day Use						Health and Safety						Parking		
		Lanes on Boat Ramps, (Useable Pool Levels) <sup>1</sup>	Other Facilities	Picnic Tables	BBQ Grills	Sun Shelters	Shade Trees	Other	Fish Cleaning Station	Portable Toilets	Flush Toilets	Drinking Water	Telephone	Trash Receptacles	Other	Car Parking Spaces	Car/Trailer Parking Spaces	Overflow Parking
Bidwell Canyon BR & DUA	1	7-H; 5-M; 2-4-L	1 Floating Dock, Marina	21	—	—	Yes	Bidwell Bar Historical Bridge & Tollhouse	1	—	8 (2 ADA)	Yes	1	20	1 Gray Water Sump	U	279 (2 ADA)	Yes, small gravel lot (30 cars)
Lime Saddle BR & DUA	1	4-M to H; 2-3-L	Marina	13 (4 ADA)	—	7	Yes	—	1	—	4 (all ADA)	Yes	1	11	—	45 (3 ADA)	131 (7 ADA)	Yes/100 car/ trailer spaces
Loafer Creek BR & DUA	1	8-M to H; 2-L	1 Floating Dock	30	17	—	Yes	1 Playground; Swim Area w/ Beach	—	—	10 (all ADA)	Yes	1	3	2 showers	DUA: 251 (5 ADA)	BR: 192 (6 ADA)	—
Monument Hill BR & DUA		2	1 Floating Dock	10	9	—	—	Swim Beach	1	—	4	—	—	8	—	10 (1 ADA)	39 (3 ADA)	Yes, large gravel lot
North Thermalito Forebay BR & DUA	1	2 ramps, 1 with 2 lanes, 1 with 3 lanes	1 Floating Dock at each ramp	117	37	21	Yes	1 Swim Area w/ Beach	—	7 (1 ADA)	6 (4 ADA)	Yes	1	18	—	251 (3 ADA)	26 (1 ADA)	Yes
South Thermalito Forebay BR & DUA	1	2	1 Floating Dock	10	10	—	Yes	—	1	1	—	—	—	6	—	U	U	—
Spillway BR & DUA	1	12-M to H; 8-L to M; 2-L	3 Floating Docks	6	—	6	Yes	—	1	—	6 (2 ADA)	Yes	—	7	—	118 Upper (8 ADA)	350 Upper (8 ADA), 264 Lower	—

Note: The dash indicates that there is no facility or that the category does not apply.

<sup>1</sup> U = Undesignated; L = Low; M = Medium; H = High, high reservoir levels are defined as those above 850 feet msl. Medium reservoir levels are those from 800 to 850 feet msl. Low reservoir levels are those that fall below 800 feet msl. These divisions are based on historic pool levels (DWR CDEC 2003).

Source: DWR 2003

- South Thermalito Forebay BR/DUA
- Monument Hill (Thermalito Afterbay) BR/DUA

The following smaller boat ramps currently without any associated day use areas are also discussed in this section (Table 6.4-2):

- Enterprise BR
- Wilbur Road (Thermalito Afterbay) BR
- Dark Canyon Car-top BR
- Foreman Creek Car-top BR
- Larkin Road (Thermalito Afterbay) Car-top BR
- Nelson Bar Car-top BR
- Stringtown Car-top BR
- Vinton Gulch Car-top BR
- Afterbay Outlet BR
- OWA Unimproved Boat Ramps/Thermalito Afterbay Outlet BR

#### **6.4.1 Bidwell Canyon BR/DUA**

**Existing Resources:** Located along the southern shore of Lake Oroville, east of Oroville Dam (Figure 1.0-2), the boat ramp is a home base for many boaters (Stienstra 2000). The Bidwell Canyon Complex is one of the major attractions in the project area and is also discussed in Section 6.1.1 – Bidwell Canyon Campground. There is a visitor information station and fee collection booth, as well as a full-service marina (Table 6.4-1). There are two areas with sun shelters, BBQs, and picnic tables (21 in total) at the DUA. The site has drinking water, eight flush toilets (two are ADA accessible), gray water sump, seven-lane boat ramp, telephone, and a fish cleaning station.

Generally, the Bidwell Canyon facilities are available at high, medium, and low reservoir levels. The lower boat ramp was extended to 700 feet msl in December 2002. There is parking for 279 vehicles/trailers in the upper parking lot (Table 6.4-1). The lower ramp has an unpaved parking area with space for about 30 vehicles/trailers. The relocated historical Bidwell Bar Suspension Bridge and Bidwell Bridge Toll House are located adjacent to the boat ramp parking lot.

The concessionaire-run marina offers boat rentals, groceries, fishing supplies, snack bar, approximately 280 berths and 400 mooring anchors, fuel dock, pumping station for boat holding tanks, boat storage, and trailer facilities with hookups (DWR 2000). Parking for 168 single-vehicles is available at the marina at full pool. Over 100 additional single-vehicle parking spaces at the marina become available in the inundation zone as the reservoir level recedes.

**Table 6.4-2. Boat ramp facilities not currently associated with a DUA.**

Recreation Area	Use		Boating	Health & Safety			Parking
	Activities	Pool Level when Boat Ramp is Available	Lanes on Boat Ramp	Portable Toilet	Vault Toilet	Trash Receptacles	Car/Trailer Parking Spaces
Afterbay Outlet BR	Boating	NA <sup>1</sup>	1	—	—	—	no designated parking: approx. 5-10
Enterprise BR	Boating	Medium to High	2	—	1	3	40
OWA Unimproved BRs	Boating	NA <sup>1</sup>	1	—	—	—	no designated parking: number varies depending on location
Wilbur Road BR	Day Use Boating	NA <sup>1</sup>	2	1	—	1	14 (1 ADA)
Dark Canyon Car-top BR	Car-Top Boating	Low to Medium	2	—	1	3	Undefined: approx. 15-30
Foreman Creek Car-top BR	Car-Top Boating	Low to High	2	—	—	1	Undefined: approx. 15-30 at low levels, approx. 7 at high levels
Larkin Road Car-top BR	Car-top Boating	NA <sup>1</sup>	—	—	1 (ADA)	1	Undefined: approx. 20
Nelson Bar Car-top BR	Car-Top Boating	High	—	—	1	2	Undefined: approx. 20
Stringtown Car-top BR	Car-Top Boating	Low to High	—	—	1	1	Undefined: approx. 6
Vinton Gulch Car-top BR	Car-Top Boating	High	1	—	1	2	no designated parking: approx. 10

<sup>1</sup> Not applicable. Water levels below the dam do not generally vary in a way that offers shoreline access.

Note: The dash indicates that there is no facility or that the category does not apply. Undefined means there is a designated parking area, but parking spaces are not delineated. No designated parking means there is roadside parking only.

Source: DWR 2003

**Proposed Actions and Enhancements:** The licensee will construct approximately 215 new paved parking spaces (for vehicles with trailers) at up to three locations: 90 parking spaces at a new “Big Pine Loop” lot, 80 parking spaces at Bidwell Ramp #2 (existing gravel lot), and 45 parking spaces at a new Bidwell Ramp #3 (Appendix C).

DWR will construct a new marina parking lot on the site of the “Big Pine” loop of the existing campground and widen a narrow one-lane campground loop road (Figure 1.0-2, Appendix C). The new parking lot will provide approximately 90 single-vehicle parking spaces. This will necessitate the construction of a new replacement campground loop (see Section 6.1.1) adjacent to and south of the remaining “Gold Flat” loop (to mitigate for the loss of campground space due to expansion of Bidwell Marina parking facilities). This action requires clearing, grading, and paving at both sites.

The licensee will coordinate with DBW to install one or two (depending on appropriate dock configuration and lane widths) new floating docks at the top of the boat ramp to facilitate boat launching and retrieval at the Bidwell Canyon BR (only one dock will be deployed when the reservoir level falls below elevation 785 feet, the approximate point at which only two lanes are usable). This will be reassessed as the pool level drops. One longer floating dock may be used as the ramp narrows. These dock(s) will be periodically adjusted by DPR and/or the Bidwell Canyon Marina concessionaire as changing water levels warrant. Licensee will also coordinate with DPR to ensure adequate boat dock capacity for non-peak recreation season special events such as fishing tournaments.

The licensee will further coordinate with the concessionaire and DPR to increase ADA accessibility (to the extent feasible by the concessionaire) at the marina facilities, such as at the store.

While access to the marina is a concessionaire responsibility, the licensee will support safe and effective options for a new shuttle service (or other feasible options) to operate between parking facilities and the marina. This service will be explored as an added element in a new concessionaire contract when it is renewed. This potential shuttle service may be a fee service and may operate during peak use periods when parking may be distant, or during low pool periods when steep grades exist. This service would be a concessionaire-run shuttle. In addition, DWR will also support options to include additional dry boat storage as an added element in a new DPR concessionaire contract when it is renewed. State right-of-way via a lease or similar mechanism can be explored as an element to facilitate this potential new service.

This boat ramp will be extended to provide enhanced boat launching capability for Lake Oroville on a year-round basis. DWR will coordinate with DBW to extend a minimum of three boat ramp lanes down to 640 feet msl elevation and provide approximately 45 parking spaces at the top of Ramp #3 (elevation approximately 750 ft) with other additional parking along the length of Ramp #3. DWR will add a third lane to existing Bidwell Ramp #1 between elevations 781 feet and 745 feet, and possibly a fourth lane to this ramp if technically feasible, with a total cost not to exceed 20 percent of the new Bidwell Ramp #3 total project final design estimate. This work will be done concurrent with the first phase of the new Bidwell Ramp #3 or sooner. For phased construction of Bidwell Ramp #3, planned phases of 50 feet, 30 feet, and 30 feet of vertical ramp footage, respectively, are anticipated.

DWR will also coordinate the resurfacing of the existing gravel parking lot (at 700 feet msl elevation and Ramp #2) with concrete (or asphalt, if permitted in the future) to provide 80 parking spaces. Ramp lanes will be extended when the reservoir pool level drops to a sufficient level and for a sufficient timeframe to allow construction to occur, pursuant to normal project operations and permit acquisition. The ramp lanes would be built in segments as feasible. Permitting and other construction approvals will be

completed in advance in anticipation of these extensions. Additional design and engineering work is still required by DBW.

During peak use when wait times indicate the need, both lanes at the Bidwell Canyon BR/DUA/Marina entry station will be in operation with the right-hand lane being used for (at a minimum) park season-pass holders.

DWR will coordinate with DPR to arrange for its concessionaire to offer a whitewater-boater fee-based shuttle service, to the extent feasible, to paddlers from a take-out/end-of-trip point on the Middle Fork arm of Lake Oroville to the marina at Bidwell Canyon. This fee-based, concessionaire-run service option will be included in the next DPR-Marina concessionaire contract when it is due for renewal (2009). The shuttle service will be contingent upon the demonstrated use and feasibility of the other potential shuttle service to the North Fork arm (service to the marina at Lime Saddle). Frequency, scheduling, and fees of the service will be determined based upon user demand and reasonable use of concessionaire resources. Continuation of the shuttle service will be reassessed annually and will be contingent upon the feasibility of the service and the demonstrated use of the service.

#### **6.4.2 Loafer Creek BR/DUA**

Existing Resources: The boat ramp shares the same visitor information and fee collection booth as the other Loafer Creek attractions (Section 6.1.5; Figure 1.0-2). There is an eight-lane boat ramp and a large parking area for 192 vehicle/trailer combinations (Table 6.4-1). All eight lanes of the boat ramp are accessible to 800 feet msl. Two lanes are available as low as 775 feet msl. There are two ADA accessible flush toilets and a telephone at the boat ramp.

Located adjacent to the other Loafer Creek facilities (Section 6.1.5), the DUA offers opportunities for swimming, picnicking, and fishing. There are 30 or more picnic tables (some ADA accessible), 17 BBQs (including several large group grills), shade trees, swimming area with a beach at higher pool levels, playground area, eight flush toilets (all ADA accessible), drinking fountains, showers, and parking for 251 vehicles, five of which are ADA accessible spaces (Table 6.4-1). The best opportunities for use of the DUA are at reservoir levels from 900 down to about 850 feet msl.

Proposed Actions and Enhancements: The licensee proposes to coordinate with DBW to install one to two new floating dock(s) to facilitate boat launching and retrieval at the Loafer Creek BR (only one dock will be deployed when reservoir level falls below elevation 800 feet, the point at which only two lanes are usable). The existing floating dock may be replaced with a new single, long (80 ft) dock. These docks will be periodically adjusted by DPR as changing water levels warrant (Appendix A).

The licensee proposes that an existing dirt service road at the Loafer Creek DUA be widened, graded, and graveled to approximate elevation 750 feet msl (Appendices A

and C). This gated service road will be opened to the public when the developed Loafer Creek BR becomes dewatered, to allow enhanced car-top boat access for users of the Loafer Creek facilities. The existing day use parking facility will continue to serve car-top boaters when this ramp is made available.

To enhance opportunities for swimming and related day use, especially for periods when reservoir level recedes below elevation 850 feet msl, the licensee will prepare a feasibility report investigating alternatives for extended-season warm water swimming at Project No. 2100 sites including Loafer Creek (Appendices A and C). Alternatives to be reviewed may include but are not necessarily limited to: a surface water sub-impoundment ("swimming lagoon") on-site; a treated-water, hardened facility (on-site "pool"); an off-site swimming pool or water activity center; or a sub-impoundment/swimming lagoon at an alternative project recreation area or reservoir. Because of the existing swim beach facility at Loafer Creek and the periodic high levels of use within the Loafer Creek Complex, this location will have priority over other sites. If a feasible and cost-effective solution is identified, then implementation of at least one new Lake Oroville based warm water swimming venue will commence within 2 years of acceptance of the new license. Additionally, in conjunction with the swim facility feasibility study, DWR will also evaluate the feasibility of including a concessionaire-operated campground/DUA activity center and store/snack bar at this site.

A fish cleaning station will be provided near the boat ramp; the location is to be determined and would be connected to an existing septic system where feasible. Near the Loafer Creek BR/DUA, a new single-vault toilet building will be constructed at Brooks Orchard to replace a vandalized portable toilet.

### **6.4.3 Lime Saddle BR/DUA**

**Existing Resources:** Located on the western shoreline of the West Branch of the North Fork arm of Lake Oroville, the Lime Saddle area is one of the major attractions at the Oroville Facilities (Figure 1.0-2). There is a staffed entrance kiosk where information is provided and fees are collected. Adjacent to the entrance kiosk are four single-vehicle parking spaces (one is ADA accessible). At the Lime Saddle BR/DUA, there are 13 picnic tables (four are ADA accessible), seven sun shelters, four flush toilets (all ADA accessible), drinking fountain, telephone, four-lane boat ramp with two lanes extending down to elevation 702 feet msl, fish cleaning station, and trash receptacles (Table 6.4-1). These facilities are all located on the main parking level at the top of the boat ramp. In the main parking area there are 45 single-vehicle parking spaces (three are ADA accessible) and 131 vehicle/ trailer spaces (seven are ADA accessible). Additionally, there is parking above the main level in an overflow lot suited for approximately 70 vehicle/trailer combination spaces, and another 64 single-vehicle parking spaces are available in a lot near the entrance kiosk (Table 6.4-1). A primary attraction in the Lime Saddle area is a concessionaire-run marina that offers gas for boats, a boat repair and supply shop, general store with bait and tackle, and pump-out station. The marina also offers rentals for houseboats, patio boats, fishing boats, and ski boats. Also available at

the marina are short- and long-term overnight moorage, docks, and covered and open slips. A new concessionaire, under a contract solicited and managed by DPR, assumed operations of the marina in 2004.

Proposed Actions and Enhancements: The licensee will replace the 13 older existing picnic tables and seven existing shade structures with new facilities similar or superior to picnic sites at other project recreation areas. In addition, new pole stoves/grills will be added. New day use facilities will be ADA compliant (Appendix A).

An additional 60 paved vehicle/trailer parking spaces will be constructed adjacent to the existing boat ramp/marina parking area.

During the L1 phase, the licensee will coordinate with DBW to install one new floating dock on the right-hand side (looking down the ramp) to supplement the existing marina gangway and dock system to facilitate boat launching and retrieval at the Lime Saddle BR. This will require the installation of a new anchor system as well. Docks will be periodically adjusted by DPR and/or the Lime Saddle Marina concessionaire as changing water levels warrant.

The new Lime Saddle Marina concessionaire is responsible for any needed repairs to the marina facilities; the current or any future concessionaire will restore facilities to provide an appropriate and optimum level of service comparable to facilities and service available prior to the destructive 2002 wind storm. The licensee will also coordinate with the concessionaire and DPR to increase ADA accessibility to the extent feasible by the concessionaire (Appendix A).

The licensee will investigate the feasibility of enhancing opportunities for swimming and related day use (Appendix A), especially for periods when reservoir level recedes below elevation 850 feet msl, in the Parish Cove area (between Lime Saddle Marina and Campground) and at other Project No. 2100 sites. A potential new swimming facility at the Loafer Creek DUA would have priority over Lime Saddle (Section 6.4.2).

Based upon the results of the swim feasibility study, monitoring results during L2 to L5 phases, and determination of a sustained need (use levels at the L1 warm water swimming facility have reached capacity), the licensee will provide a new swim facility in Parish Cove if feasible (assuming that a new swim facility has already been constructed at the Loafer Creek Complex).

Additionally, in conjunction with the swim facility feasibility study, DWR will also evaluate the feasibility of providing a concessionaire-operated campground/day use area activity center and store/snack bar associated with this site and other suitable sites.

The licensee will continue to seek fee title land acquisition of the adjacent surplus Pacific Gas and Electric Company (PG&E) property, for use by marina and boat ramp

expansion purposes, if prior site assessment toxicity issues are resolved. Marina boat maintenance, parking, and dry storage uses would likely relocate to this new site when or if it becomes available.

DWR will coordinate with DPR to include in the next revision of the DPR-Marina concessionaire contract, a whitewater boater fee-based shuttle service, to the extent feasible, for paddlers from a take-out/end-of-trip point on the North Fork arm of Lake Oroville to the marina at Lime Saddle. Frequency, scheduling, and fees of the service will be determined based upon user demand and reasonable use of concessionaire resources. Continuation of the service will be contingent upon the feasibility of the shuttle service and demonstrated use of the service.

DWR will coordinate with PG&E to help provide whitewater boaters easier access to daily river flow release information from below the Poe Hydroelectric Project powerhouse on the North Fork Feather River just upstream from Lake Oroville.

A proposed new trail will connect the Lime Saddle Campground with the Lime Saddle BR/DUA/Marina, via Parish Cove. As this campground and marina have no equestrian facilities to support nor are they designated for equestrian use, the proposed trail would serve primarily hikers and bicyclists seeking to travel to and from the campground and the surrounding lakeshore. This proposed 3.5-mile trail would be within the Lake Oroville Management Unit (as outlined in Chapter 5), which also includes trails at Bidwell Canyon and Loafer Creek (see Appendix D). DWR proposes to construct this trail in cooperation with DPR.

Finally, based on monitoring results and a demonstrated sustained need during the L2 to L5 phases, the licensee will provide a new Parish Cove day use/picnic area with picnic tables, shade ramadas, and pole stoves; this area will be linked by the aforementioned trail to the existing campground and marina/boat ramp area.

#### **6.4.4 Spillway BR/DUA**

Existing Resources: This is the largest boat ramp facility at Lake Oroville, adjacent to the right abutment of Oroville Dam (Figure 1.0-2). Development here consists of two stages of multi-lane boat ramps. One stage of ramps has eight lanes and can be used during low to medium water levels, while the other has 12 lanes and can be used during medium to high water. The eight-lane ramp is separate from the 12-lane ramp, and each has its own accompanying parking lot. During high water, the lower eight-lane ramp and its asphalt parking lot are submerged. The lower eight-lane boat ramp was extended to 695 feet msl in January 2003.

The site has a seasonally staffed visitor information and fee collection booth. The site has six flush toilets (two ADA accessible), drinking water, a fish cleaning station, and picnic sites (six tables) with shade trees and sun shelters (Table 6.4-1). The upper lot has 350 vehicle/trailer parking spaces, 40 of which have been set aside for “en route”

(self-contained) RV camping (Section 6.1.7). The main ramp has spaces for a maximum of 75 vehicles/trailers available at medium and low pool levels. There are 118 single-vehicle parking spaces (eight ADA accessible) in the upper lot. The shoreline access allows for fishing at all reservoir levels.

Proposed Actions and Enhancements: The Licensee will coordinate with DBW to determine the optimum number and configuration of floating docks (depending on appropriate dock configuration and lane widths). If more than three floating docks are feasible, additional boarding dock(s) will be deployed during the L1 phase to maximize boat launching capacity. Licensee will also coordinate with DPR to ensure adequate boat dock capacity for non-peak recreation season special events such as fishing tournaments.

The existing concession contract for the Bidwell Canyon Marina includes an option to provide limited marina mooring and service facilities at the Spillway BR. The licensee will coordinate with DPR and its marina service concessionaire(s) at any future time if the concessionaire demonstrates the interest and ability to provide such service. Coordination will be for the purposes of ensuring the safety of Oroville Dam and protection and enhancement of recreation and natural resources in the Spillway area.

#### **6.4.5 North Thermalito Forebay BR/DUA**

Existing Resources: The North Thermalito Forebay (Figure 1.0-2) hosts non-motorized boating and other recreational activities (DWR 2000). The North Thermalito Forebay BR/DUA has a seasonally staffed visitor information and fee collection booth and two paved boat ramps, one with two lanes and one with three lanes (Table 6.4-1). There are six flush toilets (four are ADA accessible) and 251 single-vehicle parking spaces (three are ADA accessible). The site also has 26 vehicle/trailer parking spaces (one is ADA accessible). Additional parking is available along the south side of the picnic area. The DUA has a swimming beach, large picnic area with 117 tables, large and small shared BBQ grills, shade trees, drinking faucets, and a telephone. There are additional picnic sites near the Aquatic Center and a hardened trail that circles the lagoon. The interpretive displays have been recently renovated (pers. comm., Feazel 2003).

Proposed Actions and Enhancements: Additions proposed to the DUA and boat ramp facilities include enhanced non-motorized trail opportunities and a fish cleaning station. Enhanced non-motorized trail opportunities at the Forebay would be designed to minimize or avoid potential impacts to and/or loss of wetland and giant garter snake habitat. Existing opportunities at this site are expected to be enhanced by new services provided by the tenant of the existing and expanded Aquatic Center (Section 6.3.6).

The licensee will conduct a feasibility study to evaluate warmer water swimming options at this site as well as other Project No. 2100 locations. In addition, water quality will be monitored and maintained in the swimming cove.

The fish cleaning station component will be provided if this new facility can be connected to the existing sewage system (exact location to be determined).

#### **6.4.6 South Thermalito Forebay BR/DUA**

Existing Resources: Located at the southern end of the Thermalito Forebay, this recreational site has a self-registration pay station, a two-lane boat ramp, 10 picnic tables, 10 BBQs, shade trees, vault toilet building, and a fish cleaning station (Figure 1.0-2). There is a graded and graveled parking area approximately 60 yards square near the boat ramp and an undetermined number of parking spaces near the picnic tables (Table 6.4-1).

Power boating (limited to about 330 acres of the Thermalito Forebay's 630-acre pool) and fishing are the South Forebay's main recreation uses (DWR 2000). Shoreline swimming also takes place at this DUA. The interpretive displays have been recently renovated (pers. comm., Feazel 2003).

Proposed Actions and Enhancements: The licensee proposes to coordinate with DPR to improve a portion (approximately 100 linear feet) of the existing shoreline for swimming and related recreation use by the placement of approximately six inches of sand between elevations 220 and 230 feet msl (Appendix A). Additional picnic tables, with pole stoves and shade ramadas, will be installed at the back of the beach area. Additional landscaping with shade trees and shrubs will be added to this site to enhance the site for day users. Adjacent to ADA accessible parking, an ADA accessible fishing platform or pier will be constructed. To enhance safety of swimmers, buoys will be placed 200 feet from shore to designate a five-mph zone for boaters and personal watercraft (PWC) users. All site enhancements will be sited to minimize or avoid potential impacts to vernal pools.

#### **6.4.7 Monument Hill BR/DUA**

Existing Resources: With 17 miles of shoreline and 4,300 surface acres of water, the Thermalito Afterbay is open for boating, swimming, fishing, picnicking, and limited hunting (DWR 2000). The surface and shoreline are within the OWA, but recreation facilities and boat ramps are managed by DWR.

A two-lane boat ramp with floating dock is available at the Monument Hill site on the eastern shoreline of the Afterbay (Figure 1.0-2). There are 10 picnic tables, nine BBQs, four flush toilets (one is ADA accessible but is not signed as such), fish cleaning station, and swimming beach. There are 10 single-vehicle parking spaces (one is ADA accessible) and 39 vehicle/trailer combination spaces (three are ADA accessible). Additionally, there is a graded and graveled parking area approximately 60 yards square in area (Table 6.4-1) that provides room for about 30 to 40 additional vehicles with trailers.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility at this time. If the gravel overflow parking area becomes inadequate in the future, then it will be expanded and paved if needed.

#### **6.4.8 Enterprise BR**

Existing Resources: The Enterprise BR is located on the South Fork arm of Lake Oroville (Figure 1.0-2). It has a 2-lane boat ramp that can be used during medium and high reservoir levels (the end of the ramp is at approximately 835 feet msl). When the reservoir is below about 800 feet msl, the site is closed to protect cultural resources. Fishing and swimming also take place along the shoreline at this site. There are 40 vehicle/trailer parking spaces (Table 6.4-2). A new vault toilet building was installed in 2003.

Proposed Actions and Enhancements: The licensee will coordinate with DBW to develop a low-water ramp at the Enterprise BR, beginning at or near the foot of the existing ramp, and extending to about 750 feet msl elevation (Appendix A). The exact alignment will be dependent upon completion of detailed cultural resource surveys and engineering studies. An alignment will be chosen to avoid or minimize impacts to cultural resources. Facility amenities will include a vault toilet building (recently installed as an Interim Project), up to 10 picnic tables with pole stoves/grills, and if feasible add gravel parking for 10 vehicles with trailers as close to the 750 elevation as possible. A new floating dock and cable system will be installed at the existing and extended boat ramps. The recreational improvements at this site will also be located to avoid or minimize impacts to environmentally-sensitive areas and will further protect these resources through the restriction (by fencing, barriers, and/or signs) of recreational activities to the improved facilities.

#### **6.4.9 Wilbur Road BR**

Existing Resources: The Wilbur Road BR consists of a 2-lane paved boat ramp, dock, parking lot able to accommodate 14 vehicle/trailer combination spaces (1 is ADA accessible space), and vault toilet building (Table 6.4-2). In addition to the designated boat ramp, informal boat launching occurs at several unimproved areas between this site and SR 162. These informal boat launching areas are occasionally accessed with trailers, though most are only suited for car-top launching.

Proposed Actions and Enhancements: Waters in proximity to the Wilbur Road BR are proposed to be subject to a new 5-mph boating speed limit imposed on the portion of the Afterbay north of SR 162 (Appendix A). It is not known how this localized restriction will affect use of the Wilbur Road BR. Monitoring results will be compared to future use projections and threshold criteria (Section 7.3), and 10 additional paved parking spaces will be constructed in the future if needs warrant. New roadside directional signs will be provided for easier locating of this facility by visitors.

#### **6.4.10 Dark Canyon Car-Top BR**

Existing Resources: Dark Canyon Car-top BR is located on the West Branch of the North Fork arm of Lake Oroville (Figure 1.0-2). The single-lane boat ramp is used at low to high reservoir levels. There is a paved parking lot (approximately 20 yards square that can accommodate between 15 and 30 vehicles). There are three pull-out areas between the parking lot and the end of the boat ramp. There is a defunct vault toilet building and trash receptacles at this site (Table 6.4-2). The old roadbed in the inundation zone, at elevations below the existing concrete surface, will not be maintained and may be problematic at lower Lake elevations.

Proposed Actions and Enhancements: The licensee will replace the existing, defunct vault toilet building at this location with a new structure (Appendix A). New roadside directional signs will be provided for easier locating of this facility by visitors.

#### **6.4.11 Foreman Creek Car-Top BR**

Existing Resources: Foreman Creek Car-top BR is located on the north side of the main basin of Lake Oroville (Figure 1.0-2). The two-lane boat ramp, essentially an abandoned County road, can be used at all reservoir levels. Boating, fishing, and swimming all take place at this site. When reservoir levels fall below 800 feet msl, the site is closed at night and additional security is present during the day to protect cultural resources. Designated parking areas accommodate approximately 15 to 30 vehicles/trailers. At high reservoir elevations, there is only roadside parking, which will accommodate approximately seven vehicles. There is no toilet building, but one trash receptacle is provided at this site (Table 6.4-2).

Proposed Actions and Enhancements: In coordination with implementation of a future draft Historic Properties Management Plan (HPMP), the licensee will take recommended actions to reroute visitor use and possibly the access road away from cultural resources. The licensee will install an ADA-accessible vault toilet building, interpretive signage, and five to 10 picnic tables with shade ramadas. Poles stoves will also be installed if deemed permissible from a fire safety or fuel load management perspective. These enhancements will be located at a suitable scenic promontory near the high water line (Appendices A and C).

#### **6.4.12 Larkin Road Car-Top BR**

Existing Resources: The Larkin Road Car-top BR has a graded and graveled car-top boat ramp, a paved lot (approximately 50 yards square, which can accommodate about 20 vehicles/trailers), a single vault toilet building, and trash dumpster (Table 6.4-2). In addition to the designated launching area, there are four often-used access points that are not graded or graveled. There are dirt roads that lead to all four of these informal but regularly used launching areas; sunbathing, swimming, and picnicking/relaxing also occasionally occur here.

Proposed Actions and Enhancements: The licensee will improve a portion (approximately 100 linear feet) of the existing shoreline for swimming and related recreation use by the placement of approximately six inches of sand between elevations 132 and 125 feet msl (Appendix A). Improvements will be designed to avoid vernal pools and to minimize potential impacts to special status species and their habitat. Five to 10 picnic tables (exact number depending on site capacity), with pole stoves/grills and some with shade ramadas, will be installed at the back of the beach area. If ten picnic tables are not possible at this location, the remainder will be constructed at the Monument Hill site, or other suitable Afterbay day use location(s).

To enhance safety of swimmers, buoys will be placed 200 feet from shore to designate a five-mph no-wake zone for boaters and PWC users. New roadside directional signs will be provided for easier locating of this facility.

#### **6.4.13 Nelson Bar Car-Top BR**

Existing Resources: Nelson Bar Car-top BR is located on the West Branch of the North Fork arm of Lake Oroville (Figure 1.0-2). An improved cement surface extends to about 825 feet msl; small trailers are occasionally used to launch at high reservoir levels. The site has a gravel parking lot (approximately 40 yards square that can accommodate 20 to 25 vehicles/trailers) at elevation 894 feet msl. There are three pull-out/turnaround areas between the parking lot and the end of the boat ramp. There is a vault toilet building (not ADA accessible) and two trash receptacles (Table 6.4-2).

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no substantive changes are proposed at this facility. The licensee will install a sign, barrier, and/or gate at the terminus of the boat ramp during lowered reservoir elevations for safety purposes. The old roadbed in the inundation zone, below the improved concrete ramp surface, will not be maintained and may be problematic at lower lake elevations. The Licensee's efforts to enhance the passability of this car-top boat ramp at lower lake elevations will be limited to the nominal placement of sand and/or gravel.

#### **6.4.14 Stringtown Car-Top BR**

Existing Resources: Stringtown Car-top BR is located on the South Fork arm of Lake Oroville (Figure 1.0-2). The boat ramp can be used at all reservoir levels but can become difficult below about 866 feet msl, where the improved concrete ramp ends and the unmaintained old roadbed (a former County road) continues into the inundation zone. There is space to park approximately six vehicles/trailers near the beginning of the boat ramp and a few other roadside parking areas. Visitors also fish and swim at this site. There is a vault toilet building (non-ADA accessible) and a trash receptacle (Table 6.4-2).

Proposed Actions and Enhancements: The licensee will install a sign, barrier, and/or gate at the terminus of the boat ramp during lowered reservoir elevations for safety

purposes. The old roadbed in the inundation zone is not maintained and may become problematic for launching at lower lake elevations. Additional roadside signage will be provided to assist visitors to more easily locate this site. The Licensee's efforts to enhance the passability of this car-top boat ramp at lower lake elevations will be limited to the nominal placement of sand and/or gravel.

#### **6.4.15 Vinton Gulch Car-Top BR**

Existing Resources: Vinton Gulch Car-top BR is located on the West Branch of the North Fork arm of Lake Oroville (Figure 1.0-2). This single-lane boat ramp is an old roadbed in the inundation zone and is not maintained. Usage may be problematic at low lake elevations. This ramp is typically not used at low or medium reservoir levels. In addition to boat launching, shoreline fishing also takes place at Vinton Gulch. There is no designated parking area; however, roadside parking can accommodate approximately 10 vehicles (more at lower water levels). The site has a vault toilet building (not ADA accessible) and two trash receptacles (Table 6.4-2).

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.

#### **6.4.16 OWA Thermalito Afterbay Outlet BR**

Existing Resources: The Afterbay Outlet BR is located upstream (northeast) of the Afterbay outlet on the Feather River, within the OWA boundary (Figure 1.0-2). There is no designated parking area; however, roadside parking can accommodate approximately five to 10 vehicles (Table 6.4-2). A restroom is available at the adjacent day use/camping area. The ramp is a gravel/dirt ramp that can be used to launch boats using a trailer; four-wheel drive vehicles are advised when the ramp is muddy (typically after rains).

Proposed Actions and Enhancements: No changes are proposed at this boat ramp. However, in the next year or two, the existing boat ramp will be upgraded to concrete with paved parking and a paved access road also developed (completion scheduled for 2006 or 2007).

#### **6.4.17 OWA Unimproved Boat Ramps**

Existing Resources: There are several unimproved boat ramps within the OWA, including ramps located along the Feather River near the Vance Avenue and Palm Avenue entrances to the OWA. These ramps are unpaved gravel put-ins that users have expanded to use as boat ramps. Both car-top and trailer launching occurs at many of these ramps. There are no facilities or designated parking associated with any of the ramps.

There are also two unimproved boat ramps (not graded or graveled) on the north end of One Mile Pond; there is also an unimproved boat ramp (not graded or graveled) on the south end of One Mile Pond.

Proposed Actions and Enhancements: No changes are proposed at unimproved boat ramps in this project management unit.

## **6.5 TRAILS AND TRAILHEADS**

Appropriate use of project trails has been an issue of public controversy for several years. DWR and DPR have endeavored to collect and evaluate public comment through a number of forums, including public meetings, stakeholder working groups, public review of Statewide trails planning documents and a LOSRA-specific draft General Plan, and a Trails Focus Group convened during Relicensing Settlement negotiations. A Non-Motorized Trails Management Program (Appendix D) describes and illustrates existing Project No. 2100 trail segments, their current and proposed future use designations, and proposed new trail alignments and use designations. The proposed trails plan is a collaboratively developed comprehensive non-motorized trails plan that offers a broad range of trail recreation opportunities to the greatest number of potential trail users. In addition and to promote the safe use and management of trails, an annual, or less frequently depending on need, safety event open to all trail users will be conducted.

The trail system in the study area provides many miles of trails for a variety of uses including mountain biking, horseback riding, and hiking (pers. comm., McBride 2003). Several trails have been upgraded to meet ADA accessibility standards for slope and surface. There are a total of 12 miles of ADA accessible trails within the study area. Table 6.5-1 lists each of the trailhead access sites and the trails, providing miles of trail, allowable uses, number of parking spaces, number of restrooms, and garbage receptacles. Appendices C and D and Figure 1.0-2 provide maps of trails that are discussed (excluding the Feather Falls Trail).

The nearby Plumas National Forest (and portions of Lassen National Forest) provides many opportunities for hiking, mountain biking, and equestrian uses. Because the National Forest boundary is generally adjacent to steep and remote reaches of the Project No. 2100 boundary, most of the aforementioned opportunities are many miles distant from Project trails and facilities. However, the Feather Falls Trail, though outside of the study area, at times can be accessed from the reservoir and is informally associated with recreation in the project area. The Pacific Crest Trail (also not in the project area) crosses the upstream Middle Fork Feather River approximately 25 miles northeast of Lake Oroville.

**Table 6.5-1. Trailhead access facilities and trails.**

Trail Facility	Use		Access	Health & Safety	
	Miles of Trail	Allowable Uses	Vehicle and Vehicle/Trailer Parking Spaces	Toilets	Trash Receptacles
<b>Trailhead Access Sites</b>					
East Hamilton Rd Trailhead Access	-	-	Approx 5 veh.	0	0
Toland Road Trailhead Access	-	-	Undesignated; ~10 vehicles	0	0
Tres Vias Rd Trailhead Access	-	-	Undesignated; ~10 vehicles	0	0
Lakeland Blvd Trailhead Access	-	-	Undesignated; ~30 vehicles, ~10 veh./trailers	0	0
Saddle Dam Trailhead Access	-	-	Undesignated; ~40 vehicles, ~15 veh./trailers	1	1
<b>Trails</b>					
Bidwell Canyon Trail	4.9	Bicycles, Hiking	477 <sup>1</sup>	2 <sup>1</sup>	3 <sup>1</sup>
Brad Freeman Trail	41.0	Bicycles, Hiking <sup>2</sup>	Various	-	-
Chaparral Interpretive Trail	0.2	Pedestrian	107 <sup>3</sup>	2 <sup>3</sup>	6 <sup>3</sup>
Dan Beebe Trail	14.3	Equestrian, Hiking	Various	-	-
Feather Falls Trail <sup>4</sup>	4.5	Multiple-use	Approx. 50	1	1
Loafer Creek Day Use/Campground Trail	1.7	Hiking Only	251 <sup>5</sup>	2 <sup>5</sup>	2 <sup>5</sup>
Loafer Creek Loop Trail	3.2	Equestrian, Hiking <sup>6</sup>	251 <sup>7</sup>	1 <sup>7</sup>	11 <sup>7</sup>
Sewim Bo Trail	0.5	Multiple-use <sup>9</sup>	Unknown	Unknown	Unknown
OWA Trails	Unknown	Multiple-use	Various	Unknown	Unknown
Potter's Ravine Trail	5.5	Multiple-use <sup>10</sup>	468 <sup>8</sup>	2 <sup>8</sup>	1 <sup>8</sup>
Roy Rogers Trail	4.0	Equestrian, Hiking <sup>6</sup>	251 <sup>5</sup>	2 <sup>5</sup>	2 <sup>5</sup>
Wyk Island Trail	0.2	Hiking Only	477 <sup>1</sup>	4 <sup>1</sup>	3 <sup>1</sup>

<sup>1</sup> In the Bidwell Canyon area.

<sup>2</sup> Horses currently allowed on some segments, proposed for others.

<sup>3</sup> At the Lake Oroville Visitors Center.

<sup>4</sup> Not within the Project 2100 boundary.

<sup>5</sup> In the Loafer Creek Day Use Area.

<sup>6</sup> Portions proposed to be multiple use.

<sup>7</sup> In the northern Loafer Creek area.

<sup>8</sup> At the Spillway area (upper parking area).

<sup>9</sup> Originally designed as a hiking trail, it is not officially closed to any type of use.

<sup>10</sup> An ADA accessible portion near the Spillway parking lot is closed to horses and bicycles.

Note: The dash indicates that there is no facility or that the category does not apply.

Source: pers. comm., McBride 2003. Updated by EDAW 2004.

DPR has conducted extensive trails planning in the State over the last 70 years. DPR houses a Statewide Trails Office that implements the mission and goals created by DPR for trails in the State. DWR and DPR share the management responsibility for trails within the LOSRA.

Facilities at most of the trailheads typically consist of roadside or designated gravel parking, some locations with portable toilets or vault toilet buildings, and the trails themselves.

Trailheads discussed in this section include:

- East Hamilton Road Trailhead Access (TA)
- Toland Road TA
- Tres Vias Road TA
- Lakeland Boulevard TA
- Saddle Dam TA

In addition, trails discussed in this section include:

- Bidwell Canyon Trail
- Brad B. Freeman Trail
- Chaparral Interpretive Trail
- Dan Beebe Trail
- Feather Falls Trail
- Loafer Creek Day Use/Campground Trail
- Loafer Creek Loop Trail
- Sewim Bo Trail
- OWA Trails
- Potter's Ravine Trail
- Roy Rogers Trail
- Wyk Island Trail

### **6.5.1 East Hamilton Road Trailhead Access**

Existing Resources: East Hamilton Road TA connects to the Brad Freeman Trail. There is a picnic table and a small gravel parking area that fits approximately 5 vehicles (Table 6.5-1).

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.

### **6.5.2 Toland Road Trailhead Access**

Existing Resources: The Brad Freeman Trail can be accessed from the Toland Road TA at the northwest corner of the Afterbay. This trailhead is gated with roadside parking only. There are no developed facilities at this site (Table 6.5-1).

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.

### **6.5.3 Tres Vias Trailhead Access**

Existing Resources: The Tres Vias Road TA connects to the Brad Freeman Trail about 1.5 miles directly to the east of the Toland Road TA north of the Thermalito Afterbay. This access area consists of a dirt lot and dirt road/trail at the Thermalito Afterbay. There are no developed facilities at this site (Table 6.5-1).

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.

### **6.5.4 Lakeland Boulevard Trailhead Access**

Existing Resources: The Lakeland Boulevard TA is located east of the Diversion Pool, near the Diversion Dam and upstream from the Low Flow Channel of the Feather River. The site is unpaved and provides parking and hitching posts used by equestrians (Table 6.5-1). There is no developed shoreline access at the site. The gate to the site is locked from sunset to dawn. A Union Pacific Railroad line is adjacent to this trailhead access area. Signs advise visitors not to trespass on the tracks.

Proposed Actions and Enhancements: DWR proposes to create vehicle access and enhanced trailhead and day use access to the Diversion Pool (new south side DUA) as previously described (Section 6.3.5). The existing trailhead parking will be retained at the Lakeland Boulevard TA. The trails in this vicinity will be designated multiple use, with the exception of the Sycamore Hill segment of the Dan Beebe Trail.

DWR will evaluate the feasibility of Diversion Pool trail crossing(s) to complete a loop trail of the Diversion Pool (Section 6.3.5) that could be accessed from the Lakeland Boulevard TA. At least four options for one bridge crossing of the Diversion Pool/Feather River in this area will be evaluated by DWR.

A non-potable stock-watering trough and hand-washing sink will be provided at the existing Lakeland Boulevard TA gravel parking area. It has not been determined if water for the trough will be supplied by underground utility service (plumbing), or be periodically refilled by portable supply (trucked). If the former option is employed, an outdoor hand-washing basin with a "French drain" will also be installed.

DWR will also evaluate the feasibility of a new demonstration mountain bicycle trail originating from this location. If feasible, based on reconciliation of topography and property ownership issues, a two- to four-mile trail will be constructed and will connect with the Dan Beebe Trail at a westward point (Appendix D, Figure D-1). Upon completion of this bicycle trail, the “parallel” portion of the Dan Beebe Trail will be closed to bicycle use.

### **6.5.5 Saddle Dam Trailhead Access**

Existing Resources: The Saddle Dam TA provides access to the southern termini of the Dan Beebe and Bidwell Canyon Trails, as well as to trails leading to the Loafer Creek area. Located on the southeast side of Kelly Ridge, the Saddle Dam TA consists of a recently regraded and regraveled parking area able to accommodate approximately 10 to 15 vehicle/trailer combinations (Table 6.5-1). This site provides a convenient location to off-load horses, to access the nearby equestrian trail, and to access the reservoir shoreline during high water. Also recently added (as Interim Projects) at the site are trash receptacles, vault toilet building, and hitching posts; shade trees are planned in the near future.

Proposed Actions and Enhancements: The licensee will install a non-potable stock water trough, hand-washing sink, hitching posts for horses, and native shade trees at the Saddle Dam equestrian area. It has not been determined if water for the trough will be supplied by an extension of underground utility service (plumbing), or be periodically refilled by portable supply (trucked). If the former option is employed, an outdoor hand-washing basin with a "French drain" will also be installed. The licensee will also designate additional access trails from the trailhead/parking area to the Lake Oroville shoreline.

The licensee will designate one or two additional access trails from the trailhead/parking area to the Lake Oroville shoreline. The Dan Beebe Trail will be opened to bicycle use, and the Bidwell Canyon Trail will be opened to equestrian use, to allow all users the opportunity to complete a loop-ride without the need for backtracking. Additional security will be provided at the trailhead location; frequency of patrols will be based upon observed and reported incidence of theft and vandalism.

### **6.5.6 Bidwell Canyon Trail**

Existing Resources: The 4.9-mile Bidwell Canyon Trail can be accessed from the Saddle Dam TA or the Bidwell Canyon BR parking area. The latter has 279 vehicle/trailer parking spaces (Table 6.5-1). The Bidwell Canyon Trail has portions that meet ADA accessibility requirements and is designated for hiking and bicycling. The trail is considered to be in a foothill setting and provides a rural experience.

Proposed Actions and Enhancements: Trail use designations will be revised (Appendix D) to allow equestrian use (Section 6.5.5). Relocation of a portion of the existing Bidwell Campground to provide additional boat ramp/marina parking in the Bidwell

Canyon area will necessitate the relocation of a segment of this trail. During detailed site design of the new campground loop, this trail will be relocated nearby with appropriate vegetative buffer and/or fencing provided where possible, subject to topographic and other site limitations.

### **6.5.7 Brad Freeman Trail**

Existing Resources: The Brad Freeman Trail provides a 41-mile loop of scenic off-road recreation, originally constructed primarily for all-terrain bikes (Table 6.5-1). The trail follows shoreline portions of the Thermalito Forebay, Thermalito Afterbay, and the Diversion Pool, and crosses the OWA, as well as the crest of Oroville Dam. About 30 miles of trail are flat but include some rolling terrain. Steep grades can be found on either side of the dam, within one mile of Lake Oroville. Although some of the trail is designated multiple use, no horses are allowed on several segments; thus, the utility of the trail to provide a "loop" is only consistent with hiking and bicycle use.

Proposed Actions and Enhancements: Trail use designations will be revised within specific trail segments (Appendix D) to allow equestrian use. The licensee will also realign a section of the Brad Freeman Trail (see Appendix D) to eliminate security concerns posed by the current alignment in the vicinity of the Hyatt Powerplant Switchyard. The new alignment will follow a segment of the old railroad grade and a service road and will cross below the switchyard instead of overlooking it (Appendix D, Figure D-1).

The portions of the Brad Freeman Trail in the vicinity of the Diversion Pool and Thermalito Forebay will be opened to equestrian use. Thus, the trail will function as a loop for all users.

### **6.5.8 Chaparral Interpretive Trail**

Existing Resources: The Chaparral Interpretive Trail can be accessed from the Lake Oroville Visitors Center. A portion (0.2 mile) of the Chaparral Interpretive Trail was made ADA accessible in 2004. Part of the trail is paved and the remainder has been compacted; there is interpretive signage. The Visitors Center has 107 parking spaces, flush restrooms, and trash receptacles (Table 6.5-1).

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.

### **6.5.9 Dan Beebe Trail**

Existing Resources: The Dan Beebe Trail is a 14.3-mile trail that rises from an elevation of 200 to 1,000 feet msl (Table 6.5-1). The trail can be accessed at Saddle Dam TA, Lake Oroville Visitors Center, below Oroville Dam off of Oro Dam Boulevard, or from the Lakeland Boulevard TA. Most of the trail is currently closed to bicyclists.

Much of the trail winds above the reservoir and provides scenic vistas and an opportunity to access undeveloped areas. The vast majority of the trail is not paved.

Proposed Actions and Enhancements: Most of the Dan Beebe Trail is proposed to be opened to bicycle use, with the exception of a steep segment over Sycamore Hill.

#### **6.5.10 Feather Falls Trail**

Existing Resources: Feather Falls is located on the Fall River, which flows into the Middle Fork Feather River less than one mile from the northeast corner of Lake Oroville. Feather Falls is the nation's sixth highest waterfall at 640 feet. The Feather Falls Trail is located outside of the Project 2100 Boundary, within the Feather Falls Scenic Area in the Plumas National Forest. Virtually all of this trail is located outside the existing Project No. 2100 Boundary. The trailhead, providing restrooms, camping, and parking, is a 35-mile drive from the City of Oroville. The multiple-use trail is 4.5 miles long, requiring a round trip of 9 miles for visitors who go to Feather Falls and back.

Proposed Actions and Enhancements: The Feather Falls Trail is adjacent to, but outside of, the Project No. 2100 boundary. This popular regional trail would be included in future interpretive materials prepared for the project area; however, no other changes are proposed by the licensee at this non-project facility. DWR will coordinate with the USFS regarding management issues.

#### **6.5.11 Loafer Creek Day Use/Campground Trail**

Existing Resources: The Loafer Creek Day Use/Campground Trail is 1.7 miles in length. The first 1.23 miles of the Loafer Creek Day Use/Campground Trail (managed by DPR) meets ADA accessibility requirements (Table 6.5-1). The use designation on this trail is hiking-only. The trail is in a foothill setting and provides a rural experience. The Loafer Creek DUA provides parking for 251 vehicles. There are restrooms and trash receptacles at the DUA, campground, and boat ramp.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.

#### **6.5.12 Loafer Creek Loop Trail**

Existing Resources: The Loafer Creek Loop Trail is a 3.2-mile trail, limited to horseback riding and hiking. The first 0.23 mile of the Loafer Creek Loop Trail meets ADA accessibility requirements (Table 6.5-1). The trail is in a foothill setting and provides a rural experience. The Loafer Creek DUA provides parking for 251 vehicles; however, many trail users access the trail from the Loafer Creek Campground. There are flush restrooms and trash receptacles at the Loafer Creek DUA.

Proposed Actions and Enhancements: Most of the Loafer Creek Loop Trail is proposed to be opened to bicycles and designated for multiple use. An exception to the multiple-

use designation will be a segment in the vicinity of the Loafer Creek Equestrian Campground, which will remain closed to bicycles. To provide bicyclists with access from the Loafer Creek Campground to the Saddle Dam area, where the Bidwell Canyon trail begins, the licensee proposes that an existing service road be opened to bicycles. The latter segment can be otherwise described as extending from just east and south of the Loafer Creek Equestrian Campground (junction with Roy Rogers Trail), south to the Saddle Dam Trailhead (Appendix D, Figure D-1).

Near the Loafer Creek BR/DUA, a new single-vault toilet building will be constructed at Brooks Orchard to replace a vandalized portable toilet.

### **6.5.13 Sewim Bo Trail**

Existing Resources: The Sewim Bo Trail is generally a hiking trail, but it receives some equestrian and bicycle use (no specific use restriction is currently imposed) in the vicinity of the Feather River Nature Center on the opposite side (eastern bank) of the Feather River from the Feather River Fish Hatchery and extending upstream past the Thermalito Diversion Dam. Much of this trail is located outside the existing Project No. 2100 boundary. The trail was created in conjunction with the Feather River Nature Center as an Interim Project in 2003-2004. The trail leads to a day use area adjacent to the Feather River Nature Center that has been improved with picnic tables, shade ramadas, and interpretive signs, as well as erosion control measures for the trail itself. One picnic site is ADA accessible with parking and access route.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this trail facility.

Nearby, however, if another recreation agency provides a paved trail along the northern shoreline of the Feather River from the Riverbend Park area north to the project boundary (using SBF or other local funding), DWR will complete this trail connection by constructing a paved trail from the Feather River Fish Hatchery parking/viewing area downstream to the project boundary.

### **6.5.14 Oroville Wildlife Area Trails**

Existing Resources: The OWA provides many trails for hiking and bicycle use. The Brad Freeman Trail (see Section 6.5.7) crosses the OWA, following existing gravel levee-top roads that connect the Afterbay outlet with the OWA Headquarters entrance. The other trails within the OWA are not officially designated and none are ADA accessible. The Feather River runs through the center of the OWA and has several channels. The OWA outside the Afterbay is used as a floodplain for emergency releases from Oroville Dam. There are three main unpaved boat launching sites, one at One Mile Pond, and two along the main roads where people can access the river. Parking is undesignated. There are three vault toilet buildings within the OWA at various locations (Table 6.5-1).

Proposed Actions and Enhancements: No changes are proposed to trails in this project management unit.

#### **6.5.15 Potter's Ravine Trail**

Existing Resources: The Potter's Ravine Trail is predominantly designated for multiple-use and is about 5.5 miles long. Beyond the Potter's Ravine area, the trail continues as the North Fork Trail. These trails are most readily accessed from the Spillway DUA, located on the north side of Oroville Dam. A segment near to the DUA is for pedestrian use only and is ADA accessible. The Spillway DUA has restrooms and 468 parking spaces (Table 6.5-1).

Proposed Actions and Enhancements: The licensee proposes to construct an extension of the North Fork Trail, totaling an additional two miles and providing users access to additional, remote portions of the Lake Oroville shoreline.

#### **6.5.16 Roy Rogers Trail**

Existing Resources: The four-mile Roy Rogers Trail can be accessed from the Loafer Creek Complex including the campground, equestrian camp, boat ramp, and DUA. The trail is designated for hiking and equestrian use only and is not ADA accessible. The Loafer Creek DUA provides parking for 251 vehicles; however, many trail users access the trail from the Loafer Creek Campground. There are restrooms and trash receptacles at the DUA, campground, and boat ramp (Table 6.5-1).

Proposed Actions and Enhancements: To provide bicyclists with access from the Loafer Creek Campground to the Saddle Dam area, where the Bidwell Canyon Trail begins, the licensee proposes that the westernmost segment of the Roy Rogers Trail be designated multiple use (Appendix D, Figure D-1). The latter segment can be otherwise described as extending from the Loafer Creek Complex's Coyote Campground to the Loafer Creek Boat Ramp, and south to just north of the Loafer Creek Equestrian Camp (junction with the Loafer Creek Loop Trail). A graded dirt access and service road, which runs from near the Loafer Creek Equestrian Camp to near the Saddle Dam Trailhead, will be designated as a bicycle trail.

A new single-vault toilet building near the Loafer Creek Complex will be constructed at Brooks Orchard, to replace a vandalized portable toilet.

#### **6.5.17 Wyk Island Trail**

Existing Resources: The Wyk Island Trail can be accessed from the Bidwell Canyon BR parking. The 0.19 mile of trail meets ADA accessibility requirements (Table 6.5-1). The use designation on this trail is hiking-only. The trail is in a foothill setting and provides a nature-oriented experience. There are 279 vehicle/trailer parking spaces, restrooms, and trash receptacles at the Bidwell Canyon BR.

Proposed Actions and Enhancements: Apart from periodic updates of the interpretive materials, no changes are proposed at this facility.



**Picnic Site at the South Thermalito Forebay Day Use Area.**

## **7.0 RECREATION IMPLEMENTATION PROGRAMS**

This section describes the RMP's six implementation programs:

1. Recreation Facility Development Program;
2. Recreation Operations and Maintenance (O&M) Program;
3. Recreation Monitoring Program;
4. Resource Integration and Coordination Program;
5. Plan Review and Revision Program; and
6. Interpretation and Education (I&E) Program.

The six RMP programs specifically detail how DWR proposes to meet the final RMP's goals and objectives and implement the proposed PME measures defined in Appendices A, C, and D over the term of the new license. These programs are described in more detail below.

### **7.1 RECREATION FACILITY DEVELOPMENT PROGRAM**

The Recreation Facility Development Program, along with the other RMP programs, is intended to help meet existing and future recreation facility needs identified in the project area over the term of the new license. This program focuses on upgrading existing recreation facilities and constructing new recreation facilities, when appropriate, based on documented needs and associated monitoring results. This program defines the construction-related responsibilities of DWR, identifies proposed recreation development projects and their estimated costs (Appendix A), provides conceptual site diagrams of the locations of anticipated recreation facility improvements (Appendix C) and trail improvements (Appendix D), and defines facility development standards and design criteria. This first program includes seven elements, as presented below.

#### **7.1.1 Recreation Facility Development and Upgrades**

Proposed recreation facility development action and enhancement measures have been identified to help satisfy both existing and future project-related recreation needs. This program element includes new, renovated, expanded, and relocated public recreation facilities that are expected to be implemented through the term of the new license by DWR. Appendix A summarizes the proposed recreation facility development measures in the project area. These measures are consistent with the Settlement Agreement ("Chapter 5") proposed by DWR.

#### **7.1.2 Recreation Development Locations**

The potential locations and conceptual layout of proposed recreation facility or use area improvements are illustrated in Appendix C. Appendix D describes new trail enhancements and revised trail authorized use designations. More detailed designs and construction documents (including environmental review under California Environmental Quality Act [CEQA] and any additional project-specific permitting necessary) will be completed at a later date, following license issuance by FERC and

license acceptance by the licensee and finalization of this RMP following license issuance.

### **7.1.3 Recreation Facility Design Guidelines and Approvals**

When implementing the proposed recreation measures in Appendix A, DWR will use appropriate facility siting and design criteria and other construction standards as necessary to:

- Comply with State and local public health and safety codes and regulations;
- Consider input received from the RAC;
- Provide design continuity and consistency with the character of the area and desired experience level where the site is located;
- Provide a high quality visitor experience and/or enhance visitor convenience;
- Minimize facility and site deterioration and operations and maintenance costs;
- Protect and/or mitigate for natural and cultural resource values;
- Comply with DPR-adopted plans and policies when appropriate (General Plan, Resource Management Directives, etc.);
- Comply with ADAAG, as amended over time; and
- Provide consistency with FERC license order terms and conditions and project operations.

Recreation facilities constructed within DPR-managed lands will be designed and constructed to meet DPR recreation facility construction standards (as amended over time) and other appropriate design guidelines, as appropriate for the recreation opportunity type. DPR will approve all design and construction plans on DPR-managed lands. DWR will consult with DPR, DBW, and/or DFG regarding facility design on lands outside the LOSRA (but within DWR jurisdiction) with the intent of providing a consistent design among facilities within the same general recreation area.

Signs, kiosks, or other facilities constructed within State or County highway rights-of-way (ROW) will be coordinated with and approved by the California Department of Transportation (Caltrans) and/or Butte County Public Works, as appropriate.

### **7.1.4 Americans with Disabilities Act (ADA) Compliance and Facility Upgrades**

Campground and day use facilities, when significantly modified or newly constructed, will conform with Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG, as amended) that are formally adopted at the time of construction or major modification. Several proposed ADA-related improvements have been identified and are listed in Appendix A. ADA-related enhancements are a high priority and most will be scheduled in the first 10 years after license issuance (phase L1).

### **7.1.5 NEPA/CEQA Compliance and Environmental Project Review and Permitting**

Proposed recreation measures in the project area will involve the need for the issuance of various federal, State, and local permits, licenses, authorizations, and other certifications. When designing new or modified facilities or making decisions that may have an impact on the natural and cultural environment, DWR will conduct appropriate environmental reviews under appropriate regulations. This will include compliance with CEQA. DWR will apply for and receive all necessary permits and approvals prior to construction. DWR will be responsible for all studies, plans, or payment of fees associated with obtaining all necessary permits and approvals for recreation facility construction-related projects proposed in the final (FERC-approved) RMP. Appropriate projects may be compiled for environmental review and approval for efficiency and cumulative effects analysis purposes.

On federally managed lands, recreation project approvals related to facility design, public review, National Environmental Policy Act (NEPA), and National Historic Preservation Act (NHPA) Section 106 compliance processing will be coordinated with both DPR and the managing federal land and resource management agency. DWR will work closely with DPR and other agencies as needed to facilitate timely project reviews and approvals. DPR will approve all final plans and authorizations on DPR-managed lands.

### **7.1.6 Agency and Public Review of Planned Recreation Development**

DWR has proposed the RAC forum as one means to maintain regular exchange of recreation- and project-related information with stakeholders and other interested citizens (Section 4.4). To facilitate agency and public review of planned recreation development related to the final RMP, DWR will hold and facilitate periodic (minimum of two times per year) RAC meetings in the Oroville area. These periodic meetings will be used to discuss a number of related topics including:

1. Status of planned or anticipated recreation development projects in the project area;
2. Monitoring data collected and analyzed;
3. Grant applications and potential cost sharing opportunities; and
4. Other issues related to implementation of the Final RMP.

DWR also holds additional periodic state agency coordination meetings with its agency partners as described in Section 4.5 (ORCA forum).

DWR will prepare a report biennially (i.e., every 2 years) on project area recreation monitoring results and planned and completed recreation facility development. These biennial reports, when finalized, will be filed with FERC for informational purposes and will also be available for review by the RAC through the LCU (Section 4.3). DWR will also prepare and file the required FERC Form 80 Licensed Hydropower Development Recreation Report (as amended) every six years. These reports will be publicly

available through the LCU and/or FERC. Approximately every 12 years, the RMP may be updated and revised and may modify planned recreation facility development projects based on monitoring results and changes over time. Periodic RAC review meetings would also be used to help update the RMP or to make minor revisions as needed over time.

### **7.1.7 Facility Construction Coordination, Scheduling, and Phasing**

For DWR-responsible construction projects per Appendix A, DWR will be responsible for preparing or acquiring all required plans, studies, and permits prior to construction. For DWR cost-share projects, as identified in Appendix A, the primary responsible agency or cooperating agency will be responsible for preparing or acquiring all required plans, studies, and permits prior to construction. If cost-share, partnership funding, or grant application funding sources are delayed for any reason, the associated recreation development may also be delayed until such time that appropriate cost-share funding may be secured by all parties.

General facility details and conceptual site layouts for each of DWR's public recreation facilities, sites, and trails in the project area are provided in Appendices A, C, and D. These exhibits indicate phasing and whether the site is existing and to be improved, or is a new proposed site or trail. Proposed construction projects at each site are defined as existing needs to be completed in the first 10 years after issuance of the new license (assumed to be 2007 – 2016 for planning purposes); future needs to be completed in subsequent decades in most cases will be based on ongoing monitoring results and demonstrated needs (2017 – 2056; subject to FERC's decision regarding license term). Appendix A includes estimates of future costs that include both potential facility expansion (phases L2 to L5) and periodic capital replacement of existing facilities (phases L1 to L5).

The five recreation facility development phases proposed in this RMP include:

- L1 (2007 – 2016)—Meet highest priority needs first, including initial action items, that address most existing ADA, ecological, and safety concerns; also address immediate recreation site capacity needs, new facilities to improve the distribution of shoreline access sites around the reservoirs, and settlement-related actions;
- L2 (2017 – 2026)—Meet some remaining higher priority needs plus, based on capacity threshold monitoring, meet near-term future needs through expansion of existing sites or construction of new recreation facilities;
- L3 (2027 – 2036)—Meet remaining longer-term future needs through new recreation site development, based on capacity threshold monitoring;

- L4 (2037 – 2046)—Meet remaining longer-term future needs through new recreation site development, based on capacity threshold monitoring; and
- L5 (2047 – 2056)—Meet any last remaining longer-term future needs through new recreation site development, based on capacity threshold monitoring.

The highest priority actions (L1) address existing needs that have been identified during the planning process and during RSWG collaboration. Some increased site capacity at already-constrained recreation sites will also be addressed. Priority needs are listed by site in Appendix A.

Appendices A and B of this RMP identify facility construction phasing for proposed DWR-responsible measures at existing and new recreation facilities and sites in the project area and vicinity. Agencies that manage adjacent lands (such as DFG and FRRPD) and private entities (such as adjacent managers' concessionaires) may also modify or expand their recreation facilities over time to help meet future demand in the project area and vicinity; however, these other non-DWR construction projects located outside of the Project No. 2100 boundary are not considered part of the project.

## **7.2 RECREATION OPERATIONS AND MAINTENANCE PROGRAM**

Ongoing and adequate operations and maintenance (O&M) of existing and future recreation facilities is critical to visitor enjoyment and effective recreation resource management. For most sites within the Project No. 2100 boundary, DWR expects to allocate most day-to-day recreation facility management responsibility to DPR under the terms of a new Memorandum of Agreement (MOA). While DWR retains ultimate responsibility for compliance with all License terms and conditions, DPR's authority will be consistent with its responsibilities described in the California Public Resources Code and will include authority to manage all aspects of recreation facility operation and public use, including selection and management of contracted concessionaires. This includes oversight of all necessary personnel, equipment, materials, and management for day-to-day recreation operations and natural resource management within the LOSRA boundary.

Existing and future recreation facilities either owned or operated by entities other than DWR (such as DFG and FRRPD) will continue to be operated and maintained by their current providers, unless otherwise specified in Appendix A. The RMP does not address O&M of facilities outside the Project No. 2100 boundary.

DWR intends to also arrange for provision of O&M services at recreation sites in the project area currently serviced by DWR. Potential arrangements are under review at this time.

### **7.2.1 Operations and Maintenance Standards and Practices**

This RMP proposes that ongoing O&M of recreation facilities will be provided that is appropriate to the level of development, density of visitor use, resource protection needs, and recreation activity. In general, DPR will be responsible for maintaining LOSRA grounds and facilities to the present level of established standards. DWR will periodically review and approve O&M standards to be used prior to execution of new concessionaire agreements or the issuance of any new permit or lease agreement.

For DWR-responsible sites, DWR will oversee the adequacy of ongoing O&M activities at each site in a number of ways, including:

- DWR permits or leases will be periodically reviewed for adequacy of the O&M provisions;
- DWR will adequately enforce permit or lease O&M provisions once enacted; and
- DWR will provide ongoing coordination with DPR or direction to its concessionaire or others as appropriate.

Based on these activities, DWR will specify remedial actions as necessary.

### **7.2.2 Public Shoreline Access**

As part of the Recreation O&M Program, reasonably available and safe public access to project shorelines and waters will be provided by all shoreline recreation providers in the project area. This access will be accommodated through adequate maintenance of parking areas and roads, fishing access sites, signs, trails and trailheads, swimming areas, and boating access sites.

In general, the public will have reasonable access to the project shoreline between the 900 and 640 feet msl elevations of Lake Oroville. Several modified public access sites proposed in the RMP will increase public shoreline access during the term of the new license in several project areas. Improved shoreline access is a focus at both developed and undeveloped shoreline areas of Lake Oroville. These sites and trails are described in Appendices A, C, and D.

Within the Project No. 2100 boundary, DWR will conduct periodic monitoring of dispersed undeveloped shoreline recreation sites per the Recreation Monitoring Program (Section 7.3). If site monitoring reveals significant resource impacts and O&M needs caused by excessive visitor use, new O&M and potential “hardening” of these sites will be considered as appropriate. Some dispersed sites may be selected for closure. These types of decisions would occur following periodic public review meetings. Potential impacts to special status species and their habitats shall also be considered when making these decisions. DWR will also coordinate with DFG to

maintain and enhance existing access opportunities for traditional uses (e.g., hunting, fishing).

### **7.2.3 Visitor Health and Safety Management**

As part of the O&M Program, DWR is committed to working with DPR, DFG, CHP, Oroville Police, and/or Butte County Sheriff's Office as appropriate in providing for adequate visitor public health and safety on project lands and waters. How law enforcement responsibilities fit within the diverse missions of these respective agencies is described in Section 4.2; resource protection (enforcement of the California Public Resources and the Fish and Game Codes) is also a high priority of both the DFG and DPR law enforcement efforts.

In addition to other O&M actions aimed at providing adequate public health and safety at recreation facilities on land, on-water safety is also of particular importance. DWR will work with DPR to continue to identify and mark any significant known submerged hazards on project reservoirs.

### **7.2.4 Recreation Fees**

As allowed by the FERC, DPR will continue to charge appropriate recreation user fees at DPR-managed recreation sites within the project boundary to partially offset ongoing O&M costs and new facility upgrade costs at these sites. Fees will be reviewed and assessed by DPR in a manner consistent with its establishment of day use and camping fees at other, comparable units of the State Park System. However, this does not preclude DPR from implementing a fee schedule more competitive than at comparable sites. New fees may also be collected by DWR or its designee to help offset the cost of funding boat- and land-based patrols at the Thermalito Afterbay, including at the improved Afterbay Outlet camping area and DUAs. The State will also periodically review the classification of the OWA in the context of fees charged at similar sites Statewide, and may implement reasonable and appropriate user fees there in the future.

## **7.3 RECREATION MONITORING PROGRAM**

The Recreation Monitoring Program defines DWR's recreation-related monitoring activities in the project area over the term of the new license. In some cases, new facility development may be contingent upon reaching monitoring capacity threshold levels before new construction is commenced. The monitoring of recreational use levels, impacts, and activities is an integral component of an adaptive management strategy and is necessary in determining when management changes (including new recreation facilities) are needed. The locations of existing electronic traffic counters and an example of FERC Form 80 are included in Appendix E; future revisions of the Recreation Monitoring Program may be included in Appendix E at a later date, if necessary.

The Recreation Monitoring Program defines a number of actions including:

- Description of existing and future monitoring resources;
- Description of monitoring standards and indicators;
- Monitoring and reporting schedule;
- Annual and periodic monitoring activities;
- Annual and periodic analysis of monitoring data;
- Larger baseline visitor survey every other FERC Form 80 filing (10-12 years);
- Periodic reporting requirements; and
- Decision-making related to new facility construction on a biennial basis.

The three primary components of the Recreation Monitoring Program include:

- Recreation Area Monitoring Framework—Use of management units as a monitoring framework for assessing conditions in more discrete geographical areas rather than just at a reservoir-wide or project-wide level;
- Recreation Monitoring Indicators and Standards Framework—Use of monitoring indicators and standards specific to each of the management units and at selected sites; and
- Recreation Monitoring Program Components—Program components such as methods and tools, monitoring frequency, reporting requirements, and decision-making logistics.

A conceptual flowchart of the Recreation Monitoring Program is illustrated in Figure 7.3-1.

### **7.3.1 Recreation Area Monitoring Framework**

For purposes of long-term recreation monitoring, the project area has been divided into several management units (Chapter 5 and Figure 5.0-1). Periodic data collection and analysis at the management unit level will allow for decision-making on a unit-by-unit basis and, when compiled, at a reservoir-wide and a project-wide basis. These management units include:

- Lake Oroville (land area);
- Lake Oroville (reservoir surface water area with six subdivisions);
- Diversion Pool (includes Feather River Fish Hatchery);
- Thermalito Forebay;
- Thermalito Afterbay; and
- Oroville Wildlife Area.

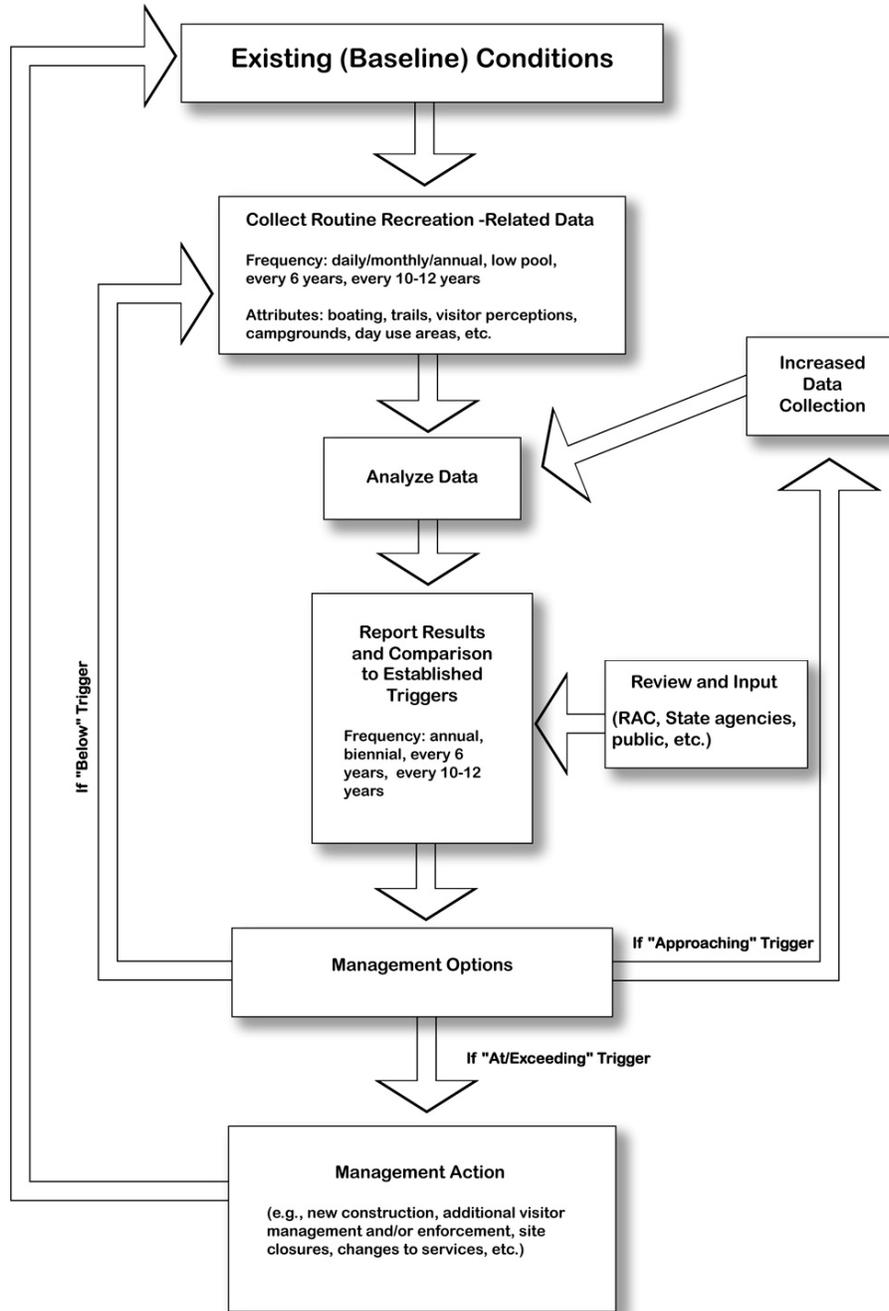


Figure 7.3-1. Conceptual Flowchart of the Recreation Monitoring Program.

### **7.3.2 Recreation Monitoring Indicators and Standards Framework**

The monitoring framework is based on indicators and standards related primarily to facility capacity utilization and social capacity/visitor experience changes. As existing facilities approach their physical, spatial, ecological, or social capacity, a range of solutions will be considered including new facility construction or a range of lesser actions.

The monitoring approach also includes defining the desired type of visitor experience to be provided in each area and to monitor conditions over time to assess whether acceptable conditions are being maintained to preserve or enhance the desired condition (“visitor satisfaction”). Two key elements in the monitoring process are indicators and standards that help define the desired experience and provide a framework for monitoring changing conditions over time. Monitoring indicators identify the key issues or variables to monitor over time and are specific measurable variables used to define the desired experience. Monitoring standards define criteria for acceptability and help define the minimum acceptable condition for each indicator. Many standards proposed herein are derived from existing, positive conditions identified and reported by visitors in relicensing Study R-13 – *Recreation Surveys*. These standards are also called “triggers” in that once these triggers (including any defined sustained trend) occur, further actions are warranted that may include new construction or a range of lesser actions. Section 7.3.3.1 describes the frequency of monitoring activities.

Key considerations related to monitoring indicators and standards are described below.

#### **Monitoring Indicators**

- Reflect important key issues that should be monitored;
- Indicate specific variables that realistically describe project area field conditions;
- Allow definition of desired conditions and assess effectiveness of management practices;
- Should be measurable and responsive to possible management actions; and
- Should be easily and economically measurable.

#### **Monitoring Standards (also called Triggers)**

- Should be refined based on field considerations, prior to full implementation;
- May use a qualitative, judgment-based process;
- Should not be idealistic goals, but real conditions that can be achieved over time;
- May be a statement of conditions that are desired or may be the status quo that would be continued; and
- May be expressed in terms of probabilities (allows for some variability).

In developing the monitoring indicators and standards, careful consideration was given to how each indicator would actually be monitored in the field. The objective was to establish a program that can be effectively implemented over time, building off of the existing monitoring program.

Table 7.3-1 lists the monitoring indicators for recreation use levels for developed recreation facilities and dispersed undeveloped sites in the project area. Monitoring standards or triggers for each key indicator are also shown in Table 7.3-1 and vary by type of setting, resource experience, and developed and undeveloped recreation facilities. Resource setting characteristics vary by area and include the visual character of the area, the number and distribution of man-made structures, and the type of access provided. Managerial setting characteristics also vary by area and include the design characteristics of recreation facilities and their maintenance, design characteristics of roadways and their maintenance, and whether motorized use is allowed or not. Social setting characteristics also vary by area and include the degree of interaction with other users, the evidence of human use and concentration of use, and the types of activities provided.

Additionally, Table 7.3-1 describes the goals of tracking each indicator, how each indicator will be measured, the frequency of measurement for each indicator, and lists potential management actions for each indicator, to be considered when “triggers” are met. The management actions provided represent a continuum of management actions, ranging from minor, less management-intensive actions to major, more management-intensive actions.

Decisions regarding future management actions would be made at the time that standards for each indicator are approached and then exceeded, based on field conditions.

In all cases, the entire suite of indicators should be reviewed and examined before management actions are taken. Decisions should not be made based on one indicator alone.

Table 7.3-2 lists the locations where monitoring activities will periodically occur. Data to be collected to monitor and analyze each indicator will be derived from a combination of periodic field observations, paid fee receipt analysis, and analysis of vehicle counter data (annually, seasonally, monthly, weekly, or daily), and/or longer term user counts and contacts and visitor surveys (every six years or 10-12 years). During the first three-year period of RMP implementation, following issuance of a new license, the Recreation Monitoring Program will be refined and tested. Adjustments may be made as necessary to improve the efficiency, performance, or end results of the program. All potential changes to the program will be coordinated through the LCU and the RAC, and any additional specific protocols adopted will be added to Appendix E of the Final RMP, and to this chapter at the time of the next RMP update.

Appendix E lists the locations of existing recreation site or area traffic counters to be used in the Recreation Monitoring Program. If needed, additional traffic counters will be added, relocated, or removed by DWR.

### **7.3.3 Recreation Monitoring Components**

The Recreation Monitoring Program defines the recreation-related monitoring needs of the project area over the term of the new license. In many cases, new facility development is contingent upon reaching monitoring capacity threshold levels and establishing trends (two consecutive non-declining threshold-exceedence years or three threshold years out of five consecutive years, with consideration for wildfires, site closures, etc.) before new construction may proceed. Therefore, the Recreation Monitoring Program is integral to the overall final RMP program over the license term.

Recreation Monitoring Program components to be implemented by DWR include:

- Frequency of monitoring activities;
- Monitoring management actions;
- Reporting requirements; and
- Decision-making related to new facility construction.

Each of these components is described in more detail below.

#### ***7.3.3.1 Frequency of Monitoring Activities***

The Recreation Monitoring Program includes two levels of monitoring:

1. Ongoing regular monitoring of recreation sites and use areas using readily available monitoring data collected during normal routine management of recreation facilities, such as paid fee receipts, traffic counts, observations made by patrol staff, public comments, etc.; and
2. More in-depth recreation activity counts or survey work conducted every 10-12 years, and periodic visitor surveys by DPR at selected recreation sites as needed.

Some indicators, to be determined as needed, should be monitored more frequently (every six years, for example) so that management actions can be taken before any standard is exceeded. Other consideration will include compliance and coordination with monitoring recommendations or requirements that may be part of Biological Opinions, if any. Table 7.3-1 also outlines the proposed monitoring schedule of each key indicator.

**Table 7.3-1. Recreation monitoring indicators and standards (triggers).**

Key Indicators	Goals to Track	Standards/Triggers	Methods of Measurement	Frequency	Potential Management Actions to Consider
<b>Visitor Perceptions, including Satisfaction, Crowding, and User Conflicts</b>	<ul style="list-style-type: none"> <li>Changes in social and qualitative values.</li> <li>Changes in visitor perceptions and preferences.</li> <li>Changes in visitor satisfaction and overall quality of user experience.</li> <li>User conflicts.</li> <li>Changes in crowding perceptions and related issues.</li> <li>Changes in user activity patterns.</li> </ul>	<ul style="list-style-type: none"> <li>Crowding perception (using a 9-point scale from relicensing visitor survey) with 4.0 for developed facilities for camping, boating, day use, and trail use.</li> <li>Consensus of visitors is that they are satisfied with their visit (per survey responses) – maintain or improve the visitor satisfaction rating defined in relicensing study results. Track trends in visitor satisfaction and suggestions for improvement in services and facilities by facility.</li> <li>Episodes of increasing crime and vandalism.</li> </ul>	<ul style="list-style-type: none"> <li>Conduct visitor surveys to get data on crowding perceptions, user conflicts, satisfaction with visits, facility likes/dislikes, etc. using random sampling techniques consistent with social science survey protocols (see frequency, right).</li> <li>Collect Project-wide user/activity counts (including on water boating) using random sampling techniques consistent with social science survey protocols (see frequency, right).</li> <li>Track by site, management unit, and project-wide.</li> <li>Review visitor comments collected by the Oroville Chamber of Commerce and trends.</li> <li>Timing and focus of visitor information collected, draft survey instruments, and proposed actions will be coordinated through the RAC.</li> <li>Annually track incidents of crime and vandalism through visitor health and safety management reports and input from site maintenance crews; analyze trends.</li> <li>Annually track public comments received by the RAC and LCU; analyze trends.</li> </ul>	<ul style="list-style-type: none"> <li>Larger baseline visitor surveys will be done Project-wide every other FERC Form 80 filing (10-12 years). Adjustments in timing from year to year may be made to account for unusual survey conditions (fires, closures, project maintenance, recession, etc.)</li> <li>Other targeted survey efforts will occur sooner, if needed, to help resolve site/area-specific issues. These may be done quarterly if needed to help determine trends, help provide management with further visitor information to make informed decisions. DWR will coordinate with DPR regarding customer (including concessionaire) survey efforts.</li> <li>Baseline visitor activity counts done project-wide every other FERC Form 80 filing (10-12 years), in addition to counts done daily and reported monthly/annually/biennially (via road counters and paid fee receipts).</li> <li>Biennially report incidents of crime and vandalism by area/site and related trends.</li> <li>Biennially report public comments received by the RAC and LCU and observations of related trends.</li> </ul>	<ul style="list-style-type: none"> <li>Expand existing facilities.</li> <li>Provide additional enforcement.</li> <li>Provide adequate buffers between uses.</li> <li>Site closures.</li> <li>Change visitor services.</li> <li>Increase visitor education (I&amp;E).</li> </ul>
<b>Developed Boat Ramp Facility and Use Levels (including Low Pool)</b>	<ul style="list-style-type: none"> <li>Boat ramp parking occupancy and use during the recreation season (both weekday and weekends) (used to trigger additional parking).</li> <li>Potential crowding during low pool conditions at remaining open boat ramps (Bidwell Canyon, Spillway, and Lime Saddle) at Lake Oroville.</li> <li>Boat ramp wait times (used to trigger new ramp lanes).</li> <li>Turn-away situations at entry stations during at-capacity timeframes.</li> </ul>	<ul style="list-style-type: none"> <li>For all occupancy triggers, must show a sustained trend of 2 consecutive non-declining threshold-exceedence years, or 3 threshold-years out of 5 consecutive years (with consideration for dry water years, wildfires, closures, etc).</li> <li>Weekday developed boat ramp and/or related parking occupancy average of 55% during the main recreation season (May 15 to Sept. 15) at each individual boat ramp.</li> <li>Weekend/holiday developed boat ramp and/or related parking occupancy average of 75% during the main recreation season (May 15-Sept. 15) at each individual boat ramp.</li> <li>15% of main recreation season days reach 90% occupancy average (or greater) at any individual developed boat ramp parking area.</li> <li>On-water boating density on Lake</li> </ul>	<ul style="list-style-type: none"> <li>Estimate the number of parked vehicles by conducting on-site observations using random sampling techniques consistent with social science survey protocols (see frequency, right).</li> <li>Conduct periodic on-water boat counts by sub-units during larger baseline surveys using random sampling techniques consistent with social science survey protocols (see frequency, right).</li> <li>Conduct boater surveys during larger baseline surveys using random sampling techniques consistent with social science survey protocols (see frequency, right).</li> <li>Conduct annual low pool monitoring at boat ramps when Lake Oroville is at or below 750 feet msl, and annually when 40% site capacity utilization is hit at each individual boat ramp, using random sampling techniques consistent with</li> </ul>	<ul style="list-style-type: none"> <li>Manual parked vehicle count data will be collected using a statistically representative random sampling technique consistent with social science survey protocols to represent use levels during recreation season weekdays, weekends, and holidays. Annual results will be reported biennially for all boat ramp parking areas. If parking use levels at a site are not approaching capacity, on-site parking counts will only be conducted every few years or as needed. Larger baseline on-water boat counts and visitor surveys will be conducted Project-wide every other FERC Form 80 filing (10-12 years; sooner if there is a site-specific need).</li> <li>Statistically representative random sampling techniques consistent with social science survey protocols for data collection will be conducted annually if and when a site hits 40% weekday or</li> </ul>	<ul style="list-style-type: none"> <li>Expand existing facilities (more mooring buoys, parking stalls, or ramp lanes).</li> <li>Increase site efficiency (more docks or staff to direct boaters).</li> <li>Provide additional visitor management and/or enforcement.</li> <li>Change visitor services or increase O&amp;M.</li> <li>Increase visitor education (I&amp;E).</li> </ul>

**Table 7.3-1. Recreation monitoring indicators and standards (triggers).**

Key Indicators	Goals to Track	Standards/Triggers	Methods of Measurement	Frequency	Potential Management Actions to Consider
		<p>Oroville of 25 acres/active boat, assessed reservoir-wide and for 6 sub-units. Lower boating density on other project water bodies (will vary).</p> <ul style="list-style-type: none"> <li>• Increased monitoring effort is triggered when a 40% weekday or 60% weekend “approaching” developed boat ramp trailer parking occupancy average is reached at each individual boat ramp.</li> <li>• Increased monitoring effort is triggered at developed boat ramps when the Lake Oroville pool level drops to 750 feet msl.</li> <li>• Average wait time to launch or retrieve a boat at Lake Oroville during any 2 hour peak daily period exceeds 30 min. This criterion will apply during low pool monitoring periods (750 feet msl or below) and periods when boat ramp use is approaching parking capacity (40% weekday or 60% weekend parking occupancy).</li> <li>• Boat ramp launch and retrieve wait time at the Lime Saddle Boat Ramp is analyzed independently of other Lake Oroville boat ramps.</li> <li>• Boat ramp launch and retrieve wait times at Loafer Creek, Bidwell Canyon, and Spillway Boat Ramps are analyzed collectively as a group when Lake Oroville pool levels are above 775 feet msl.</li> <li>• Boat ramp launch and retrieve wait times at Spillway and Bidwell Canyon Boat Ramps (Loafer Creek Boat Ramp is dewatered) are analyzed collectively as a group between 775 feet and 725 feet msl.</li> <li>• Boat ramp launch and retrieve wait time criterion will be applied solely to the Bidwell Canyon Boat Ramp below 725 feet msl. If the criterion is exceeded, an additional ramp lane will be added at the Spillway Boat Ramp down to elevation 695 feet msl. If security concerns preclude additional Spillway Boat Ramp lanes to be constructed below 725 feet msl, additional lane needs will be added at either the Bidwell Canyon Boat Ramp or the new Loafer Creek Car-top Boat Ramp.</li> <li>• Boat ramp launch and retrieve wait time</li> </ul>	<p>social science survey protocols (see frequency, right).</p> <ul style="list-style-type: none"> <li>• Count turn-aways manually at entry stations during peak use conditions (when use is at capacity --100%).</li> <li>• Analyze wait time using random sampling techniques consistent with social science survey protocols (see frequency, right) by (1) conducting periodic larger baseline visitor surveys Project-wide that analyze responses to questions similar to those asked during relicensing visitor surveys, and (2) conduct periodic random use counts (weekends and holidays) by on-site observers at Lake Oroville boat ramps made during periods of low pool level and/or when use levels at boat ramps are approaching capacity (40% weekday and 60% weekend trailer parking capacity).</li> <li>• Days when fishing tournaments occur and days when boat ramp lanes are temporarily blocked for operational or maintenance reasons are excluded from the analysis.</li> <li>• Review feedback from fishing tournament operators to help minimize delays and access problems.</li> </ul>	<p>60% weekend average (approaching) parking capacity utilization.</p> <ul style="list-style-type: none"> <li>• At or below level 750 feet msl at Lake Oroville, representative weekends and holidays will be surveyed at open boat ramps to assess wait times and parking capacity during the peak recreation season.</li> <li>• Biennial reporting of data collected annually (DWR use reports), every 6 years (FERC Form 80 by DWR), and every 10-12 years (larger baseline studies).</li> </ul>	

**Table 7.3-1. Recreation monitoring indicators and standards (triggers).**

Key Indicators	Goals to Track	Standards/Triggers	Methods of Measurement	Frequency	Potential Management Actions to Consider
		<p>criterion will be applied to the Bidwell Canyon boat Ramps including the Bidwell #3 ramp; and DWR is committing to a third boat ramp lane at Bidwell Canyon Boat Ramp #1 to be constructed by DWR between elevations 781 feet and 745 feet msl, and possibly a fourth new ramp lane if technically feasible, providing the total estimated cost for additional lane(s) does not exceed 20% of the Bidwell Canyon Boat Ramp #3 construction project final design estimate. This work will be done concurrent with the first phase of Bidwell Canyon Boat Ramp #3 project or sooner where phased construction of ramp lanes with 50 foot, 30 foot, and 30 foot (vertical dimension) segments are anticipated.</p> <ul style="list-style-type: none"> <li>• Turn-aways at entry stations will be considered in the calculations (when use levels reach capacity -- 100%).</li> </ul>			
<p><b>Developed Campground Capacity Utilization</b></p>	<ul style="list-style-type: none"> <li>• Campground capacity (individual sites and group sites) and use during the recreation season (both weekday and weekends).</li> <li>• Trends in use levels.</li> <li>• Track turn-away situations on-site at entry stations.</li> </ul>	<ul style="list-style-type: none"> <li>• For occupancy triggers, must show a sustained trend of 2 consecutive non-declining threshold-exceedence years, or 3 threshold-years out of 5 consecutive years (with consideration for dry water years, wildfires, closures, etc.).</li> <li>• Weekday campground site occupancy average of 55% during the recreation season (Memorial Day to Labor Day) at any individual campground (individual sites and group sites).</li> <li>• Weekend/holiday campground site occupancy average of 75% during the recreation season (Memorial Day to Labor Day) at any individual campground (individual sites and group sites). Increased monitoring when 40% weekday or 60% weekend (approaching) campground site occupancy average is hit at any individual campground (individual sites and group sites).</li> <li>• Increased monitoring when 15% of season days reach 90% occupancy average or greater at campground sites at any individual campground (individual sites and group sites).</li> <li>• Turn-aways will be considered in calculations (when use levels near</li> </ul>	<ul style="list-style-type: none"> <li>• Periodically conduct larger baseline camping visitor surveys and activity counts using random sampling techniques consistent with social science survey protocols (see frequency, right).</li> <li>• Review paid fee receipts at campgrounds and relate to campground capacity.</li> <li>• Increased assessment of campgrounds will be conducted when 40% weekday or 60% weekend (approaching) site capacity utilization average is hit at any individual campground such as monitoring potential resource damage, user conflicts, and crowding, using random sampling techniques consistent with social science survey protocols (see frequency, right).</li> <li>• Turn-aways will be counted manually at entry stations during peak use conditions (when use levels near 100% capacity). RV, tent and group site users will be differentiated.</li> </ul>	<ul style="list-style-type: none"> <li>• Paid fee receipts will be collected daily, and reported monthly.</li> <li>• Larger baseline activity counts and visitor surveys will be conducted every other FERC Form 80 filing (10-12 years), or sooner if there is a site-specific need.</li> <li>• Annual assessments will be conducted when site capacity utilization hits 40% weekday or 60% weekend (approaching) capacity.</li> <li>• If no first-come/first served campsites are available, turn-aways will be counted on-site at entry stations (RV, tent sites to be differentiated).</li> <li>• Monitor annually to assess campground capacity.</li> <li>• Biennial reporting of data collected daily/monthly/annually (DWR use reports), every 6 years (FERC Form 80 by DWR), and every 10-12 years (larger baseline studies).</li> </ul>	<ul style="list-style-type: none"> <li>• Expand existing facilities (more campsites – individual or group).</li> <li>• Add campground amenities.</li> <li>• Direct visitors to other available sites.</li> <li>• Offer incentives to redistribute use (to other sites or shoulder seasons).</li> <li>• Provide additional visitor education (I&amp;E).</li> </ul>

**Table 7.3-1. Recreation monitoring indicators and standards (triggers).**

Key Indicators	Goals to Track	Standards/Triggers	Methods of Measurement	Frequency	Potential Management Actions to Consider
<p><b>Developed Day Use Area Capacity Utilization</b></p>	<ul style="list-style-type: none"> <li>Developed day use area/site capacity and use during the recreation season (both weekend and weekends).</li> <li>Trends in use levels.</li> <li>Track turn-away situations at entry stations (if available).</li> </ul>	<p>100% capacity). Campsite preference will be noted (RV, tent, RV group, and equestrian group).</p> <ul style="list-style-type: none"> <li>For occupancy triggers, must show a sustained trend of 2 consecutive non-declining threshold-exceedence years, or 3 threshold-years out of 5 consecutive years (with consideration for dry water years, wildfires, closures, etc.).</li> <li>Weekday developed day use area parking occupancy average of 55% during the recreation season (May 15 to Sept. 15) at any individual facility.</li> <li>Weekend/holiday developed day use area parking occupancy average of 75% during the recreation season (May 15 to Sept. 15) at any individual facility.</li> <li>Increased monitoring when 40% weekday or 60% weekend (approaching) parking occupancy average is hit at any individual facility.</li> <li>Conduct site-specific capacity and condition assessments of picnic tables and swimming areas when 40% weekday or 60% weekend occupancy average is reached at each individual day use area.</li> <li>Increased monitoring when 15% of main recreation season days reach 90% parking occupancy average or greater at any individual facility.</li> <li>Turn-aways will be considered in calculations (when use levels reach 100% parking capacity).</li> </ul>	<ul style="list-style-type: none"> <li>Conduct larger baseline day use visitor surveys and activity counts using random sampling techniques consistent with social science survey protocols (see frequency, right).</li> <li>Collect road counter data at developed day use areas.</li> <li>Increased assessment of developed day use areas will be conducted using random sampling techniques consistent with social science survey protocols (see frequency, right) when 40% weekday or 60% weekend (approaching) site capacity utilization average is hit at any individual day use area such as monitoring potential resource damage, user conflicts, and crowding. Additional assessments of picnic and swimming areas will also be considered when use levels approach capacity including facility condition and capacity.</li> <li>Turn-aways will be counted manually at entry stations (where they exist) during peak use conditions.</li> </ul>	<ul style="list-style-type: none"> <li>Road counter data will be collected daily and reported biennially.</li> <li>Larger baseline activity counts and surveys will be done every other FERC Form 80 filing (10-12 years), or sooner if there is a site-specific need.</li> <li>Annual data reporting when a site hits 40% weekday or 60% weekend (approaching) capacity utilization average.</li> <li>If at full capacity, count turn-aways.</li> <li>Assess site parking capacity biennially.</li> <li>Biennial reporting of data collected daily/monthly/annually (DWR use reports); every 6 years (FERC Form 80 by DWR); and every 10-12 years (larger baseline studies).</li> </ul>	<ul style="list-style-type: none"> <li>Expand existing facilities (parking, picnics sites, beach area, etc.).</li> <li>Redistribute use by providing visitors with information about alternative sites.</li> <li>Increase enforcement.</li> <li>Add new site amenities.</li> <li>Provide additional visitor education (I&amp;E).</li> </ul>
<p><b>Developed Trail Facility Capacity and Trail Use</b></p>	<ul style="list-style-type: none"> <li>Trailhead capacity and use during the recreation season (April-May in spring, September-October in fall, both weekday and weekends).</li> <li>Trends in use levels.</li> <li>Trail user experience and potential user conflicts.</li> <li>Parking capacity at trailheads to be defined allowing for adequate circulation of vehicles with trailers.</li> </ul>	<ul style="list-style-type: none"> <li>For occupancy triggers, must show a sustained trend for 2 consecutive non-declining threshold-exceedence years, or 3 threshold-years out of 5 consecutive years.</li> <li>Weekday trailhead parking occupancy average of 55% during the primary trail use recreation season (parking capacity at each trailhead to allow for adequate circulation of trailers).</li> <li>Weekend/holiday trailhead occupancy average of 75% during the primary trail use recreation seasons (parking capacity at each trailhead to allow for adequate circulation of trailers).</li> <li>Increased monitoring when a trailhead hits 40% weekday or 60% weekend</li> </ul>	<ul style="list-style-type: none"> <li>Conduct larger trail use visitor surveys and activity counts using random sampling techniques consistent with social science survey protocols (see frequency, right).</li> <li>Collect periodic roving use counts at trailheads using random sampling techniques consistent with social science survey protocols (see frequency, right).</li> <li>Increase monitoring at trailheads and selected trail segments using random sampling techniques consistent with social science survey protocols (see frequency, right) when 40% weekday or 60% weekend (approaching) site capacity utilization average is hit at any</li> </ul>	<ul style="list-style-type: none"> <li>Roving use counts at trailheads conducted every 5 years, using random sampling techniques with a sufficient number of sampling dates to estimate peak season use consistent with social science survey protocols.</li> <li>Larger activity counts and surveys done every other FERC Form 80 filing (10-12 years), or sooner if there is a site specific need.</li> <li>Annual data collection (roving use counts, as above) conducted when a site hits 40% weekday or 60% weekend (approaching) capacity utilization average.</li> <li>Assess capacity biennially.</li> <li>Report findings biennially within DWR's</li> </ul>	<ul style="list-style-type: none"> <li>Expand existing trailheads (parking).</li> <li>Increase resource protection measures.</li> <li>Provide additional trail user education (I&amp;E).</li> <li>Communicate trail use designation changes.</li> <li>Implement trail design changes.</li> <li>Reconnaissance and feasibility study, and possible construction, of new trails or trail segments.</li> </ul>

**Table 7.3-1. Recreation monitoring indicators and standards (triggers).**

Key Indicators	Goals to Track	Standards/Triggers	Methods of Measurement	Frequency	Potential Management Actions to Consider
		<p>occupancy average for the season at any individual site (parking capacity at each trailhead to allow for adequate circulation of trailers).</p> <ul style="list-style-type: none"> <li>Number of reported trail user conflicts is significantly higher compared to baseline survey results.</li> </ul>	<p>individual trailhead.</p> <ul style="list-style-type: none"> <li>Monitor trail user conflicts on selected trails if issues are identified.</li> <li>Annual anecdotal input from volunteer trail assistance group(s).</li> </ul>	<p>other biennial report.</p>	
<b>Undeveloped Dispersed Site Creep, Pioneering, and Occupancy</b>	<ul style="list-style-type: none"> <li>Use and resource impacts associated with undeveloped dispersed recreation sites, primarily in the OWA.</li> <li>Sites and use areas that are inconsistent with the future OWA Management Plan would be excluded from study by virtue of their proposed closure.</li> <li>Spread of new dispersed sites over time.</li> <li>Increase in the size of existing sites over time.</li> <li>Responses to management actions over time.</li> </ul>	<ul style="list-style-type: none"> <li>Camping allowed in designated areas only. Other areas to exclude camping.</li> <li>10% expansion of site area impact from baseline.</li> <li>10% increase in the total number of sites from baseline.</li> <li>5% or less expansion into adjoining OWA areas from baseline, with the objective of no creep into sensitive fish and wildlife habitats (areas containing migratory birds, listed species, or associated habitat).</li> <li>50% seasonal capacity utilization average during the recreation season (Memorial Day to Labor Day).</li> </ul>	<ul style="list-style-type: none"> <li>Identify and track sites over time.</li> <li>Document the baseline conditions of significant sites of concern including size, impacts, and proximity to sensitive areas.</li> <li>Compare changes in selected site conditions over time (creep) and future new sites (pioneer) with baseline conditions.</li> <li>Conduct selected site observations, assessments and counts during the recreation season, using random sampling techniques consistent with social science survey protocols (see frequency, right).</li> </ul>	<ul style="list-style-type: none"> <li>Monitor site occupancy of representative or target sites every 5 years (or sooner if a site is near a critical/sensitive area).</li> <li>Identify and assess site pioneering and site creep every 5 years.</li> </ul>	<ul style="list-style-type: none"> <li>Erect barriers to better define site/road boundaries.</li> <li>Provide additional enforcement.</li> <li>Provide increased visitor education (I&amp;E).</li> <li>Harden some sites.</li> <li>Close some sites (temporarily or permanently).</li> <li>Increase cleanup activities (O&amp;M).</li> </ul>

Source: Developed by DWR and EDAW, Inc. 2005.



**Monument Hill Day Use Area and Boat Ramp on the Thermalito Afterbay.**

**Table 7.3-2. Monitoring locations by management unit and monitoring area in the Oroville Facilities project area.**

Management Unit	Monitoring Area	Selected Monitoring Sites/Areas
Lake Oroville (Land)	Lime Saddle	<ul style="list-style-type: none"> <li>• Lime Saddle Campground</li> <li>• Lime Saddle Group Campground</li> <li>• Lime Saddle BR/DUA/Marina*</li> </ul>
	Spillway	<ul style="list-style-type: none"> <li>• Spillway BR*</li> <li>• Spillway DUA*</li> </ul>
	Bidwell Canyon	<ul style="list-style-type: none"> <li>• Bidwell Canyon BR/DUA*</li> <li>• Bidwell Canyon Campground*</li> <li>• Bidwell Canyon Marina*</li> </ul>
	Loafer Creek	<ul style="list-style-type: none"> <li>• Loafer Creek Campground*</li> <li>• Loafer Creek Group Campground*</li> <li>• Loafer Creek Equestrian Campground*</li> <li>• Loafer Creek DUA*</li> <li>• Loafer Creek BR*</li> </ul>
	Car-top Boat Ramps	<ul style="list-style-type: none"> <li>• Dark Canyon Car-top Boat Ramp*</li> <li>• Nelson Bar Car-top Boat Ramp*</li> <li>• Vinton Gulch Car-top Boat Ramp*</li> <li>• Foreman Creek Car-top Boat Ramp*</li> <li>• Stringtown Car-top Boat Ramp*</li> </ul>
	Other Sites	<ul style="list-style-type: none"> <li>• Enterprise Boat Ramp*</li> <li>• Saddle Dam Trailhead Access</li> <li>• Lake Oroville Visitors Center*</li> <li>• Oroville Dam Overlook DUA*</li> <li>• Boat-in Campgrounds</li> <li>• Floating Campsites</li> </ul>
Lake Oroville (Water)	Main Basin Sub-unit	<ul style="list-style-type: none"> <li>• Main Basin and associated coves at Spillway, Potters Ravine, Canyon Creek, Loafer Creek, and Bidwell Canyon</li> </ul>
	Middle Fork Sub-unit	<ul style="list-style-type: none"> <li>• All water areas on Middle Fork arm (upstream of Bidwell Bar bridge)</li> </ul>
	South Fork Sub-unit	<ul style="list-style-type: none"> <li>• All water areas on South Fork arm (upstream of confluence with Middle Fork arm)</li> </ul>
	Lower North Fork Sub-unit	<ul style="list-style-type: none"> <li>• All water areas on North Fork arm between Main Basin and confluence with West Branch</li> </ul>
	Upper North Fork Sub-unit	<ul style="list-style-type: none"> <li>• All water areas on North Fork arm upstream of confluence with West Branch</li> </ul>
	West Branch Sub-unit	<ul style="list-style-type: none"> <li>• All water areas on West Branch (upstream of confluence with North Fork)</li> </ul>
Diversion Pool	–	<ul style="list-style-type: none"> <li>• Lakeland Boulevard Trailhead Access</li> <li>• Diversion Pool DUA* (add new DUA also)</li> <li>• Feather River Fish Hatchery DUA*</li> </ul>
Thermalito Forebay	–	<ul style="list-style-type: none"> <li>• North Thermalito Forebay BR/DUA and Aquatic Center*</li> </ul>
		<ul style="list-style-type: none"> <li>• South Thermalito Forebay BR/DUA*</li> </ul>

**Table 7.3-2. Monitoring locations by management unit and monitoring area in the Oroville Facilities project area.**

Management Unit	Monitoring Area	Selected Monitoring Sites/Areas
Thermalito Afterbay	–	• Wilbur Road BR*
		• Monument Hill BR/DUA*
		• Larkin Road Car-top Boat Ramp*
		• South Wilbur Road Dispersed/Shoreline Area*
OWA	–	<ul style="list-style-type: none"> <li>• Afterbay outlet*</li> <li>• Five additional OWA entrances providing access to dispersed use areas*</li> </ul>

*Note: DWR maintains traffic counters to monitor use levels at 24 locations (Appendix E), which provide use data for the listed monitoring sites followed by an asterisk (\*). Single counters provide aggregate monitoring data for several associated sites at the Lime Saddle, Spillway, Bidwell Canyon, and Loafer Creek complexes at Lake Oroville. Counters are also installed at the Feather River Fish Hatchery DUA, the only developed recreation site on the Low Flow Channel of the Feather River within the project boundary and upstream of the OWA. Source: Developed by EDAW, Inc. 2004*

### 7.3.3.2 Monitoring Management Actions

Based on the available data gathered during yearly and periodic monitoring, potential management actions for each management unit should be considered by DWR. Management options are listed in Table 7.3-1 and may also include:

- Plan, design, expand, renovate, and/or construct facilities in one or more phases;
- Increase monitoring efforts as needed, such as collecting more detailed visitor counts at facilities in question;
- Begin planning and designing new facilities or renovation;
- Pursue or wait on new construction;
- Modify monitoring indicators if conditions warrant; and
- Increase visitor information to redistribute use patterns.

Other management actions may also be considered as appropriate in consultation with other recreation providers in the project area.

### 7.3.3.3 Reporting Requirements

Periodic assessment reports will be prepared by DWR for each management unit (per FERC Form 80 [Appendix E] reporting requirements) and will document:

- Data collection and statistical methods applied in analyzing monitoring data;
- Success of developed recreation visitor management efforts;
- Recreation facility use levels and counts;
- Trends in recreation facility use; and
- Projected needs based on monitoring indicators and standards.

The FERC Form 80 reporting process, as amended (currently required by FERC every six years from licensees), will also be used as an opportunity to analyze and report on visitor trends, whether monitoring thresholds have been exceeded, success of visitor control measures, decisions reached based on monitoring results, and plans for the next monitoring timeframe.

Detailed monitoring and reporting requirements will be developed and funded by DWR for project-related recreation needs and their associated facilities, sites, and operation and maintenance. Standardized monitoring and reporting forms will include FERC Form 80 (Appendix E), as amended, as well as additional ones such as facility condition inspection forms and recreation site use count forms.

Monitoring personnel will be qualified, either through education or experience, and/or will be adequately trained on how to conduct the monitoring effort and complete the forms in a consistent manner. DWR staff, contractors, and/or concessionaires may be used for this purpose. These forms will be compiled and analyzed by site, management unit, and reservoir area, as appropriate, within the time period appropriate for any respective study.

#### ***7.3.3.4 Decision-Making Related to New Facility Construction***

DWR will conduct periodic recreation planning and coordination meetings with stakeholders and other recreation providers in the project area, in addition to RAC meetings, as appropriate. At these meetings, it is expected that recreation resource management data for the project area will be discussed. Proposed recreation actions and enhancements and their phasing (as listed in Appendix A) will be assessed at these periodic meetings. The estimated date of construction may move forward or backward. Management actions to consider include:

- Plan, design, expand, renovate, and/or construct facilities in one or more phases;
- Conduct necessary environmental review and permitting;
- Modify monitoring efforts as needed, such as using staff or volunteers to collect more detailed visitor counts at selected sites in question;
- Begin planning and designing new facilities or renovation;
- Pursue or wait on new construction;
- Modify monitoring indicators if conditions warrant;
- Increase visitor information about less-crowded facilities and use areas in the project area;
- Consider issues related to existing or potential future reservation systems; and
- Collectively participate in grant applications.

Other management actions may also be considered as appropriate.

#### **7.4 RESOURCE INTEGRATION AND COORDINATION PROGRAM**

The Resource Integration and Coordination Program is a formalized process whereby DWR would make coordinated, timely, and informed decisions related to implementation of the RMP and other project-related resource management plans. Because of simultaneous activities occurring by various resource groups and by other resource agencies, both formal and informal communications are necessary over the term of the new license. An important goal of communication is to achieve a balanced integration of sometimes competing and sometimes complementary resource goals for project lands and waters. This goal will be considered achieved when interests and concerns have been adequately addressed or met to the fullest extent possible.

The Resource Integration and Coordination Program includes the following four elements to be implemented by DWR:

- As appropriate and allowed by FERC, DWR will provide relevant information used to make resource decisions, including non-sensitive geographic information system (GIS) and other data, on-the-ground knowledge, and monitoring data. It is proposed that this information will be available upon request through the LCU.
- DWR will help clarify resource goals, objectives, and priorities per the new License Order Terms and Conditions as necessary.
- DWR will help coordinate and conduct, as necessary, studies or consultation that help solve particular problems or resolve specific issues.
- DWR will endeavor to address stakeholder disputes through the LCU (see Section 7.4.3).

Ongoing and regular consultation and coordination meetings among agencies and stakeholders will occur in the RAC (Section 4.4). DWR proposes that three elements of the LCU be implemented with the new license to encourage greater involvement by the general public:

1. Community workshops designed to share information;
2. A web-based bulletin board; and
3. A dispute resolution process.

All of these elements are aimed at improving community involvement and are described below in more detail.

#### **7.4.1 Community Workshops**

The licensee will conduct periodic workshops to update the community on the progress of projects associated with the new FERC license. The purpose will be to inform the community on the progress of projects associated with license requirements, reservoir conditions, operations, and other issues related to implementation of the final RMP. Interested citizens and members of the public will be encouraged to discuss recreation-related items and issues during these meetings. In addition to the general public, representatives of Butte County, City of Oroville, and other affected cities, local agencies, and non-governmental organizations (NGOs), will be invited to participate. Community Workshops may also include information from the Ecological Committee that is also proposed as part of the new license.

Workshops will be noticed in newspapers and/or other venues well in advance. These meetings will be held semi-annually (twice a year) in the evening at a convenient community venue in the Oroville area. Meeting frequency could increase or decrease, depending on the need to present information, but would not be held less frequently than annually.

#### **7.4.2 Bulletin Board**

The licensee will maintain a web-based Oroville license bulletin board. It will be updated approximately monthly, or as needed, with project status reports, milestones, community events, license events, meeting notes, etc. covering all resource areas of the new license.

#### **7.4.3 Dispute Resolution Process**

Disputes associated with the FERC license will be brought to the attention of DWR's LCU. The LCU will investigate and evaluate disputes and recommend a course of action to resolve each dispute. The licensee will be the final arbitrator of license proposals and compliance disputes and, as such, will accept or deny proposed projects or expenditures as appropriate. Stakeholders retain the option of taking unresolved disputes through the Administrative Process provided in the Settlement Agreement or ultimately to FERC.

### **7.5 PLAN REVIEW AND REVISION PROGRAM**

Recreation and resource conditions can be expected to change over time. It is likely that unforeseen recreation needs, changes in visitor preferences and attitudes, new recreation technologies, or other resource issues will arise over the course of the new license term. As a result, the RMP may be updated and/or revised. Revision of the RMP will require that changes be fully documented.

The frequency with which the RMP is revised or updated will depend on significant changes to existing conditions, monitoring results, and management responses made over time. DWR will determine the frequency of RMP updates in consultation with other

ORCA members, but not more often than once every 12 years (two FERC Form 80 [Appendix E] cycles). However, the following guidelines should be considered over time for efficiency and continuity purposes:

- RMP Sections 1 through 8 should be updated approximately every 12 years (two FERC Form 80 cycles) as conditions change.
- Proposed recreation measures, estimated costs, and recreation site conceptual plans (Appendices A, B, C, and D) should be updated every 12 years, if needed.
- Monitoring information should be updated every six years (just ahead of one FERC Form 80 cycle) based on success of monitoring indicators and standards, and then reviewed every 12 years thereafter based on ongoing monitoring results.
- Portions of the baseline recreation information should also be updated based on information from any additional follow-on studies conducted approximately every 12 years.

Table 7.5-1 outlines the RMP revision schedule.

**Table 7.5-1. RMP revision schedule.**

RMP Components	Frequency of Potential Revisions		
	Annually	6 Years	12 Years
RMP Sections 1 through 8	If needed by DWR		X
FERC Form 80, as amended		X	
Proposed recreation measures, estimated costs, and recreation site conceptual plans (Appendices A to D if needed)	If needed by DWR		X
Baseline recreation information, whenever new report data are developed			X

*Source: Developed by DWR and EDAW, Inc. 2004*

## 7.6 INTERPRETATION AND EDUCATION PROGRAM

The Interpretation and Education (I&E) Program serves several purposes, including providing enhanced experiences for residents and visitors, encouraging participation in resource protection measures by area visitors, and promoting cooperative, safe behaviors to benefit all project area recreation resources and visitors. DWR, with input

from DPR and DFG and other recreation providers and agency resource managers in the project area, will coordinate the project's I&E Program. The I&E Program is intended to be focused at project sites but also has a broader context.

The I&E Program will be coordinated with and complement the existing DWR, DPR, and DFG I&E efforts in the project area, such as those as described in and contemplated by the LOSRA General Plan. Currently, the Lake Oroville Visitors Center serves as the hub for I&E programs and services in the project area. Through implementation of the RMP's I&E Program, the project area's themes will be consistently disseminated at not only the Lake Oroville Visitors Center, but also at all other Project 2100 recreation and public use areas.

The RMP I&E Program will continue to implement the already-developed I&E goals and objectives contained in DPR's LOSRA General Plan. The general goal of I&E according to the LOSRA General Plan is "to increase visitor understanding, appreciation, and enjoyment of the recreational, natural, cultural, and aesthetic resources of the park and the Lake Oroville region" (DPR 2004). The I&E Program will remain consistent with the scope of programs administered and conducted at similar sites (State Recreation Areas and State Parks, Statewide), as well as provide more specific direction regarding project area-wide and site-specific interpretive themes, programs, and services.

The I&E Program includes:

- **Themes**—Review and selection of appropriate themes. Themes identified in the LOSRA General Plan include natural resources (geology, water cycle, plant communities, fish, and wildlife), Maidu culture and history (preserving archaeological sites, interaction with the natural environment, trade items and trade networks, contact with Western peoples and culture, and Ishi), American settlement period, the water project (California Water Project, construction of Oroville Dam, and the benefits of hydropower), recreation opportunities, environmental and cultural stewardship (preserving the land, cultural views of land use, understanding of importance of protecting culture and environment, and the role and dangers of wildfires), and interpretive collections. Other potential themes may include fish and wildlife with possible "Watchable Wildlife" sites (such as at the Monument Hill BR/DUA), water and energy conservation, other local Native American history, volcanic history, boating hazards, and others.
- **Media**—Periodic review and selection of appropriate interpretive media to be used, such as signs and kiosks (roadside and at key sites), brochures, pamphlets, and others.
- **Media Design**—Periodic review and selection of consistent interpretive media design, such as fonts, logos, layouts, colors, graphics, and others.

- **Prioritized Sites**—Periodic review and selection of prioritized DWR-managed sites where the interpretive media will be located, such as at existing recreation sites.
- **Prioritized Services**—Periodic review and selection of services to be provided at DWR-managed sites, such as reservoir clean-up day events and providing lake level information.

Appendix A includes approximate cost estimates for I&E Program facilities, artwork, design costs, and other costs (in many cases, these estimates are included within capital and O&M estimates allocated to specific recreation areas, as noted in Appendix A). Continuing through implementation of the I&E Program, designs for signs, brochures, artwork, and other features will be the responsibility of DWR's Public Affairs Office (formerly the Office of Water Education), DPR's Interpretation and Education Division, and DFG's Office of Natural Resource Education. Signs and kiosks, and the artwork to go into them, will be created and periodically updated. Emphasis will be on maintaining quality media and programs, and in delivering consistent messages throughout the project. Once constructed, the media will be sited and installed at selected sites as appropriate and necessary. To the extent possible, all interpretive media located within the project area should be easily maintained and vandal-resistant.

To maintain the I&E Program over the term of the new license, DWR, DPR, and DFG will coordinate and provide long-term support for the program including annual O&M funding, such as repair of vandalism to signs and kiosks, and the updates of signs over time. In Appendix A, the I&E Program includes a support component to help maintain the program over the term of the new license including implementation of appropriate maintenance procedures and practices, such as replacement of vandalized signs or changes in the messages of signs.

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**Aerial view of Lime Saddle Area and Lake Oroville.**

## **APPENDIX A**

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### **Proposed Recreation Measures, Schedules, and Estimated Costs for Actions within the FERC Project Boundary**

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**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Ensure adequate adjustment of boarding dock(s).</li> <li>• Ensure adequate and timely debris removal at boat ramp for safe boat launching.</li> <li>• Provide boaters with additional information about substitute boating facilities.</li> <li>• Explore additional dry boat storage in the Marina/Boat Ramp areas as an added element in the new concessionaire contract.</li> <li>• Make the underutilized group meeting facility available for use as a concessionaire operated campground activity center and store/snack bar</li> <li>• Provide annual O&amp;M.</li> </ul>	<p>Concessionaire, DPR</p> <p>DPR, DWR</p> <p>DPR, DWR</p> <p>Concessionaire, DPR</p> <p>Concessionaire, DPR</p> <p>DPR, DWR</p>	<p>L 1 to L 5</p>	<p>Included above</p> <p>Included above</p> <p>Included above</p> <p>Concessionaire cost</p> <p>Concessionaire cost</p> <p>Included above</p>
<p><b>Loafer Creek Complex (Boat Ramp/Day Use Area/ Campground/ Group Campgrounds)</b></p>	<p><u>Capital Improvements:</u></p>			<p>\$5,420,000 Total Capital (L1)</p> <p>L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget</p>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Conduct a feasibility study of new swim facility options at this and other Project No. 2100 locations. This site would receive priority given the existing swim facility. If a feasible and cost-effective option is identified at this site by DWR, compared to other Project No. 2100 sites, it will be constructed and then operated during the swimming season.</li> </ul>	DWR	L 1	Included above
	<ul style="list-style-type: none"> <li>• Provide one new floating dock to maximize boat launching capacity. The existing floating dock may be replaced with a new single, longer (80 ft) dock following DBW review.</li> </ul>	DBW, DWR	L 1	Included above
	<ul style="list-style-type: none"> <li>• Restore the former vandalized portable toilet at nearby Brooks Orchard with a new single-vault toilet building.</li> </ul>	DWR, DPR	L1	Included above
	<ul style="list-style-type: none"> <li>• Provide a new fish cleaning station connected to existing infrastructure (location to be determined).</li> </ul>	DWR, DPR	L1	Included above
	<ul style="list-style-type: none"> <li>• Provide ADA enhancements to some campsites and the parking area at the Group and Equestrian Campgrounds.</li> </ul>	DWR, DPR	L 1	Included above
	<ul style="list-style-type: none"> <li>• Provide hardened ADA-accessible paths from the parking area and restrooms to the lower picnic area and swimming cove/beach.</li> </ul>	DWR, DPR	L 1	Included above
	<ul style="list-style-type: none"> <li>• Provide 2 new group RV campsites near the existing group campsites.</li> </ul>	DWR, DPR	L 1	Included above

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Provide up to 15 new RV campsites near or adjacent to the existing Loafer Creek Campground (if all 38 RV campsites cannot be reasonably relocated within the Bidwell Canyon Complex, as noted previously).</li> <li>• Construct equestrian-related improvements at the Equestrian Campground including a new paved access road, new feeder boxes, and a 50-foot round pen (Interim Project).</li> <li>• In conjunction with the swim facility feasibility study, evaluate the feasibility of a concessionaire operated campground activity center and store/snack bar.</li> <li>• Widen, grade, and gravel the existing dirt service road at the Loafer Creek DUA to approximately 750 feet msl elevation. Open the gated service road to the public when the Loafer Creek Boat Ramp becomes dewatered to allow car-top boat launching within the Loafer Creek Complex.</li> </ul>	<p>DWR, DPR</p> <p>DPR, DWR</p> <p>DWR, DPR</p> <p>DPR, DWR</p>	<p>L 1</p> <p>L 1 (Completed)</p> <p>L 1</p> <p>L 1</p>	<p>Included above</p> <p>Included above</p> <p>Included above</p> <p>Included above</p>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Based upon monitoring results during L2 to L5 phases and determination of a need, provide approximately 35 (if 15 from Bidwell Canyon Campground have previously been constructed) to approximately 50 new RV/tent campsites within the Loafer Creek Complex. Reevaluate the current mix of campsite types (RV versus tent) and modify the design to meet current demand if needed.</li> <li>• Based upon monitoring results during L2 to L5 phases and a determination of a need, provide up to 2 new group campsites, utilizing existing infrastructure where possible.</li> <li>• Based upon monitoring results during L2 to L5 phases and a determination of a need, provide additional parking (vehicle and trailer) at the boat ramp.</li> </ul>	<p>DPR, DWR</p> <p>DPR, DWR</p> <p>DPR, DWR</p>	<p>L 2 to L 5 (threshold dependent)</p> <p>L 2 to L 5 (threshold dependent)</p> <p>L 2 to L 5 (threshold dependent)</p>	<p>Included in L2 to L5 budget</p> <p>Included in L2 to L5 budget</p> <p>Included in L2 to L5 budget</p>
	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• Explore the feasibility of permitting a concessionaire to construct rental cabins or similar lodging in the Loafer Creek Complex.</li> <li>• Ensure adequate debris removal at boat ramp for safe boat launching.</li> </ul>	<p>DPR, DWR</p> <p>DPR, DWR</p>	<p>L 1 to L 5</p> <p>L 1 to L 5</p>	<p>\$1,075,000 Annual O&amp;M w/ L1 Enhancements</p> <p>Included above</p> <p>Included above</p>



**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Based upon the results of the swim facility feasibility study, monitoring results during L2 to L5 phases, and determination of a sustained need for a second new swim facility within the Lake Oroville area, provide and operate a new swim facility at this site (site and type to be determined). This action assumes that a new swim facility has already been constructed at the Loafer Creek Complex, the most likely location.</li> <li>• Based upon monitoring results during L2 to L5 phases and determination of a need, provide a new cove day use/ picnic area with picnic tables, ramadas, and pole stoves, and a new non-motorized, multiple-use trail linking the existing Campground with the existing Marina/Boat Ramp area around Parish Cove.</li> <li>• Upgrade or replace 13 older existing picnic tables and pole stoves and 7 existing shade ramadas to make them consistent with other Project day use sites, including making any ADA accessibility improvements.</li> <li>• Provide 10 additional RV campsites.</li> <li>• In conjunction with the swim facility feasibility study, evaluate the feasibility of a concessionaire operated campground activity center and store/snack bar.</li> </ul>	<p>DPR, DWR</p> <p>DPR, DWR</p> <p>DPR, DWR</p> <p>DPR, DWR</p> <p>DPR, DWR</p>	<p>L 2 to L 5 (threshold dependent)</p> <p>L 2 to L 5 (threshold dependent)</p> <p>L 1</p> <p>L 1</p> <p>L 1</p>	<p>Included in L2 to L5 budget</p> <p>Included in L2 to L5 budget</p> <p>Included above</p> <p>Included above</p> <p>Included above</p>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Construct 1 new 6-unit group (50-person) RV campsite.</li> <li>• Based upon monitoring results during L2 to L5 phases and determination of a need, provide 25-50 additional new RV/tent campsites in the future. Utilize the existing new infrastructure at this location.</li> <li>• Construct approximately 60 additional new Boat Ramp/ Marina parking spaces (vehicle with trailer) near the existing parking lot where feasible. The adjacent vacated PG&amp;E parcel may potentially be transferred to DWR/DPR for site expansion purposes and this option will continue to be explored.</li> <li>• Based upon monitoring results during L2 to L5 phases and determination of a need, provide 1 additional new group campsite, utilizing the existing new infrastructure where feasible.</li> </ul>	<p>DPR, DWR</p> <p>DPR, DWR</p> <p>DPR, DWR</p> <p>DPR, DWR</p>	<p>L 1</p> <p>L 2 to L 5 (threshold dependent)</p> <p>L 1</p> <p>L 2 to L 5 (threshold dependent)</p>	<p>Included above</p> <p>Included in L2 to L5 budget</p> <p>Included above</p> <p>Included in L2 to L5 budget</p>
	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• Ensure adequate debris removal at boat ramp for safe boat launching.</li> <li>• Ensure adequate adjustment of boarding docks.</li> </ul>	<p>DPR</p> <p>DPR</p>	<p>L 1 to L 5</p> <p>L 1 to L 5</p>	<p>\$550,000 Annual O&amp;M w/ L1 Enhancements</p> <p>Included above</p> <p>Included above</p>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Provide boaters with information about substitute boating facilities and reservoir conditions.</li> <li>• Provide annual O&amp;M.</li> </ul>	DPR  DPR, DWR	L 1 to L 5  L 1 to L 5	Included above  Included above
<b>Oroville Dam Overlook Day Use Area</b>	<u>Capital Improvements:</u>  <ul style="list-style-type: none"> <li>• Provide approximately 100 additional new parking spaces and access routes/stairs in the area of the overlook facility, plus 4-5 additional picnic tables with shade ramadas, and interpretive panels (ADA).</li> </ul>	DPR, DWR	L 1	\$200,000 Total Capital (L1)  L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget Included above
	<u>Programmatic and O&amp;M:</u> <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>		L 1 to L 5	\$25,000 Annual O&M (L1 to L5)
<b>Spillway Boat Ramp/ Day Use Area</b>	<u>Capital Improvements:</u>			\$50,000 Total Capital (L1)  L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>DBW will determine the optimum dock system configuration. If more than 3 docks are feasible, an additional boarding dock will be added to maximize boat launching capacity.</li> </ul>	DWR, DBW	L 1	Included above
	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>Continue "en route" RV camping at Spillway, subject to periodic FERC project security reviews.</li> <li>Ensure adequate adjustment of boarding docks.</li> <li>Ensure adequate debris removal at boat ramp for safe boat launching.</li> <li>Provide boaters with additional information about substitute boating facilities and changing reservoir conditions.</li> <li>Provide annual O&amp;M.</li> </ul>	<p>DPR</p> <p>DPR</p> <p>DPR</p> <p>DPR</p> <p>DPR, DWR</p>	<p>L 1 to L 5</p>	<p>\$625,000 Annual O&amp;M w/ L1 Enhancements</p> <p>Included above</p> <p>Included above</p> <p>Included above</p> <p>Included above</p> <p>Included above</p>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
Enterprise Boat Ramp	<p><u>Capital Improvements:</u></p> <ul style="list-style-type: none"> <li>• Extend the existing boat ramp to approximately 750 feet msl to provide a low-water ramp, beginning at/near the toe of the existing ramp.</li> <li>• Provide 10 gravel parking spaces where feasible.</li> <li>• Evaluate cultural resources in this area to identify areas for additional gravel parking near the 750 feet msl elevation.</li> <li>• Provide a vault toilet building (Interim Project).</li> <li>• Provide 10 family picnic sites.</li> <li>• Provide 1 new boarding dock and cable system at the boat ramp.</li> </ul>	<p>DWR, DBW</p> <p>DWR, DPR</p> <p>DWR, DPR</p> <p>DWR</p> <p>DWR, DPR</p> <p>DWR, DBW</p>	<p>L 1</p> <p>L 1</p> <p>L 1</p> <p>L 1 (Completed)</p> <p>L 1</p> <p>L 1</p>	<p>\$3,500,000 Total Capital (L1)</p> <p>L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget</p> <p>Included above</p> <p>Included above</p> <p>Included above</p> <p>Included above</p> <p>Included above</p> <p>Included above</p>
	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• Ensure adequate adjustment of boarding dock.</li> <li>• Provide annual O&amp;M.</li> </ul>	<p>DPR</p> <p>DPR, DWR</p>	<p>L 1 to L 5</p> <p>L 1 to L 5</p>	<p>\$200,000 Annual O&amp;M w/ L1 Enhancements</p> <p>Included above</p> <p>Included above</p>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
<b>Nelson Bar Car-Top Boat Ramp</b>	<u>Capital Improvements:</u>  <ul style="list-style-type: none"> <li>• Install a sign, barrier, and/or gate at the terminus of the boat ramp during lowered reservoir elevations for safety purposes.</li> </ul>	DWR	L 1	\$50,000 Total Capital (L1)  L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget  ---
	<u>Programmatic and O&amp;M:</u>  <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>	DPR	L 1 to L 5	\$50,000 Annual O&M w/ L1 Enhancements  ---
<b>Vinton Gulch Car-Top Boat Ramp</b>	<u>Capital Improvements:</u>  <ul style="list-style-type: none"> <li>• Apart from periodic updates of the interpretive materials (directional signs), no changes are proposed at this facility.</li> </ul>	DPR	L 1	\$33,000 Total Capital (L1)  L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget  ---

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<u>Programmatic and O&amp;M:</u>  <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>	DPR	L 1 to L 5	\$40,000 Annual O&M w/ L1 Enhancements  ---
<b>Dark Canyon Car-Top Boat Ramp</b>	<u>Capital Improvements:</u>  <ul style="list-style-type: none"> <li>• Provide additional signs to help users locate site (component of the RMP's I&amp;E Program).</li> <li>• Replace the defunct vault toilet building at this site.</li> </ul>	DPR  DWR, DPR	L 1  L 1	\$33,000 Total Capital (L1)  L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget  Included above  Included above
	<u>Programmatic and O&amp;M:</u>  <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>	DPR	L 1 to L 5	\$50,000 Annual O&M w/ L1 Enhancements  ---
<b>Foreman Creek Car-Top Boat Ramp</b>	<u>Capital Improvements:</u>			\$2,863,000 Total Capital (L1)  L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget



**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
Stringtown Car-Top Boat Ramp	<u>Capital Improvements:</u>  <ul style="list-style-type: none"> <li>• Provide additional roadside signs to help users locate site (component of the RMP's I&amp;E Program).</li> <li>• Install a sign, barrier, or gate for safety purposes at the unmaintained abandoned road in the inundation zone.</li> </ul>	DPR	L 1	\$34,000 Total Capital (L1)  L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget  Included above
		DPR	L 1	Included above
	<u>Programmatic and O&amp;M:</u>  <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>	DPR	L 1 to L 5	\$60,000 Annual O&M w/ L1 Enhancements  ---
Lake Oroville Visitors Center	<u>Capital Improvements:</u>			\$200,000 Total Capital (L1)  L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget



**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Provide horse hitching posts and native shade trees (Interim Project).</li> <li>• Provide an additional non-motorized trail(s) to the nearby shoreline at Saddle Dam (see Trails Program, Appendix D).</li> <li>• Provide 10 new picnic tables.</li> <li>• Provide a new horse watering trough and hand-washing sink through a piped water system (if feasible) or via manually delivered water from a truck on a periodic basis.</li> </ul>	DWR, DPR  DWR, DPR  DWR, DPR  DWR, DPR	L 1  L 1  L 1  L 1	Included above  Included in Trails Program below  Included above  Included above
	<u>Programmatic and O&amp;M:</u>  <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> <li>• Provide additional security at this location if and when needed.</li> </ul>	DPR, DWR  DPR, DWR	L 1 to L 5  L 1 to L 5	\$50,000 Annual O&M w/ L1 Enhancements  ---  Included above
<b>Boat-in Campgrounds (BICs): Bloomer Area, Goat Ranch, Foreman Creek, and Craig Saddle</b>	<u>Capital Improvements:</u>			\$10,000 Total Capital (L1)  L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>Foreman Creek BIC may see increased informal day use and land-based overnight walk-in camping during low water conditions due to modifications proposed for the Foreman Creek Car-top BR and rerouted access to surrounding day use lands.</li> </ul>	DPR, DWR	L 1	Included above
	<u>Programmatic and O&amp;M:</u> <ul style="list-style-type: none"> <li>Provide annual O&amp;M.</li> </ul>	DPR	L 1 to L 5	\$200,000 Annual O&M ---
<b>Lake Oroville Scenic Overlook (SR 162 at bridge)</b>	<u>Capital Improvements:</u> <ul style="list-style-type: none"> <li>Replace existing cyclone fence with a Caltrans-approved auto safety barrier (Interim Project).</li> <li>Provide 2 new interpretive signs (Interim Project).</li> <li>Provide a new trash receptacle and minor trail enhancements along the old construction road.</li> </ul>	DWR DWR, DPR DWR, DPR	L 1 (Completed) L 1 (Completed) L 1	\$69,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget Included above Included above Included above
	<u>Programmatic and O&amp;M:</u> <ul style="list-style-type: none"> <li>Provide annual O&amp;M.</li> </ul>	DWR, DPR	L 1 to L 5	\$25,000 Annual O&M w/ L1 Enhancements ---

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Provide trash pickup service in coordination with the Berry Creek Citizen's Association.</li> </ul>	DWR, DPR	L 1 to L 5	Included above
<b>Floating Campsites</b>	<p><u>Capital Improvements:</u></p> <ul style="list-style-type: none"> <li>• Deploy 2 new floating campsites in the Lime Saddle area and deploy 1 new floating campsite in the West or North Fork areas of the reservoir. The existing facilities remain at or near their current locations.</li> </ul>	DWR, DPR	L 1	<p>\$375,000 Total Capital (L1)</p> <p>L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget</p> <p>Included above</p>
	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>	DPR, DWR	L 1 to L 5	<p>\$228,000 Annual O&amp;M w/ L1 Enhancements</p> <p>---</p>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
Floating Restrooms	<u>Capital Improvements:</u>  <ul style="list-style-type: none"> <li>• None at this time. Continue to monitor. Additional units may be deployed in the future if/when needed.</li> </ul>	---	---	\$0 Total Capital (L1)  L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget  ---
	<u>Programmatic and O&amp;M:</u>  <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>	DPR, DWR	L 1 to L 5	\$260,000 Annual O&M  ---

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
<p><b>Trails in the Lake Oroville and Dam Area</b></p> <p>(see Appendix D)</p>	<p><u>Capital Improvements:</u></p> <ul style="list-style-type: none"> <li>• Construct a Saddle Dam area shoreline access trail(s) (less than 0.1 mile in length each).</li> <li>• Realign a portion of the existing Brad B. Freeman Trail near the Hyatt Powerplant Switchyard by Oroville Dam to address security/ safety concerns.</li> <li>• Open the Dan Beebe Trail to bicycle use.</li> <li>• Open the Bidwell Canyon Trail to equestrian use.</li> <li>• Open an existing access road to bicycle use, south of the Loafer Creek Equestrian Campground.</li> <li>• Construct a Potter’s Ravine North Fork Shoreline Trail extension (approx. 2 miles and multiple use).</li> <li>• Construct a new trail from the Lime Saddle Campground to the Lime Saddle Marina/BR (approx. 3.5 miles for hiking and biking use).</li> </ul>	<p>DWR, DPR</p>	<p>L 1</p>	<p>\$269,000 Total Capital (L1)</p> <p>L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget</p> <p>Included above</p>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<u>Programmatic and O&amp;M:</u>  <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>	DWR, DPR	L 1 to L 5	\$50,000 Annual O&M w/ L1 Enhancements  ---
<b>Lake Oroville Area Facility Replacement and Refurbishment (O&amp;M)</b>	<u>Programmatic and O&amp;M:</u>  <ul style="list-style-type: none"> <li>• Anticipated replacement or refurbishment of needed facilities and structures over the license term that have reached their life expectancy or are in need of replacement.</li> </ul>	DWR, DPR	L 2 to L 5	\$400,000 Annual O&M Accrual Estimate (\$20,000,000 Total O&M Replacement over 50 years) (L2 to L5)  ---
<b>Subtotal Lake Oroville Mgmt. Unit: Capital Facility Costs - New Construction</b>				<b>\$24,807,000 (L1)</b>
<b>Future New Capital Facility Budget if Needed Based on Monitoring Results</b>				<b>\$20,000,000 (L2 to L5)</b>
<b>Subtotal Lake Oroville Mgmt. Unit: Facility Operations Costs – Annual O&amp;M With L1 Enhancements</b>				<b>\$4,938,000 annually assuming L1 enhancements</b>
<b>Future Facility Replacement and Refurbishment O&amp;M Budget if Needed</b>				<b>\$20,000,000 (L2 to L5)</b>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
<b>Diversion Pool Management Unit (includes portions of the Low Flow Channel)</b>				
<b>Diversion Pool DUA (Northern Side)</b>	<u>Capital Improvements:</u> <ul style="list-style-type: none"> <li>• Provide an ADA-accessible fishing pier or platform at this or other nearby Diversion Pool location.</li> <li>• Provide additional day use facilities including 10 new picnic tables with pole stoves/grills and enhance the existing gravel car-top boat ramp along the Burma Road (north side).</li> </ul>	DWR, DPR, WCB  DWR, DPR	L 1  L 1	\$215,000 Total Capital (L1)  Included above  Included above
	<u>Programmatic and O&amp;M:</u> <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>	DPR, DWR	L 1 to L 5	\$50,000 Annual O&M w/ L1 Enhancements  ---
<b>Lakeland Boulevard Trailhead Access / Diversion Pool DUA (Southern Side)</b>	<u>Capital Improvements:</u> <ul style="list-style-type: none"> <li>• Create vehicle access to Diversion Pool through the construction of new realigned and improved road to the lower old railroad grade that is upstream of the Union Pacific Railroad bridge crossing of Diversion Pool.</li> </ul>	DWR	L 1	\$1,985,000 Total Capital (L1)  Included above



**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
<b>Feather River Fish Hatchery Day Use Area</b>	<u>Capital Improvements:</u>  <ul style="list-style-type: none"> <li>• The Fish Hatchery DUA with a Visitors Center and fish viewing platform will be considered as a component of the RMP's I&amp;E Program. Additional interpretive signs and/or kiosks and additional interpretive paths will be added consistent with the I&amp;E Program.</li> <li>• Enhance existing non-motorized boater put-in at the fish hatchery DUA or vicinity, pending completion of analysis of non-motorized water trail shoreline access (2-3 sites in total) (Table B-2, Appendix B).</li> </ul>	DWR, DFG          DWR, DBW, and DFG	L 1          L1	\$75,000 Total Capital (L1)  Included above          Included above
	<u>Programmatic and O&amp;M:</u>  <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> <li>• Provide annual O&amp;M for new boater put-in/take-out.</li> </ul>	DFG, DWR  DFG, DWR	L 1 to L 5  L1 to L5	\$52,000 Annual O&M w/ L1 Enhancements  ---  Included above
<b>Trails in the Diversion Pool / Low Flow Channel Area (see Appendix D)</b>	<u>Capital Improvements:</u>  <ul style="list-style-type: none"> <li>• Develop a non-motorized Sewim Bo Trail from the Old Bath House (Nature Center) to the Diversion Dam (Interim Project).</li> </ul>	DWR	L 1 (Completed)	\$316,000 Total Capital (L1)  Included above



**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Investigate the feasibility of constructing a new 2-4 mile trail designed primarily for bicycling that would run east/west from Lakeland Blvd. connecting with a multiple-use segment of the Dan Beebe Trail and/or Brad B. Freeman Trail, near the Diversion Pool. Construction is contingent upon topographic, jurisdictional, and ownership/easement constraints. If feasible, it will be constructed, possibly with some SBF funding for trail segments outside the project boundary. If developed, much of the nearby portion of the Dan Beebe Trail will be closed to bicycles and will be managed for equestrian and hiking use.</li> <li>• Open the Burma Road and adjacent portions of the Brad Freeman Trail to equestrian use.</li> </ul>	DWR	L 1	Included above
	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>	DWR	L 1 to L 5	\$50,000 Annual O&M w/ L1 Enhancements  ---

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
<b>Diversion Pool Area Facility Replacement and Refurbishment (O&amp;M)</b>	<u>Programmatic and O&amp;M:</u>  <ul style="list-style-type: none"> <li>• Anticipated replacement or refurbishment of needed facilities and structures over the license term that have reached their life expectancy or are in need of replacement.</li> </ul>	DWR, DPR	L 2 to L 5	\$20,000 Annual O&M Accrual Estimate (\$1,000,000 Total O&M over 50 years) (L2 to L5)  ---
<b>Subtotal Diversion Pool Mgmt. Unit: Capital Facility Costs - New Construction</b>				<b>\$2,591,000 (L1)</b>
<b>Future New Capital Facility Budget if Needed Based on Monitoring Results</b>				<b>\$1,000,000 (L2 to L5)</b>
<b>Subtotal Diversion Pool Mgmt. Unit: Facility Operations Costs - Annual O&amp;M With L1 Enhancements</b>				<b>\$307,000 annually assuming L1 enhancements</b>
<b>Future Facility Replacement and Refurbishment O&amp;M Budget if Needed</b>				<b>\$1,000,000 (L2 to L5)</b>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
<b>Thermalito Forebay Management Unit</b>				
<b>North Thermalito Forebay Boat Ramp/Day Use Area/ Aquatic Center/"En Route" RV Campground</b>	<p><u>Capital Improvements:</u></p> <ul style="list-style-type: none"> <li>• Conduct a feasibility study to evaluate warmer water swimming options at this site and at other Project No. 2100 locations. If feasible and cost-effective, construct new swimming area enhancements (construction cost excluded).</li> <li>• Provide a fish cleaning station and connect this new facility to the existing septic system (if feasible, location to be determined).</li> <li>• Provide basic facility improvements to the Aquatic Center for basic needs. Expand into a new building (Interim Project).</li> </ul>	<p>DWR</p> <p>DWR, DPR</p> <p>DWR, DBW</p>	<p>L 1</p> <p>L1</p> <p>Completed</p>	<p>\$470,000 Total Capital (L1)</p> <p>Feasibility study costs included above only</p> <p>Included above</p> <p>Included above</p>
	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• Continue to monitor water quality and maintain coordination with public health agencies at existing project swimming facilities.</li> <li>• Provide annual O&amp;M.</li> </ul>	<p>DWR</p> <p>DPR</p>	<p>L 1 to L 5</p> <p>L 1 to L 5</p>	<p>\$550,000 Annual O&amp;M w/ L1 Enhancements</p> <p>Included above</p> <p>Included above</p>
<b>South Thermalito Forebay Boat Ramp/Day Use Area</b>	<p><u>Capital Improvements:</u></p>			<p>\$200,000 Total Capital (L1)</p>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Provide an ADA-accessible fishing pier or platform.</li> <li>• Provide improved landscaping and day use facilities including a new sandy beach, 5-10 picnic tables with pole stoves, and shade trees and shrubs.</li> </ul>	DWR, DPR, WCB  DWR	L 1  L 1	Included above  Included above
	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> <li>• Monitor water quality and maintain coordination with public health agencies at the swimming cove.</li> </ul>	DPR, DWR  DPR, DWR	L 1 to L 5  L 1 to L 5	\$115,000 Annual O&M w/ L1 Enhancements  ---  Included above
<p><b>Trails in the Thermalito Forebay Area:</b>  (see Appendix D)</p>	<p><u>Capital Improvements:</u></p> <ul style="list-style-type: none"> <li>• Construct short shoreline access hiking trails primarily for fishing access at the North Forebay.</li> <li>• Construct a new North Forebay loop trail (approx. 1 mile in length) near the shoreline, subject to further environmental review. Also consider new trails around the south side of the North Forebay and the north side of the South Forebay to create 2 new trail loop opportunities, subject to environmental review.</li> </ul>	DWR, DPR  DWR, DPR	L 1  L 1	\$225,000 Total Capital (L1)  Included above  Included above

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<u>Programmatic and O&amp;M:</u>  • Provide annual O&M.	DWR	L 1 to L 5	\$25,000 Annual O&M w/ L1 Enhancements  ---
<b>Thermalito Forebay Area Facility Replacement and Refurbishment (O&amp;M)</b>	<u>Programmatic and O&amp;M:</u>  • Anticipated replacement or refurbishment of needed facilities and structures over the license term that have reached their life expectancy or are in need of replacement.	DWR	L 2 to L 5	\$40,000 Annual O&M Accrual Estimate (\$2,000,000 Total O&M over 50 years) (L2 to L5)  ---
<b>Subtotal Thermalito Forebay Mgmt. Unit: Capital Facility Costs - New Construction</b>				<b>\$895,000 (L1)</b>
<b>Future New Capital Facility Budget if Needed Based on Monitoring Results</b>				<b>\$2,000,000 (L2 to L5)</b>
<b>Subtotal Thermalito Forebay Mgmt. Unit: Facility Operations Costs – Annual O&amp;M With L1 Enhancements</b>				<b>\$690,000 annually assuming L1 enhancements</b>
<b>Future Facility Replacement and Refurbishment O&amp;M Budget if Needed</b>				<b>\$2,000,000 (L2 to L5)</b>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
<b>Thermalito Afterbay Management Unit</b>				
<b>Wilbur Road Boat Ramp/ Day Use Area</b>	<u>Capital Improvements:</u>			\$10,000 Total Capital (L1)
	<ul style="list-style-type: none"> <li>• Provide roadway directional signs for easier locating of this site (component of the RMP's I&amp;E Program).</li> <li>• Based upon monitoring results during the L 2 to L 5 phases, and a determination of need, construct 5-10 additional vehicle parking spaces if needed.</li> </ul>	DWR, DPR, DFG	L 1	Included above
	<u>Programmatic and O&amp;M:</u>			\$25,000 Annual O&M w/ L1 Enhancements
	<ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>	DWR, DPR, DFG	L 1 to L 5	---
<b>Larkin Road Car-Top Boat Ramp</b>	<u>Capital Improvements:</u>			\$250,000 Total Capital (L1)
	<ul style="list-style-type: none"> <li>• Construct 5-10 new picnic tables with pole stoves and shade ramadas.</li> </ul>	DWR, DPR, DFG	L 1	Included above
	<ul style="list-style-type: none"> <li>• Provide a new vault toilet building. (Interim Project)</li> </ul>	DWR, DPR, DFG	Completed	Included above
	<ul style="list-style-type: none"> <li>• Provide a new sandy beach and a new swimming buoy line approximately 100-200 feet from the shoreline.</li> </ul>	DWR, DPR, DFG	L 1	Included above

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Provide roadside directional signs for easier locating of this site (component of the RMP's I&amp;E Program).</li> </ul>	DWR, DPR, DFG	L 1	Included above
	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>	DWR, DPR, DFG	L 1 to L 5	\$50,000 Annual O&M w/ L1 Enhancements ---
<b>Monument Hill Boat Ramp/ Day Use Area</b>	<p><u>Capital Improvements:</u></p> <ul style="list-style-type: none"> <li>• None at this time. Continue to monitor.</li> </ul>	---	---	\$0 Total Capital (L1) ---
	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> <li>• Monitor water quality and maintain coordination with public health agencies at the swimming cove.</li> </ul>	DWR, DPR, DFG DPR, DWR, DFG	L 1 to L 5 L 1 to L 5	\$100,000 Annual O&M --- Included above
<b>Model Aircraft Flying Facility</b>	<p><u>Capital Improvements:</u></p> <ul style="list-style-type: none"> <li>• Provide new paving at the runways (Interim Project).</li> <li>• Regrade and regravell the parking area (Interim Project).</li> <li>• Construct aircraft staging tables and install new picnic tables with shade ramadas (Interim Project).</li> </ul>	DWR, DPR, DFG DWR, DPR, DFG DWR, DPR, DFG	Completed Completed Completed	\$27,000 Total Capital (L1) Included above Included above Included above

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Provide new vault toilet building, bulletin/information board, and fencing (Interim Project).</li> </ul>	DWR, DPR, DFG	Completed	Included above
	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• Provide annual O&amp;M. If off-site impacts are observed, fencing will be constructed to prevent damage to sensitive habitat in the area.</li> </ul>	DWR, DPR, DFG, Permittee	L 1 to L 5	\$25,000 Annual O&M w/ L1 Enhancements ---
<b>Thermalito Afterbay Area Facility Replacement and Refurbishment (O&amp;M)</b>	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• Anticipated replacement or refurbishment of needed facilities and structures over the license term that have reached their life expectancy or are in need of replacement.</li> </ul>	DWR, DPR	L 2 to L 5	\$20,000 Annual O&M Accrual Estimate (\$1,000,000 Total O&M over 50 years) (L2 to L5) ---
<b>Subtotal Thermalito Afterbay Mgmt. Unit: Capital Facility Costs - New Construction</b>  <b>Future New Capital Facility Budget if Needed Based on Monitoring Results</b>				<b>\$287,000 (L1)</b>  <b>\$1,000,000 (L2 to L5)</b>
<b>Subtotal Thermalito Afterbay Mgmt. Unit: Facility Operations Costs - Annual O&amp;M With L1 Enhancements</b>  <b>Future Facility Replacement and Refurbishment O&amp;M Budget if Needed</b>				<b>\$200,000 annually assuming L1 enhancements</b>  <b>\$1,000,000 (L2 to L5)</b>

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
<b>Oroville Wildlife Area (OWA) Management Unit</b>				
<b>Afterbay Outlet Area (Boat Ramp/Day Use Area/Campground)</b>	<u>Capital Improvements:</u> <ul style="list-style-type: none"> <li>• Provide a new designated primitive RV/tent camping area (no hookups) in the OWA north of the Outlet Channel within approximately 40 acres adjacent to existing parking and day use areas near the outlet. Establish designated hardened tent/RV campsites with picnic tables and gravel spurs with vehicle barriers. The total number of new campsites will be based on monitoring demand over time, but will not exceed the 40-acre area. Twenty new RV/tent campsites will be provided initially within the 40-acre site. Additional campsites may be added later in the L 2 to L5 phases if needed and based upon site constraints.</li> <li>• Provide a new designated day use area at the Thermalito Afterbay outlet south of the Outlet Channel near the river. Install 5-10 picnic tables (exact number dependent on site capacity and aesthetics).</li> <li>• Regravel existing access roads. Revegetate disturbed areas with native arid landscaping for shade and aesthetics, consistent with wildlife habitat goals.</li> </ul>	DWR, DFG	L 1	\$2,450,000 Total Capital (L1)  Included above
	DWR, DFG	L 1	Included above	
	DWR, DFG	L 1	Included above	

**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Provide 1-2 additional vault toilet buildings if needed.</li> <li>• Upgrade the existing gravel boat ramp to concrete, with paved parking.</li> <li>• Provide roadside directional signs for easier locating of this site (component of I&amp;E Program).</li> </ul>	<p>DWR, DFG</p> <p>DWR</p> <p>DWR</p>	<p>L 1</p> <p>In process (planned for 2006-2007)</p> <p>L 1</p>	<p>Included above</p> <p>Included above</p> <p>Included above</p>
	<p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• Provide annual O&amp;M.</li> </ul>	<p>DWR, DFG</p>	<p>L 1 to L 5</p>	<p>\$300,000 Annual O&amp;M w/ L1 Enhancements</p> <p>--</p>
<p><b>Oroville Wildlife Area Dispersed Use Sites and Dispersed River and Pond Access Sites</b></p>	<p><u>Capital Improvements:</u></p> <ul style="list-style-type: none"> <li>• Provide 2 Watchable Wildlife sites, and new trash receptacles, vehicle barriers, gravel shoulder parking, signs, and possible site hardening and closure measures.</li> <li>• Designate existing non-motorized boater put-ins/take-outs at the OWA Outlet area and add one additional river access site downstream pending completion of an analysis of potential non-motorized water trail shoreline access sites (2-3 sites in total) (Table B-2, Appendix B).</li> </ul>	<p>DWR, DFG</p> <p>DWR, DBW, and DFG</p>	<p>L 1</p> <p>L1</p>	<p>\$400,000 Total Capital (L1)</p> <p>Included above</p> <p>Included above</p>
	<p><u>Programmatic and O&amp;M:</u></p>			<p>\$32,000 Annual O&amp;M w/ L1 Enhancements</p>



**Table A-1. Proposed recreation facility capital improvement and O&M measures.**

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions <sup>3</sup>	Capital Improvement and O&M Responsible Entity <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
<b>Subtotal OWA Mgmt. Unit: Capital Facility Costs - New Construction</b>  <b>Future New Capital Facility Budget if Needed Based on Monitoring Results</b>				<b>\$2,850,000 (L1)</b>  <b>\$1,000,000 (L2 to L5)</b>
<b>Subtotal OWA Mgmt. Unit: Facility Operations Costs - Annual O&amp;M/Programmatic With L1 Enhancements</b>  <b>Future Facility Replacement and Refurbishment O&amp;M Budget if Needed</b>				<b>\$332,000 annually assuming L1 enhancements</b>  <b>\$1,000,000 (L2 to L5)</b>
<b>TOTAL TABLE A-1 Total Project Draft RMP Capital Facility Costs: Capital Facility Costs - New Construction (L1)</b>  <b>Future New Capital Facility Budget if Needed Based on Monitoring Results (L2 to L5)</b> (See Table A-2 for Project-wide programmatic capital actions)				<b>\$31,430,000 (L1)</b>  <b>\$25,000,000 (L2 to L5)</b>
<b>Total Project Draft RMP Facility Operations Costs: Facility Operations Costs - Annual O&amp;M/Programmatic With L1 Enhancements</b>  <b>Future Facility Replacement and Refurbishment O&amp;M Budget if Needed</b> (See Table A-2 for Project-wide programmatic O&M actions)				<b>\$6,467,000 Annual O&amp;M Assuming L1 Enhancements</b>  <b>\$25,000,000 (L2 to L5)</b>

<sup>1</sup> Phasing is categorized by decade after the new FERC license is issued (assumed to be 2007 for planning purposes) - L1 = 2007-2016, L2 = 2017-2026, L3 = 2027-2036, L4 = 2037-2046, and L5 = 2047-2056. The exact timing of the proposed measures in phases L2 through L5 may be triggered by reaching threshold criteria per the RMP's Recreation Monitoring Program (see Section 7.3).

<sup>2</sup> Estimated costs are in 2005 dollars. Annual O&M cost responsibility is currently divided between the licensee and other State agency funding sources. The licensee is responsible for implementation of the new license.

<sup>3</sup> Refer to draft RMP Section 6.0, Appendix C (Site Plans), and Appendix D (Trails Program) for additional details on the proposed recreation measures in this table.

<sup>4</sup> Responsibility for implementing the RMP ultimately rests with DWR as licensee. Where multiple entities are shown, DWR has the primary responsibility.

**Table A-2. Proposed recreation programmatic measures.**

Programmatic Measure	Measure Details <sup>3</sup>	Programmatic Responsibilities <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
<b>DWR to implement the RMP programs following license issuance and acceptance</b>	<ul style="list-style-type: none"> <li>• Continue to provide and plan for O&amp;M at existing and new recreation sites.</li> </ul>	DWR, DPR	L 1 to L 5 and ongoing	Included in previous Table A-1
	<ul style="list-style-type: none"> <li>• Comply with ADA (as amended) and other applicable regulations at existing and new recreation facilities, such as toilet building replacement.</li> </ul>	DWR, DPR	L 1	\$68,000 Capital (L1)
	<ul style="list-style-type: none"> <li>• Implement the final RMP including providing periodic recreation monitoring per the RMP's Recreation Monitoring Program through the term of the new license. This program has thresholds or triggers established for additional facility development or expansion. Update/revise the RMP over the new license term. Conduct periodic larger surveys over the license term.</li> </ul>	DWR, DPR	L 1 to L 5 and ongoing	Average of \$119,000 annual O&M (L1 to L5) (\$5,950,000 total O&M over 50 yrs.)
	<ul style="list-style-type: none"> <li>• Implement a comprehensive non-motorized trails program. See Appendix D.</li> </ul>	DPR, DWR	L 1 to L 5	Included in previous Table A-1
	<ul style="list-style-type: none"> <li>• Continue implementation of and periodically review/update the Interpretive and Education (I&amp;E) Program, using existing agency personnel where possible.</li> </ul>	DPR, DWR	L 1 (program development)  L 1 to L 5 (program implementation)	\$100,000 Capital (L1)  \$20,000 annually for I&E program O&M (L1 to L5)

**Table A-2. Proposed recreation programmatic measures.**

Programmatic Measure	Measure Details <sup>3</sup>	Programmatic Responsibilities <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
	<ul style="list-style-type: none"> <li>• Better clarify the role of DPR, DFG, DBW, and other responsible entities in managing, maintaining, and developing Project No. 2100 recreational resources.</li> </ul>	DWR	In Progress	In Progress
<p><b>DWR, in cooperation with DPR, DFG and other appropriate agencies, will work to resolve conflicts between wildlife management objectives and recreational activities and potential wildfire hazards to visitors in the OWA</b></p>	<ul style="list-style-type: none"> <li>• Provide additional trash receptacles and signage at access points and provide for additional trash pick-up.</li> <li>• Post both regulatory and educational signs detailing illegal fishing practices and consequences.</li> <li>• Prepare and implement an OWA Management Plan, including a wildfire evacuation plan for visitors to the OWA.</li> <li>• Provide additional law and regulation enforcement in the OWA.</li> <li>• Consider locating and operating 2 ADA-accessible Watchable Wildlife sites within the OWA.</li> <li>• Pursue administrative channels to amend/remove the 5 mph boating speed limit on the Thermalito Afterbay south of SR 162. Enforce the 5 mph boating speed limit north of SR 162 and post appropriate speed limit signs, buoys, and other measures as needed.</li> </ul>	<p>DFG, DWR</p> <p>DFG, DPR, DWR</p> <p>DFG, DWR</p> <p>DWR, DFG, Butte Co. Sheriff's Office, and/or CHP (as appropriate)</p> <p>DWR, DFG, WCB</p> <p>DWR, DFG</p>	<p>L 1 to L 5</p> <p>L 1</p> <p>L 1</p> <p>L 1 to L 5</p> <p>L 1</p> <p>L 1</p>	<p>Included in previous Table A-1</p> <p>Included in previous Table A-1</p> <p>\$50,000 Capital (L 1); \$10,000 Annual O&amp;M (L1 to L5)</p> <p>\$250,000 Capital (L1); \$166,000 Annual O&amp;M (L1 to L5)</p> <p>Included in previous Table A-1</p> <p>Included in LCU admin. costs and law enforcement costs elsewhere</p>

**Table A-2. Proposed recreation programmatic measures.**

Programmatic Measure	Measure Details <sup>3</sup>	Programmatic Responsibilities <sup>4</sup>	Phasing <sup>1</sup>	Estimated Costs <sup>2</sup>
<b>Annual Lake Oroville July 4<sup>th</sup> Fireworks</b>	<ul style="list-style-type: none"> <li>Cooperate with local groups in planning of annual fireworks presentation at Lake Oroville on or about the 4<sup>th</sup> of July.</li> </ul>	DWR, DPR, CHP	L 1 to L 5	\$210,000 Annual O&M (L1 to L5)
<b>Locate FERC license Coordination Unit in Oroville</b>	<ul style="list-style-type: none"> <li>Provide staff and locate a FERC License Coordination Unit (LCU) at DWR's Oroville Field Division office. The LCU will manage new License Orders and will coordinate new license implementation.</li> </ul>	DWR	L 1 to L 5	\$75,000 Annual O&M (L1 to L5)
<b>DWR to create a new public advisory committee and public information forum</b>	<ul style="list-style-type: none"> <li>Facilitate a new Project No. 2100 Recreation Advisory Committee (RAC) and related public meetings.</li> <li>Conduct periodic workshops to update the community on progress of projects associated with the new FERC license.</li> <li>Maintain a web-based Oroville Facilities license bulletin board, updated monthly or as needed with project status reports, milestones, community events, license events, meeting notes, etc. covering all resource areas of the new license.</li> </ul>	DWR  DWR  DWR	L 1 to L 5  L 1 to L 5  L 1 to L 5	Costs included with the new LCU above  Costs included with the new LCU above  Costs included with the new LCU above
<b>DWR to evaluate potential whitewater boating enhancements in the North Fork of Lake Oroville</b>	<ul style="list-style-type: none"> <li>Evaluate possible concessionaire-operated whitewater shuttle between the upstream whitewater reaches (below Poe Powerhouse) and the Lime Saddle Marina.</li> </ul>	DWR	L 1 to L 5	Concessionaire cost

**Table A-2. Proposed recreation programmatic measures.**

<b>Programmatic Measure</b>	<b>Measure Details<sup>3</sup></b>	<b>Programmatic Responsibilities<sup>4</sup></b>	<b>Phasing<sup>1</sup></b>	<b>Estimated Costs<sup>2</sup></b>
	<ul style="list-style-type: none"> <li>Coordinate with PG&amp;E to provide daily flow release information from the Poe Project via a web link and/or flow phone link.</li> </ul>	DWR	L 1 to L 5	Costs included with the new LCU above
<b>TOTAL TABLE A-2:</b>				
<b>Other Project Recreation Resource Programmatic Costs – Capital and O&amp;M</b>				<b>\$468,000 Capital (L1)</b>  <b>\$600,000 Annual O&amp;M (L1 to L5)</b>
<b>TOTAL TABLES A-1 AND A-2 – CAPITAL FACILITY COSTS</b>				
<b>Total Project Draft RMP Capital Facility Costs: Capital Facility Costs - New Construction (L1)</b>				<b>\$31,898,000 (L1)</b>
<b>Future New Capital Facility Budget (if Needed) Based on Monitoring Results</b>				<b>\$25,000,000 (L2 to L5)</b>
<b>TOTAL TABLES A-1 AND A-2 – O&amp;M COSTS</b>				
<b>Total Project Draft RMP Facility Operations Costs: Facility Operations Costs - Annual O&amp;M/ Programmatic With L1 Enhancements</b>				<b>\$7,067,000 Annual O&amp;M Assuming L1 Enhancements</b>
<b>Future Facility Replacement and Refurbishment O&amp;M Budget (if Needed)</b>				<b>\$25,000,000 (L2 to L5)</b>

<sup>1</sup> Phasing is categorized by decade after the new FERC license is issued (assumed to be 2007 for planning purposes) - L1 = 2007-2016, L2 = 2017-2026, L3 = 2027-2036, L4 = 2037-2046, and L5 = 2047-2056. The exact timing of the proposed measures in phases L2 through L5 may be triggered by reaching threshold criteria per the RMP's Recreation Monitoring Program (see Section 7.3).

<sup>2</sup> Estimated costs are in 2005 dollars. Annual O&M cost responsibility is currently divided between the licensee and other State agency funding sources. The licensee is responsible for implementation of the new license.

<sup>3</sup> Refer to draft RMP Section 6.0, Appendix C (Site Plans), and Appendix D (Trails) for additional details on the proposed recreation measures in this table.

<sup>4</sup> Responsibility for implementing the RMP ultimately rests with DWR as licensee. Where multiple entities are shown, DWR has the primary responsibility.

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## **APPENDIX B**

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### **Proposed Recreation Measures, Schedules, and Estimated Costs for Actions outside the FERC Project Boundary**

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**Table B-1. Proposed recreation facility capital improvement and O&M measures outside the FERC boundary.**

Resource Area/Site	Capital Improvements and Programmatic and O&M Proposals	Capital Improvement and O&M Responsibilities	Phasing	Estimated Costs <sup>1</sup>
<b>Low Flow Channel/Feather River</b>				
<b>Riverbend Park</b>	<p><u>Capital Improvements:</u></p> <ul style="list-style-type: none"> <li>• Provide primary funding for planning, design, and construction of this site.</li> </ul> <p>• <u>Candidate Boater Access Site:</u> Construct new non-motorized boater put-in/take-out, pending completion of analysis of non-motorized water trail shoreline access (Table B-2).</p> <p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• <u>Candidate Boater Access Site:</u> Provide or fund annual O&amp;M for the boater put-in/take-out.</li> </ul>	<p>DWR</p> <p>DWR</p>	<p>L1, or prior</p> <p>L1</p> <p>L1 to L5</p>	<p>\$3,000,000 (Initial project design and construction)</p> <p>\$2,200,000 (Additional D&amp;C funding)</p> <p>\$25,000.</p> <p>\$2,000 annually O&amp;M</p>
<b>Bedrock Park</b>	<p><u>Capital Improvements:</u></p> <ul style="list-style-type: none"> <li>• <u>Candidate Boater Access Site:</u> Construct new non-motorized boater put-in/take-out, pending completion of analysis of non-motorized water trail shoreline access (Table B-2).</li> </ul> <p><u>Programmatic and O&amp;M:</u></p> <ul style="list-style-type: none"> <li>• <u>Candidate Boater Access Site:</u> Provide or fund annual O&amp;M for the boater put-</li> </ul>	<p>DWR</p> <p>DWR</p>	<p>L1</p> <p>L1 to L5</p>	<p>\$25,000</p> <p>\$2,000 annually</p>

**Table B-1. Proposed recreation facility capital improvement and O&M measures outside the FERC boundary.**

Resource Area/Site	Capital Improvements and Programmatic and O&M Proposals	Capital Improvement and O&M Responsibilities	Phasing	Estimated Costs <sup>1</sup>
	in/take-out.			O&M
<b>Oroville Wildlife Area</b>				
<b>Rabe Road Shooting Range</b>	<ul style="list-style-type: none"> <li>• Re-graded and regraveled the access road and parking area (Interim Project).</li> </ul>		Concluded	\$24,000
	<ul style="list-style-type: none"> <li>• Added targets and a safety berm (Interim Project).</li> </ul>		Concluded	Included above
<b>Total Capital Facility and O&amp;M Costs outside the FERC Boundary</b>				<b>\$5,274,000 (Capital)</b> <b>\$4,000 annually (O&amp;M)</b>

<sup>1</sup> Estimated costs are in 2005 dollars.

**Table B-2. Proposed recreation programmatic measures outside the FERC boundary.**

Programmatic Measure	Measure Details	Programmatic Responsibilities	Phasing	Estimated Costs <sup>1</sup>
<p><b>DWR to initiate and fund a whitewater boating opportunity and recreation feasibility study.</b></p>	<ul style="list-style-type: none"> <li>After filing a signed Settlement Agreement with FERC, DWR will initiate and fund a non-motorized whitewater boating opportunity and recreation feasibility study to assist the Fund Steering Committee of the Project Supplemental Benefit Fund in determining whether to fund the construction and operation of such a project, or cost share on such a project somewhere in the region, pursuant to their funding criteria. This feasibility study will be conducted in consultation with signatory parties of the Settlement Agreement for the Oroville Facilities. Specifically, American Rivers, American Whitewater, and the City of Oroville may actively contribute to the completion of the study and participate in its funding.</li> </ul> <p>This study will build off of the results of R-16 Whitewater and River Boating Report (DWR 2004). Components of this study will include: 1) a study scoping process; 2) a review of potential whitewater boating opportunities within the project area, including park and non-park options, and constraints (physical, operational, environmental, estimated conceptual costs, and permitting/approvals needed); 3) a review of other existing and proposed whitewater boating park and non-park opportunities in the region (N. California, N. Nevada, other nearby western states, or other appropriate areas if possible),</p>	<p>DWR</p>	<p>L1<sup>2</sup></p>	<p>Study Cost            \$250,000<sup>3</sup></p>

**Table B-2. Proposed recreation programmatic measures outside the FERC boundary.**

Programmatic Measure	Measure Details	Programmatic Responsibilities	Phasing	Estimated Costs <sup>1</sup>
	including boating experience and opportunities provided, seasonal timeframe availability, typical user distance traveled, and visitation census, if available; 4) whitewater demand trends, market feasibility, ownership and management (and financing) options, estimates of direct and indirect economic activity potentially generated by such a facility, and potentially competing venues or opportunities; and, 5) conclusions regarding the feasibility of constructing and operating a non-motorized whitewater boating (park and non-park) facility in the project area or vicinity.			
<b>DWR to complete an analysis of non-motorized water trail shoreline access opportunities along the Feather River between the Feather River Fish Hatchery and the downstream boundary of the OWA.</b>	<ul style="list-style-type: none"> <li>• Within one year of the new FERC license becoming final, the licensee will complete an analysis of non-motorized water trail shoreline access opportunities along the Feather River Water Trail within and in the vicinity of the project boundary. This analysis will be conducted in consultation with signatory parties of the Settlement Agreement for the Oroville Facilities. Opportunities for constructing and operating potential boater put-ins and take-outs will be examined at the Feather River Fish Hatchery area (RMP Section 6.3.2, and Table A-1, Appendix A), Bedrock Park (Appendix B, Table B-1), Riverbend Park (Appendix B, Table B-1), at the southern portion of the OWA (RMP Section 6.3.12, and Table A-1, Appendix A).</li> </ul>	DWR, DBW	L1	\$100,000 <sup>4</sup>

**Table B-2. Proposed recreation programmatic measures outside the FERC boundary.**

Programmatic Measure	Measure Details	Programmatic Responsibilities	Phasing	Estimated Costs <sup>1</sup>
	<p>River access sites are defined as locations where boaters may easily access the river shoreline via gravel access roads and small gravel parking areas. Shoreline conditions at these sites will allow for hand-carried/car-top watercraft (canoes, rafts, and kayaks) to be placed in the water without in-water grading or significant shoreline disturbance. Suitable sites will be identified and ranked in consultation with the signatory parties. The licensee will fund and/or construct two to three river access sites in total within five years of the new license becoming final. These sites will be maintained by the licensee or partner agency after construction and may be collocated with other recreation facilities.</p> <p>The licensee will also work cooperatively with California Department of Boating and Waterways and other appropriate state or local agencies to expand the boating trail opportunities downstream in the Feather River to the Sacramento River confluence or beyond where practical. Maps and interpretive displays for these facilities will be developed.</p>			
<b>Total Programmatic Costs Outside the FERC Boundary</b>				<b>\$350,000 (Study Costs)</b>

<sup>1</sup> Estimated costs are in 2005 dollars.  
<sup>2</sup> The study scoping process, including any necessary contracting efforts, will commence within 90 days of Settlement Agreement execution. Target study completion will be within 15 months of execution of the Settlement Agreement.  
<sup>3</sup> Except as provided in the Project Supplement Benefit Fund, the licensee's financial obligation does not extend beyond this feasibility study. Study cost

*contribution by the licensee will be a maximum of \$250,000.*

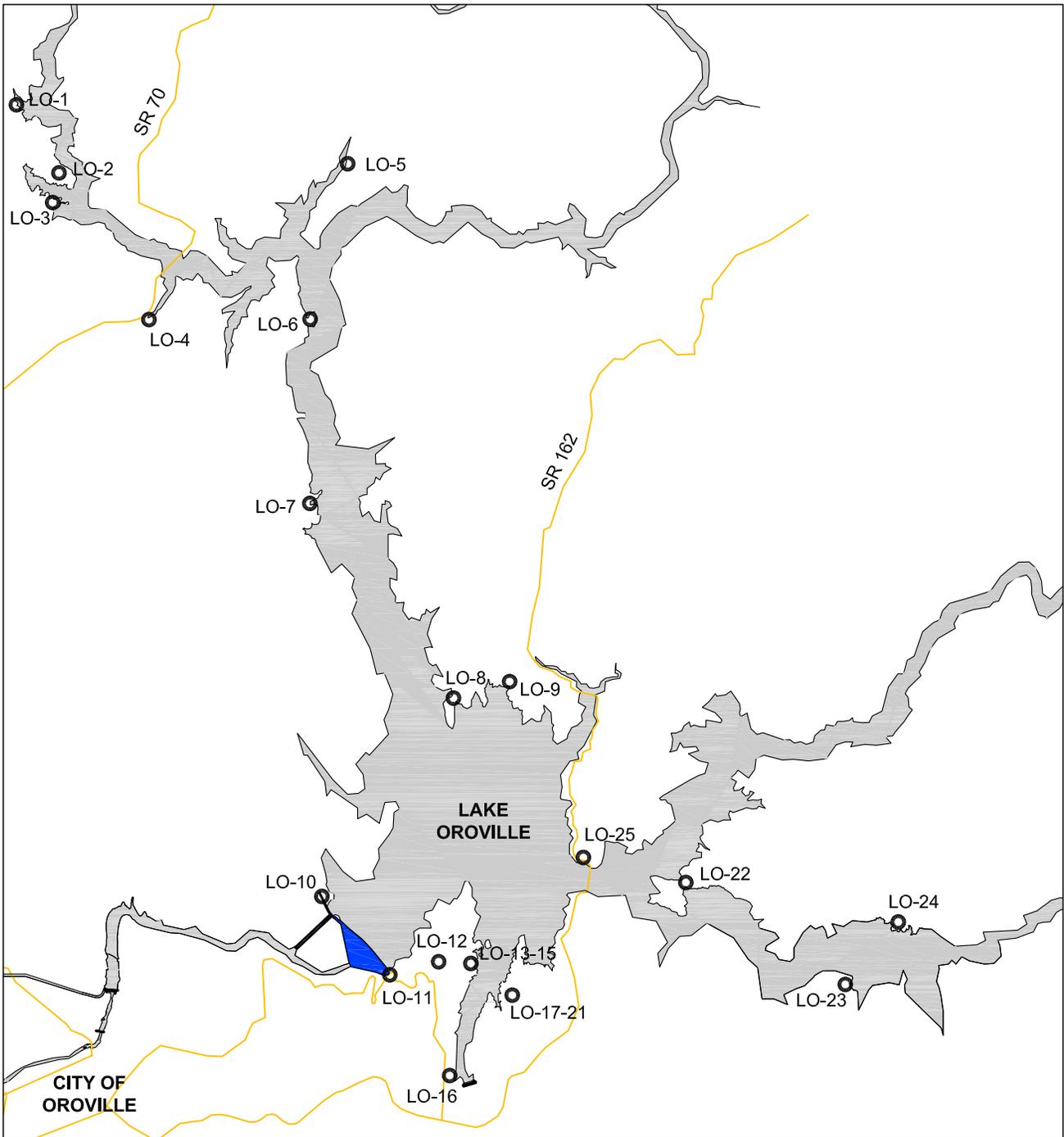
*<sup>4</sup> Estimated study and environmental analysis costs include \$100,000. Note: Appendix A capital costs include up to 2 put-in/take-out sites at the Feather River Fish Hatchery DUA and at the OWA totaling \$50,000 for the two sites. Appendix A annual O&M costs also include \$4,000 annually for these two sites. Appendix B (Table B-1) includes capital costs for up to 2 put-in/take-out sites at Bedrock Park and/or Riverbend Park totaling \$50,000 for the two sites. Appendix B annual O&M costs assume \$4,000 annually for these two sites.*

## **APPENDIX C**

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### **Locations of Proposed Recreation Measures and Conceptual Site Plans**

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**Lake Oroville (LO) Recreation Sites:**

SOURCE: EDAW Inc., 2003

- |  |   |
|--|---|
| LO-1 Nelson Bar Car-top Boat Ramp          | LO-13 Bidwell Canyon Boat Ramp and DUA            |
| LO-2 Lime Saddle Campground                | LO-14 Bidwell Canyon Marina and Campground        |
| LO-3 Lime Saddle Boat Ramp, Marina and DUA | LO-15 Bidwell Canyon South Area                   |
| LO-4 Vinton Gulch Car-top Boat Ramp        | LO-16 Saddle Dam DUA                              |
| LO-5 Dark Canyon Car-top Boat Ramp         | LO-17 Loafer Creek Group Camp and Equestrian Camp |
| LO-6 Goat Ranch BIC                        | LO-18 Loafer Creek Campground -- South Loop       |
| LO-7 Bloomer BICs                          | LO-19 Loafer Creek Campground -- North Loops      |
| LO-8 Foreman Creek BIC                     | LO-20 Loafer Creek Boat Ramp                      |
| LO-9 Foreman Creek Car-top Boat Ramp       | LO-21 Loafer Creek DUA                            |
| LO-10 Spillway Boat Ramp and DUA           | LO-22 Craig Saddle BIC                            |
| LO-11 Oroville Dam Overlook DUA            | LO-23 Stringtown Car-top Boat Ramp                |
| LO-12 Lake Oroville Visitors Ctr.          | LO-24 Enterprise Boat Ramp                        |
|  | LO-25 SR 162 Scenic Overlook                      |



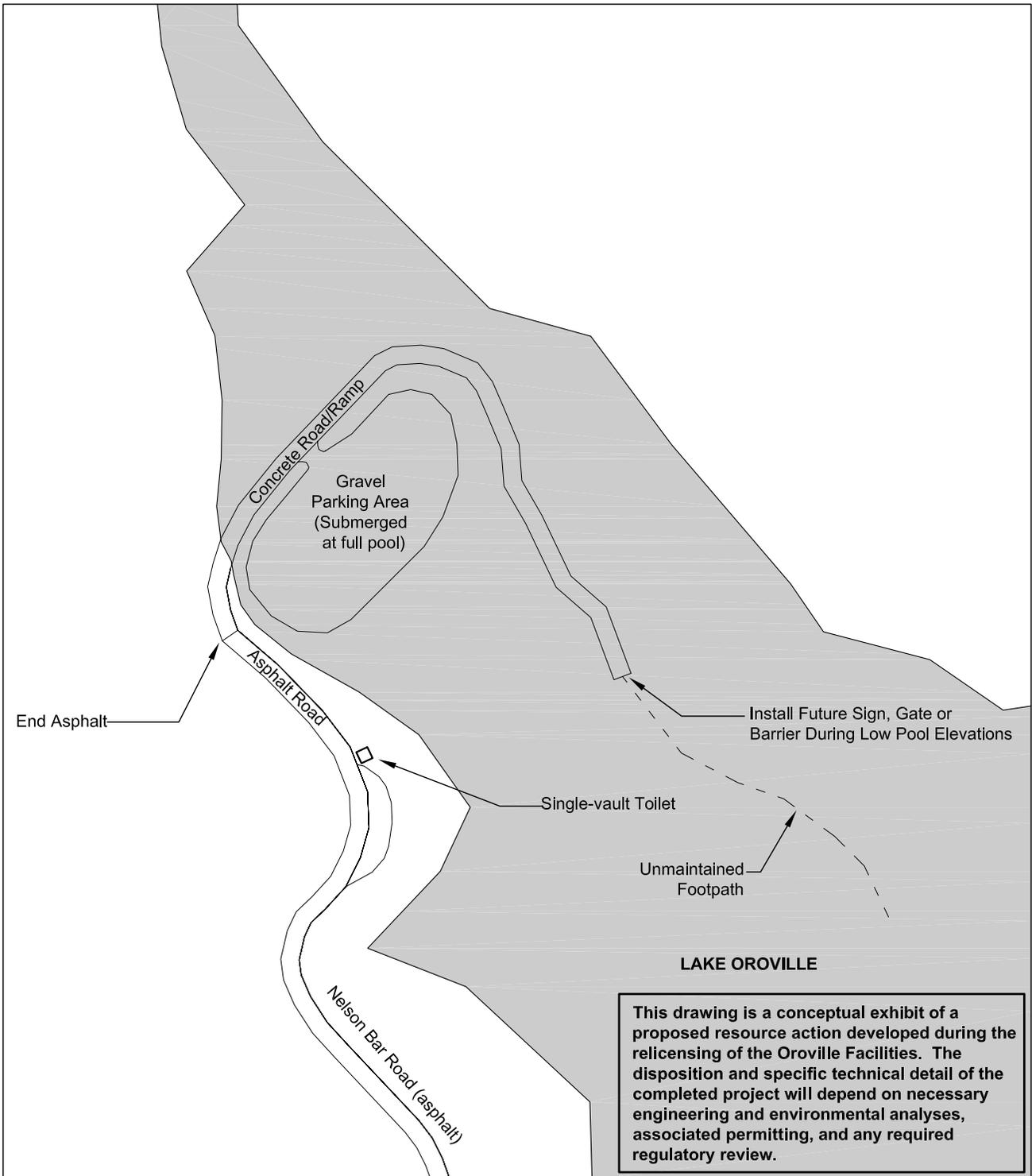
North

Not to Scale

**Oroville Facilities Relicensing  
FERC Project No. 2100  
State of California  
Department of Water Resources**

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**Lake Oroville Recreation Site Key Map**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Install a sign, gate or barrier at terminus of the car-top boat ramp road during low water for safety purposes.

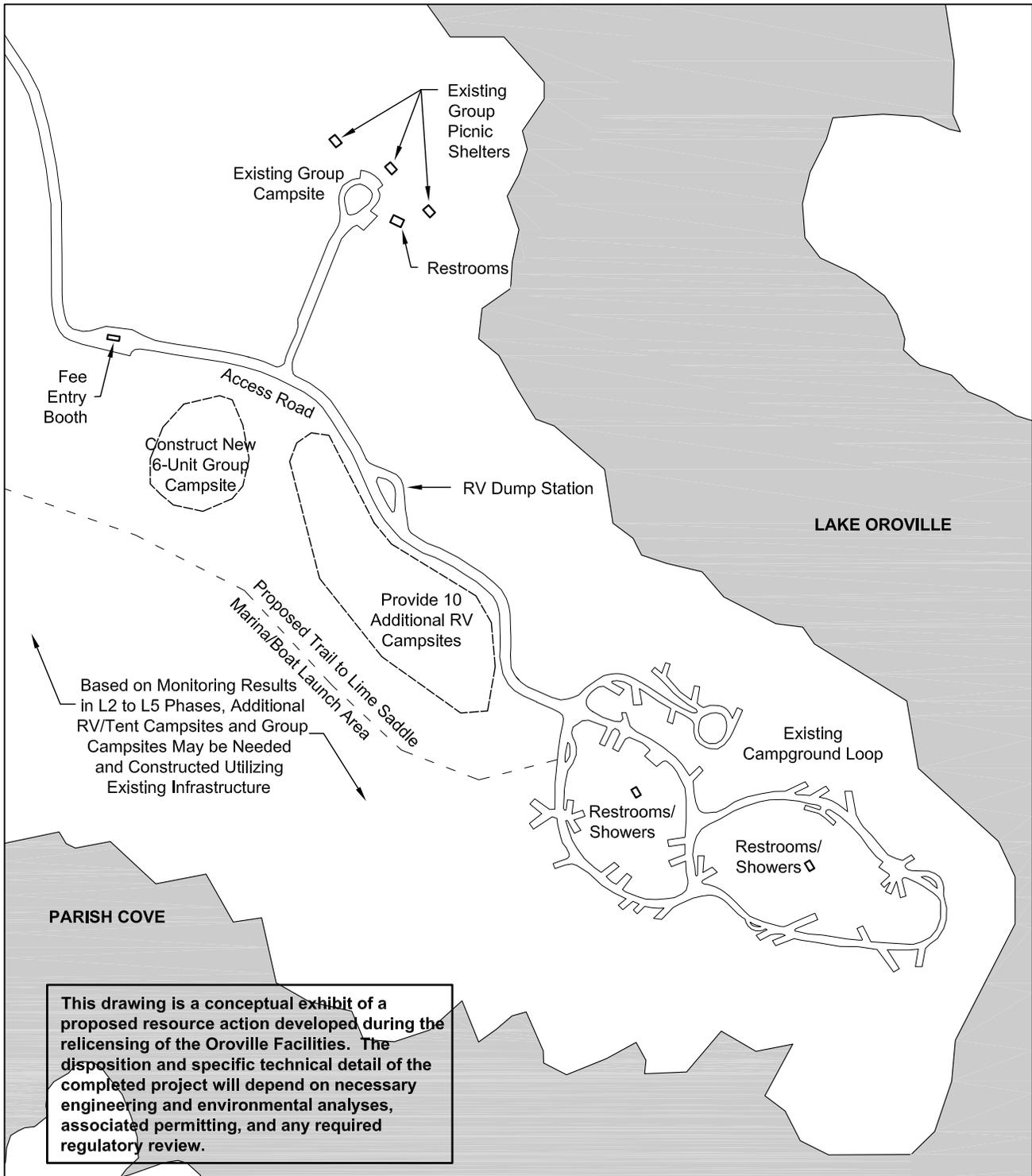


North



0' 75' 150' 300'

<p><b>Oroville Facilities Relicensing</b>  <b>FERC Project No. 2100</b>  <b>State of California</b>  <b>Department of Water Resources</b></p>
<p><b>Figure # LO-1</b>  <b>Nelson Bar Car-top Boat Ramp</b></p>



This drawing is a conceptual exhibit of a proposed resource action developed during the relicensing of the Oroville Facilities. The disposition and specific technical detail of the completed project will depend on necessary engineering and environmental analyses, associated permitting, and any required regulatory review.

SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

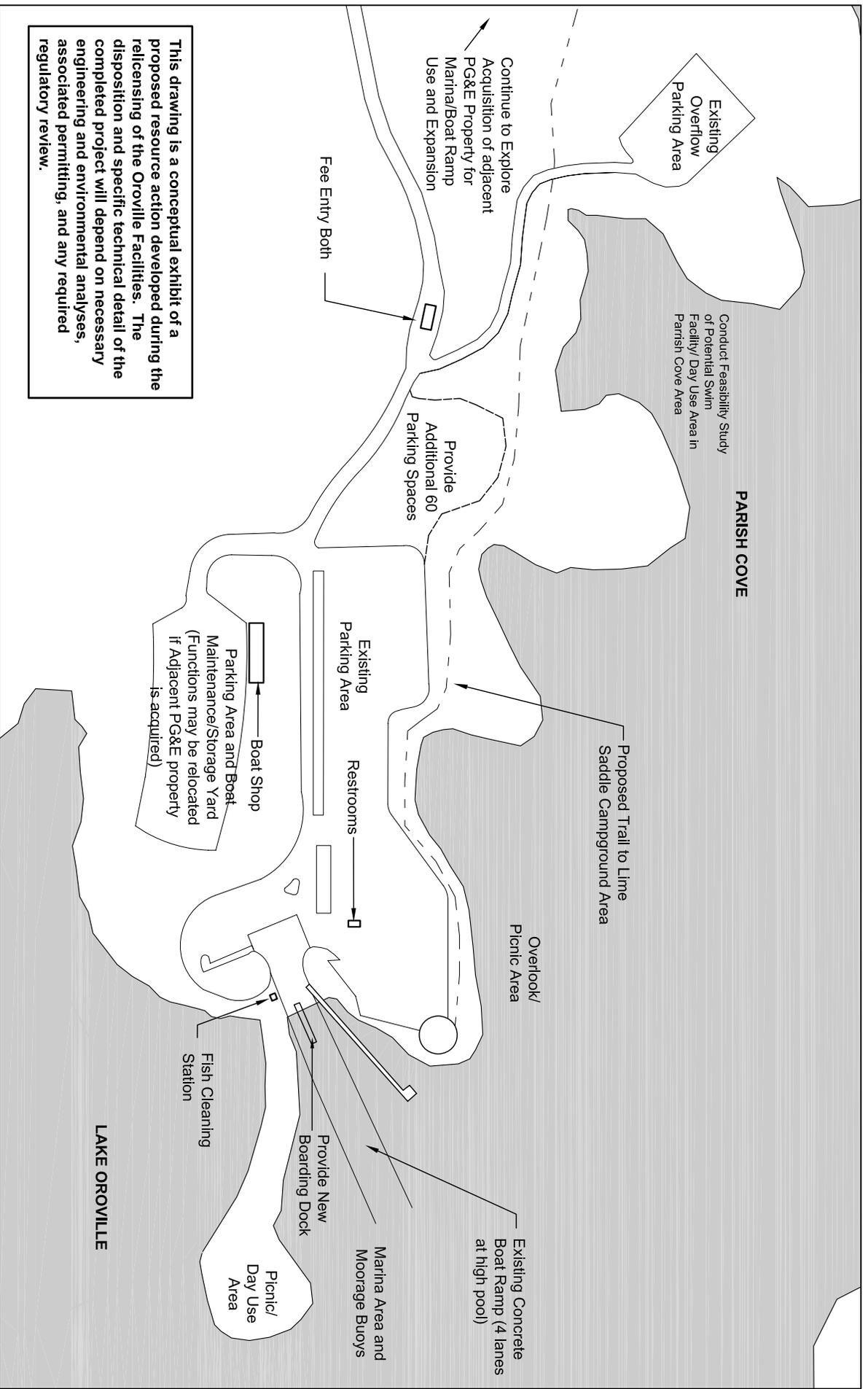
- Conduct a feasibility study of potential swim facility options at this and other P2100 locations to provide a new developed swimming facility during the primary 4-month recreation season. The Loafer Creek site would be the priority location for an initial swim facility.
- Provide 10 additional RV campsites.
- Install 2 new floating campsites in the Lime Saddle area and 1 in the North or West Fork areas (not shown).
- Construct 1 6-unit group (50 person) RV campsite.
- Based on monitoring results during the L2 to L5 phases, additional campsites total may be added utilizing existing infrastructure.
- Based on monitoring results during the L2 to L5 phases, an additional group campsite may be needed in the future. If so, these may be added utilizing existing infrastructure.
- In conjunction with the swim facility feasibility study, evaluate the feasibility of a concessionaire-operated campground activity center and store/snack bar.



North



<p><b>Oroville Facilities Relicensing</b>  <b>FERC Project No. 2100</b>  <b>State of California</b>  <b>Department of Water Resources</b></p>
<p><b>Figure # LO-2</b>  <b>Lime Saddle Campground</b></p>



This drawing is a conceptual exhibit of a proposed resource action developed during the relicensing of the Oroville Facilities. The disposition and specific technical detail of the completed project will depend on necessary engineering and environmental analyses, associated permitting, and any required regulatory review.

**Proposed Recreation Actions:**

- Provide 1 additional boarding dock(s).
- Ensure adequate adjustment of the boarding dock(s) and adequate debris removal at boat ramp and adjacent facilities.
- Provide boaters with information about substitute boating facilities and reservoir conditions.

**Based on monitoring results during the L2 to L5 phases:**

- Upgrade/replace 13 older existing picnic tables, 13 pole stoves, and 7 existing shade ramadas to make them consistent with other project day use sites, including ADA accessibility.
- Continue to explore viability of acquiring adjacent PG&E parcel for use by the marina/boat ramp.
- Construct a trail linking Boat Launch and Campground areas.
- Swim facility capacity at Lake Oroville may be reached in the future. If so, this site may be considered for new swim facilities if feasible and cost efficient.
- Construct 60 additional paved parking stalls adjacent to the marina/boat ramp.

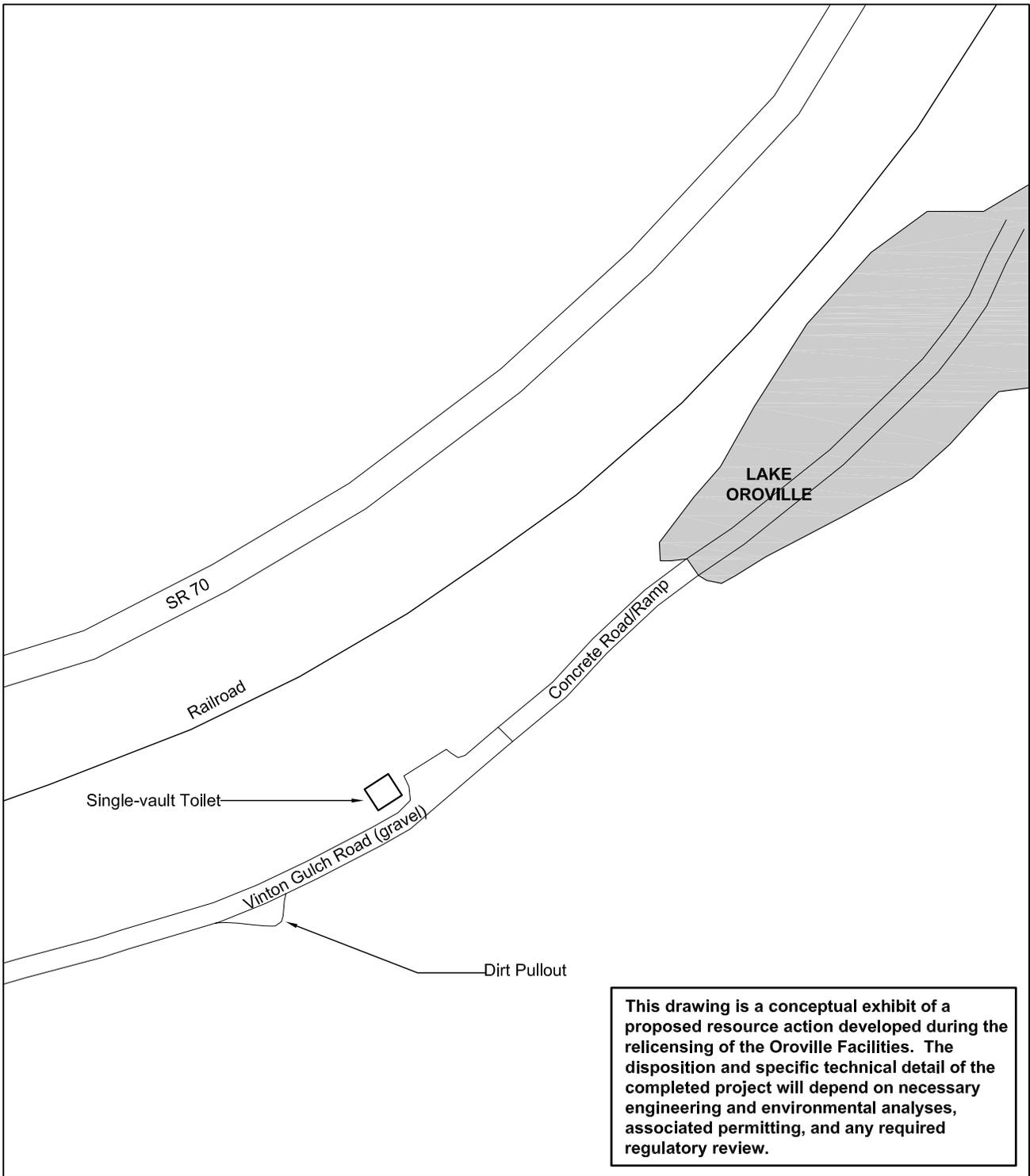
**Oroville Facilities Relicensing**  
**FERC Project No. 2100**  
 State of California  
 Department of Water Resources

**Figure # LO-3**  
**Lime Saddle Boat Ramp, Marina and Day Use Area**

SOURCE: ED&W Inc., 2003



North



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

-- Apart from periodic updates of the interpretive materials (directional signs), no changes are proposed at this facility.

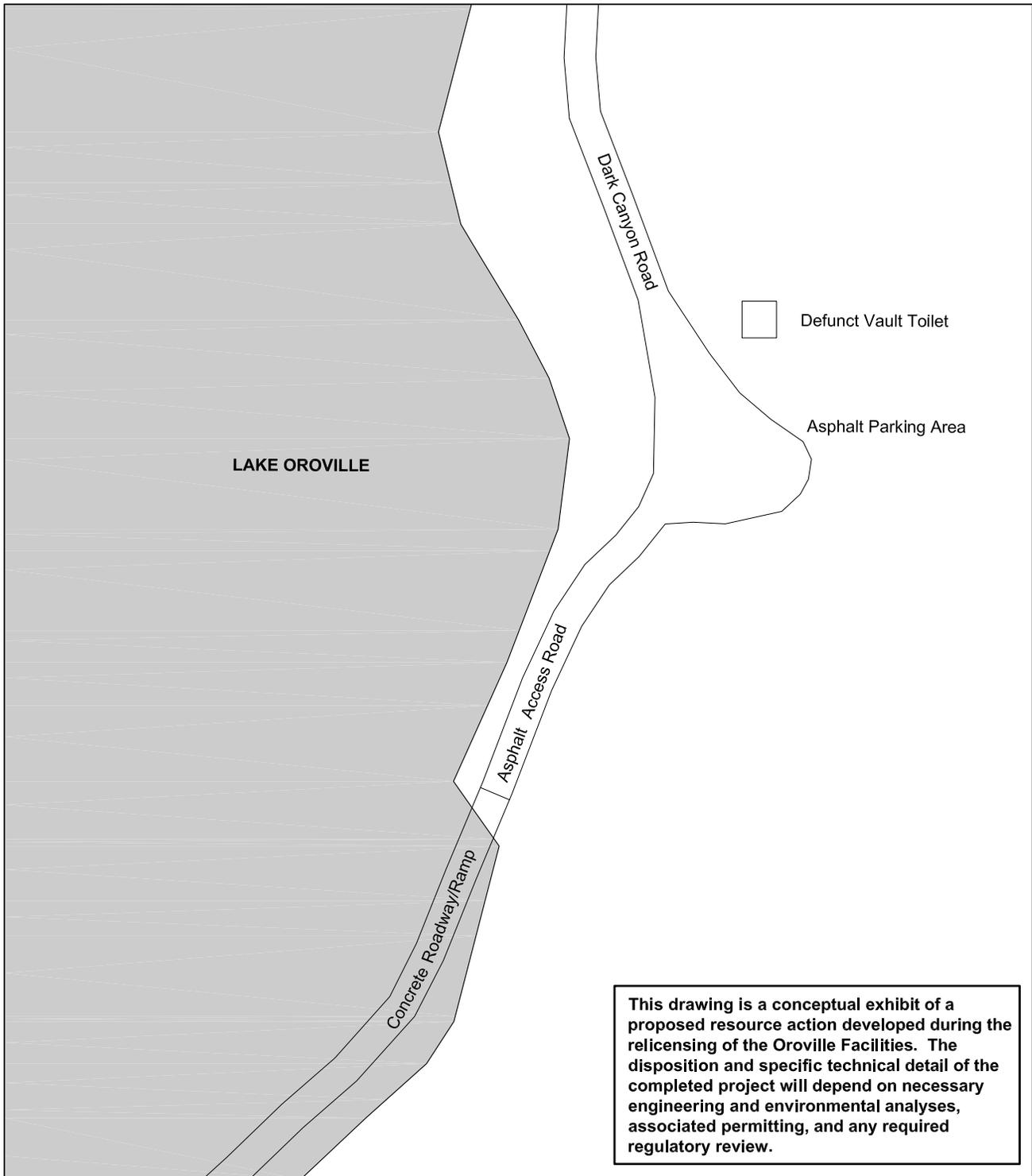


North



0' 75' 150' 300'

<p><b>Oroville Facilities Relicensing FERC Project No. 2100 State of California Department of Water Resources</b></p>
<p><b>Figure # LO-4 Vinton Gulch Car-top Boat Ramp</b></p>



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Provide additional directional signs (as a component of the proposed I&E Program) to aid users in locating this site.
- Replace the defunct toilet building at this site.

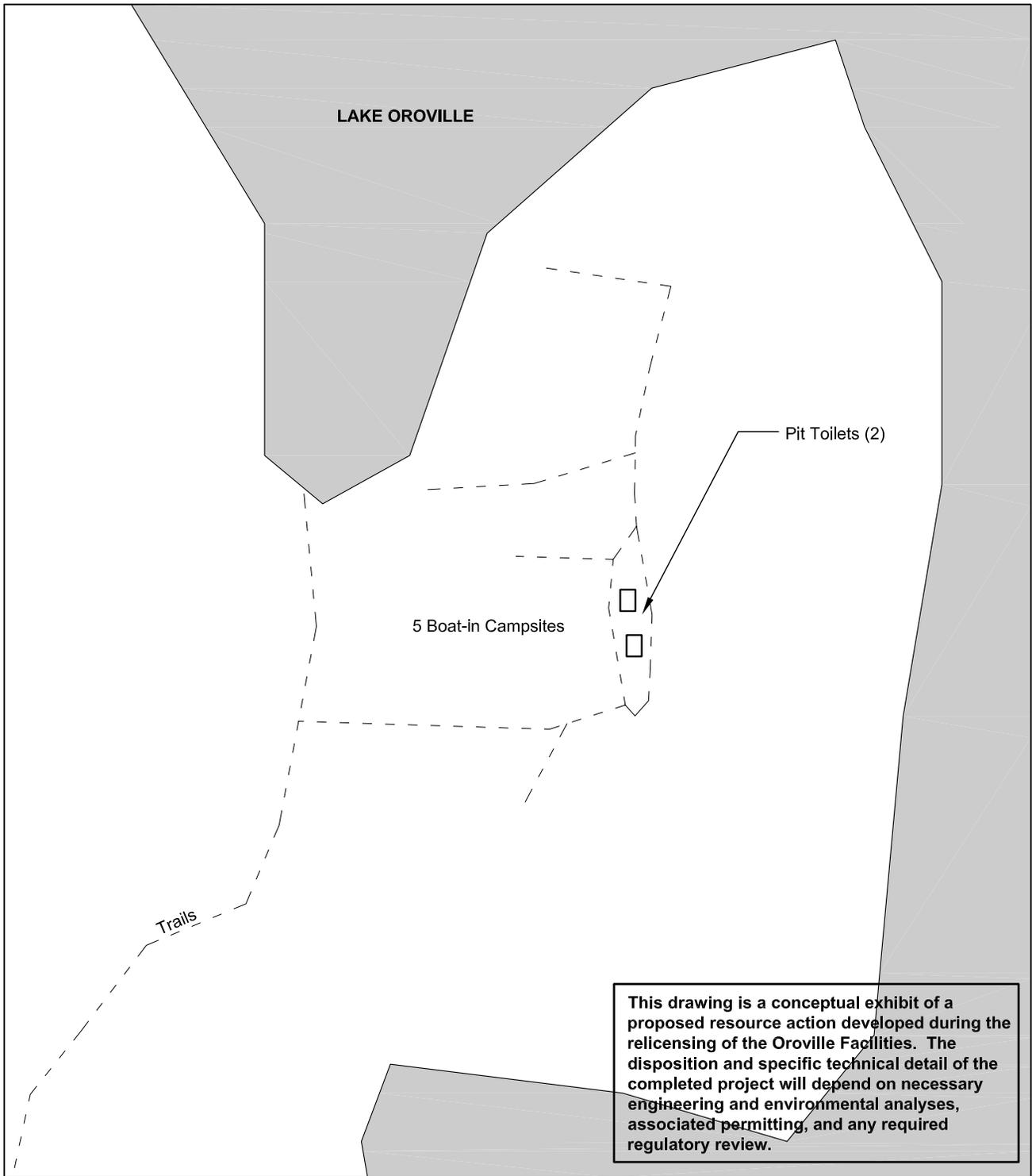


North



0' 50' 100' 200'

<p><b>Oroville Facilities Relicensing</b>  <b>FERC Project No. 2100</b>          State of California          Department of Water Resources</p>
<p><b>Figure # LO-5</b>  <b>Dark Canyon Car-top Boat Ramp</b></p>



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

-- Monitor use and conduct regular O&M activities to ensure cultural resource protection in concert with ongoing recreational use.



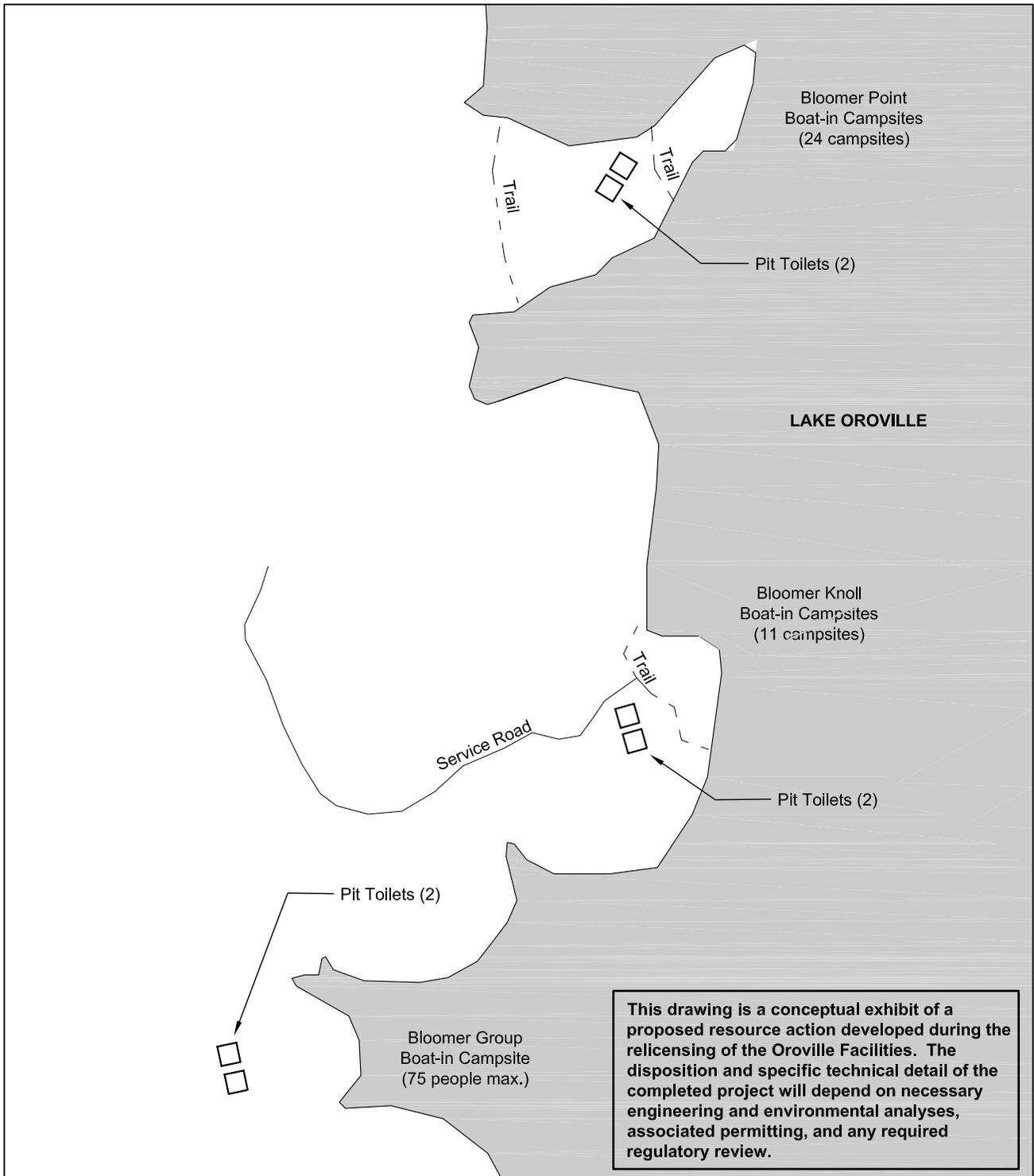
North



0' 75' 150' 300'

**Oroville Facilities Relicensing  
FERC Project No. 2100  
State of California  
Department of Water Resources**

**Figure # LO-6  
Goat Ranch Boat-in Campground**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

-- Monitor use and conduct regular O&M activities to ensure cultural resource protection in concert with ongoing recreational use.



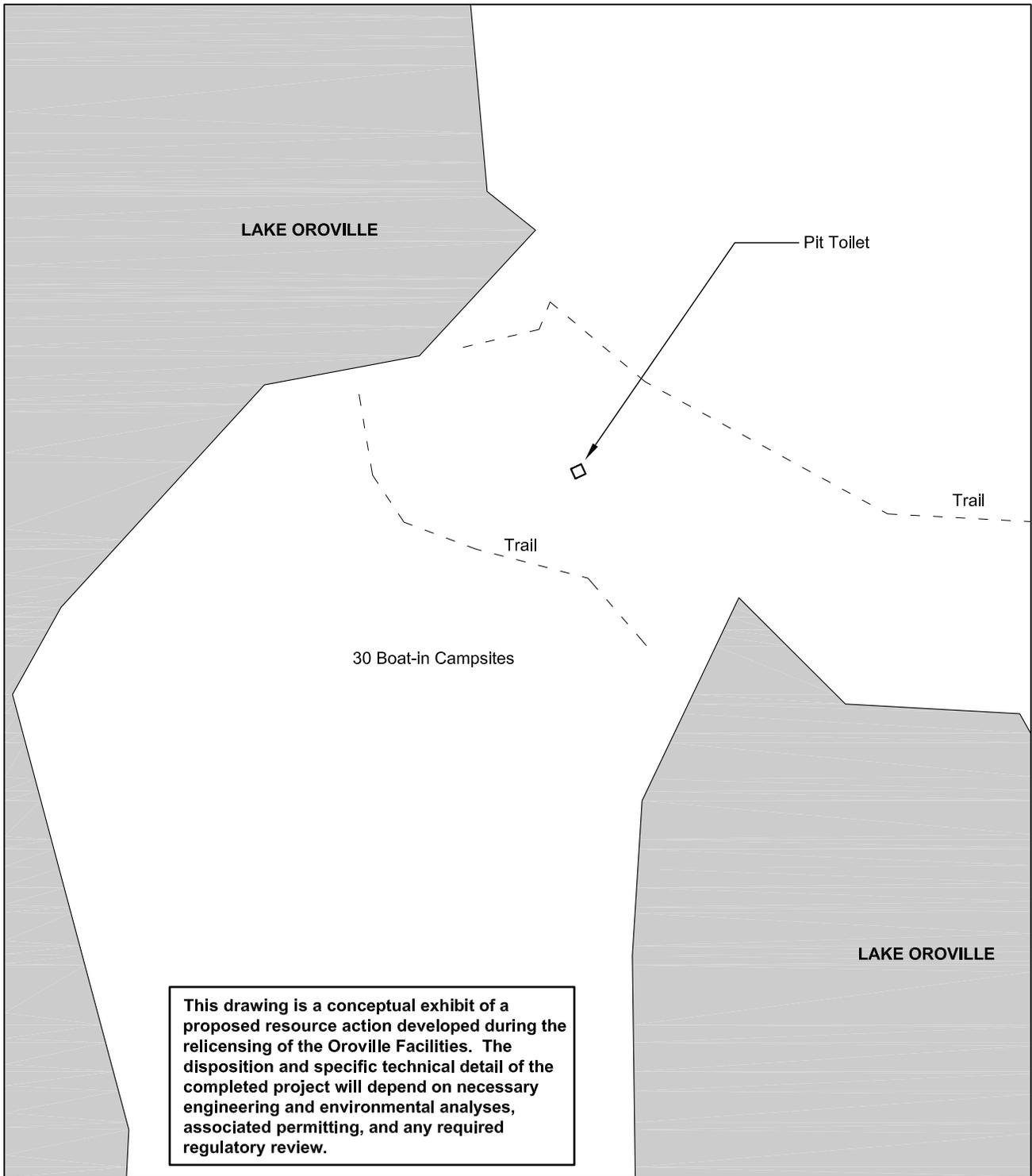
North



0' 225' 450' 900'

**Oroville Facilities Relicensing  
FERC Project No. 2100  
State of California  
Department of Water Resources**

**Figure # LO-7  
Bloomer Boat-in Campsites**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

-- Monitor use and conduct regular O&M activities to ensure cultural resource protection in concert with ongoing recreational use.

-- Facility may see increased informal day use and land-based overnight walk-in camping during low water conditions due to modifications proposed for the Foreman Creek Car-top BR and rerouted access to surrounding day use lands.



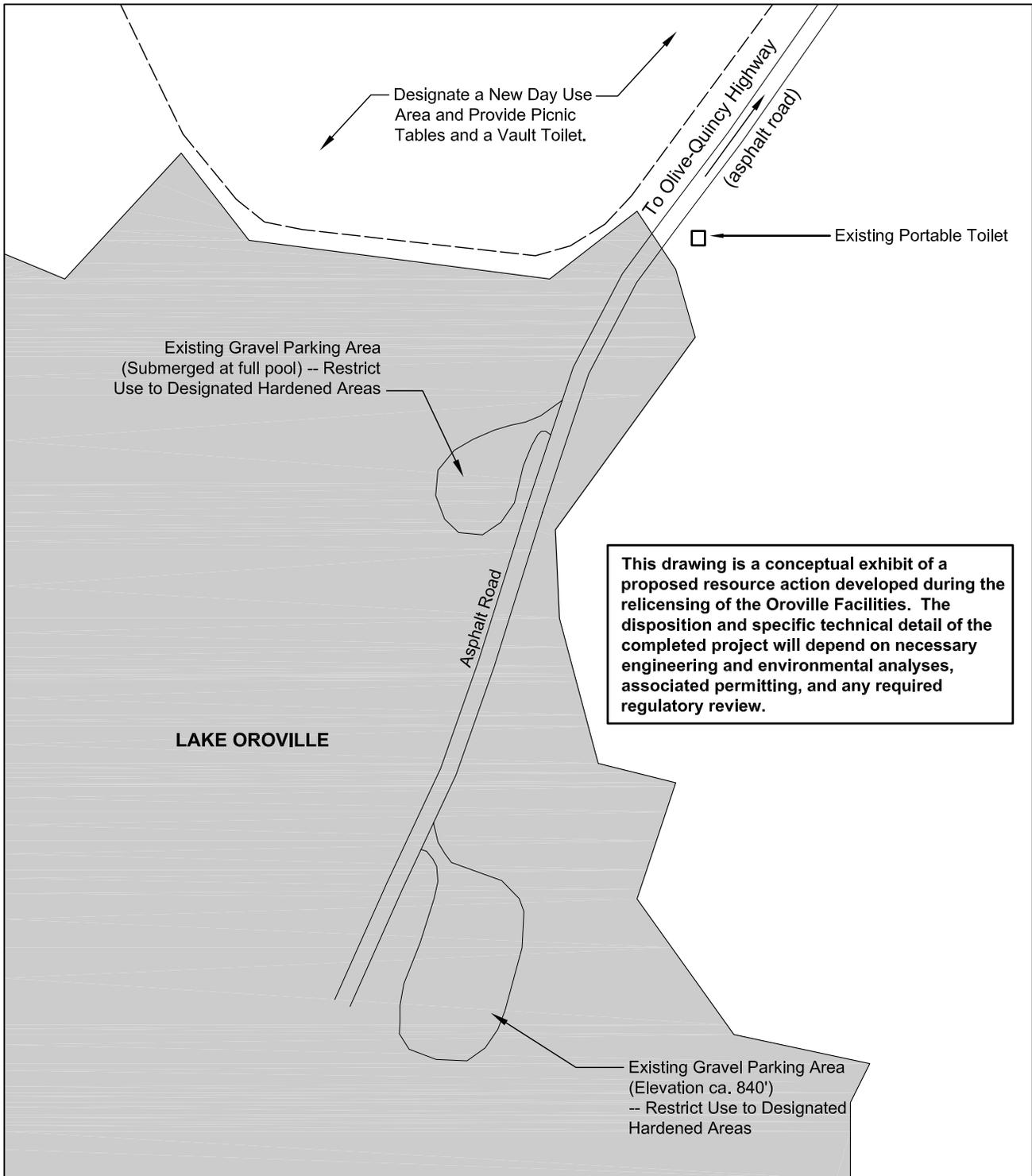
North



0' 100' 200' 400'

**Oroville Facilities Relicensing  
FERC Project No. 2100  
State of California  
Department of Water Resources**

**Figure # LO-8  
Foreman Creek Boat-in Campground**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Provide site protection for the preservation of cultural and other sensitive resources.
- Reconfigure site to reroute visitor use away from culturally sensitive areas, including measures to restrict usage of car-top boat ramp to a designated use area.
- Provide site improvements including interpretive signage, 5-10 picnic tables with shade ramadas and an ADA-accessible vault toilet within a designated use area. Pole stoves will also be installed if deemed permissible from a fire safety or fuel load management perspective.



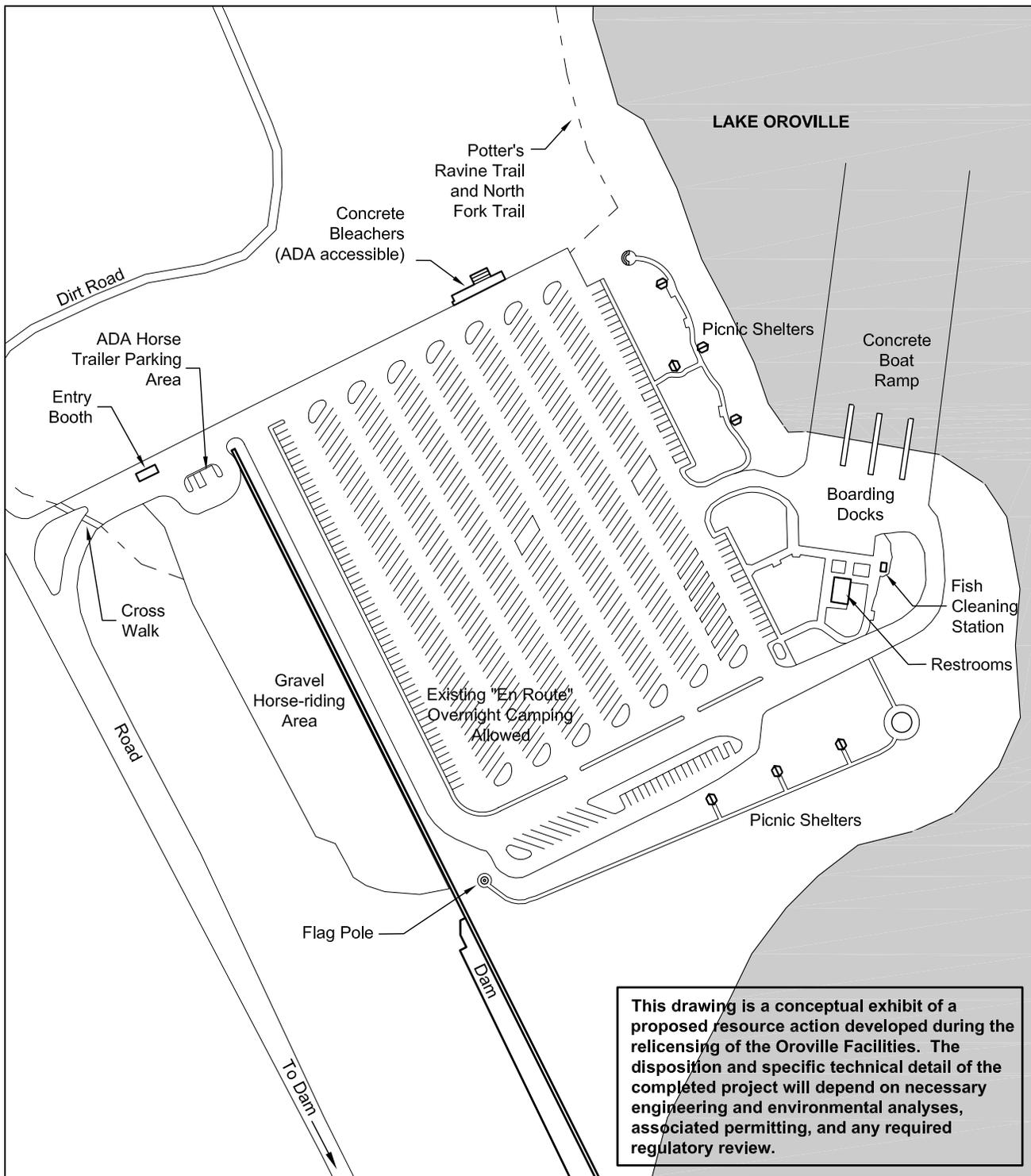
North



0' 100' 200' 400'

**Oroville Facilities Relicensing  
FERC Project No. 2100  
State of California  
Department of Water Resources**

**Figure # LO-9  
Foreman Creek Cartop Boat Ramp**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Continue RV "En Route" camping at this site subject to periodic security review.
- Ensure adequate adjustment of the boarding docks and adequate debris removal at boat ramps and adjacent facilities.
- Provide boaters with additional information about substitute boating facilities and changing reservoir conditions.
- Provide additional boarding dock to maximize boat launching capacity.



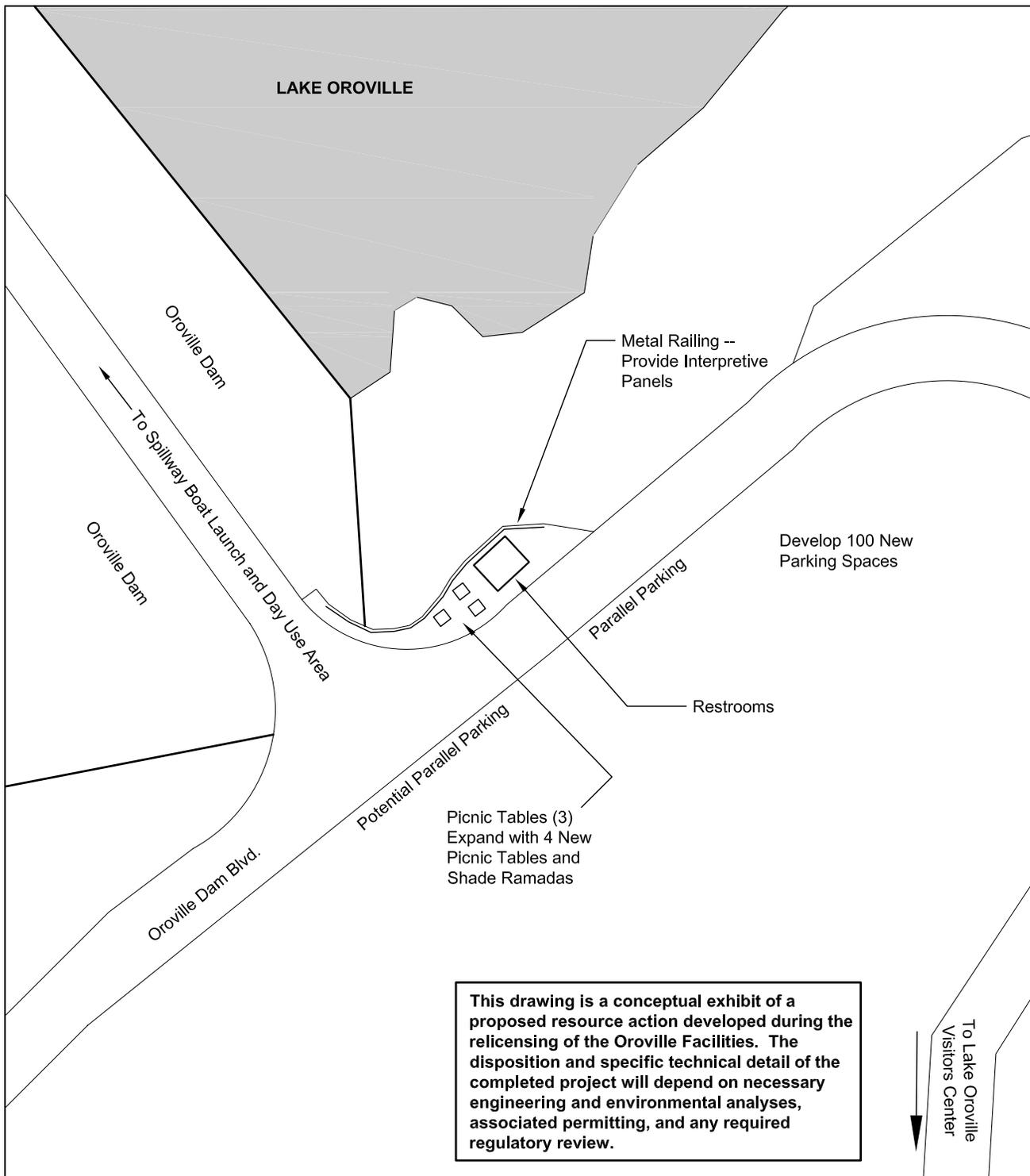
North



0' 100' 200' 600'

**Oroville Facilities Relicensing  
FERC Project No. 2100  
State of California  
Department of Water Resources**

**Figure # LO-10  
Spillway Boat Ramp and  
Day Use Area**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Improve Dam Abutment Overlook Area to accommodate parking and day use including shade ramadas, 4-5 picnic tables, and interpretive panels (ADA).
- Provide approximately 100 new parking spaces and access routes/stairs in the area.

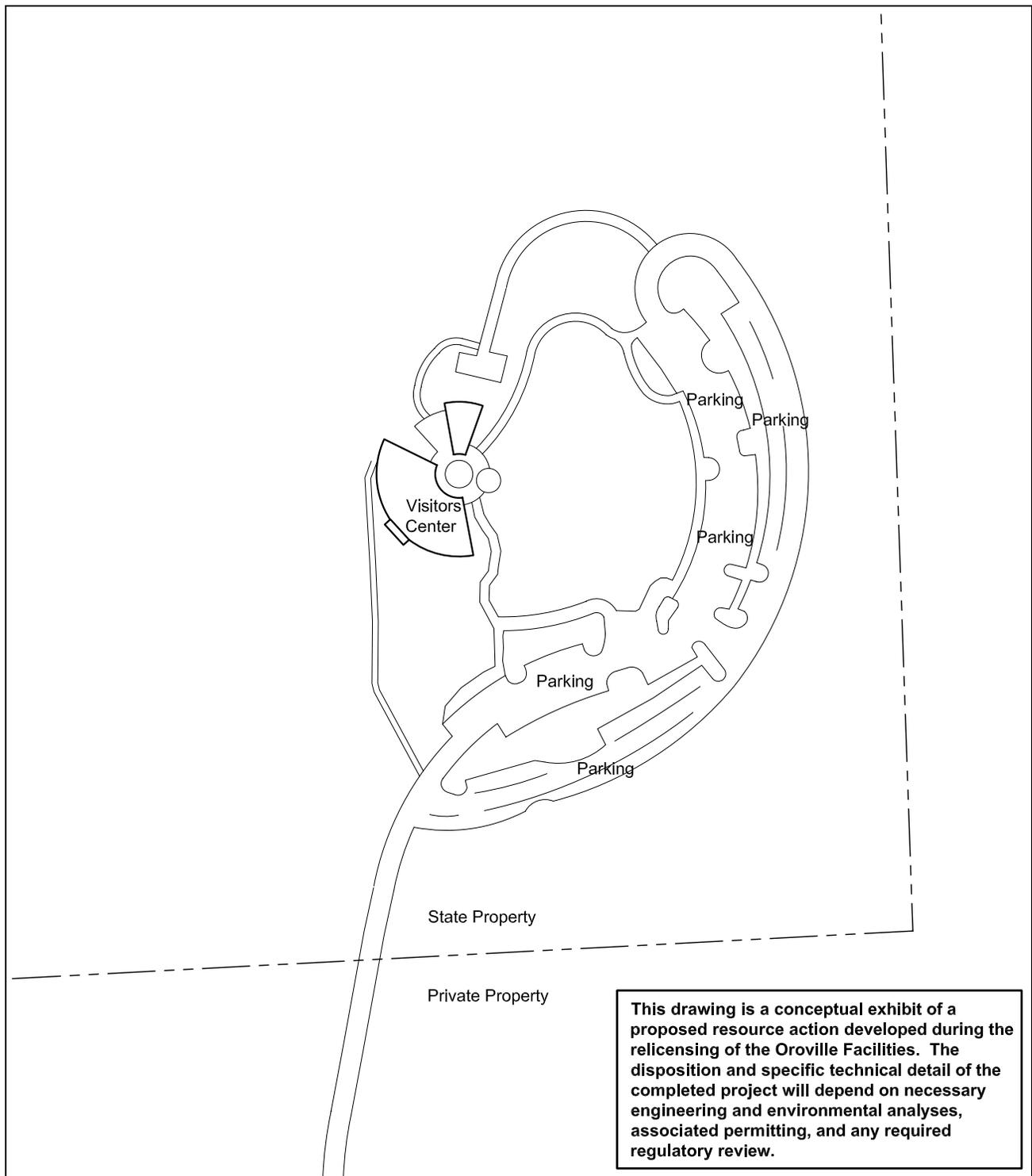


North



0' 50' 100' 200'

<p><b>Oroville Facilities Relicensing</b>  <b>FERC Project No. 2100</b>  <b>State of California</b>  <b>Department of Water Resources</b></p>
<p><b>Figure # LO-11</b>  <b>Oroville Dam Overlook Day Use Area</b></p>



This drawing is a conceptual exhibit of a proposed resource action developed during the relicensing of the Oroville Facilities. The disposition and specific technical detail of the completed project will depend on necessary engineering and environmental analyses, associated permitting, and any required regulatory review.

**Proposed Recreation Actions:**

- Future facility functions to be addressed in the I&E Program of the RMP.
- Provide additional parking capacity in the future if needed.

SOURCE: EDAW Inc., 2003



North



0' 100' 200' 400'

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

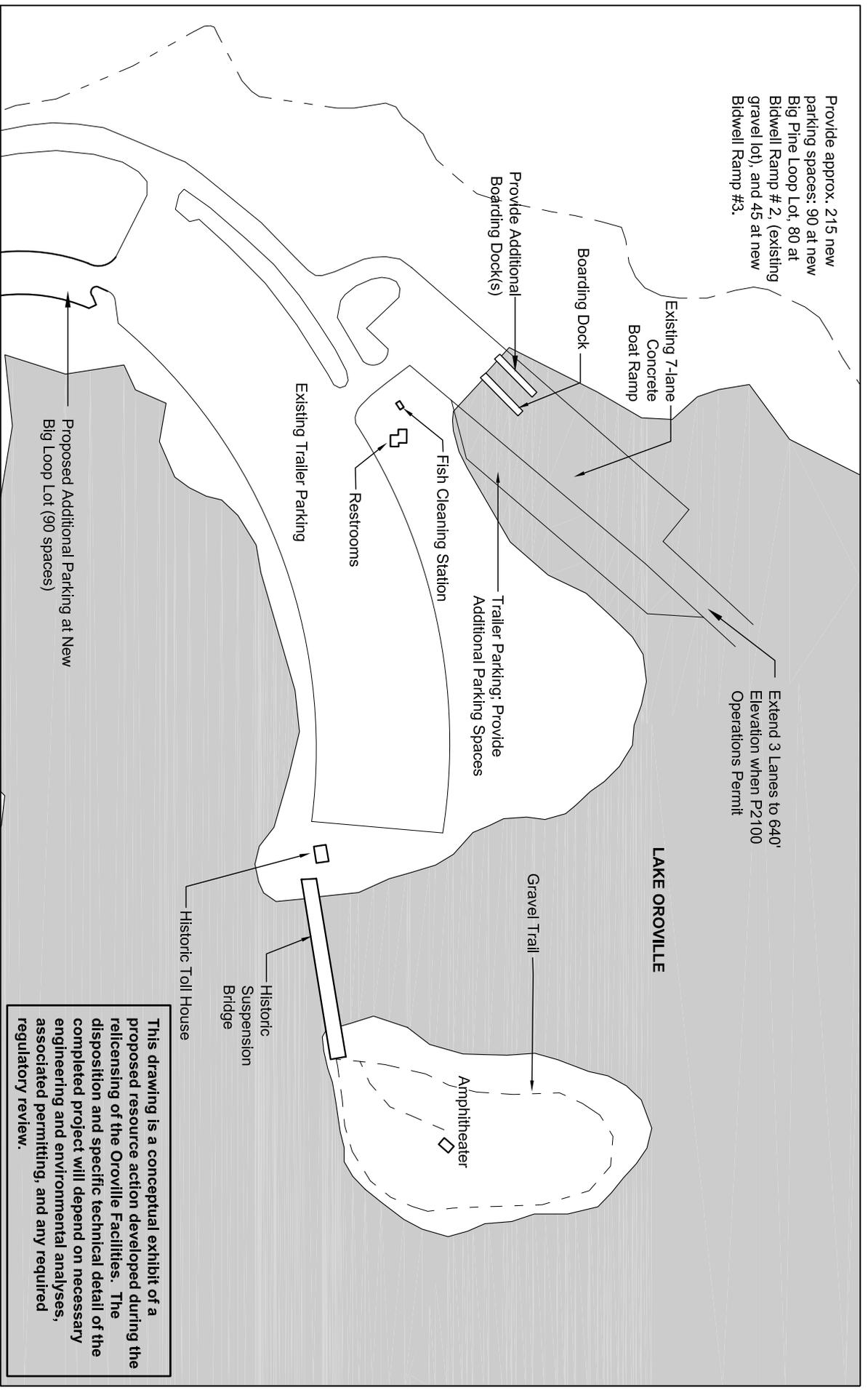
**State of California  
Department of Water Resources**

**Figure # LO-12  
Lake Oroville Visitors Center**

Provide approx. 215 new parking spaces: 90 at new Big Pine Loop Lot, 80 at Bidwell Ramp #2, (existing gravel lot), and 45 at new Bidwell Ramp #3.

Extend 3 Lanes to 640' Elevation when P2100 Operations Permit

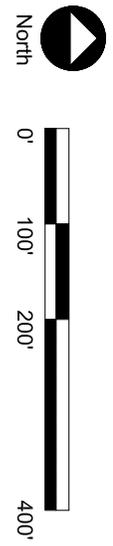
LAKE OROVILLE



This drawing is a conceptual exhibit of a proposed resource action developed during the relicensing of the Oroville Facilities. The disposition and specific technical detail of the completed project will depend on necessary engineering and environmental analyses, associated permitting, and any required regulatory review.

SOURCE: EDAW Inc., 2003

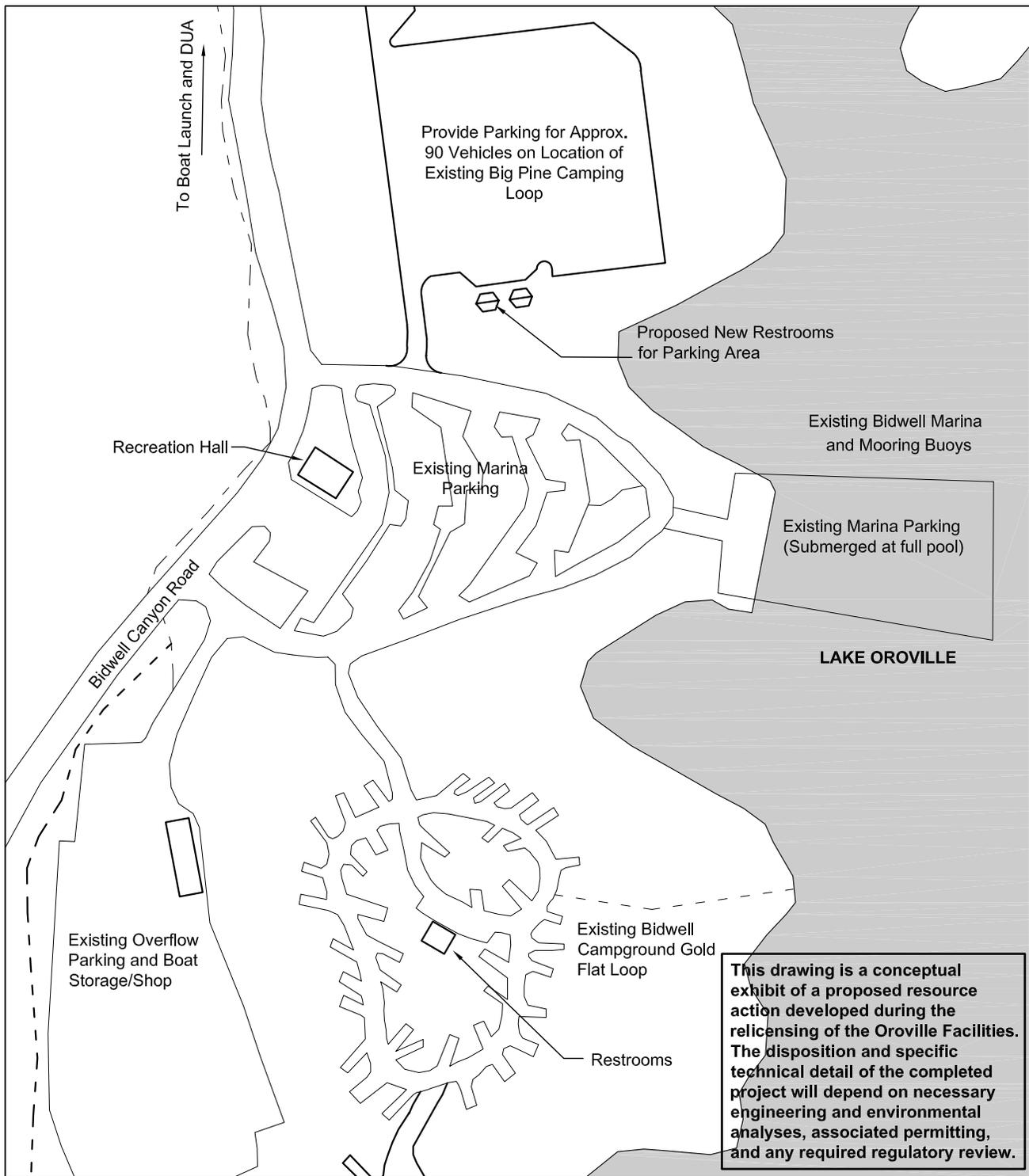
- Proposed Recreation Actions:**
- Provide approximately 215 new parking spaces for use by BR/ DUA/Marina visitors.
  - Provide additional boarding dock(s).
  - Open Dan Beebe Trail to bicycle use.
  - Open Bidwell Canyon Trail to equestrian use.



- Extend 3-lanes on south side of existing Ramp #3 to 640' elevation; provide 45 of the 215 new parking spaces at top of Ramp #3 with other parking along ramp.
- Resurface existing gravel parking lot with concrete (at 700' elevation and Ramp #2) to provide 80 spaces.
- Ensure adequate adjustment of the boarding dock(s) as needed and adequate debris removal at boat ramps and adjacent facilities.
- Provide boaters with information on substitute boating facilities and changing access conditions.

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**Figure # LO-13**  
**Bidwell Canyon Boat Ramp**  
**and Day Use Area**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Relocate the Big Pine Camping Loop to accommodate marina parking needs; provide new campground loop to the south of Gold Flat Loop.
- Consider upgrades to ADA-accessibility at the marina.
- When monitoring results demonstrate a clear need, consider constructing new Bidwell Canyon campsite capacity at Loafer Creek.
- Explore additional dry boat storage in the Marina/Boat Ramp areas as an added element in the new concessionaire contract.
- Open Dan Beebe Trail to bicycle use.
- Open Bidwell Canyon Trail to equestrian use.

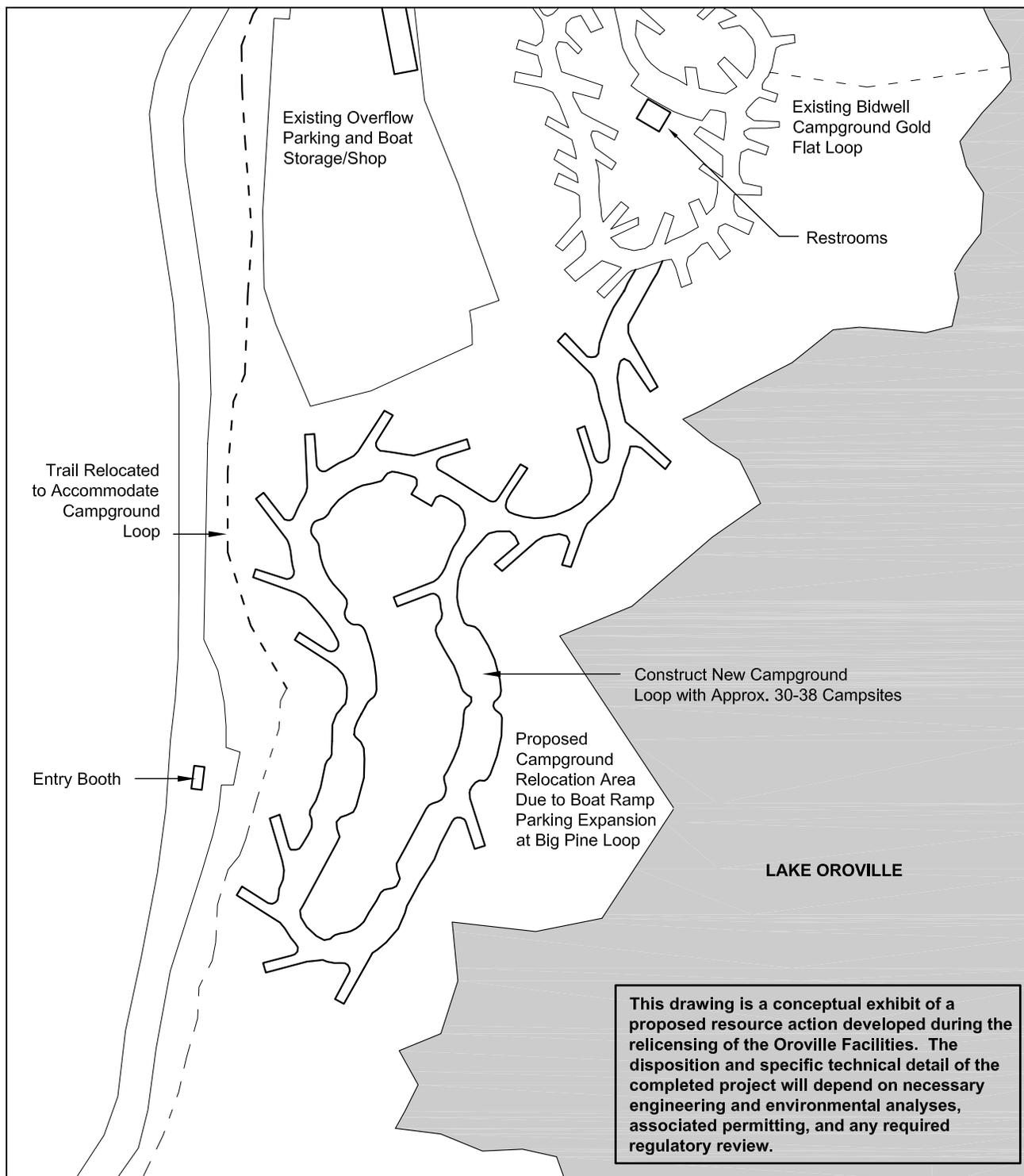


North



0' 100' 200' 400'

<p><b>Oroville Facilities Relicensing</b>  <b>FERC Project No. 2100</b>  <b>State of California</b>  <b>Department of Water Resources</b></p>
<p><b>Figure # LO-14</b>  <b>Bidwell Canyon Campground and Marina</b></p>



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Provide approx. 30-38 new campsites at new campground loop south of Gold Flat Loop.
- Provide 15 additional campsites at Loafer Creek Campground if 38 campsites cannot be sited at the New Bidwell Campground Loop.
- Relocate existing trail to accommodate New Bidwell Campground Loop.



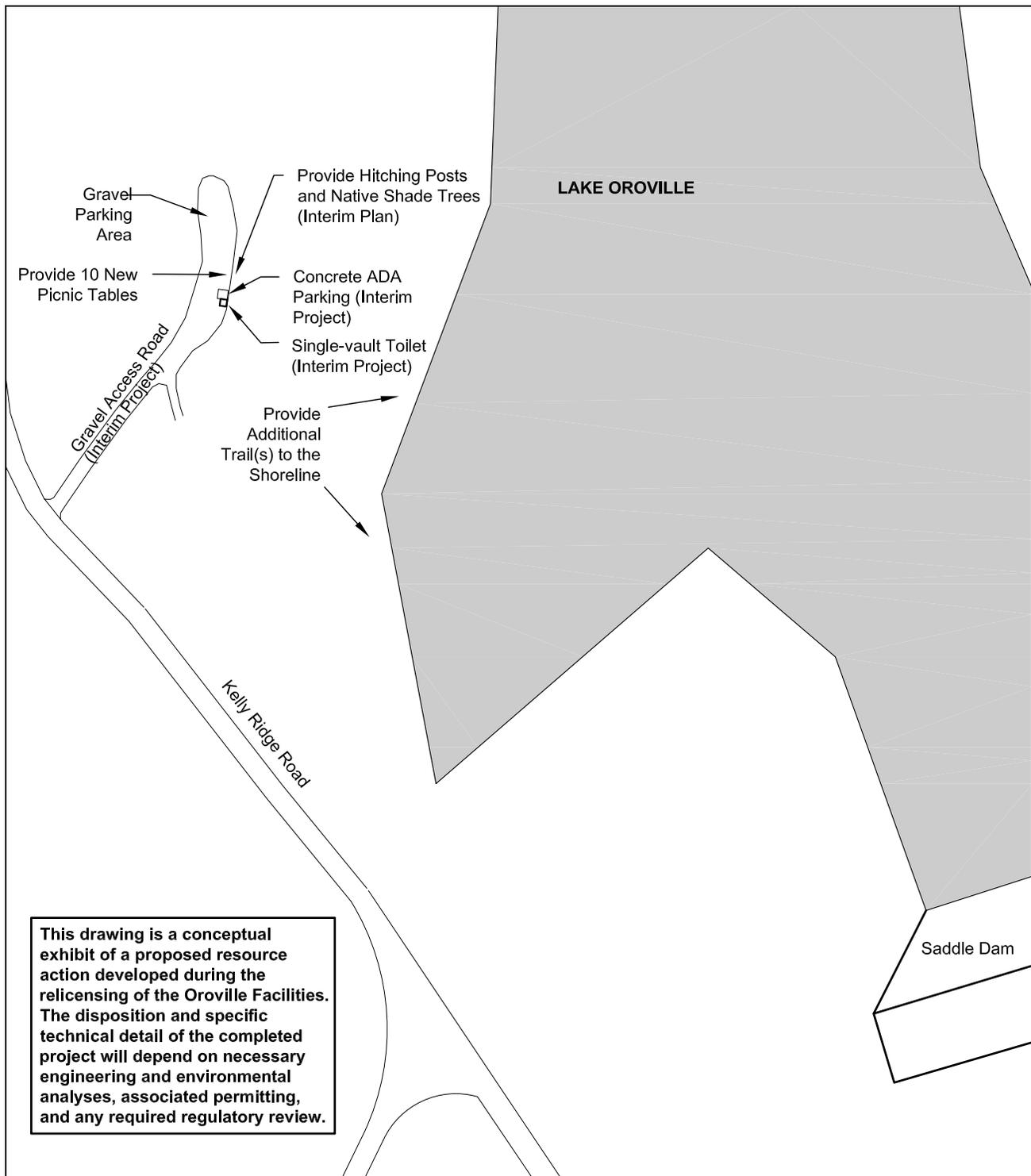
North



0' 100' 200' 400'

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Department of Water Resources**

**Figure # LO-15  
Bidwell Canyon South Area**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Re-grade and gravel existing equestrian parking area (Interim Project).
- Provide hitching posts (Interim Project), and native shade trees (Interim Project).
- Construct additional trail(s) to the shoreline from the trailhead.
- Install new vault toilet (Interim Project).
- Consider additional security at this location when needed.
- Provide a new horse water trough and handwashing sink through a piped water system (if feasible and cost efficient) or via manually delivered water on a periodic basis.
- Provide 10 new picnic tables.



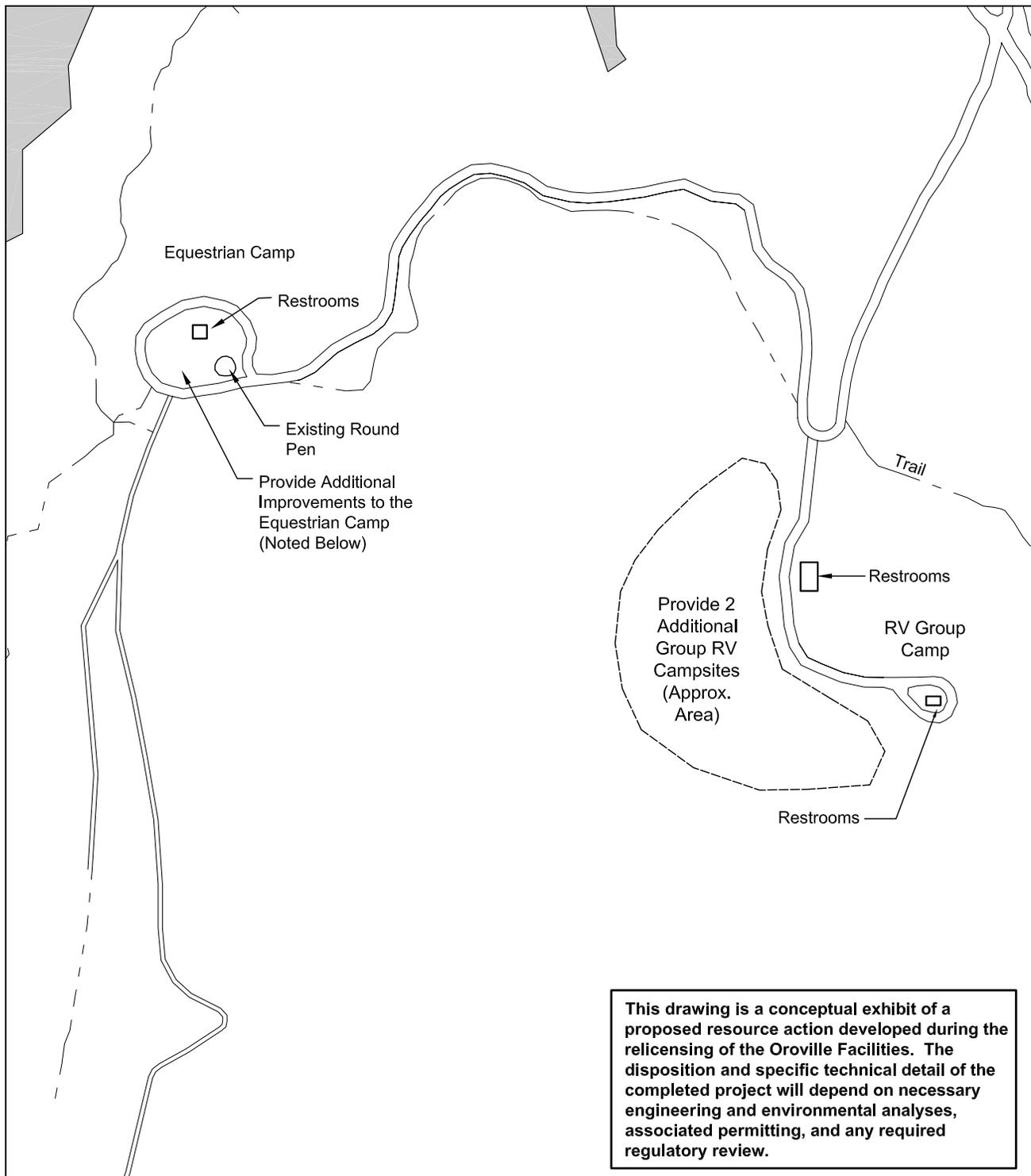
North



0' 100' 200' 400'

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Department of Water Resources**

**Figure # LO-16  
Saddle Dam Day Use Area**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Provide ADA-accessibility enhancements at the Loafer Creek Group and Equestrian Campgrounds.
- Provide 2 new group RV campsites in the Loafer Creek Complex.
- Construct equestrian-related improvements including paved access road, feeder boxes and 50' round pen (Interim Project).
- Replace the portable toilet at Brooks Orchard located nearby with a new vault toilet building.
- Based on monitoring results during the L2 to L5 phases, additional group RV campsites may be needed. If so, construct 1-2 new group RV campsites in the Loafer Creek Complex utilizing existing infrastructure where possible, possibly near the Loafer Creek Day Use Area.



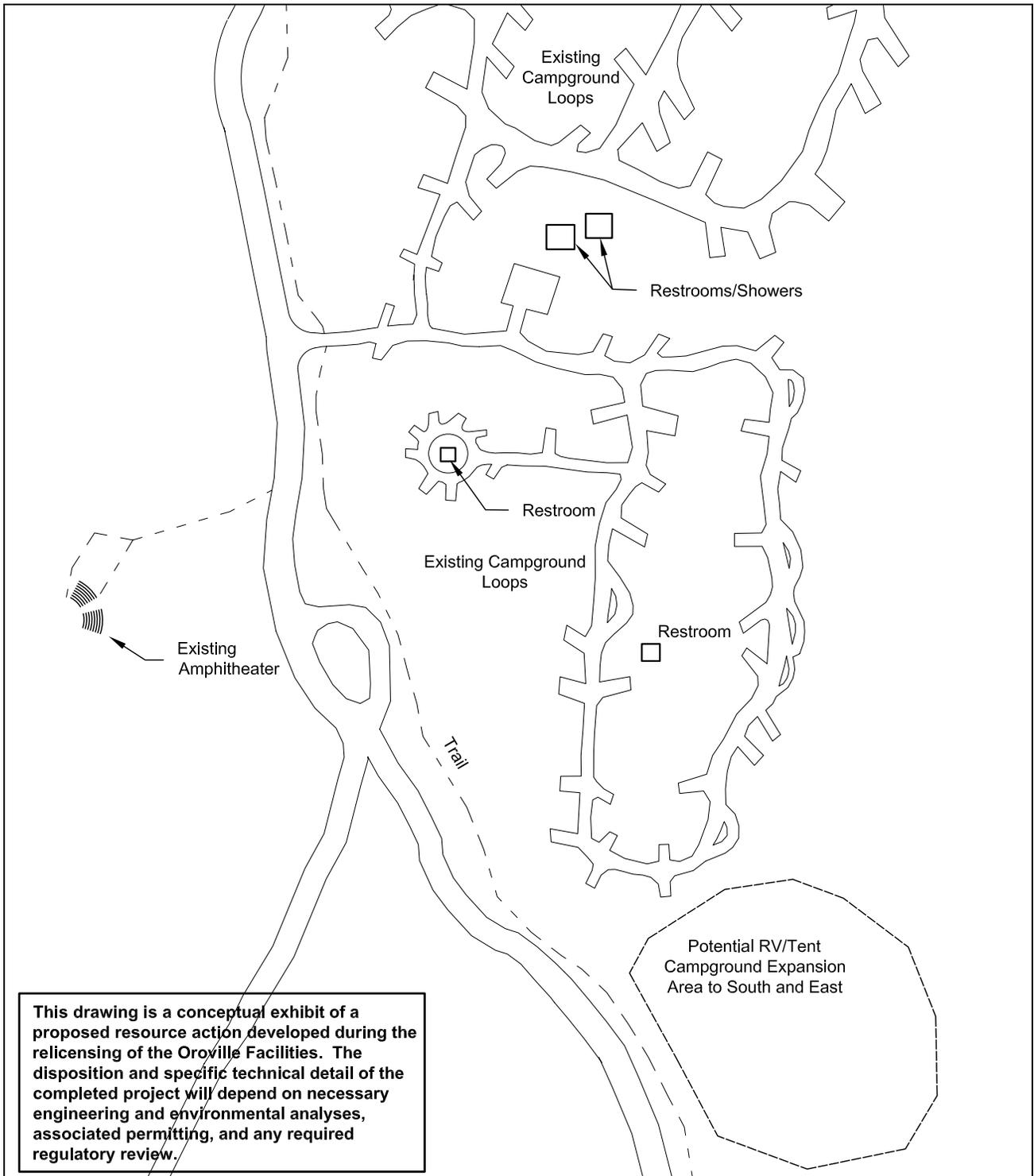
North



0' 200' 400' 800'

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**Figure # LO-17  
Loafer Creek Group Camp  
and Equestrian Camp**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Provide 15 new RV/tent campsites in the Loafer Creek Complex if 38 campsites cannot be relocated within the Bidwell Canyon Complex.
- Based on monitoring results during the L2 to L5 phases, additional camping capacity may be needed. If so, provide approximately 35 (if 15 from Bidwell Canyon Campground have previously been constructed) to 50 new RV/tent campsites within the Loafer Creek Complex, and reevaluate the current mix of campsite types (RV vs. tent).
- Explore feasibility of permitting a concessionaire to construct/rent cabins or similar lodging in the Loafer Creek Complex.
- In conjunction with the swim facility feasibility study, evaluate the feasibility of a concessionaire operated campground activity center and store/snack bar.



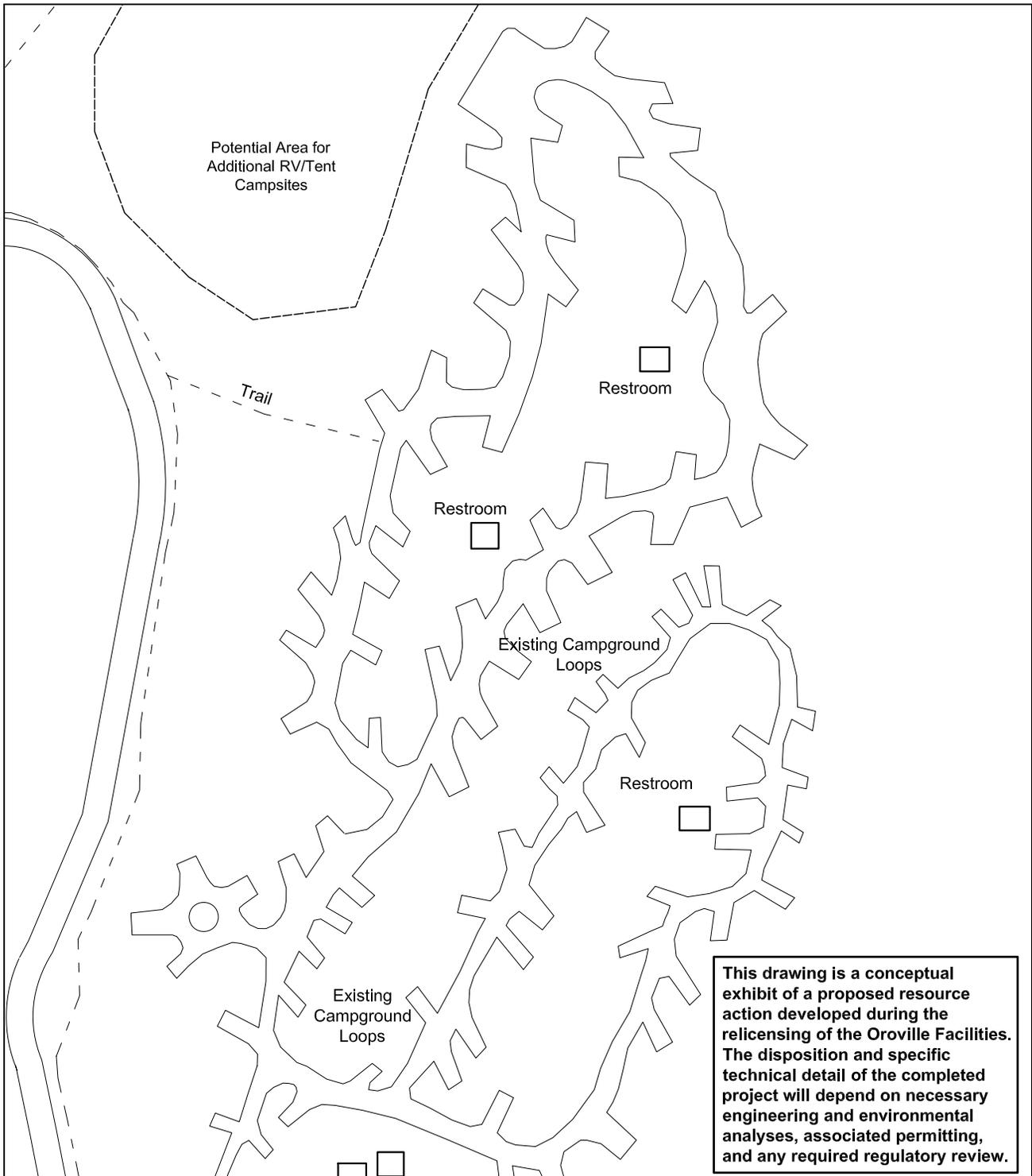
North



0' 100' 200' 400'

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State of California  
Department of Water Resources**

**Figure # LO-18  
Loafer Creek Campground -- South Loop**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

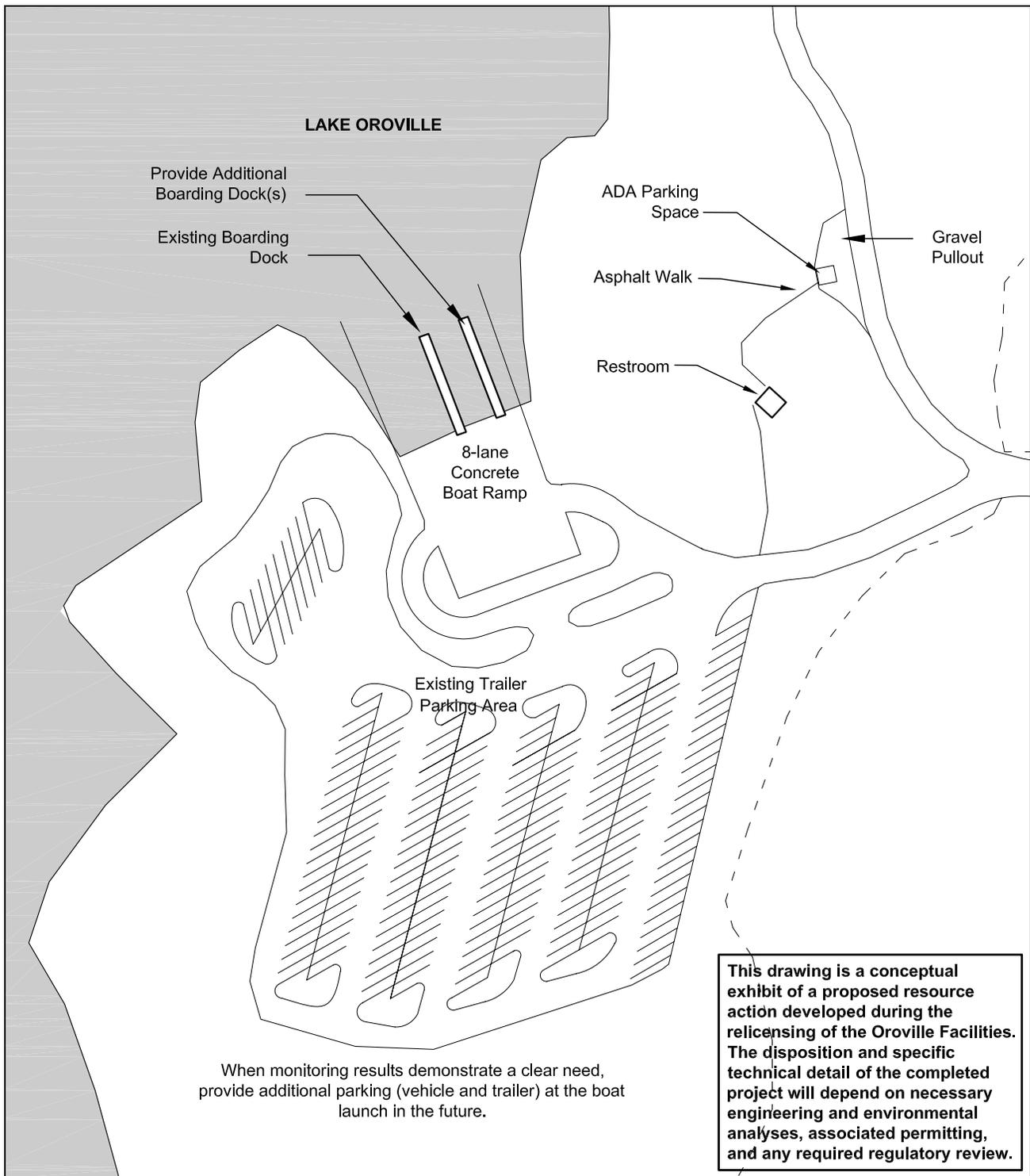
- Provide 15 new RV/tent campsites in the Loafer Creek Complex if 38 campsites cannot be relocated within the Bidwell Canyon Complex.
- Based on monitoring results during the L2 to L5 phases, additional camping capacity may be needed. If so, provide approximately 35 (if 15 from Bidwell Canyon Campground have previously been constructed) to 50 new RV/tent campsites within the Loafer Creek Complex, and reevaluate the current mix of campsite types (RV vs. tent).
- Explore feasibility of permitting a concessionaire to construct/rent cabins or similar lodging in the Loafer Creek Complex.
- In conjunction with the swim facility feasibility study, evaluate the feasibility of a concessionaire operated campground activity center and store/snack bar.



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**Figure # LO-19**  
**Loafer Creek Campground -- North Loops**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Provide 1 or 2 additional boarding docks.
- Ensure adequate adjustment of the boarding docks and adequate debris removal at boat ramps and adjacent facilities.
- Provide boaters with additional information about substitute boating facilities and changing reservoir conditions.
- Provide a fish cleaning station (location to be determined).
- Base on monitoring results during the L2 to L5 phases, additional boat ramp parking capacity may be needed. If so, additional parking may be provided at the boat ramp.

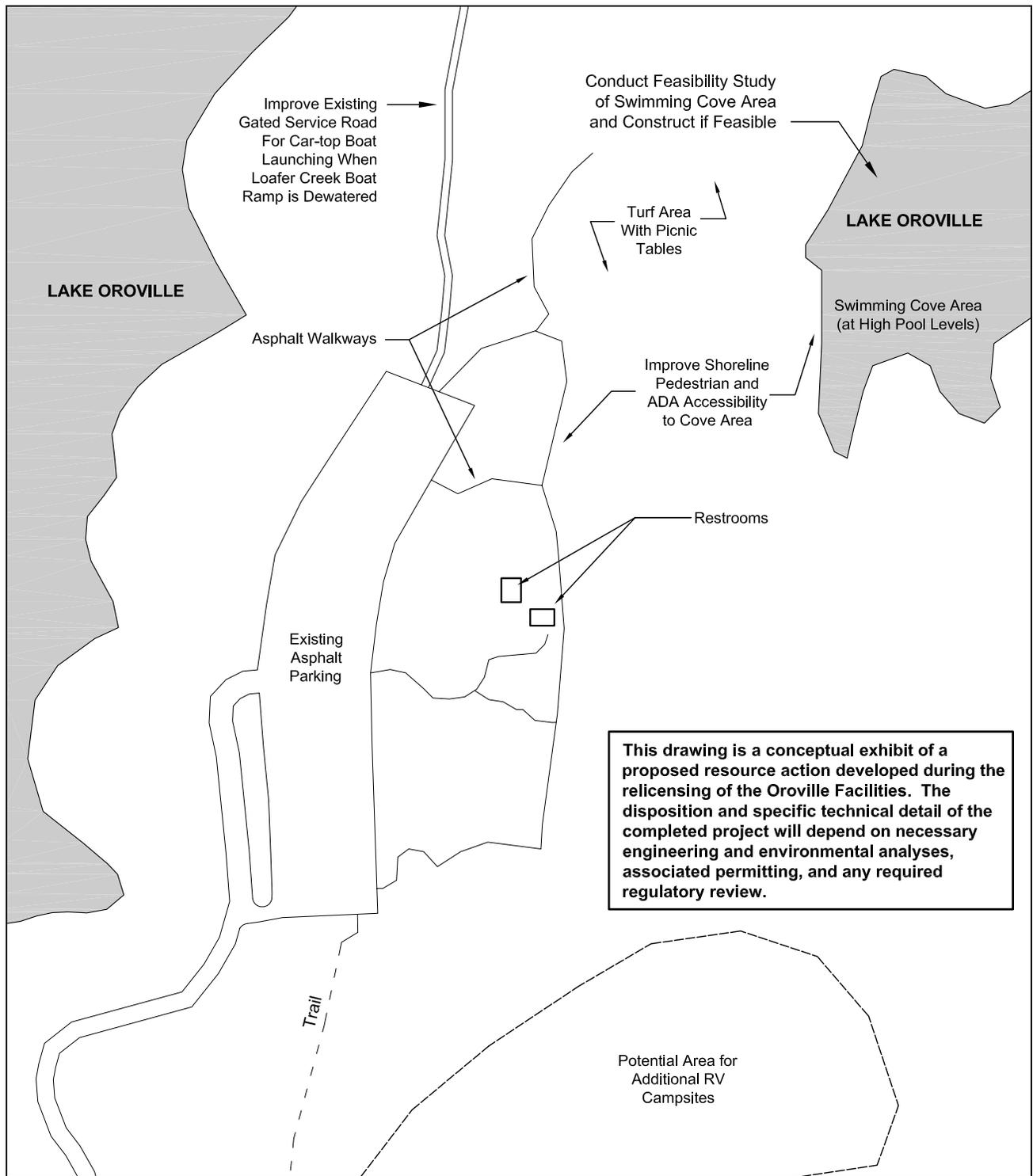


North



0' 75' 150' 300'

<p><b>Oroville Facilities Relicensing</b>  <b>FERC Project No. 2100</b>  <b>State of California</b>  <b>Department of Water Resources</b></p>
<p><b>Figure # LO-20</b>  <b>Loafer Creek Boat Launch</b></p>



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Conduct a feasibility study of potential swim facility options to provide improved swimming opportunities at Loafer Creek DUA and/or other P-2100 sites. If this site is feasible, construct a new swim facility at this location.
- Provide improved shoreline access and ADA-accessibility to the day use area, swimming beach, and cove.
- Widen, grade, and gravel the existing dirt service road at the DUA to approx. 750' elevation. Open the gated service road to the public when the Loafer Creek Boat Ramp becomes dewatered to allow car-top boat launching within the Loafer Creek Complex.
- In conjunction with the swim facility feasibility study, evaluate the feasibility of a concessionaire operated campground activity center and store/snack bar.



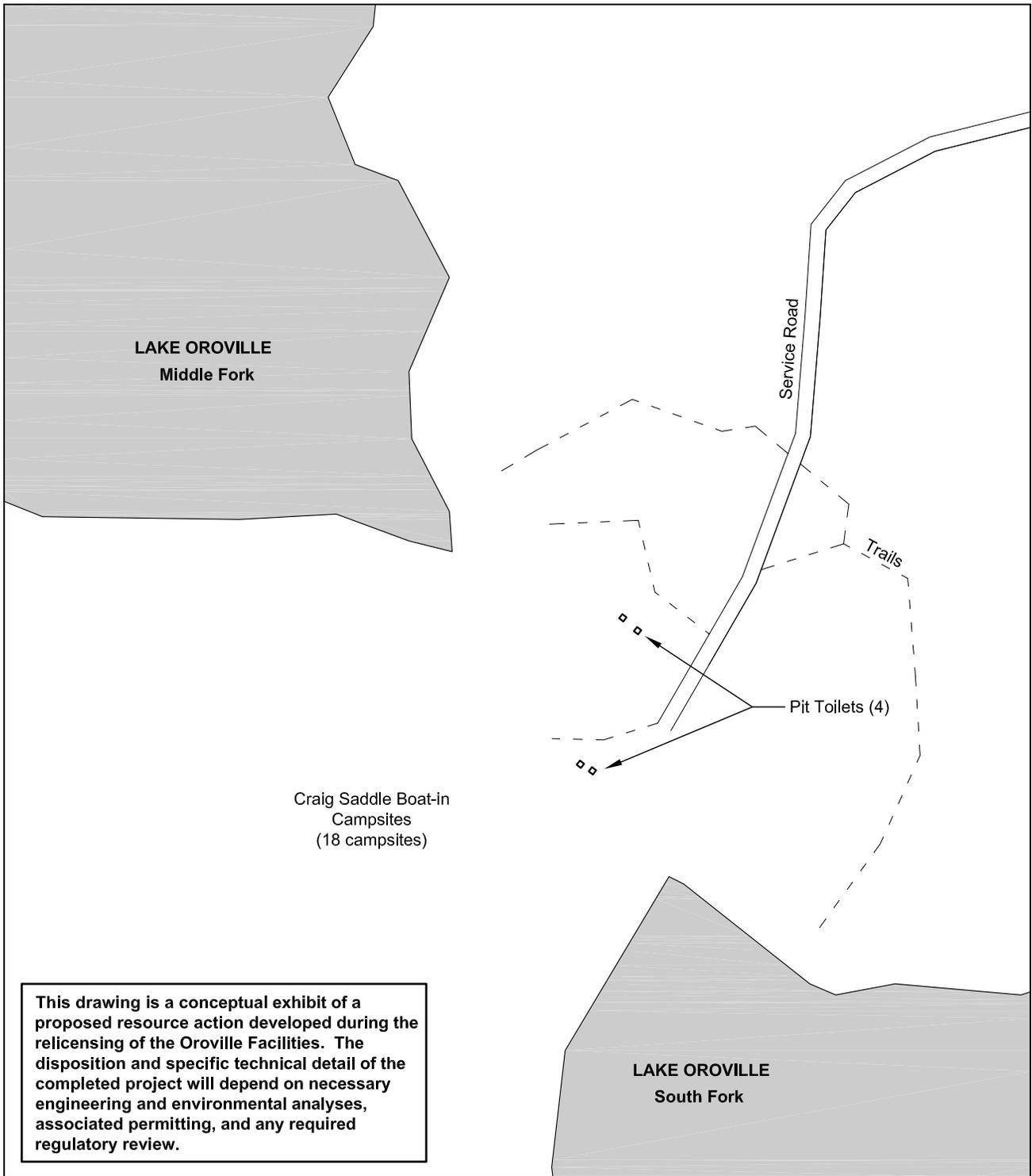
North



0' 100' 200' 400'

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Department of Water Resources**

**Figure # LO-21  
Loafer Creek Day Use Area**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

-- Monitor use and conduct regular O&M activities to ensure cultural resource protection in concert with ongoing recreational use.



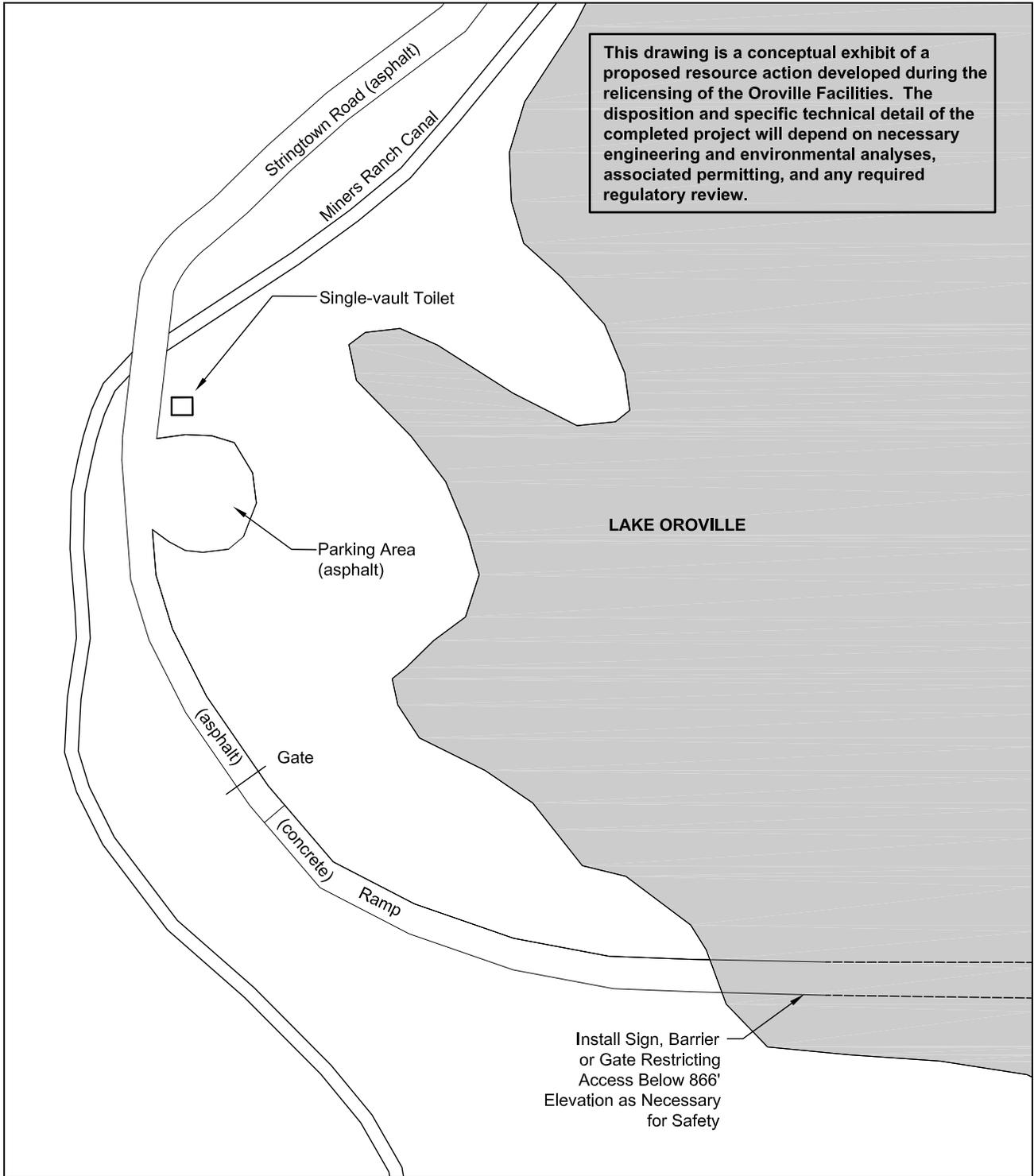
North



0' 100' 200' 400'

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**Figure # LO-22  
Craig Saddle Boat-in Campground**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Provide additional roadside directional signs (as a component of a proposed I&E Program) to aid users in locating this site.
- Install a sign, barrier, or gate for safety purposes at the unmaintained abandoned road in the inundation zone.



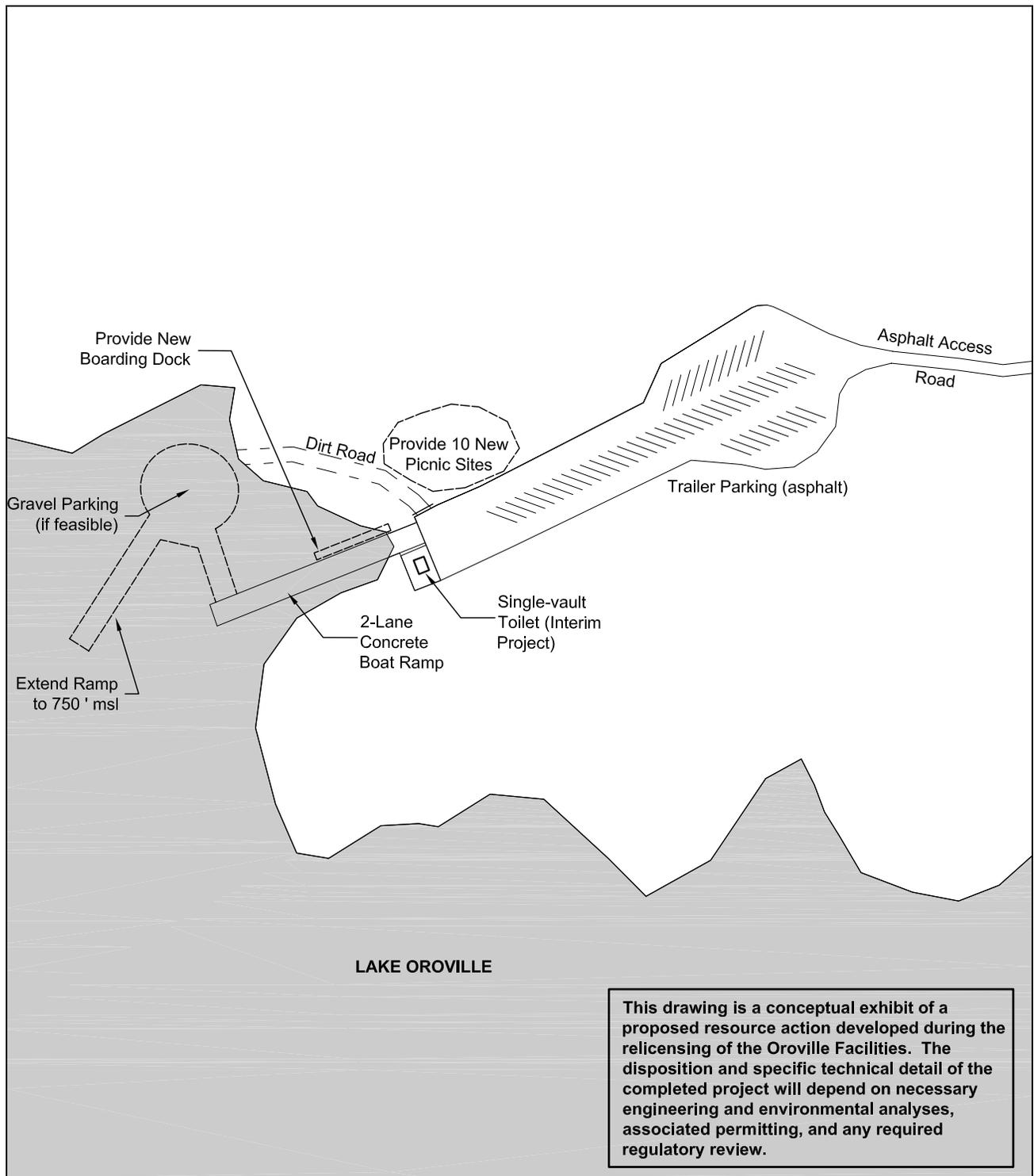
North



0' 50' 100' 200'

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**Figure # LO-23  
Stringtown Car-top Boat Ramp**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Construct 10 family picnic sites.
- Extend the boat ramp to approx. 750 feet msl to provide a greater likelihood of full summer-season usability.
- Provide a boarding dock at the boat ramp.
- Provide a vault toilet (Interim Project).
- Ensure adequate adjustment of boarding dock.
- If feasible, provide 10 gravel parking spaces.
- Evaluate cultural resources to identify areas for additional gravel parking near 750' elevation.



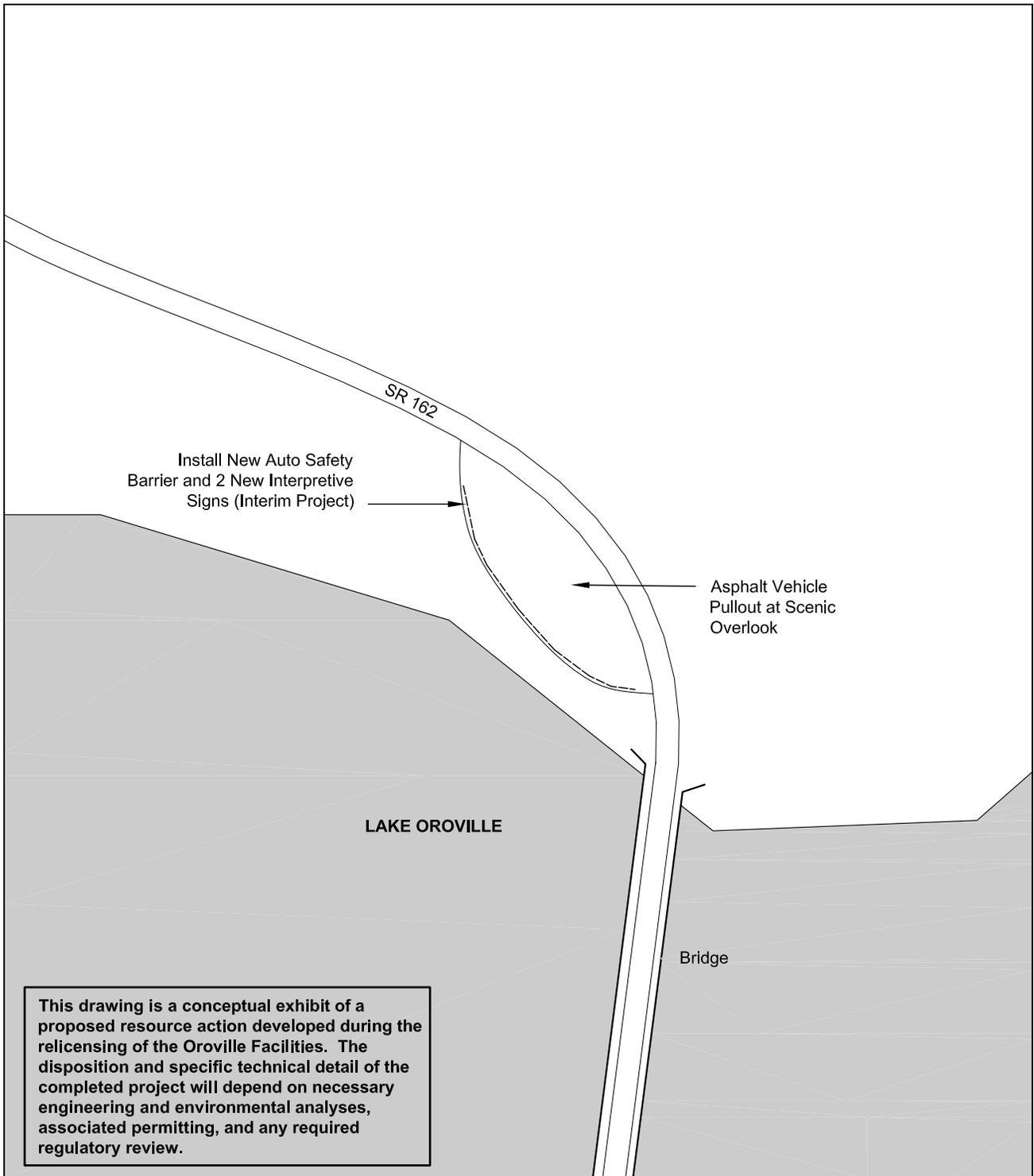
North



0' 100' 200' 400'

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**Figure # LO-24  
Enterprise Boat Ramp**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Remove cyclone-style fence and replace with Caltrans-approved auto safety barrier (Interim Project).
- Provide new interpretive signs (Interim Project).
- Provide trash receptacle and trash pick-up service in coordination with the Berry Creek Citizen's Organization.



North



0' 100' 200' 400'

**Oroville Facilities Relicensing**

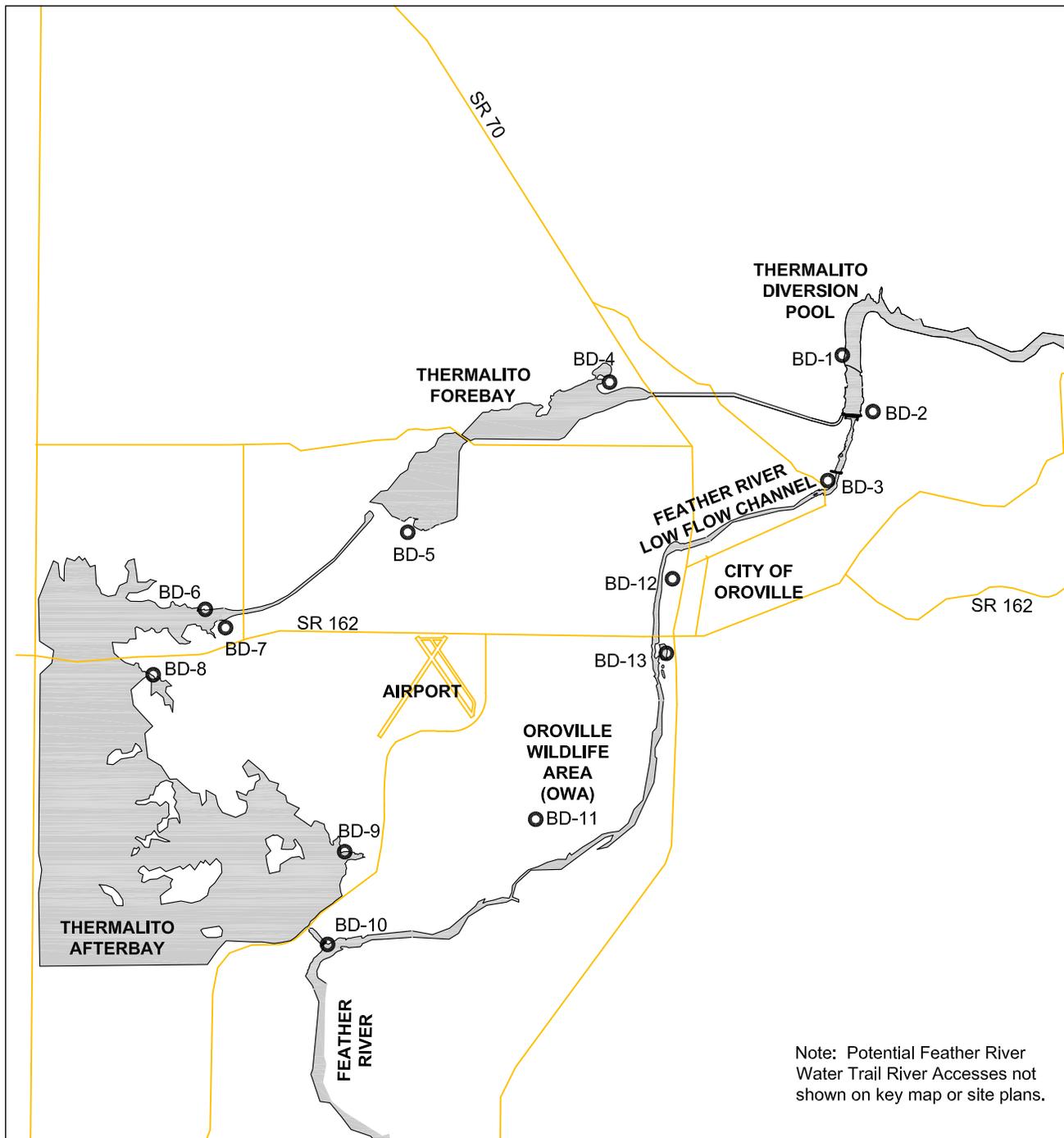
**FERC Project No. 2100**

**State of California**

**Department of Water Resources**

**Figure # LO-25**

**(SR 162) Lake Oroville Scenic Overlook**



SOURCE: EDAW Inc., 2003

**Below Dam (BD) Recreation Sites:**

- |   |   |
|---|---|
| BD-1 Diversion Pool DUA (North)                             | BD-9 Larkin Road Car-top Boat Ramp      |
| BD-2 Lakeland Blvd Trail Access/ Diversion Pool DUA (South) | BD-10 Afterbay Outlet Camping and DUA's |
| BD-3 Fish Hatchery DUA                                      | BD-11 Oroville Wildlife Area (OWA)      |
| BD-4 North Forebay DUA and Boat Ramp                        |   |
| BD-5 South Forebay DUA and Boat Ramp                        |   |
| BD-6 Model Aircraft Flying Facility                         |   |
| BD-7 Wilbur Road Boat Ramp                                  |   |
| BD-8 Monument Hill DUA and Boat Ramp                        |   |



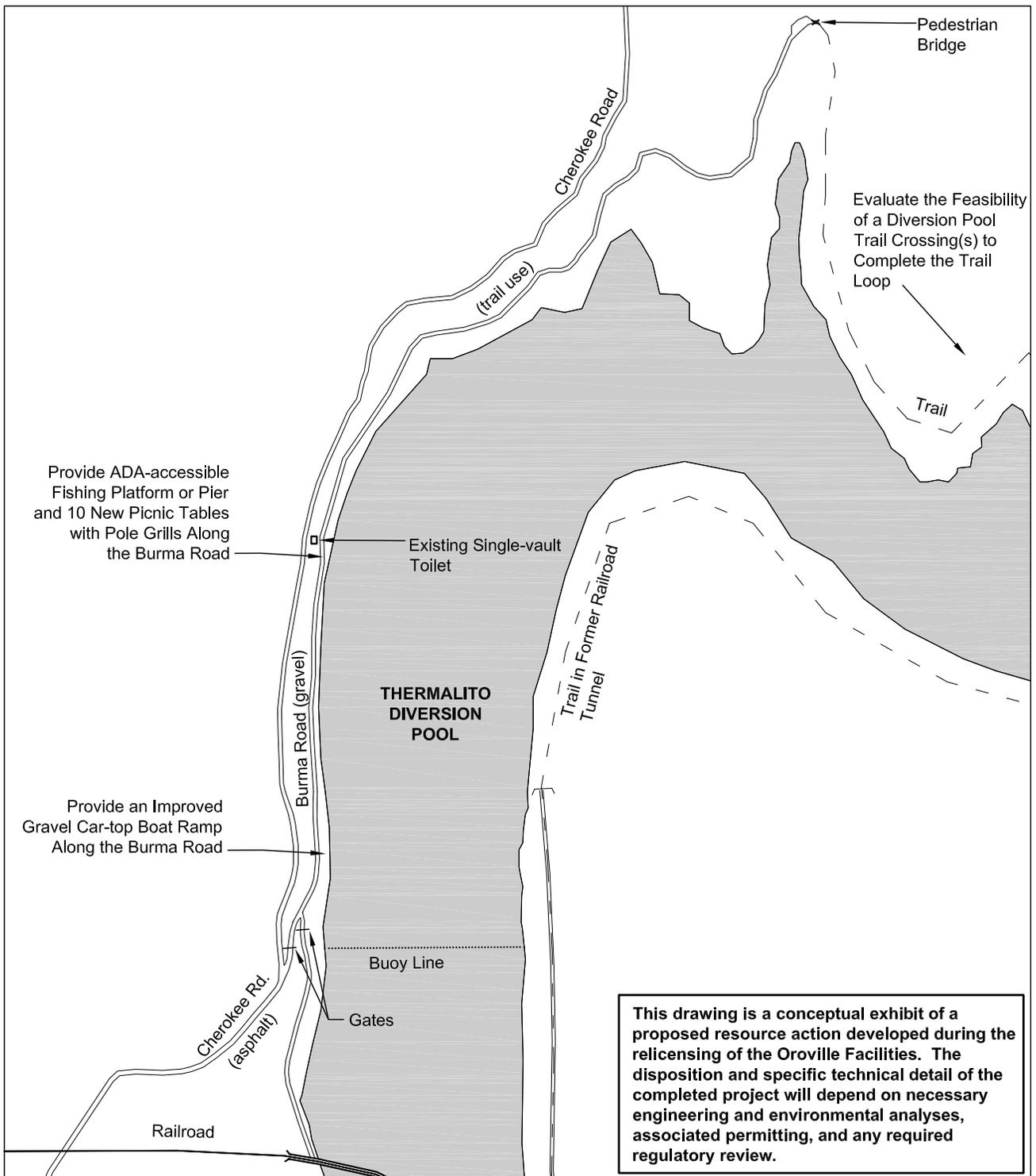
North

Not to Scale

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**Below Dam Recreation Site Key Map**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Construct additional day use facilities including 10 new picnic tables with pole grills and a gravel car-top boat ramp along the Diversion Pool along the Burma Road.
- Provide an ADA-accessible fishing pier or platform along the Burma Road.
- Evaluate the feasibility of a Diversion Pool trail crossing(s) to complete a trail loop.
- Open Burma Road to equestrian use.



North

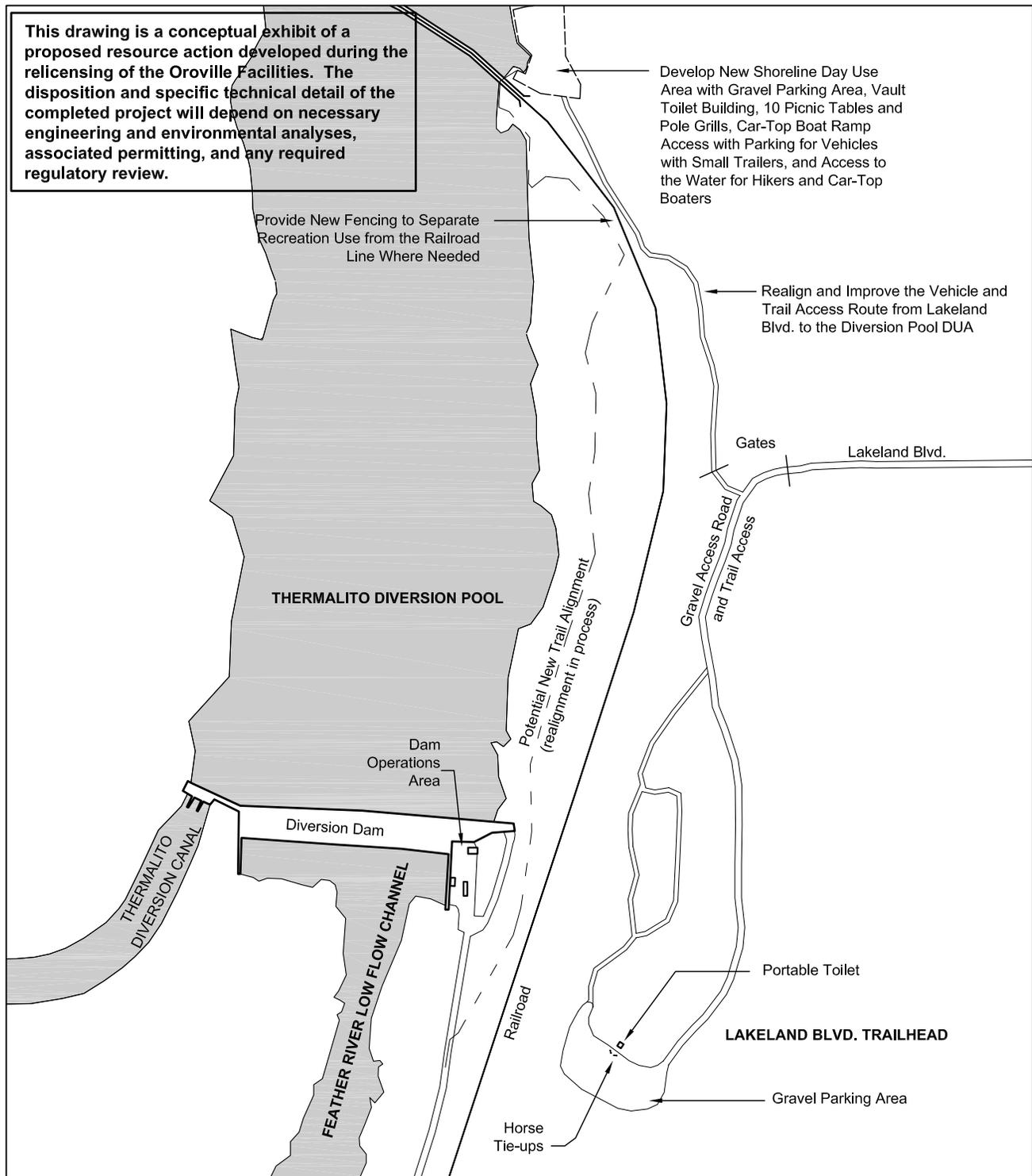


0' 300' 600' 1,200'

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**Figure # BD-1  
Diversion Pool Day Use Area (North)**

This drawing is a conceptual exhibit of a proposed resource action developed during the relicensing of the Oroville Facilities. The disposition and specific technical detail of the completed project will depend on necessary engineering and environmental analyses, associated permitting, and any required regulatory review.



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Provide a new shoreline day use/picnic site with 10 picnic tables and pole grills and a gravel parking area for vehicles with small trailers and a car-top boat ramp on the southern shoreline of the Diversion Pool for access to the water for hikers and car-top boaters.
- Realign and improve the road to the new Diversion Pool DUA/Car-top Boat Ramp from Lakeland Blvd.
- Provide new fencing to separate recreation use from railroad track.
- Evaluate feasibility of providing trail crossing(s) over the Diversion Pool to complete a Diversion Pool trail loop.
- Provide a non-potable water trough at the existing parking area.
- Open Dan Beebe Trail to bicycle use (except Sycamore Hill segment).
- Investigate feasibility of new bicycle trail, construct if feasible, then close "parallel" Dan Beebe segment to bicycles.



North

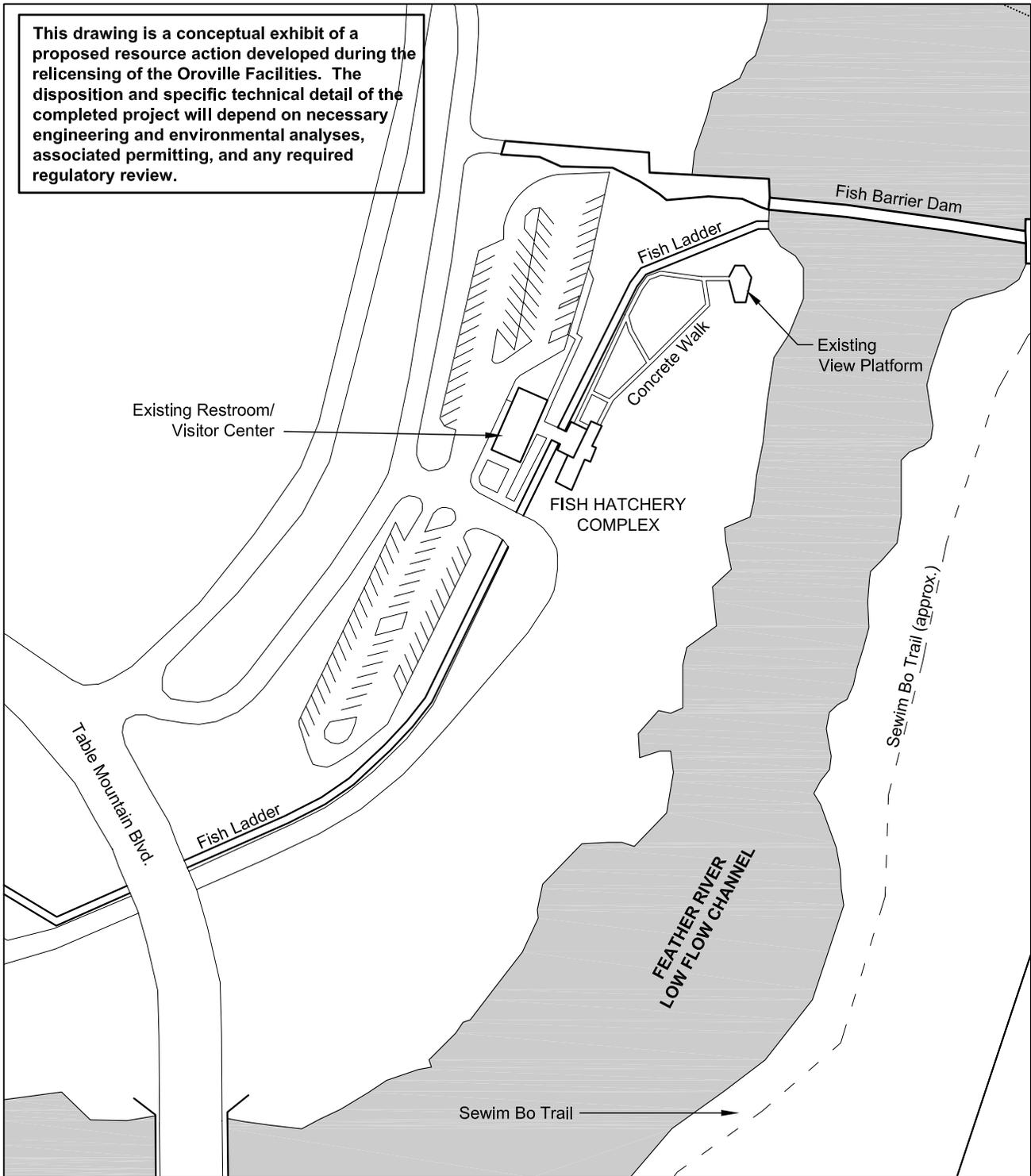


0' 225' 450' 800'

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**Figure # BD-2  
Lakeland Blvd. Trail Access/  
Diversion Pool Day Use Area (South)**

This drawing is a conceptual exhibit of a proposed resource action developed during the relicensing of the Oroville Facilities. The disposition and specific technical detail of the completed project will depend on necessary engineering and environmental analyses, associated permitting, and any required regulatory review.



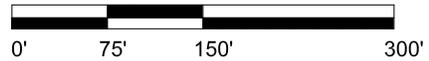
SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Potential I&E-related enhancements would be considered at the Fish Hatchery Visitor Center under the proposed I&E Program of the RMP including interpretive signs and/or kiosks and paths.
- As part of the Interim Projects, construct the Sewim Bo Trail along the eastern bank of the Feather River from the Old Bath House (now Nature Center) extending north to the Diversion Dam with a series of picnic tables, shade ramadas, and interpretive signs (Interim Project).
- Construct a paved trail from the Fish Hatchery downstream to the project boundary, provided another recreation agency constructs a paved trail on the north side of the Feather River from Riverbend Park north to the project boundary.

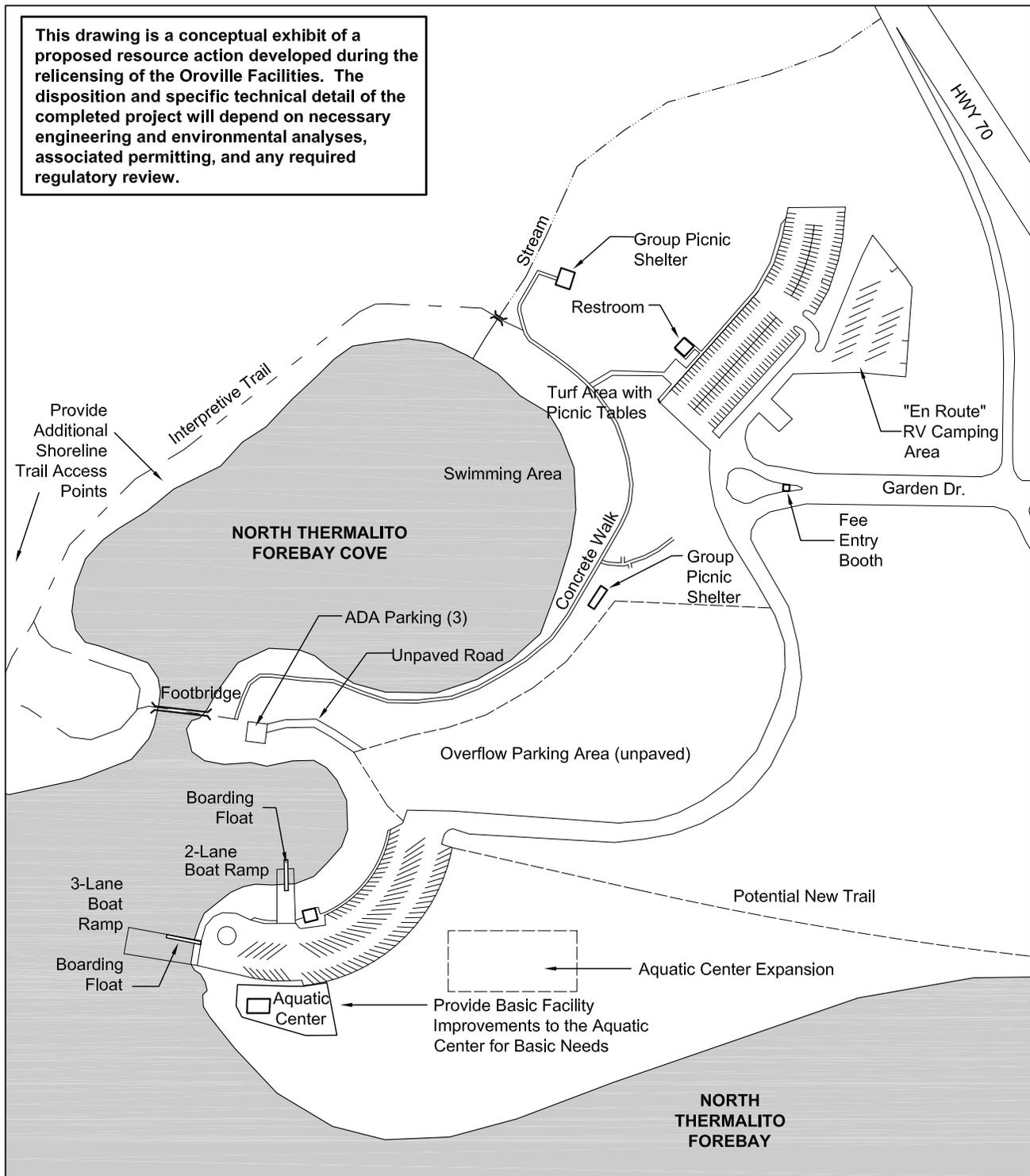


North



<p><b>Oroville Facilities Relicensing</b>  <b>FERC Project No. 2100</b>  <b>State of California</b>  <b>Department of Water Resources</b></p>
<p><b>Figure # BD-3</b>  <b>Feather River Fish Hatchery Day Use Area</b></p>

This drawing is a conceptual exhibit of a proposed resource action developed during the relicensing of the Oroville Facilities. The disposition and specific technical detail of the completed project will depend on necessary engineering and environmental analyses, associated permitting, and any required regulatory review.



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Conduct a feasibility study to evaluate warm water swimming options at this site and other P2100 locations.
- Provide new non-motorized trail opportunities in the Thermalito Forebay area as a component of the expanded trails program.
- Provide additional shoreline trail access points.
- Monitor water quality and maintain coordination with public health agencies.
- Provide basic facility improvements to the Aquatic Center for basic needs; expand to second building (in progress).
- Provide a fish cleaning station (location to be determined).



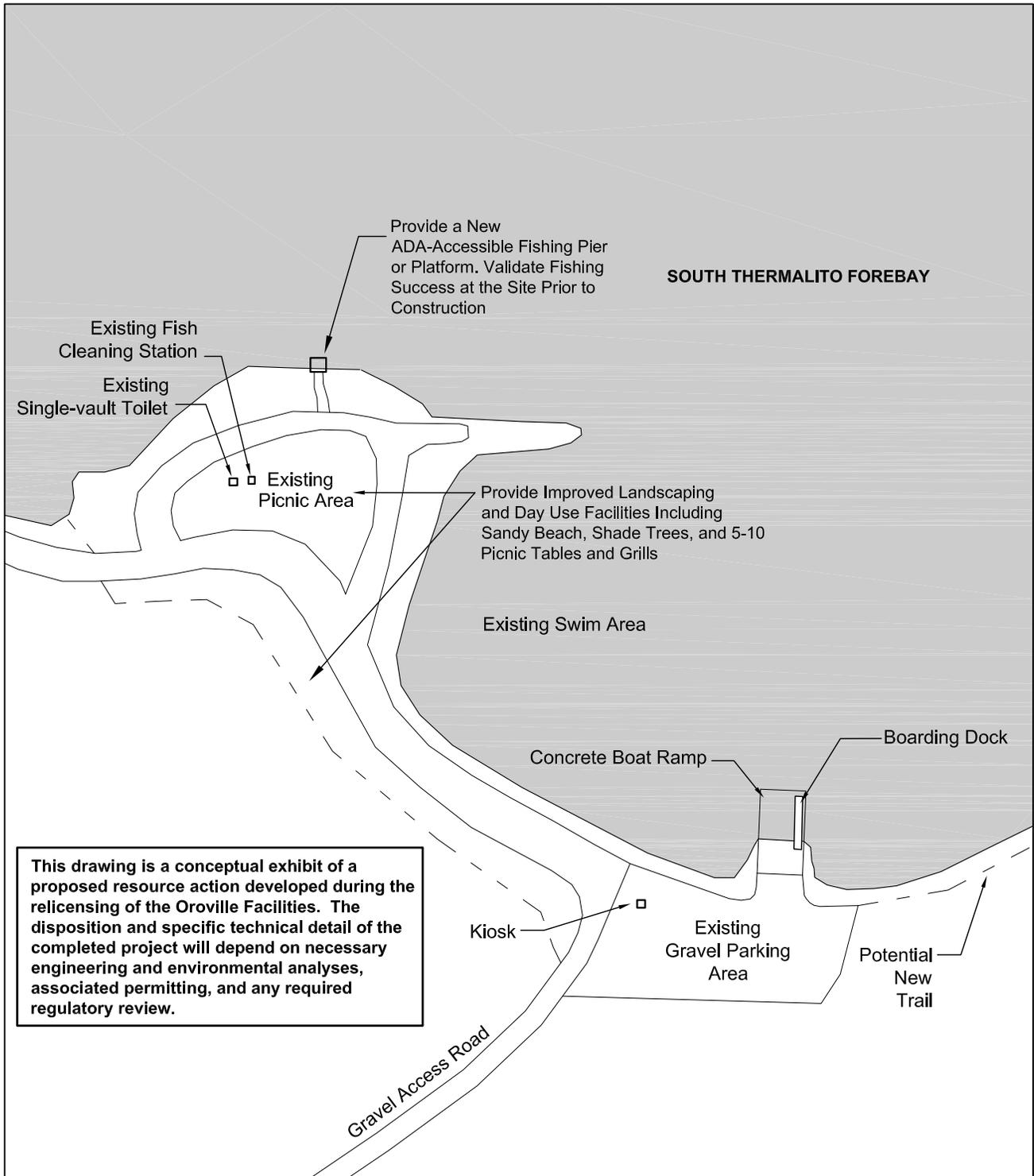
North



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**Figure # BD-4  
North Thermalito Forebay Day Use Area and  
Boat Ramp**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Provide an ADA accessible fishing pier or platform.
- As a component of a proposed Comprehensive Non-Motorized Trails Plan, provide new trail opportunities in the South Thermalito Forebay Area.
- Provide improved landscaping and day use facilities including sandy beach, 5-10 picnic tables and grills, and shade trees.
- Monitor water quality and maintain coordination with public health agencies.



North

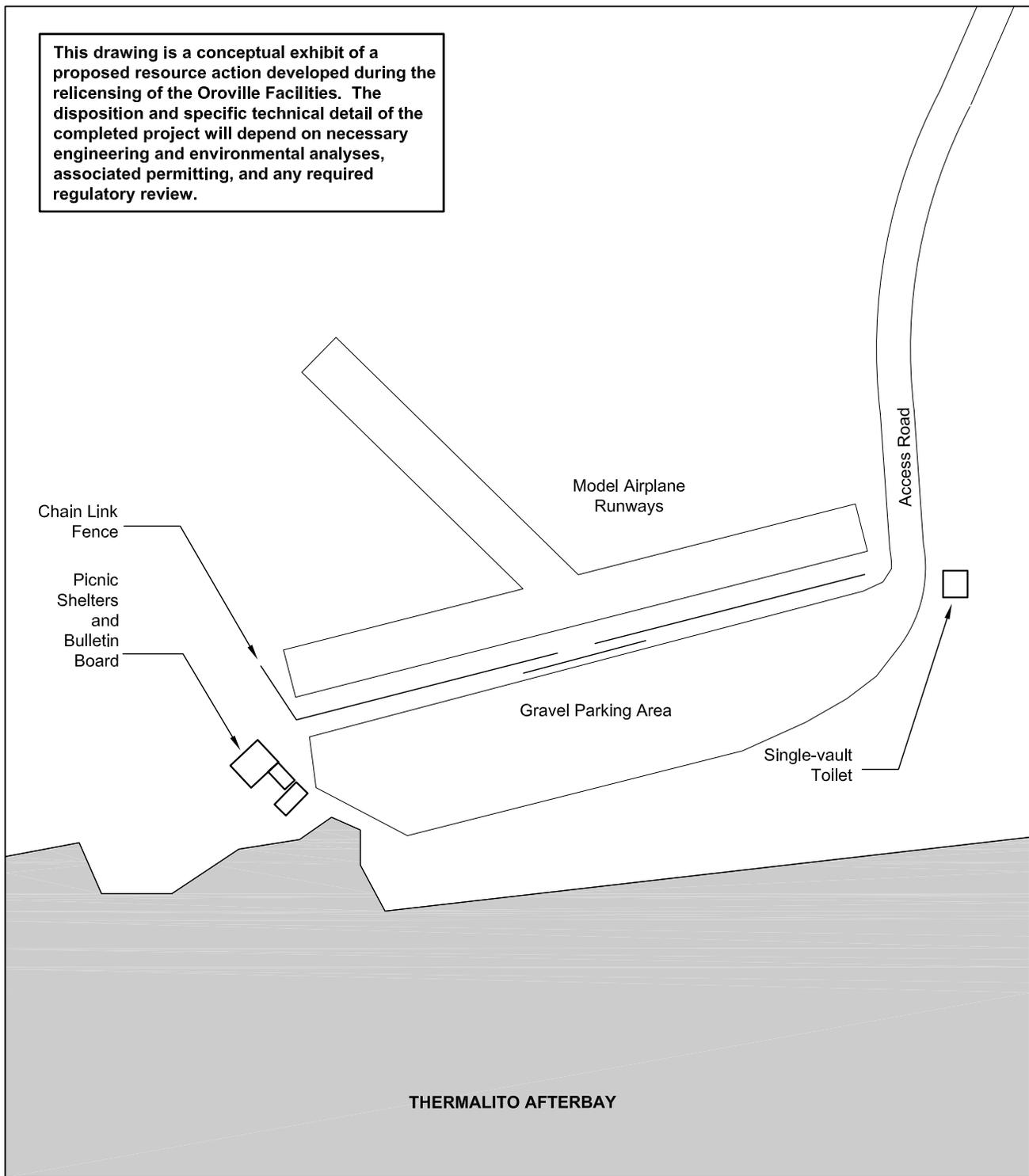


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**Figure # BD-5**  
**South Thermalito Forebay Boat Ramp and Day Use Area**

This drawing is a conceptual exhibit of a proposed resource action developed during the relicensing of the Oroville Facilities. The disposition and specific technical detail of the completed project will depend on necessary engineering and environmental analyses, associated permitting, and any required regulatory review.



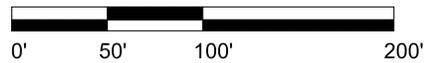
SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

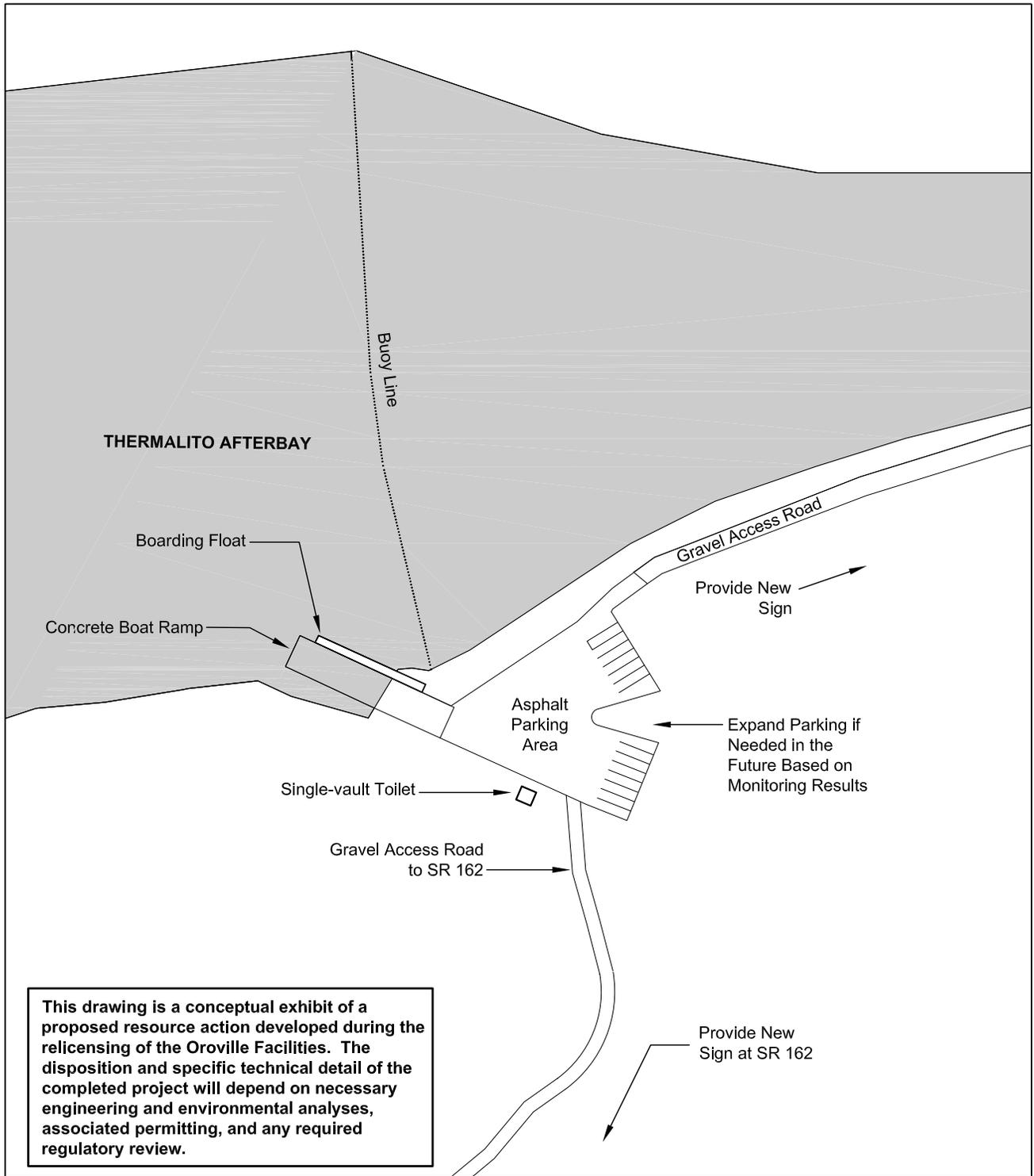
-- As part of the Interim Project package, provide new paving at the Crossing Runways, regrade and regravels the parking lot, install aircraft staging tables, install picnic tables with shade ramadas, interpretive/information bulletin board, and install a new single-vault toilet building (completed).



North



<p><b>Oroville Facilities Relicensing</b>  <b>FERC Project No. 2100</b>  <b>State of California</b>  <b>Department of Water Resources</b></p>
<p><b>Figure # BD-6</b>  <b>Model Aircraft Flying Facility</b></p>



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- As a component of the I&E Program, provide new directional signs for easier locating of the site by the public.
- Based upon monitoring results during the L2 to L5 phases and determination of need, construct 5-10 additional vehicle parking spaces.



North

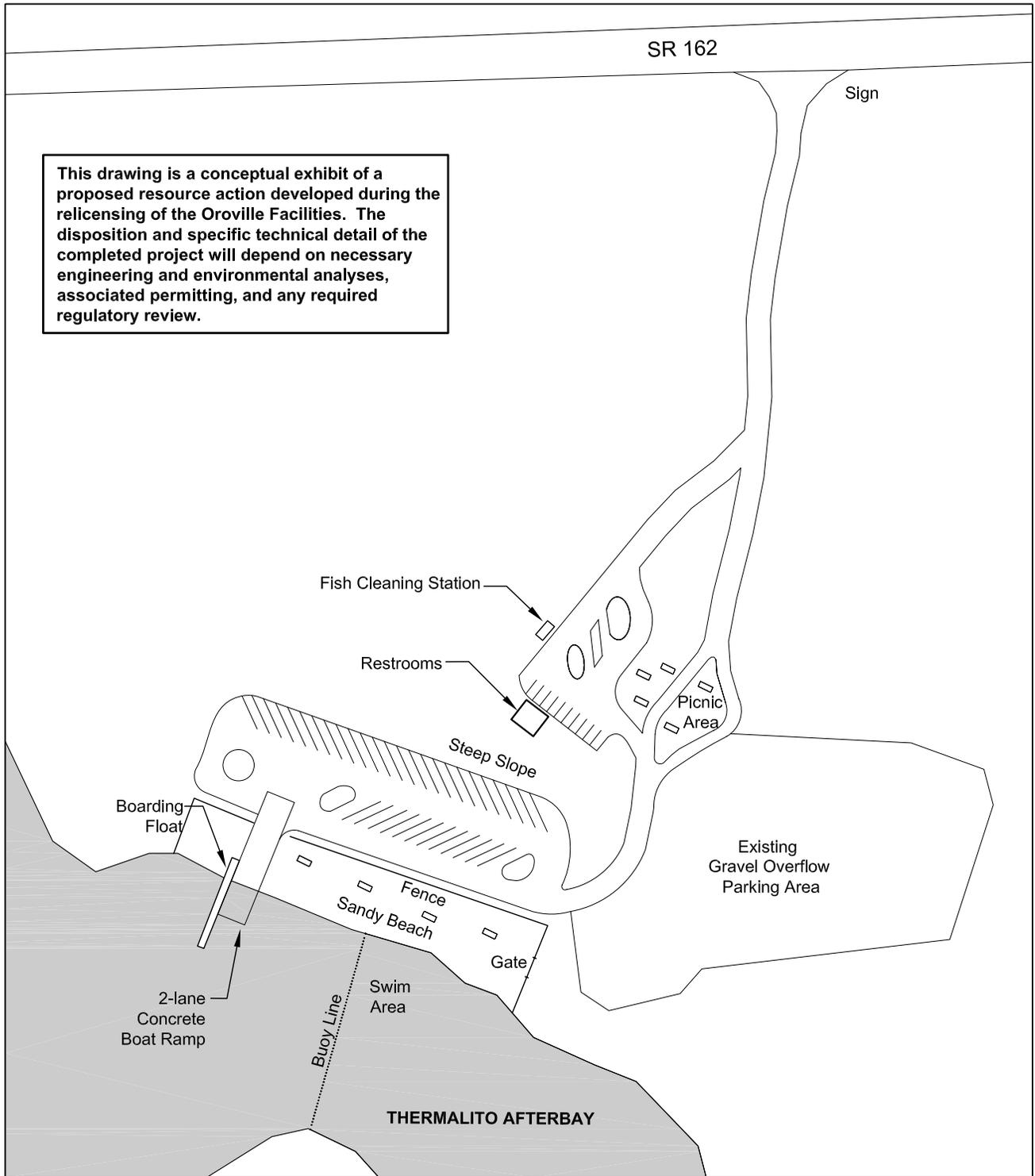


0' 75' 150' 300'

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**Figure # BD-7**  
**Wilbur Road Boat Ramp**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

-- Monitor water quality and maintain coordination with public health agencies.



North

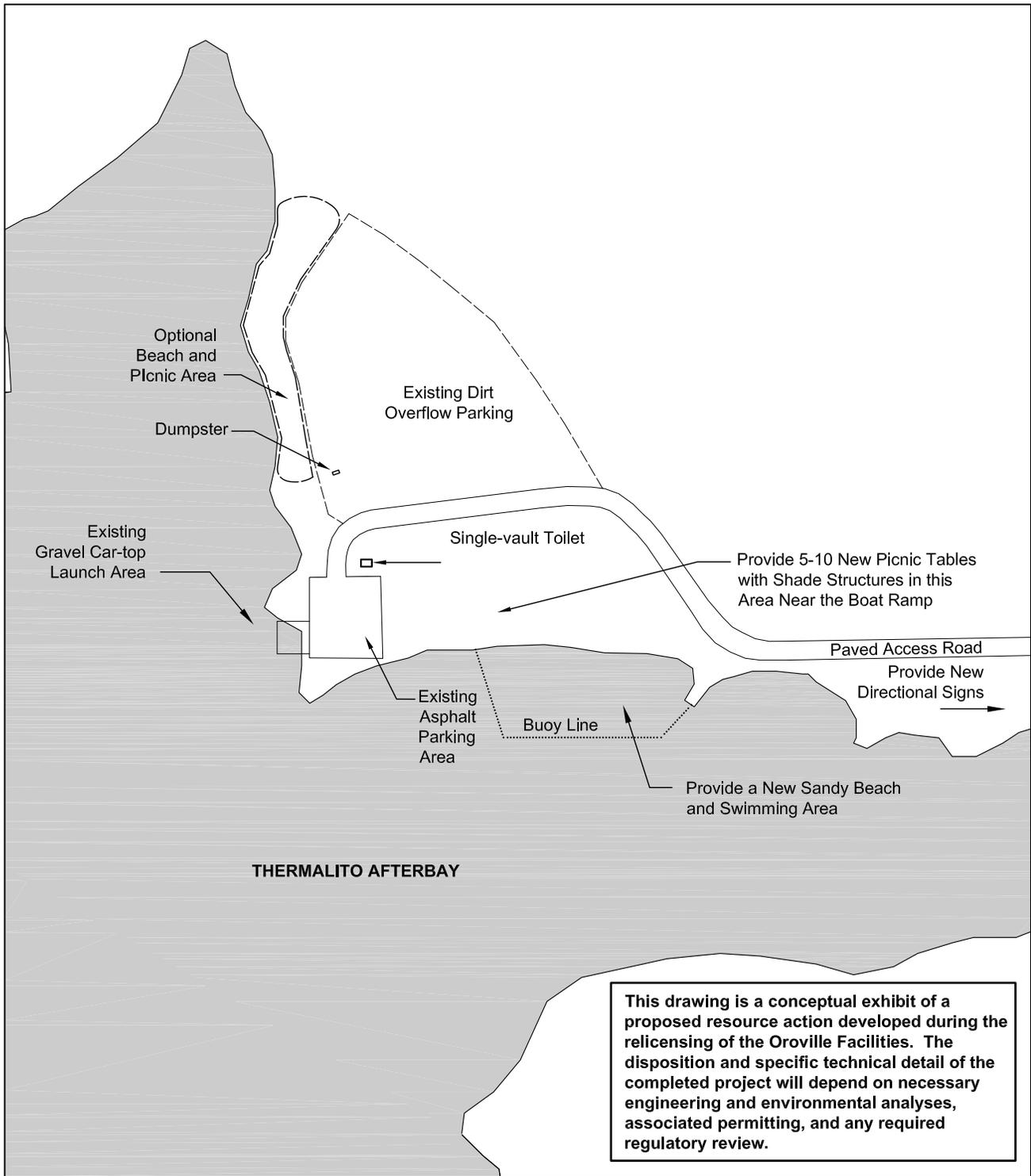


0' 75' 150' 300'

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 Department of Water Resources

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**Figure # BD-8**  
**Monument Hill Boat Ramp and Day Use Area**



SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Construct 5-10 new picnic tables with shade structures at this site.
- As a component of the I&E Program, provide new roadside directional signs for easier locating of this site.
- Provide a new sandy beach and swimming area.
- Provide a new vault toilet building.
- Provide a new swimming buoy approximately 100-200 feet from the shoreline.



North

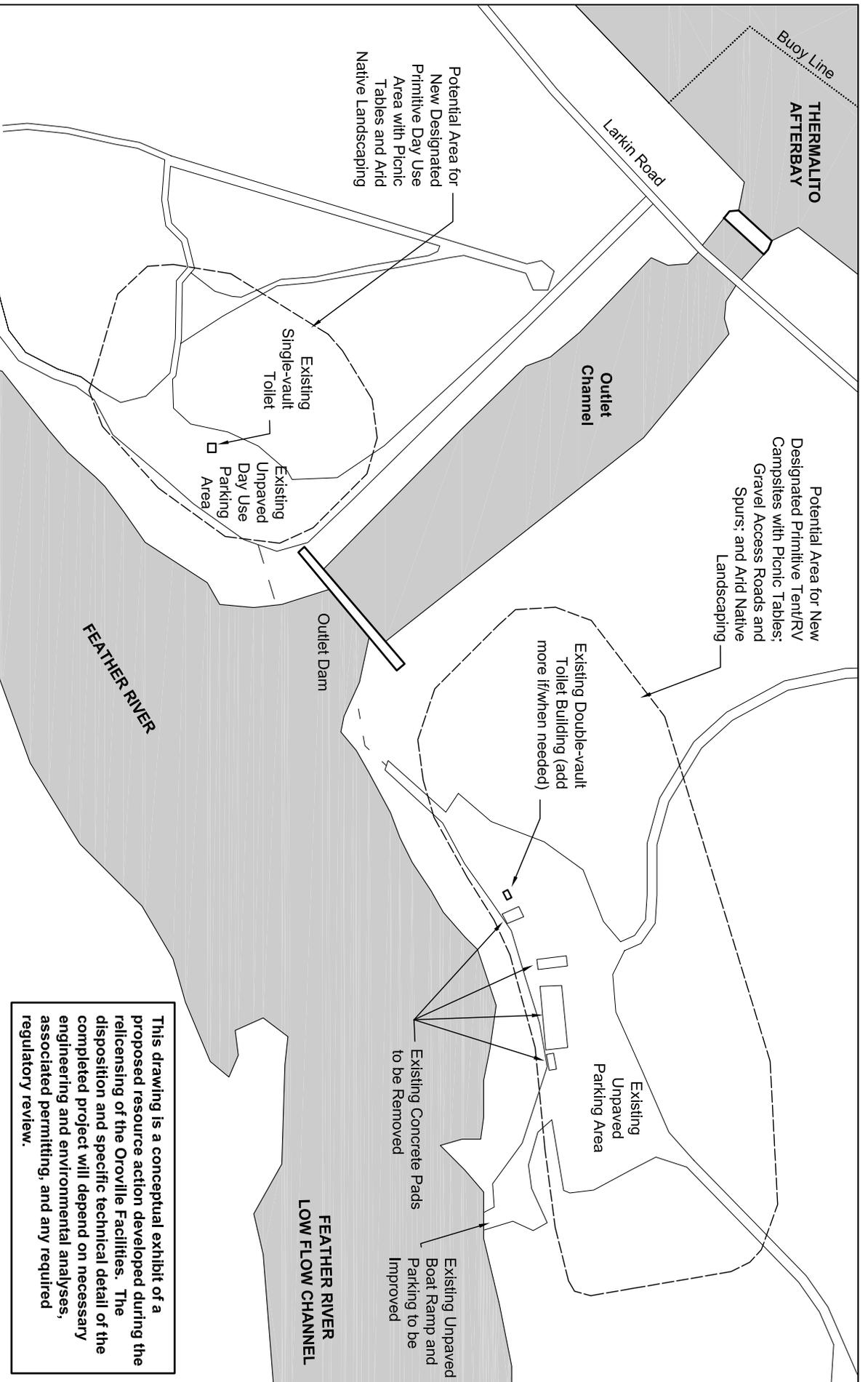


0' 100' 200' 600'

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**FERC Project No. 2100**  
**State of California**  
**Department of Water Resources**

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**Figure # BD-9**  
**Larkin Road Car-top Boat Ramp**



This drawing is a conceptual exhibit of a proposed resource action developed during the relicensing of the Oroville Facilities. The disposition and specific technical detail of the completed project will depend on necessary engineering and environmental analyses, associated permitting, and any required regulatory review.

SOURCE: ED&W Inc., 2003

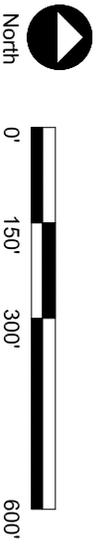
**Oroville Facilities Relicensing  
FERC Project No. 2100**

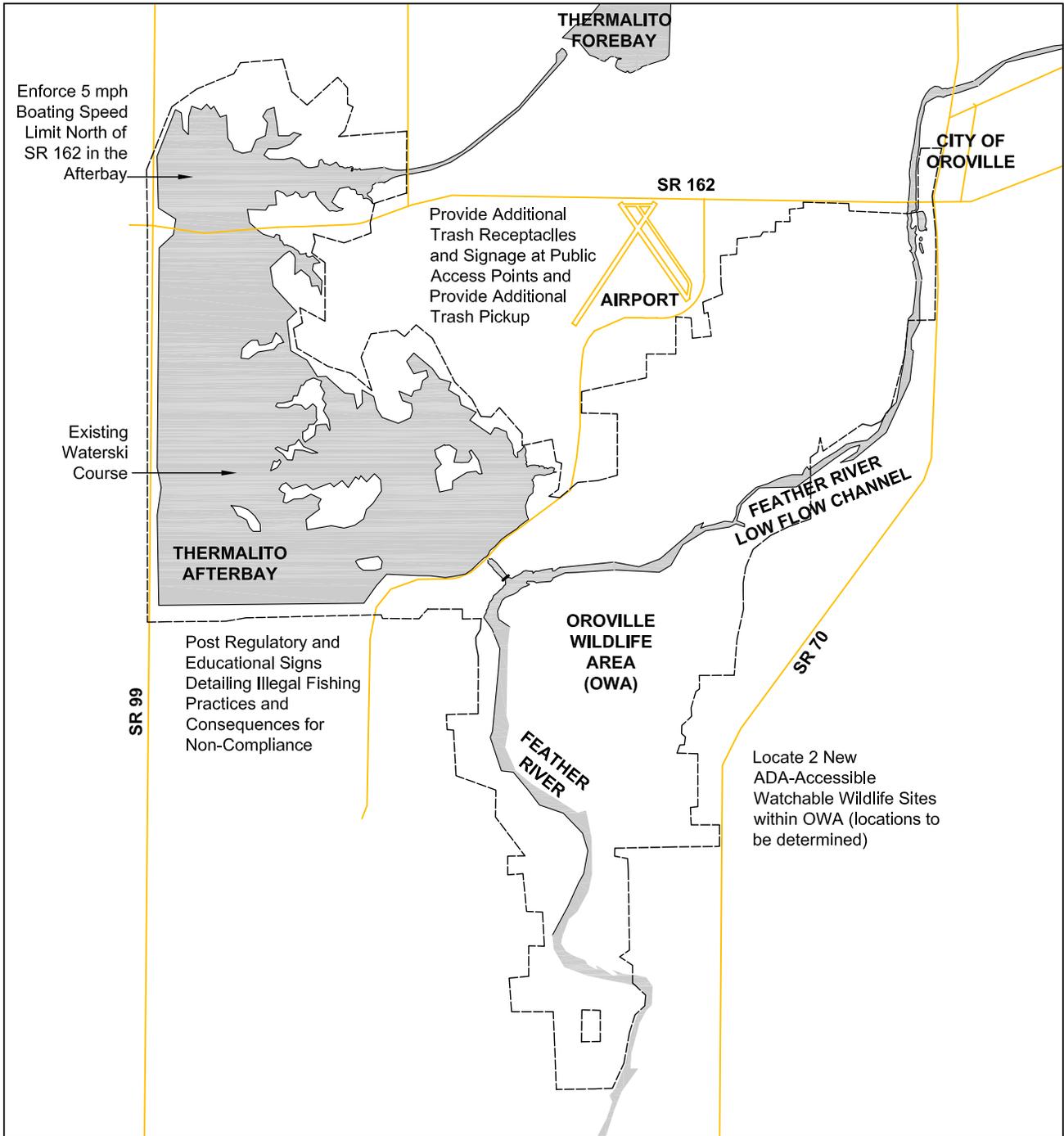
State of California  
Department of Water Resources

**Figure # BD-10  
Afterbay Outlet Camping and Day Use Areas**

**Proposed Recreation Actions:**

- Rev egetate disturbed areas with native arid landscaping for shade and aesthetics.
- As a component of the I&E Program, provide additional roadside directional signs for easier locating of sites.
- Improve access roads with gravel.
- Upgrade existing gravel boat ramp to concrete, with paved parking (scheduled 2006 or 2007).
- North of the Outlet Channel, establish designated hardened tent/RV campsites (no hookups) with picnic tables and gravel spurs with vehicle barriers. (number of new sites developed to be based on monitored demand, but not to exceed 40-acre area); 20 new campsites will be provided initially.
- South of Outlet Channel, designate a day use area near the river; install 5-10 picnic tables and arid native landscaping.
- Provide increased visitor management and enforcement in the OWA; enforce fishing and other use restrictions.
- Provide additional vault toilet buildings if and when needed, based on future use levels.





SOURCE: EDAW Inc., 2003

**Proposed Recreation Actions:**

- Provide additional trash receptacles and signage at public access points and provide additional trash pickup.
- Post both regulatory and educational signs detailing illegal fishing practices and consequences for non-compliance.
- Develop and implement an OWA Management Plan.
- Provide adequate visitor management and law enforcement, particularly at peak use periods.
- Locate and operate 2 new ADA-accessible Watchable Wildlife sites within the OWA (location to be determined) that have gravel parking, ADA-accessible trail access, and interpretive signage.
- Enforce a boating speed limit of 5 mph on the Thermalito Afterbay north of SR 162; provide speed limit signs, buoys, and other measures as needed; enforcement to be the responsibility of the licensee through coordination with local law enforcement as appropriate.
- Pursue administrative channels to amend/remove 5 mph speed limits on Afterbay south of SR 162.



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**Figure # BD-11  
Oroville Wildlife Area (OWA)**

## **APPENDIX D**

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### **Comprehensive Non-Motorized Trails Program**



**Equestrian and bike use on project area trail.**

## **COMPREHENSIVE NON-MOTORIZED TRAILS PROGRAM**

Appendix D of the Settlement Agreement RMP presents the Comprehensive Non-motorized Trail Program for Project No. 2100. This program is the joint responsibility of DWR and DPR and includes a summary of the existing trails program (additional detail is provided in Section 6.5 of the Settlement Agreement RMP), background information regarding trail use designations, roles of trail providers, and an implementation plan. The goal of the Trails Program is to provide safe and enjoyable recreation trail access for walking, hiking, equestrian use, mountain bicycling and other dispersed uses such as shoreline and fishing access within the Project 2100 vicinity. A trails safety event open to all trail users will be held as needed, but no more frequently than annually, to promote safe and enjoyable trail recreation.

### **BACKGROUND**

#### **Existing Trails Program**

There are approximately 75 miles of recreational non-motorized trails within the Project 2100 boundary (Table D-1 and Figure D-1). The majority of these are in the LOSRA, which offers about 52 miles of trails open to hikers and many segments additionally designated for use by equestrians and/or bicyclists. The California Public Resources Code grants DPR authority to allow horses and other stock animals use of specific areas within units of the State Park System (PRC 4359), and also provides that bicycles may be excluded from certain Park areas, trails, and roadways (PRC 4360). DPR also prescribes closures of certain LOSRA trails to dogs, and requires dogs to be leashed on others. Any user group may apply for a Special Use Permit, from the jurisdictional managing agency, to allow organized use and special events in areas or on trails whether or not such areas are normally open to that user group. Granting such requests is typically contingent on a case-by-case evaluation of safety, resource protection, and the needs of other visitors.

Currently, horses and stock animals are authorized in LOSRA only on the following trails and trail segments:

- Dan Beebe Trail from Lakeland Blvd. to the Saddle Dam;
- Roy Rogers Trail;
- Loafer Loop Trail;
- Multiple-use sections of the Potter's Ravine Trail; and
- The Loafer Creek Horse Camp.

Furthermore, bicycles are currently excluded from the following trails:

- Roy Rogers Trail;
- Loafer Loop Trail;
- Dan Beebe Trail from Lakeland Blvd. to the Saddle Dam;
- Wyk Island Trail;

- Visitors Center Trail; and
- Loafer Creek Campground, Day Use, and Campfire Trails.

**Table D-1. Existing trails in the project area.**

Trail	Length	Access	Health & Safety	
	Miles of Trail	Vehicle and Vehicle/Trailer Parking Spaces	Toilets	Trash Receptacles
Bidwell Canyon Trail	4.9	107 <sup>2</sup> /477 <sup>1</sup>	4 <sup>1</sup>	3 <sup>1</sup>
Brad B. Freeman Trail	41.0	Various	-	-
Chaparral Interpretive Trail	0.2	107 <sup>2</sup>	2 <sup>2</sup>	6 <sup>2</sup>
Dan Beebe Trail	14.3	Various	-	-
Loafer Creek Campground Trail/Day Use/Campfire Trail	1.7	251 <sup>3</sup>	2 <sup>3</sup>	2 <sup>3</sup>
Loafer Creek Loop Trail	3.2	251 <sup>3</sup>	1 <sup>4</sup>	11 <sup>4</sup>
Sewim Bo Trail	0.5	Unknown	2	Unknown
Potter's Ravine Trail	5.5	468 <sup>5</sup>	2 <sup>5</sup>	1 <sup>5</sup>
Roy Rogers Trail	4.0	251 <sup>3</sup>	2 <sup>3</sup>	2 <sup>3</sup>
Wyk Island Trail	0.2	477 <sup>1</sup>	4 <sup>1</sup>	3 <sup>1</sup>

*Note: A dash indicates that there is no facility or that the category does not apply.*

<sup>1</sup> *In the Bidwell Canyon area (boat ramp, marina, and overflow parking areas).*

<sup>2</sup> *At the Lake Oroville Visitors Center.*

<sup>3</sup> *In the Loafer Creek Day Use Area.*

<sup>4</sup> *In the northern Loafer Creek area.*

<sup>5</sup> *At the Spillway area (upper parking area).*

*Source: pers. comm., T. McBride 2003. Updated by EDAW 2004.*

Outside the LOSRA, Project 2100 trails are generally managed to be consistent with trail designations on adjacent jurisdictions. For example, consistent with DFG management policies, bicycling and equestrian uses are permitted in the OWA but only on roads (the Brad Freeman Trail follows gravel roads around the Afterbay and through the portion of the OWA north of the Afterbay Outlet). Horses are also allowed in other areas of the OWA during permitted special events. However, DWR also manages the Brad B. Freeman Trail on other Project lands as a multiple-use trail, even though horses and stock animals are not allowed on some adjacent Freeman Trail segments within LOSRA. Section 6.5 of the Draft RMP describes in detail the trails within the project area.

Trail maintenance in the LOSRA is carried out by DPR, often in conjunction with a number of user groups and volunteer organizations, and with limited assistance from DWR. Volunteers such as the California State Parks Mounted Assistance Unit, and Bicycle Patrol Unit, regularly provide feedback about trail conditions throughout the study area. Volunteer and user groups also assist in implementing a variety of recreation-related projects. Boy Scout groups, fishing and hunting organizations,

Figure D-1. Existing non-motorized trails  
FERC Project 2100

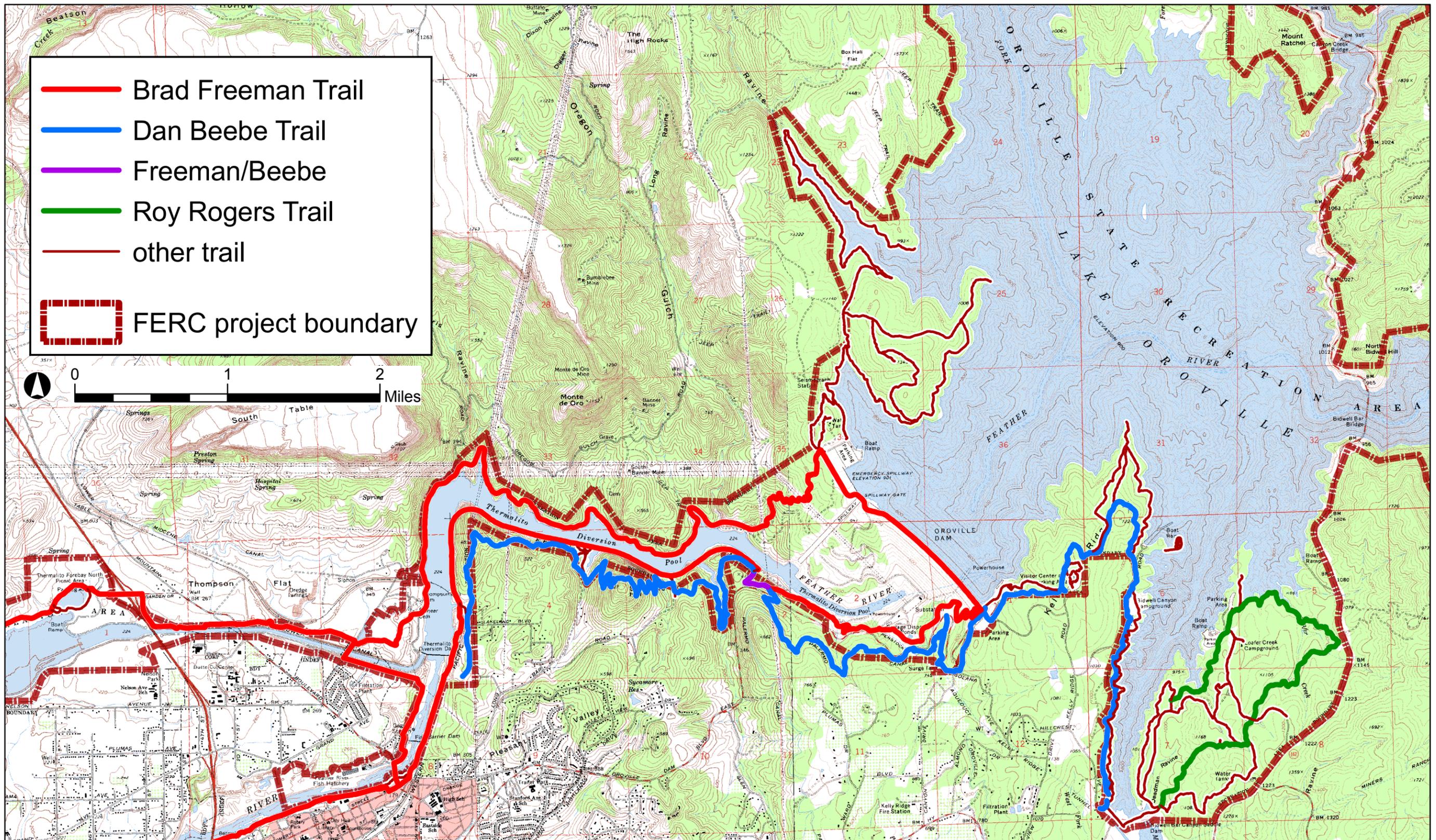
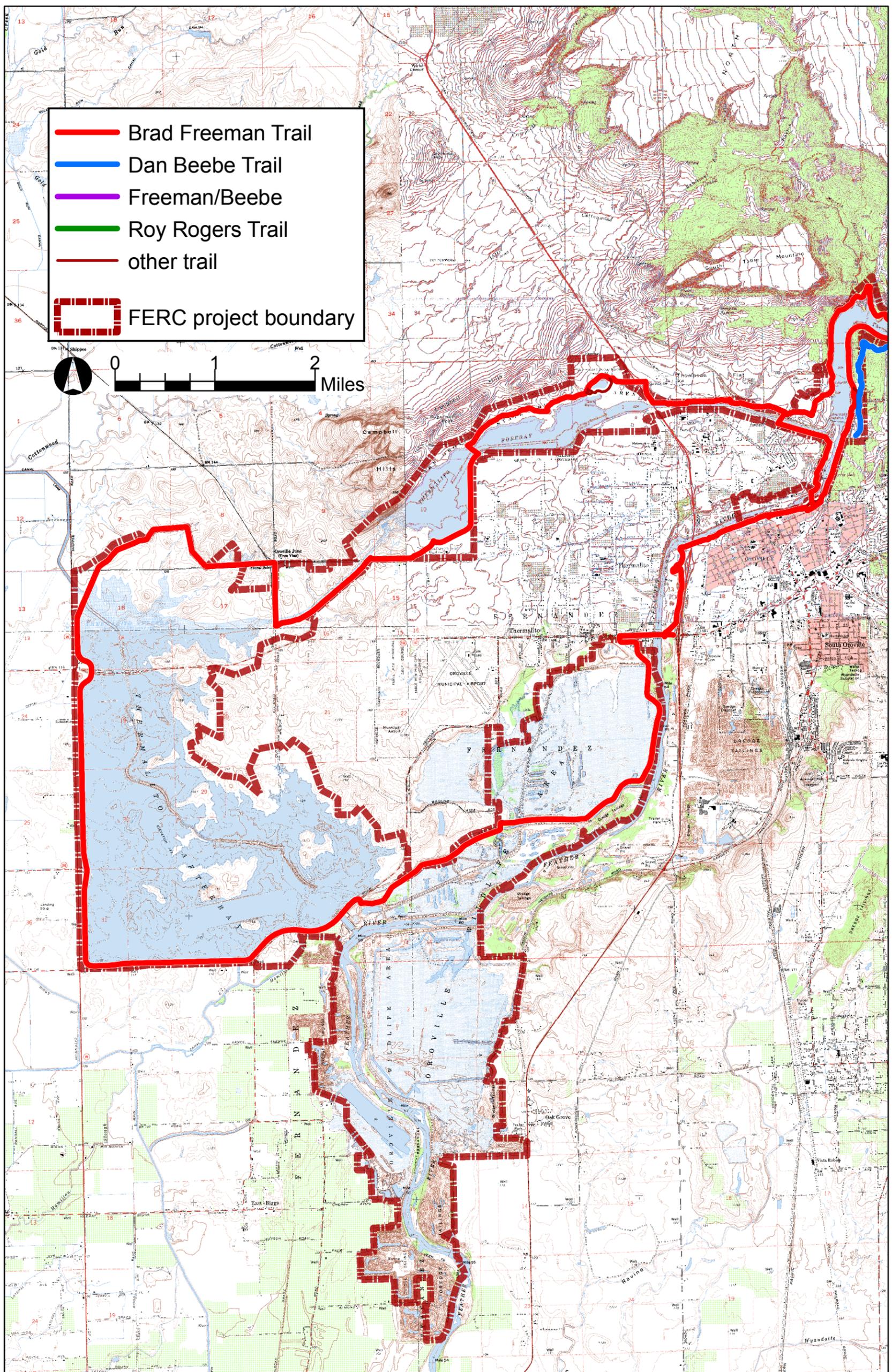


Figure D-1 (cont.). Existing non-motorized trails  
FERC Project 2100



equestrian groups, and other user groups assist DPR to some degree in trail maintenance.

Current maintenance of trails within the Project area is considered good by those surveyed as part of *R-13 – Recreation Use Surveys*. At least 90 percent of respondents contacted at Lake Oroville, Diversion Pool, Low Flow Channel, Thermalito Forebay, and Thermalito Afterbay were satisfied with the condition of trails.

### **Trail Use Designations and Stakeholder Concerns**

Trail use designations have been a controversial topic within the study area. Trail use designations have changed on occasion in recent years; in general, a trend toward multiple-use (where it can safely occur) has been recommended by DPR consistent with its Statewide trails planning responsibilities and policies. However, a February 2002 DPR Superintendent's Order that changed many LOSRA trails from segregated to multiple-use was rescinded in 2004, after FERC denied DWR's request to amend the 1993 Amended Recreation Plan in support of this change. Pursuant to direction from FERC, the trail use designation has been returned to that existing prior to the February 2002 DPR change and consistent with the 1993 Project No. 2100 Amended Recreation Plan.

Prior to 2002, about 21.5 miles of trails were hiking/equestrian use only and did not allow biking (Dan Beebe, Loafer Creek Loop, and Roy Rogers Trails). After the trails were changed to multiple-use in 2002, about 64.5 miles of the total 75 miles were available for biking and about 38.5 miles were available for equestrian use. Designated trails for hiking/biking/equestrian use totaled about 37 miles, followed by hiking/biking (about 28 miles). There were about 9 miles of hiking-only trails, and 1.6 miles of hiking/equestrian-only trail at Sycamore Hill on the Dan Beebe Trail. However, following the 2002 Superintendent's Order, some trail users in the study area voiced preference that these trails return to their previous use designations.

After submittal of the trails use amendment by DWR in 2002, DWR learned from FERC Relicensing staff that amendments central to new license terms and conditions are generally denied by FERC during any ongoing licensing process. In addition, objections presented to FERC contributed to FERC's denial of a Recreation Plan amendment, and effectively reversed the aforementioned changes prescribed by the Superintendent's Order. Trail use designations are now back to their pre-2002 designations.

## **ROLES OF TRAIL PROVIDERS**

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

DPR's Northern Buttes District manages the LOSRA and the trails within the LOSRA portion of the Project area. Routine tasks performed by DPR staff include maintaining about 52 miles of trails. General DPR management goals for LOSRA include improving trails, ensuring safety, protecting natural and cultural resources, and providing information to trail users and other Park visitors. In general, DPR has broad management authority, under the California Public Resources Code, to make decisions

regarding trail use and maintenance within units of the State Park System. Local needs and Statewide policy are both considered; at LOSRA, such management is periodically coordinated with DWR.

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

DFG has management jurisdiction over lands within the OWA, and prescribes allowable recreation uses (including hiker, stock, and bicycle use of trails) consistent with preservation and enhancement of wildlife resources there. In general, DFG does not maintain any trail facilities. DWR and DFG periodically maintain the dirt and gravel roads in parts of the OWA, as needed, and in general these roads serve as trails in this portion of the Project.

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

DWR is responsible, under its existing FERC license, for the implementation of a variety of recreation-related projects and improvements including overall trails management. However, DWR does not manage the majority of the recreational opportunities and facilities in the Project area. Through various State codes cited previously and inter-agency agreements between DPR and DWR, DPR is DWR's management "partner" on the majority of Project No. 2100 recreational facilities.

DWR has constructed and manages substantial portions of the Brad B. Freeman Trail, supporting and assisting trail and sign maintenance activities periodically performed by trail user groups there. DWR has been solely responsible for maintaining gates, fences, and other major Freeman Trail features and appurtenances. Trail maintenance is generally on an as-needed basis and does not follow a prescribed schedule.

## **NON-MOTORIZED TRAILS PROGRAM IMPLEMENTATION**

Implementation of this program includes proposed actions, estimated costs, and preliminary schedule for the proposed trail program. The purpose of the implementation plan is to outline when and how proposed trail-related actions will be put into operation. The proposed trail-related actions are described below; a draft schedule is proposed (see Schedule section) and costs are estimated (see Appendix A).

### **Proposed Trail-related Actions**

#### **Proposed New Trails to be Constructed in the Project Boundary**

Proposed new trail-related actions include the following seven items:

- Lime Saddle Marina to Campground Trail (approximately 3.5 miles; hiking, bicycle use);
- Potter's Ravine North Fork Shoreline Trail (approximately 2 miles; multiple-use);
- Opening of an access road to bicycle use, south of the Loafer Creek Equestrian Campground;
- Loop Trails in the vicinity of Thermalito Forebay (approximately 2-4 miles; multiple-use wherever appropriate);

- Spur trails to facilitate shoreline access (Saddle Dam at Lake Oroville, fishing access at North Forebay; hiking use only);
- Realignment of a section of the Brad B. Freeman Trail in the vicinity of the Hyatt Powerplant Switchyard, in response to security concerns (multiple-use); and
- Lakeland Boulevard - Sycamore Hill Demonstration Trail (approximately 2 to 4 miles, depending on feasibility of alignment; hiking, bicycle use).

All but one of the trails listed above are entirely within the Project 2100 boundary; the latter one is partially within the boundary and requires additional planning and scoping and coordination with adjacent landowners. The approximate proposed locations of these new trails are depicted in Figure D-2 and are described further below.

One proposed new trail will connect the Lime Saddle Campground with the Lime Saddle BR/DUA/Marina, via Parish Cove (not shown in Figure D-2). As this campground and marina have no facilities to support and are currently not designated for equestrian use, the proposed trail would serve primarily hikers and bicyclists seeking to travel to and from the campground and the surrounding lakeshore. This 3.5-mile trail would be within the Lake Oroville Management Unit (as outlined in Chapter 5), which also includes trails at Bidwell Canyon and Loafer Creek (Figure D-2). DWR proposes to construct this trail in cooperation with DPR, which has secured grant funding for a bridge and a portion of the trail.

Another new trail would continue north from the existing Potter's Ravine Trail and would be multiple-use in designation. This 2-mile trail extension would be within the Lake Oroville Management Unit (Figure D-2). DPR proposes to construct this trail with grant funding.

Another proposed new trail would be designed primarily for bicycling and would run east/west from Lakeland Boulevard to connect to a multiple-use segment of the Dan Beebe Trail and/or Freeman Trail, near the Diversion Pool. Construction of this trail is contingent upon topographic and jurisdictional feasibility, requiring coordination and easements from landowners adjacent to the Project boundary. Thus, only portions of this trail would fall into the Diversion Pool Management Unit which includes other trails such as the Brad B. Freeman and Dan Beebe Trails that run along the Diversion Pool (Figure D-2). This new trail could be between two and four miles in length, depending on topography and cooperation from adjacent landowners. DWR will explore the feasibility of this project and coordinate with adjacent landowners and, if feasible, will construct this trail cooperatively with the administrator of the Supplemental Benefits Fund. If development of all or a significant portion of this new trail is successful, much of the nearby portion of the Dan Beebe Trail will be closed to bicycles and managed for hikers and equestrians only (see Proposed LOSRA and OWA Trail Use Designation Changes, below).

A graded dirt access and service road, which runs from near the Loafer Creek Equestrian Camp to near the Saddle Dam trailhead will be designated as a bicycle trail. This segment will allow bicyclists to travel between the Saddle Dam Trailhead and the

Loafer Creek Campground without encroaching on "equestrian only" trails and allow bicyclists to skirt the Equestrian Campground. This trail segment will be managed and maintained by DPR.

Trail access (<0.1 mile) to the shoreline at the Saddle Dam Trailhead Access site is proposed. A similar trail segment or segments are proposed for shoreline areas of the North Forebay – essentially spurs leading from the existing Brad Freeman Trail along the north shore. These trail spurs will require additional study to avoid impacts to giant garter snake habitat (these short spur trails are not shown in Figure D-2). DWR will construct these trails in coordination with DPR.

One or more new trail segments are proposed near the shoreline of Thermalito Forebay. Again, further study is needed to determine potential suitable trail routes and compatibility with giant garter snake habitat that may limit trail expansion in the Forebay area. If new trails could be feasibly constructed here and potential impacts to sensitive habitat minimized, trails around the south side of the North Forebay and north side of the South Forebay would create two new loop trail opportunities. This would result in a trail loop around both halves of the Forebay, as well as around the entire Forebay by connecting these new trails to the existing Brad B. Freeman Trail (Figure D-2). DWR would construct these trails in coordination with DPR.

The licensee will also provide a realignment of a section of the Brad B. Freeman Trail to eliminate security concerns posed by the current alignment in the vicinity of the Hyatt Powerplant Switchyard. The new alignment, to be designated and constructed to multiple-use standards, will cross the toe of Oroville Dam via an existing access road (mostly paved, with wide gravel shoulders) which climbs to the existing paved dam crest road near the top of the spillway. The dam crest road is typically used by bicyclists and hikers/walkers to the south, but will be generally managed as multiple-use under this new plan. Safety signs, directed at both trail users and motorists, will instruct caution and require equestrians to dismount and motorists to slow before and while crossing the spillway bridge.

### **Proposed LOSRA and OWA Trail Use Designation Changes**

Many parties have collaborated to help draft a plan for use of Project trail resources with a goal to make optimum use of existing opportunities, while maintaining a safe and pleasant experience. Based on public input provided both inside and beyond the Relicensing Work Group and Settlement Negotiation processes, many alternatives were considered.

Most recently, a "Trails Focus Group" (TFG) convened with the purpose of discussing the trails issues collaboratively and with the goal of ultimately recommending a mix of trails and use designations that can be supported by a majority of trail users. Figure D-2 illustrates a proposal that received broad support and embodies some accommodation of several goals:

- Some separate-use trail segments predicated on widely-recognized safety concerns (Sycamore Hill portion of Dan Beebe Trail);
- The need to maintain connectivity of Project recreation areas for all trail users, to the degree practicable;
- A general multiple-use objective to make much of the Project's trail resources available to as many public trail users as possible;
- Some equestrian-only trail segments associated with the unique equestrian campground in the Loafer Creek area (much of the Roy Rogers Trail and a portion of the Loafer Creek Loop Trail); and
- A monitoring plan to protect natural and cultural resources associated with trail routing and maintenance.

Consistent with these goals, the licensee proposes to designate trails managed under this RMP as depicted in Figure D-2 and denoted in Table D-2. In summary, several areas currently closed to bicycle use are proposed to reopen to multiple-use: much of the Dan Beebe Trail (except Sycamore Hill); most of the Loafer Creek Loop Trail (except segment south of Equestrian Campground); and a necessary connecting segment of the Roy Rogers Trail (from the Loafer Creek Campground and parking area to the new bicycle-designated service/access road).

Additionally, areas of LOSRA currently closed to equestrian use will be designated open for such use, generally in the context of proposed multiple-use trails: all of the Bidwell Canyon Trail (from Lake Oroville Visitors Center to Saddle Dam), and the Brad Freeman Trail on the north shore of the Diversion Pool ("Burma Road") and around Thermalito Forebay.

Three segments of trail are proposed for "hiker and equestrian-only" use: the portion of the Dan Beebe Trail over Sycamore Hill; most of the Roy Rogers Trail; and a portion of the Loafer Loop Trail (segment parallel to the new bicycle-designated service/access road). An additional potential segment is contemplated at the end of the next paragraph.

Bicycle and hiker-only segments of trail, closed to equestrian use, will include the Loafer Creek service/access road (parallel to equestrian-only segment) and the proposed Lakeland-Sycamore Demonstration Trail (if feasible and when constructed). It is further proposed that if and when the latter is constructed, that nearby ("parallel") segments of the Dan Beebe Trail will be then designated as "equestrian and hiker-only."

Several segments of trail, colored black in Figure D-2, are intended for foot traffic only. Several are ADA-accessible, and all offer interpretive signage and other educational opportunities. In general, the overriding consideration for maintaining these trails in their current configuration is their narrow design reflecting their original pedestrian purpose.

**Table D-2. Proposed trail use designation changes and new trails in the project area.**

Trail	Length	Designation	
	Miles of Trail	Present	Proposed
Bidwell Canyon Trail	4.9	Hiking, Biking	Multiple-use
Brad B. Freeman Trail	41.0	Hiking, Biking <sup>1</sup>	Multiple-use <sup>2</sup>
Chaparral Interpretive Trail	0.2	Hiking only	Hiking only
Dan Beebe Trail	14.3	Hiking, Equestrian	Multiple-use <sup>3</sup>
Loafer Creek Campground/Day Use/Campfire Trail	1.7	Hiking only	Hiking only
Loafer Creek Loop Trail	3.2	Hiking, Equestrian	Multiple-use <sup>4</sup>
Sewim Bo Trail	0.5	Multiple-use	Multiple-use
Potter's Ravine Trail	5.5	Multiple-use <sup>5</sup>	Multiple-use <sup>5</sup>
Roy Rogers Trail	4.0	Hiking, Equestrian	Hiking, Equestrian <sup>6</sup>
Wyk Island Trail	0.2	Hiking only	Hiking only
Spur trail to Lake Oroville at Saddle Dam area	<0.1	NA (new)	Hiking only
Service road for bicycle access to Saddle Dam	0,7	NA (new)	Hiking, Biking
North and South Forebay Loop Trails (new segments connecting to Brad Freeman Trail)	2.0 - 3.0	NA (new)	Multiple-use
Spur trails to Thermalito Forebay shoreline	0.1 - 0.5	NA (new)	Hiking only
Potter's Ravine North Fork Shoreline Trail (new extension to Potter's Ravine Trail)	2.0	NA (new)	Multiple-use
Lakeland Boulevard – Sycamore Hill Demonstration Trail (parallel to Dan Beebe Trail)	2.0 - 4.0	NA (new)	Hiking, Biking

<sup>1</sup> Some portions of the Brad Freeman Trail outside of LOSRA are open to equestrian use.

<sup>2</sup> Additional segments of the Brad Freeman Trail on the north shore of the Diversion Pool (Burma Road) and around Thermalito Forebay would be opened to equestrian use.

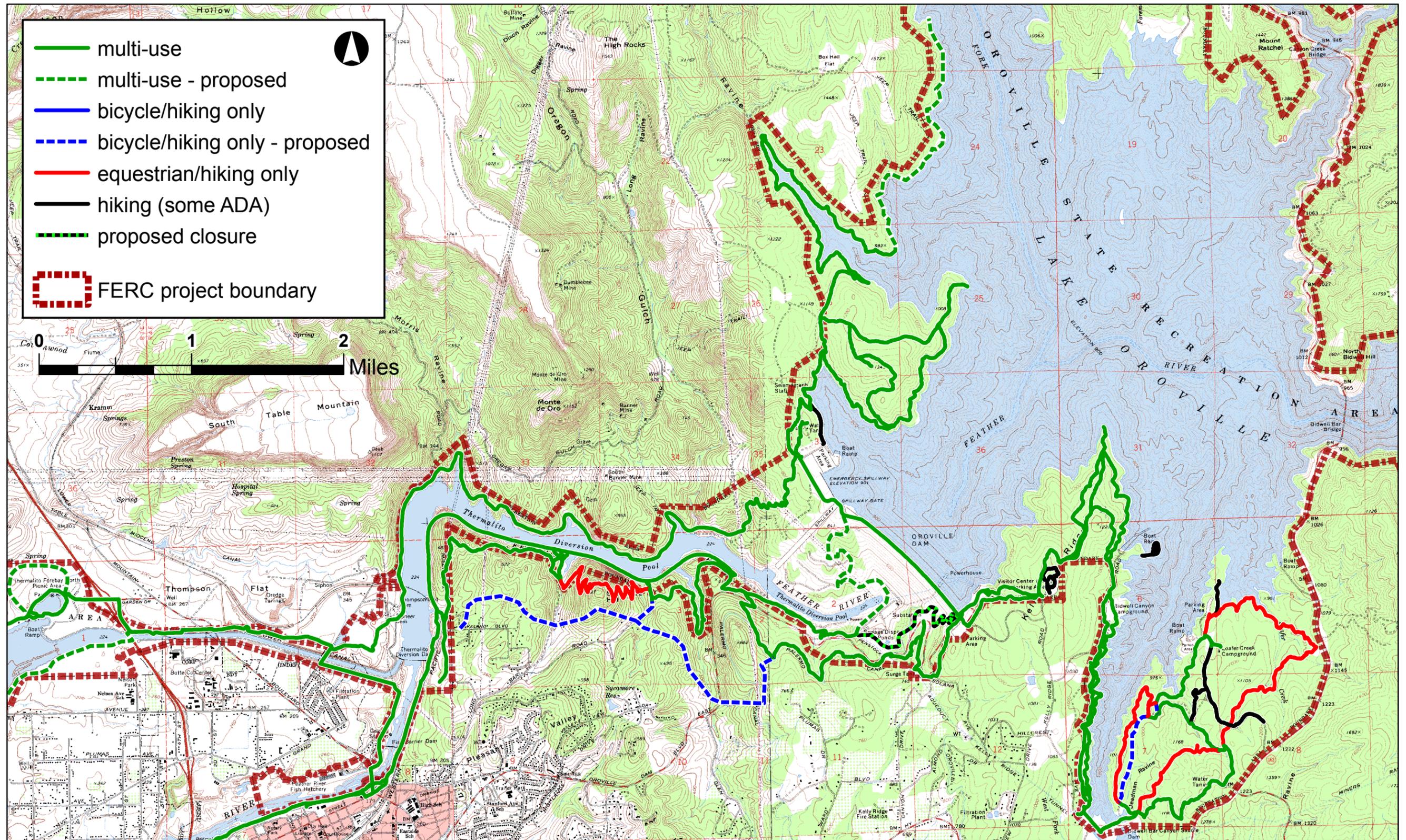
<sup>3</sup> The Sycamore Hill segment would remain closed to bicycle use.

<sup>4</sup> The segment of this trail south of the Equestrian Campground and parallel to the service/access road would remain closed to bicycle use.

<sup>5</sup> All but a short pedestrian-only segment near Spillway cove is multiple-use.

<sup>6</sup> A segment of this trail connecting the campground to the service/access road would be opened to bicycle use.

Figure D-2. Recreation Management Plan Proposed Trail Use Designation





Additional trail planning and design assessment is necessary to effectively balance public access and recreational needs or desires with management requirements to ensure appropriate levels of resource protection and public safety. Prior to modifying any trail use designation along an existing trail, particularly a change to multiple use, DPR and/or DWR will conduct a trail assessment to make sure that proposed modifications to trail use in LOSRA are safe and/or appropriate for multiple use. This trail assessment would include checking for adequate trail sight distance, slope, width, tread, signage, etc. Any issues raised in this trail assessment will be addressed prior to a change in trail use.

**Proposed Trail Maintenance Changes**

In terms of trail maintenance, the area with the highest percentage of survey respondents that were dissatisfied with trail condition was the OWA. Litter was the top reason for dissatisfaction. Measures for additional trash receptacles and litter pick-up along the Feather River in the OWA are included in the draft RMP, Appendix A.

The licensee proposes that general trail maintenance in the LOSRA and on other Project lands continues to follow the standards and frequency currently established. Trail condition and need for special maintenance will be monitored over time per the draft RMP Recreation Monitoring Program.

**Schedule**

The following schedule presented in Table D-3 proposes the period within the new license term when proposed actions will be implemented.

**Table D-3. Implementation Schedule for the Comprehensive Non-motorized Trail Program.**

<b>Proposed Action</b>	<b>Proposed Implementation Timing</b>
New Potter's Ravine Trail Segment	Period L-1
Lakeland - Sycamore Biking Trail	Period L-2 (feasibility review in L-1)
Saddle Dam Shoreline Access Trail	Period L-1
Service Road from Saddle Dam Area	Period L-1
Forebay Area Shoreline Access Trails	Period L-1
Forebay Area Trail Loop(s)	Period L-2
Lime Saddle Trail via Parish Cove	Period L-1

**Costs**

See Appendix A.



**Equestrian and bike users pose for picture on project area trail.**

## **APPENDIX E**

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### **Recreation Monitoring Program Details**

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**RECREATION MONITORING PROGRAM**  
**Traffic Counter Monitored Sites (2004)**

Lake Oroville State Recreation Area (DPR)  
    North Thermalito Forebay  
    South Thermalito Forebay  
    Lime Saddle Marina  
    Cartop Boat Ramps  
        Nelson Bar  
        Vinton Gulch  
        Dark Canyon  
        Foreman Creek  
        Stringtown  
    Bidwell Marina/Campground  
    Loafer Creek Campgrounds and Day Use  
    Spillway/Oroville Dam  
    Enterprise  
    Thermalito Diversion Pool  
    Lake Oroville Visitor Center  
Oroville Wildlife Area (DFG)  
    Headquarters Entrance  
    Afterbay Outlet  
    Palm Avenue  
    Vance Avenue  
    Highway 70 Entrance  
    Pacific Heights Road  
Thermalito Afterbay and Other Sites (DWR)  
    Monument Hill  
    Larkin Road  
    Wilbur Road (2)  
    Feather River Hatchery (2)

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# Licensed Hydropower Development Recreation Report

This form collects data on recreational facilities at projects licensed by the Federal Energy Regulatory Commission under the Federal Power Act (16 USC 791a-825r). This form must be submitted by licensees of all projects except those specifically exempted under 18 CFR 8.11 (c). Submit this form on or before April 1, 2003. Submit subsequent filings of this form on or before April 1, every 6th year thereafter (for example, 2009, 2015, etc.). Submit an original and three copies of the form to the Commission's Regional Office (specified in the cover letter to this form). The public burden estimated for this form is three hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing the collection of information. Please send your comments about this burden estimate, or any other aspect of this collection of information, including suggestions to reduce the burden, to: Director, Division of Hydropower Administration and Compliance, Federal Energy Regulatory Commission, 888 First Street NE, Washington, D.C. 20426 and the Office of Information and Regulatory Affairs, Desk Officer-FERC, Office of Management and Budget, Washington, D.C. 20503.

**Failure to comply with this collection of information will not result in a penalty, if you were unaware that a valid control number assigned by the Office of Management and Budget must be displayed on this collection of information.**

## Schedule 1. Public Use Information: Please read the instructions and glossary before completing this form

### 1. Instructions:

- 1.1 All data reported on this form must represent recreational facilities and services located within the development boundary.
- 1.2 To insure a common understanding of terms, please refer to the Glossary on page 3.
- 1.3 Report actual data for each item. If actual data are unavailable, then please estimate.

2.1 Licensee Name: \_\_\_\_\_

2.2 Project Name: \_\_\_\_\_

2.21 Project Number: \_\_\_\_\_

2.3 Development Name: \_\_\_\_\_

2.4 States Project Traverses (abbreviated):

2.41 State #1: \_\_\_\_\_ (List State(s) with largest  
to smallest area within the  
Development boundary)

2.42 State #2: \_\_\_\_\_

2.5 Type of Project License: Major \_\_\_\_\_  
(Check One) Minor \_\_\_\_\_

3.1 Name of Stream: \_\_\_\_\_

3.2 Reservoir Surface Acres: \_\_\_\_\_

3.3 Shoreline Miles at Normal Pool Elevation: \_\_\_\_\_

3.4 Name of Nearest City with a Population of 40,000 or  
More: \_\_\_\_\_

3.41 Distance: From This City to the Dam: \_\_\_\_\_

3.42 Population of This City: \_\_\_\_\_

3.5 Estimated Population Within 100 mile Radius from the  
Dam \_\_\_\_\_

3.6 Percent of Shoreline Safely Accessible to the General  
Public by Land Travel Without Trespassing: \_\_\_\_\_%

For the previous calendar year, enter only the licensee's annual recreational construction, operation, and maintenance costs for the development (project). Also enter the corresponding annual recreation revenues in whole dollars.

Item	Licensee's Annual Recreation Costs and Revenues (In Whole Dollars)	
	Construction, Operation and Maintenance Costs	Recreation Revenues for Calendar Year
4. Dollar Values:		

### 5. Length of Recreation Season

Summer: From (MM/DD): \_\_\_\_/\_\_\_\_ To: \_\_\_\_/\_\_\_\_ Winter: From (MM/DD): \_\_\_\_/\_\_\_\_ To: \_\_\_\_/\_\_\_\_

Enter the number of visits to all recreational areas at development (in Recreation Days)

Period	Number of Recreation days	
	Annual Total	Peak Weekend Average
6.1 Daytime		
6.2 Nighttime		

# Licensed Hydropower Development Recreation Report

## Schedule 2. Inventory of Recreational Resources

7. Enter data for each Recreational Resource Type (a). For Facility Capacity (e), compare the amount of weekend use for this season reported on Schedule 1, Item (5) with the facility's capacity to handle such use and enter a percentage that indicates overuse, underuse, or ideal use. Do not consider peak weekend use (see Glossary). For example, if Boat Ramps are used to half capacity during a non-peak weekend day, enter 50%. For Boat Ramps that are used beyond their capacity, enter the appropriate percentage above 100.

Recreational Resource Type (a)		No. Rec. Resources		Total Miles/Acres (d)	Facility Capacity (Percent) (e)
		User Free (b)	User Fee (c)		
BOATING	<b>Access Areas.</b> (No Facilities). Unimproved but well-known/popular sites which can be used to reach development waters (including waters below a dam) without trespassing on other property. Such waters are used for launching boats, fishing, swimming, or other water recreational purposes.			N/A	
	<b>Boat Ramps.</b> Improved areas having one or more boat launching lanes, and which (a) are usually marked with signs, (b) have compacted gravel or concrete surfaces, and (c) usually have adjacent parking lots.			N/A	
	<b>Boat Launching Lanes.</b> The area at the boat ramp from which boats may be launched into the development water. The number of lanes at a boat ramp are determined by the number of boats that can be launched safely at the boat ramp at one time.			N/A	
	<b>Marinas.</b> Public or private facilities provided on or adjacent to development waters for the docking, fueling, repair, and storage of boats, and which may rent boats and equipment, or sell bait or food. Facilities may be private or public.			Acres	
	<b>White Water Boating.</b> Access areas below a dam that can be used for rafting/kayaking.			N/A	
	<b>Canoe Portages.</b> Sites located above or below a dam, diversion or other obstruction where persons can launch canoes, and the improved, designated, and maintained trails connecting such sites.			Miles	
FISH-ING	<b>Tailwater Fishing Facilities.</b> Ramps, walkways, or similar structures to facilitate below-dam fishing.			N/A	
	<b>Fishing Piers.</b> Structures abutting or extending into development waters which are constructed and maintained specifically for fishing. (This code excludes Tailwater Fishing).			N/A	
PARKS	<b>Parks.</b> Designated areas which usually contain multiple use facilities (picnic sites, playgrounds, swimming beaches, and boat ramps). Individual facilities within each park shall be reported using the appropriate resource type (e.g., playground areas, swimming areas, picnic areas, etc.).			Acres	
	<b>Playground Areas.</b> Have playground equipment, game courts/fields, jogging tracks, etc.			Acres	
	<b>Trails.</b> Improved pathways used for non-automobile recreational travel which (a) can be located on a reference map, and (b) are designated according to type of use (hiking, bridle, trailbikes, snowmobiles, cross-country skiing). This category excludes Canoe Portages.			Miles	
	<b>Swimming Areas.</b> Sites providing access to development waters where swimming facilities (bath houses, designated swimming areas, parking, and sanitation facilities) are located.			Acres	
	<b>Picnic Areas.</b> Areas designated and maintained for picnicing and which contain one or more picnic sites, each of which includes a picnic table and in some cases a cooking grill, trash receptacles, and a parking area.			Acres	
	<b>Wildlife Areas.</b> Natural areas and reserves specifically created and managed for the protection and propagation of wildlife and the viewing of wildlife in their habitat.			Acres	
	<b>Visitor Centers.</b> Facilities located in a kiosk, pavilion or similar structure from which persons may obtain information about the development, its operation, recreational facilities, and related items of interest.			N/A	
	<b>Interpretive Displays.</b> Historic or prehistoric objects, structures, sites and areas, including associated facilities (exhibits and museums) which describe or preserve archeological, historic or prehistoric activities, artifacts and materials.			N/A	
	<b>Overlooks.</b> Public areas to see natural areas/project features (e.g., pull-offs, vistas)			Acres	
	<b>Hunting Areas.</b> Public or private areas open to the general public for hunting purposes.			Acres	
<b>Golf Courses.</b> All types of golf areas, except miniature golf.			Acres		
CAMPS	<b>Cottage/Cabin Sites.</b> Recreational dwellings which are seasonally rented by the public for recreational purposes.			N/A	
	<b>Camping Areas.</b> (Campgrounds). Areas containing two or more campsites, tent sites, or trailer/recreational vehicle (RV) sites which accommodate overnight camping equipment.			Acres	
	<b>Tent/Trailer/RV Sites.</b> The total number of sites within Camping Areas that have been specifically developed for tent, trailer, or RV use. Such sites do not include Group Camps.			Acres	
	<b>Organizational Camps.</b> Camping areas that are maintained and operated by a specific entity but which may be used by other persons or groups (scout camps, military base recreation camps, church camps, handicapped children's camps).			Acres	
	<b>Group Camps.</b> Camping areas which are equipped with facilities to accommodate use by the general public. Such areas usually require registration or advance reservation.			Acres	
<b>Winter Sports.</b> Any facility providing sports like skiing, sledding, ice skating or ice fishing.			N/A		
<b>Other (Specify):</b>			N/A		

**Respondent Certification:** The undersigned certifies that he/she has examined the accompanying data; and that to the best of his/her knowledge, information and belief, all historical and estimated data provided herein and appended hereto are true, complete, and accurate.

( ) -

Legal Name	Title	Area Code/Phone No.
Signature	Date Signed	Reporting Year Ending

# Licensed Hydropower Development Recreation Report

## Glossary of FERC Form 80 Terms

1. **Development.** The portion of a project which includes:
  - (a) a reservoir, or
  - (b) a generating station and its specifically-related waterways.
2. **Exemption.** Exemption from the filing of this form granted upon Commission approval of an application by a licensee pursuant to the provisions of 18 CFR 8.11(c).
3. **General Public.** Those persons who do not have special privileges to use the shoreline for recreational purposes, such as waterfront property ownership, water-privileged community rights, or renters with such privileges.
4. **Licensee.** Any person, state, or municipality licensed under the provisions of Section 4 of the Federal Power Act, and any assignee or successor in interest. For the purposes of this form, the terms licensee, owner, and respondent are interchangeable *except where*:
  - (a) the owner or licensee is a subsidiary of a parent company which has been or is required to file this form; or
  - (b) there is more than one owner or licensee, of whom only one is responsible for filing this form. Enter the name of the entity that is responsible for filing this report in Schedule 1, Item 2.1.
5. **Peak Use Weekend.** Weekends when recreational use is at its peak for the season (July 4th weekend and other holiday weekends). On these weekends, recreational use may exceed the capacity of the area to handle such use.
6. **Major License.** A license for a project of more than 2,000 horsepower (1.5 megawatts) installed capacity.
7. **Minor License.** A license for a project of 2,000 horsepower (1.5 megawatts) or less installed capacity.
8. **No. Rec. Resources.** Quantify the supply of natural or man-made property or facilities that are available for given recreational resource type.
9. **Recreation Day.** Each visit by a person to a development for recreational purposes during any portion of a 24-hour period.
10. **Revenues:** Income generated from recreation facilities at project development. Includes fees for access or use of area.

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