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.

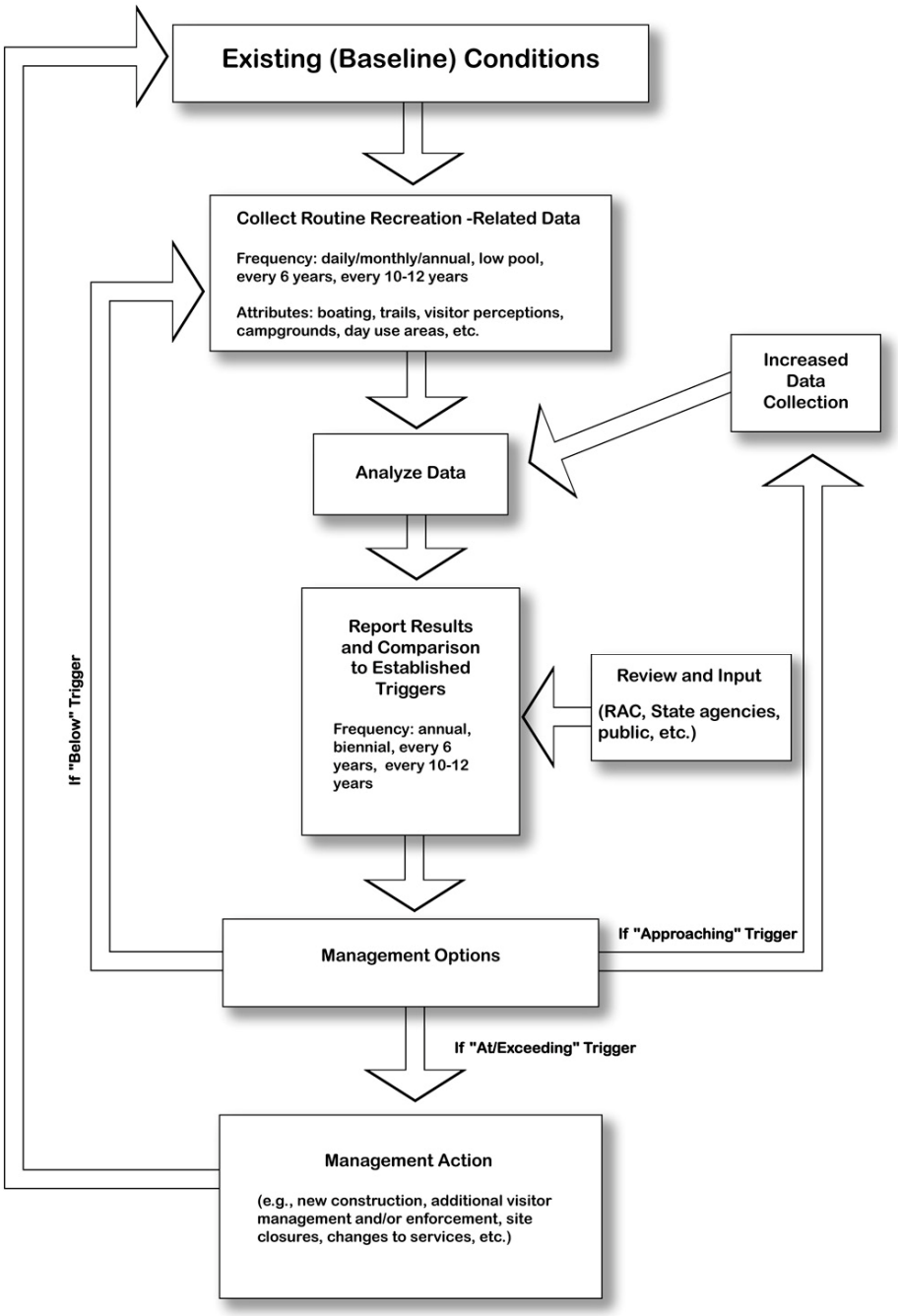

Figure 7.3-1. Conceptual Flowchart of the Recreation Monitoring Program.

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
Visitor Perceptions, including Satisfaction, Crowding, and User Conflicts	• Changes in social and qualitative values. • Changes in visitor perceptions and preferences. • Changes in visitor satisfaction and overall quality of user experience. • User conflicts. • Changes in crowding perceptions and related issues. • Changes in user activity patterns.	• 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. • 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. • Episodes of increasing crime and vandalism.	• 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). • Collect Project-wide user/activity counts (including on water boating) using random sampling techniques consistent with social science survey protocols (see frequency, right). • Track by site, management unit, and project-wide. • Review visitor comments collected by the Oroville Chamber of Commerce and trends. • Timing and focus of visitor information collected, draft survey instruments, and proposed actions will be coordinated through the RAC. • Annually track incidents of crime and vandalism through visitor health and safety management reports and input from site maintenance crews; analyze trends. • Annually track public comments received by the RAC and LCU; analyze trends.	• 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.) • 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. • 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). • Biennially report incidents of crime and vandalism by area/site and related trends. • Biennially report public comments received by the RAC and LCU and observations of related trends.	• Expand existing facilities. • Provide additional enforcement. • Provide adequate buffers between uses. • Site closures. • Change visitor services. • Increase visitor education (I&E).
Developed Boat Ramp Facility and Use Levels (including Low Pool)	• Boat ramp parking occupancy and use during the recreation season (both weekday and weekends) (used to trigger additional parking). • Potential crowding during low pool conditions at remaining open boat ramps (Bidwell Canyon, Spillway, and Lime Saddle) at Lake Oroville. • Boat ramp wait times (used to trigger new ramp lanes). • Turn-away situations at entry stations during at-capacity timeframes.	• 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). • 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. • 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. • 15% of main recreation season days reach 90% occupancy average (or greater) at any individual developed boat ramp parking area. • On-water boating density on Lake	• Estimate the number of parked vehicles by conducting on-site observations using random sampling techniques consistent with social science survey protocols (see frequency, right). • 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). • Conduct boater surveys during larger baseline surveys using random sampling techniques consistent with social science survey protocols (see frequency, right). • 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	• 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). • 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	• Expand existing facilities (more mooring buoys, parking stalls, or ramp lanes). • Increase site efficiency (more docks or staff to direct boaters). • Provide additional visitor management and/or enforcement. • Change visitor services or increase O&M. • Increase visitor education (I&E).

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
		Oroville of 25 acres/active boat, assessed reservoir-wide and for 6 sub-units. Lower boating density on other project water bodies (will vary). • 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. • Increased monitoring effort is triggered at developed boat ramps when the Lake Oroville pool level drops to 750 feet msl. • 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). • Boat ramp launch and retrieve wait time at the Lime Saddle Boat Ramp is analyzed independently of other Lake Oroville boat ramps. • 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. • 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. • 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. • Boat ramp launch and retrieve wait time	social science survey protocols (see frequency, right). • Count turn-aways manually at entry stations during peak use conditions (when use is at capacity --100%). • 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). • Days when fishing tournaments occur and days when boat ramp lanes are temporarily blocked for operational or maintenance reasons are excluded from the analysis. • Review feedback from fishing tournament operators to help minimize delays and access problems.	60% weekend average (approaching) parking capacity utilization. • 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. • 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).	

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
		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. • Turn-aways at entry stations will be considered in the calculations (when use levels reach capacity -- 100%).			
Developed Campground Capacity Utilization	• Campground capacity (individual sites and group sites) and use during the recreation season (both weekday and weekends). • Trends in use levels. • Track turn-away situations on-site at entry stations.	• 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.). • 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). • 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). • 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). • Turn-aways will be considered in calculations (when use levels near	• Periodically conduct larger baseline camping visitor surveys and activity counts using random sampling techniques consistent with social science survey protocols (see frequency, right). • Review paid fee receipts at campgrounds and relate to campground capacity. • 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). • 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.	• Paid fee receipts will be collected daily, and reported monthly. • 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. • Annual assessments will be conducted when site capacity utilization hits 40% weekday or 60% weekend (approaching) capacity. • 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). • Monitor annually to assess campground capacity. • 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).	• Expand existing facilities (more campsites – individual or group). • Add campground amenities. • Direct visitors to other available sites. • Offer incentives to redistribute use (to other sites or shoulder seasons). • Provide additional visitor education (I&E).

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
		100% capacity). Campsite preference will be noted (RV, tent, RV group, and equestrian group).			
Developed Day Use Area Capacity Utilization	• Developed day use area/site capacity and use during the recreation season (both weekend and weekends). • Trends in use levels. • Track turn-away situations at entry stations (if available).	• 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.). • Weekday developed day use area parking occupancy average of 55% during the recreation season (May 15 to Sept. 15) at any individual facility. • Weekend/holiday developed day use area parking occupancy average of 75% during the recreation season (May 15 to Sept. 15) at any individual facility. • Increased monitoring when 40% weekday or 60% weekend (approaching) parking occupancy average is hit at any individual facility. • 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. • Increased monitoring when 15% of main recreation season days reach 90% parking occupancy average or greater at any individual facility. • Turn-aways will be considered in calculations (when use levels reach 100% parking capacity).	• Conduct larger baseline day use visitor surveys and activity counts using random sampling techniques consistent with social science survey protocols (see frequency, right). • Collect road counter data at developed day use areas. • 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. • Turn-aways will be counted manually at entry stations (where they exist) during peak use conditions.	• Road counter data will be collected daily and reported biennially. • 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. • Annual data reporting when a site hits 40% weekday or 60% weekend (approaching) capacity utilization average. • If at full capacity, count turn-aways. • Assess site parking capacity biennially. • 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).	• Expand existing facilities (parking, picnics sites, beach area, etc.). • Redistribute use by providing visitors with information about alternative sites. • Increase enforcement. • Add new site amenities. • Provide additional visitor education (I&E).
Developed Trail Facility Capacity and Trail Use	• Trailhead capacity and use during the recreation season (April-May in spring, September-October in fall, both weekday and weekends. • Trends in use levels. • Trail user experience and potential user conflicts. • Parking capacity at trailheads to be defined allowing for adequate circulation of vehicles with trailers.	• 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. • 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). • 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). • Increased monitoring when a trailhead hits 40% weekday or 60% weekend	• Conduct larger trail use visitor surveys and activity counts using random sampling techniques consistent with social science survey protocols (see frequency, right). • Collect periodic roving use counts at trailheads using random sampling techniques consistent with social science survey protocols (see frequency, right). • 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	• 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. • Larger activity counts and surveys done every other FERC Form 80 filing (10-12 years), or sooner if there is a site specific need. • Annual data collection (roving use counts, as above) conducted when a site hits 40% weekday or 60% weekend (approaching) capacity utilization average. • Assess capacity biennially. • Report findings biennially within DWR's	• Expand existing trailheads (parking). • Increase resource protection measures. • Provide additional trail user education (I&E). • Communicate trail use designation changes. • Implement trail design changes. • Reconnaissance and feasibility study, and possible construction, of new trails or trail segments.

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
		occupancy average for the season at any individual site (parking capacity at each trailhead to allow for adequate circulation of trailers). • Number of reported trail user conflicts is significantly higher compared to baseline survey results.	individual trailhead. • Monitor trail user conflicts on selected trails if issues are identified. • Annual anecdotal input from volunteer trail assistance group(s).	other biennial report.	
Undeveloped Dispersed Site Creep, Pioneering, and Occupancy	• Use and resource impacts associated with undeveloped dispersed recreation sites, primarily in the OWA. • Sites and use areas that are inconsistent with the future OWA Management Plan would be excluded from study by virtue of their proposed closure. • Spread of new dispersed sites over time. • Increase in the size of existing sites over time. • Responses to management actions over time.	• Camping allowed in designated areas only. Other areas to exclude camping. • 10% expansion of site area impact from baseline. • 10% increase in the total number of sites from baseline. • 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). • 50% seasonal capacity utilization average during the recreation season (Memorial Day to Labor Day).	• Identify and track sites over time. • Document the baseline conditions of significant sites of concern including size, impacts, and proximity to sensitive areas. • Compare changes in selected site conditions over time (creep) and future new sites (pioneer) with baseline conditions. • Conduct selected site observations, assessments and counts during the recreation season, using random sampling techniques consistent with social science survey protocols (see frequency, right).	• Monitor site occupancy of representative or target sites every 5 years (or sooner if a site is near a critical/sensitive area). • Identify and assess site pioneering and site creep every 5 years.	• Erect barriers to better define site/road boundaries. • Provide additional enforcement. • Provide increased visitor education (I&E). • Harden some sites. • Close some sites (temporarily or permanently). • Increase cleanup activities (O&M).

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	• Lime Saddle Campground • Lime Saddle Group Campground • Lime Saddle BR/DUA/Marina*
	Spillway	• Spillway BR* • Spillway DUA*
	Bidwell Canyon	• Bidwell Canyon BR/DUA* • Bidwell Canyon Campground* • Bidwell Canyon Marina*
	Loafer Creek	• Loafer Creek Campground* • Loafer Creek Group Campground* • Loafer Creek Equestrian Campground* • Loafer Creek DUA* • Loafer Creek BR*
	Car-top Boat Ramps	• Dark Canyon Car-top Boat Ramp* • Nelson Bar Car-top Boat Ramp* • Vinton Gulch Car-top Boat Ramp* • Foreman Creek Car-top Boat Ramp* • Stringtown Car-top Boat Ramp*
	Other Sites	• Enterprise Boat Ramp* • Saddle Dam Trailhead Access • Lake Oroville Visitors Center* • Oroville Dam Overlook DUA* • Boat-in Campgrounds • Floating Campsites
Lake Oroville (Water)	Main Basin Sub-unit	• Main Basin and associated coves at Spillway, Potters Ravine, Canyon Creek, Loafer Creek, and Bidwell Canyon
	Middle Fork Sub-unit	• All water areas on Middle Fork arm (upstream of Bidwell Bar bridge)
	South Fork Sub-unit	• All water areas on South Fork arm (upstream of confluence with Middle Fork arm)
	Lower North Fork Sub-unit	• All water areas on North Fork arm between Main Basin and confluence with West Branch
	Upper North Fork Sub-unit	• All water areas on North Fork arm upstream of confluence with West Branch
	West Branch Sub-unit	• All water areas on West Branch (upstream of confluence with North Fork)
Diversion Pool	–	• Lakeland Boulevard Trailhead Access
		• Diversion Pool DUA* (add new DUA also) • Feather River Fish Hatchery DUA*
Thermalito Forebay	–	• North Thermalito Forebay BR/DUA and Aquatic Center*
		• South Thermalito Forebay BR/DUA*

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	–	• Afterbay outlet* • Five additional OWA entrances providing access to dispersed use areas*

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

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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
Lake Oroville Management Unit				
Bidwell Canyon Complex (Boat Ramp/Day Use Area/ Marina/ Campground)	Capital Improvements:			$9,268,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget
	• Expand existing parking capacity at the Marina/Boat Ramp/Day Use Area to include approximately 215 new parking spaces (vehicle with trailer), of which a minimum of 90 parking spaces will be constructed at the existing location of the Big Pine Loop. Other new parking spaces will be provided at Ramp #2 (resurface the existing gravel lot with concrete at 700 feet msl to provide 80 spaces), and at Ramp #3 (45 spaces at the top of the ramp, with other parking along the ramp).	DBW, DWR	L 1	Included above
	• Provide one additional boarding dock at the top of the boat ramp to maximize boat launching capacity. This will be reassessed as the pool level drops. One longer floating dock may be used as the ramp narrows. DBW will review the conditions.	DBW, DWR	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Provide ADA-related upgrades at the Marina to improve accessibility between site amenities, such as restrooms and the store.	Concessionaire, DPR	L 1	Included above
	• Construct a new relocated RV/tent campground loop with 30 to 38 new campsites to replace those sites lost to the proposed parking expansion project at the Big Pine Loop. If all 38 campsites cannot be reasonably relocated within the Bidwell Canyon Complex (likely south of the Gold Flat Loop), DWR will then construct up to an additional 15 new RV campsites at the Loafer Creek Complex to provide replacement campsite capacity in the area.	DWR, DPR	L 1	Included above
	• At the Bidwell Canyon Boat Ramp, extend 3 boat ramp lanes all the way down to 640 feet msl when feasible. This will involve a new Ramp #3 at lower elevations, and adding a new lane to a portion of existing Ramp #1. These extensions may be phased.	DBW, DWR	L 1	Included above
	• When monitoring results demonstrate a clear need, consider constructing new Bidwell Canyon campsite capacity at the nearby Loafer Creek complex.	DWR, DPR	L 2 to L 5	Included in L2 to L5 budget
	<u>Programmatic and O&M:</u>			$775,000 - 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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Ensure adequate adjustment of boarding dock(s).	Concessionaire, DPR	L 1 to L 5	Included above
	• Ensure adequate and timely debris removal at boat ramp for safe boat launching.	DPR, DWR	L 1 to L 5	Included above
	• Provide boaters with additional information about substitute boating facilities.	DPR, DWR	L 1 to L 5	Included above
	• Explore additional dry boat storage in the Marina/Boat Ramp areas as an added element in the new concessionaire contract.	Concessionaire, DPR	L 1 to L 5	Concessionaire cost
	• Make the underutilized group meeting facility available for use as a concessionaire operated campground activity center and store/snack bar	Concessionaire, DPR	L 1 to L 5	Concessionaire cost
	• Provide annual O&M.	DPR, DWR	L 1 to L 5	Included above
Loafer Creek Complex (Boat Ramp/Day Use Area/ Campground/ Group Campgrounds)	<u>Capital Improvements:</u>			$5,420,000 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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• 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.	DWR	L 1	Included above
	• 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.	DBW, DWR	L 1	Included above
	• Restore the former vandalized portable toilet at nearby Brooks Orchard with a new single-vault toilet building.	DWR, DPR	L1	Included above
	• Provide a new fish cleaning station connected to existing infrastructure (location to be determined).	DWR, DPR	L1	Included above
	• Provide ADA enhancements to some campsites and the parking area at the Group and Equestrian Campgrounds.	DWR, DPR	L 1	Included above
	• Provide hardened ADA-accessible paths from the parking area and restrooms to the lower picnic area and swimming cove/beach.	DWR, DPR	L 1	Included above
	• Provide 2 new group RV campsites near the existing group campsites.	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• 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).	DWR, DPR	L 1	Included above
	• 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).	DPR, DWR	L 1 (Completed)	Included above
	• In conjunction with the swim facility feasibility study, evaluate the feasibility of a concessionaire operated campground activity center and store/snack bar.	DWR, DPR	L 1	Included above
	• 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.	DPR, DWR	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• 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.	DPR, DWR	L 2 to L 5 (threshold dependent)	Included in L2 to L5 budget
	• 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.	DPR, DWR	L 2 to L 5 (threshold dependent)	Included in L2 to L5 budget
	• 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.	DPR, DWR	L 2 to L 5 (threshold dependent)	Included in L2 to L5 budget
	<u>Programmatic and O&M:</u>			$1,075,000 Annual O&M w/ L1 Enhance-ments
	• Explore the feasibility of permitting a concessionaire to construct rental cabins or similar lodging in the Loafer Creek Complex.	DPR, DWR	L 1 to L 5	Included above
	• Ensure adequate debris removal at boat ramp for safe boat launching.	DPR, DWR	L 1 to L 5	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Ensure adequate adjustment of boarding docks.	DPR, DWR	L 1 to L 5	Included above
	• Provide boaters with additional information about substitute boating facilities.	DPR, DWR	L 1 to L 5	Included above
	• Provide annual O&M.	DPR, DWR	L 1 to L 5	Included above
Lime Saddle Complex (Boat Ramp/Day Use Area/ Marina/Campground/Group Campsite)	Capital Improvements:			$2,250,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget
	• Provide additional ADA improvements at the Marina (store area) and boat ramp day use picnic sites.	DWR, DPR, Concessionaire	L 1	Included above
	• Conduct a feasibility study of potential swim facility options at this and other Project No. 2100 locations. This site would receive lesser priority than the swim facility study at the Loafer Creek Complex.	DWR	L 1	Feasibility study cost included above only, not capital or O&M
	• Provide 1 additional boarding dock on the right-had side looking down the ramp to supplement the existing marina gangway and dock system. This will require the installation of a new anchor system as well to maximize boat launching capacity.	DWR, DBW	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• 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.	DPR, DWR	L 2 to L 5 (threshold dependent)	Included in L2 to L5 budget
	• 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.	DPR, DWR	L 2 to L 5 (threshold dependent)	Included in L2 to L5 budget
	• 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.	DPR, DWR	L 1	Included above
	• Provide 10 additional RV campsites.	DPR, DWR	L 1	Included above
	• In conjunction with the swim facility feasibility study, evaluate the feasibility of a concessionaire operated campground activity center and store/snack bar.	DPR, DWR	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Construct 1 new 6-unit group (50-person) RV campsite.	DPR, DWR	L 1	Included above
	• 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.	DPR, DWR	L 2 to L 5 (threshold dependent)	Included in L2 to L5 budget
	• Construct approximately 60 additional new Boat Ramp/ Marina parking spaces (vehicle with trailer) near the existing parking lot where feasible. The adjacent vacated PG&E parcel may potentially be transferred to DWR/DPR for site expansion purposes and this option will continue to be explored.	DPR, DWR	L 1	Included above
	• 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.	DPR, DWR	L 2 to L 5 (threshold dependent)	Included in L2 to L5 budget
	<u>Programmatic and O&M:</u>			$550,000 Annual O&M w/ L1 Enhancements
	• Ensure adequate debris removal at boat ramp for safe boat launching.	DPR	L 1 to L 5	Included above
	• Ensure adequate adjustment of boarding docks.	DPR	L 1 to L 5	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Provide boaters with information about substitute boating facilities and reservoir conditions.	DPR	L 1 to L 5	Included above
	• Provide annual O&M.	DPR, DWR	L 1 to L 5	Included above
Oroville Dam Overlook Day Use Area	Capital Improvements:			$200,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget
	• 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).	DPR, DWR	L 1	Included above
	Programmatic and O&M: • Provide annual O&M.		L 1 to L 5	$25,000 Annual O&M (L1 to L5)
Spillway Boat Ramp/ Day Use Area	Capital Improvements:			$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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• 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.	DWR, DBW	L 1	Included above
	Programmatic and O&M:			$625,000 Annual O&M w/ L1 Enhancements
	• Continue "en route" RV camping at Spillway, subject to periodic FERC project security reviews.	DPR	L 1 to L 5	Included above
	• Ensure adequate adjustment of boarding docks.	DPR	L 1 to L 5	Included above
	• Ensure adequate debris removal at boat ramp for safe boat launching.	DPR	L 1 to L 5	Included above
	• Provide boaters with additional information about substitute boating facilities and changing reservoir conditions.	DPR	L 1 to L 5	Included above
	• Provide annual O&M.	DPR, DWR	L 1 to L 5	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
Enterprise Boat Ramp	Capital Improvements:			$3,500,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget
	• 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.	DWR, DBW	L 1	Included above
	• Provide 10 gravel parking spaces where feasible.	DWR, DPR	L 1	Included above
	• Evaluate cultural resources in this area to identify areas for additional gravel parking near the 750 feet msl elevation.	DWR, DPR	L 1	Included above
	• Provide a vault toilet building (Interim Project).	DWR	L 1 (Completed)	Included above
	• Provide 10 family picnic sites.	DWR, DPR	L 1	Included above
	• Provide 1 new boarding dock and cable system at the boat ramp.	DWR, DBW	L 1	Included above
	Programmatic and O&M:			$200,000 Annual O&M w/ L1 Enhancements
	• Ensure adequate adjustment of boarding dock.	DPR	L 1 to L 5	Included above
	• Provide annual O&M.	DPR, DWR	L 1 to L 5	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
Nelson Bar Car-Top Boat Ramp	Capital Improvements:			$50,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget
	• Install a sign, barrier, and/or gate at the terminus of the boat ramp during lowered reservoir elevations for safety purposes.	DWR	L 1	---
	Programmatic and O&M:			$50,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DPR	L 1 to L 5	---
Vinton Gulch Car-Top Boat Ramp	Capital Improvements:			$33,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget
	• Apart from periodic updates of the interpretive materials (directional signs), no changes are proposed at this facility.	DPR	L 1	---

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

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	Programmatic and O&M:			$40,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DPR	L 1 to L 5	---
Dark Canyon Car-Top Boat Ramp	Capital Improvements:			$33,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget
	• Provide additional signs to help users locate site (component of the RMP's I&E Program).	DPR	L 1	Included above
	• Replace the defunct vault toilet building at this site.	DWR, DPR	L 1	Included above
	Programmatic and O&M:			$50,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DPR	L 1 to L 5	---
Foreman Creek Car-Top Boat Ramp	Capital Improvements:			$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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Provide site protection for culturally sensitive areas potentially impacted by recreational use (also a component of the RMP's I&E Program).	DWR, DPR	L 1	Included above
	• Reconfigure the recreational use to reroute visitor use away from culturally sensitive areas, including measures to restrict usage of the car-top boat ramp to a designated use area. Potentially relocate the access road.	DWR, DPR	L 1	Included above
	• Provide site improvements within a designated use area including an ADA-accessible vault toilet building, interpretive signage, and 5 to 10 picnic tables with shade ramadas. Pole stoves will also be installed if deemed permissible from a fire safety or fuel load management perspective.	DWR, DPR	L 1	Included above
	<u>Programmatic and O&M:</u>			$250,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DPR	L 1 to L 5	---

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

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
Stringtown Car-Top Boat Ramp	Capital Improvements:			$34,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget
	• Provide additional roadside signs to help users locate site (component of the RMP's I&E Program).	DPR	L 1	Included above
	• Install a sign, barrier, or gate for safety purposes at the unmaintained abandoned road in the inundation zone.	DPR	L 1	Included above
	Programmatic and O&M:			$60,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DPR	L 1 to L 5	---
Lake Oroville Visitors Center	Capital Improvements:			$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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Provide I&E Program and existing Visitors Center facility enhancements. Other potential future facility functions, activities and uses at the Visitors Center will be discussed and considered as a component of the RMP's future I&E Program.	DPR, DWR	L 1	Included above
	• Based upon monitoring results during L2 to L5 phases and determination of a need, provide additional parking if needed at this facility by expanding the existing parking area.	DPR, DWR	L 2 to L 5 (threshold dependent)	Included in L2 to L5 budget
	<u>Programmatic and O&M:</u>			$425,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DPR, DWR	L 1 to L 5	---
Saddle Dam Trailhead Access	<u>Capital Improvements:</u>			$183,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget
	• Re-grade and gravel the existing equestrian TA parking area (Interim Project).	DWR, DPR	L 1 (Completed)	Included above
	• Provide a new vault toilet building (Interim Project).	DWR, DPR	L 1 (Completed)	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Provide horse hitching posts and native shade trees (Interim Project).	DWR, DPR	L 1	Included above
	• Provide an additional non-motorized trail(s) to the nearby shoreline at Saddle Dam (see Trails Program, Appendix D).	DWR, DPR	L 1	Included in Trails Program below
	• Provide 10 new picnic tables.	DWR, DPR	L 1	Included above
	• 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.	DWR, DPR	L 1	Included above
	<u>Programmatic and O&M:</u>			$50,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DPR, DWR	L 1 to L 5	---
	• Provide additional security at this location if and when needed.	DPR, DWR	L 1 to L 5	Included above
Boat-in Campgrounds (BICs): Bloomer Area, Goat Ranch, Foreman Creek, and Craig Saddle	<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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• 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.	DPR, DWR	L 1	Included above
	Programmatic and O&M:			$200,000 Annual O&M
	• Provide annual O&M.	DPR	L 1 to L 5	---
Lake Oroville Scenic Overlook (SR 162 at bridge)	Capital Improvements:			$69,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget
	• Replace existing cyclone fence with a Caltrans-approved auto safety barrier (Interim Project).	DWR	L 1 (Completed)	Included above
	• Provide 2 new interpretive signs (Interim Project).	DWR, DPR	L 1 (Completed)	Included above
	• Provide a new trash receptacle and minor trail enhancements along the old construction road.	DWR, DPR	L 1	Included above
	Programmatic and O&M:			$25,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DWR, DPR	L 1 to L 5	---

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

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Provide trash pickup service in coordination with the Berry Creek Citizen's Association.	DWR, DPR	L 1 to L 5	Included above
Floating Campsites	<u>Capital Improvements:</u>			$375,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget
	• 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.	DWR, DPR	L 1	Included above
	<u>Programmatic and O&M:</u>			$228,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DPR, DWR	L 1 to L 5	---

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

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

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

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
Trails in the Lake Oroville and Dam Area **(see Appendix D)**	Capital Improvements:			$269,000 Total Capital (L1) L2 to L5 Total Future Capital (If Needed) – see Management Area Subtotal Budget
	• Construct a Saddle Dam area shoreline access trail(s) (less than 0.1 mile in length each).	DWR, DPR	L 1	Included above
	• Realign a portion of the existing Brad B. Freeman Trail near the Hyatt Powerplant Switchyard by Oroville Dam to address security/ safety concerns.	DWR, DPR	L 1	Included above
	• Open the Dan Beebe Trail to bicycle use.	DWR, DPR	L 1	Included above
	• Open the Bidwell Canyon Trail to equestrian use.	DWR, DPR	L 1	Included above
	• Open an existing access road to bicycle use, south of the Loafer Creek Equestrian Campground.	DWR, DPR	L 1	Included above
	• Construct a Potter's Ravine North Fork Shoreline Trail extension (approx. 2 miles and multiple use).	DWR, DPR	L 1	Included above
	• Construct a new trail from the Lime Saddle Campground to the Lime Saddle Marina/BR (approx. 3.5 miles for hiking and biking use).	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	Programmatic and O&M:			$50,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DWR, DPR	L 1 to L 5	---
Lake Oroville Area Facility Replacement and Refurbishment (O&M)	Programmatic and O&M:			$400,000 Annual O&M Accrual Estimate ($20,000,000 Total O&M Replacement over 50 years) (L2 to L5)
	• 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, DPR	L 2 to L 5	---
Subtotal Lake Oroville Mgmt. Unit: Capital Facility Costs - New Construction				**$24,807,000 (L1)**
Future New Capital Facility Budget if Needed Based on Monitoring Results				**$20,000,000 (L2 to L5)**
Subtotal Lake Oroville Mgmt. Unit: Facility Operations Costs – Annual O&M With L1 Enhancements				**$4,938,000 annually assuming L1 enhancements**
Future Facility Replacement and Refurbishment O&M Budget if Needed				**$20,000,000 (L2 to L5)**

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

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
Diversion Pool Management Unit (includes portions of the Low Flow Channel)				
Diversion Pool DUA (Northern Side)	Capital Improvements:			$215,000 Total Capital (L1)
	• Provide an ADA-accessible fishing pier or platform at this or other nearby Diversion Pool location.	DWR, DPR, WCB	L 1	Included above
	• 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).	DWR, DPR	L 1	Included above
	Programmatic and O&M:			$50,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DPR, DWR	L 1 to L 5	---
Lakeland Boulevard Trailhead Access / Diversion Pool DUA (Southern Side)	Capital Improvements:			$1,985,000 Total Capital (L1)
	• 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.	DWR	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Construct a new shoreline day use area at the Diversion Pool to include a gravel parking area that can accommodate vehicles with small trailers, vault toilet building, 10 picnic tables with pole stoves and a gravel car-top boat ramp.	DWR	L 1	Included above
	• Install a non-potable stock watering trough at the existing Lakeland Blvd. TA gravel parking area. This new trough may potentially be supplied by underground piping, or by a portable supply via truck. If the former option is used, an outdoor hand-washing basin with a French drain will also be installed.	DWR	L 1	Included above
	• Install fencing, as appropriate, to separate the existing trail and the new access road and day use facilities from the railroad tracks.	DWR	L 1	Included above
	<u>Programmatic and O&M:</u>			$155,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DPR, DWR	L 1 to L 5	---

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

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
Feather River Fish Hatchery Day Use Area	Capital Improvements:			$75,000 Total Capital (L1)
	• The Fish Hatchery DUA with a Visitors Center and fish viewing platform will be considered as a component of the RMP's I&E Program. Additional interpretive signs and/or kiosks and additional interpretive paths will be added consistent with the I&E Program.	DWR, DFG	L 1	Included above
	• 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).	DWR, DBW, and DFG	L1	Included above
	Programmatic and O&M:			$52,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DFG, DWR	L 1 to L 5	---
	• Provide annual O&M for new boater put-in/take-out.	DFG, DWR	L1 to L5	Included above
Trails in the Diversion Pool / Low Flow Channel Area (see Appendix D)	Capital Improvements:			$316,000 Total Capital (L1)
	• Develop a non-motorized Sewim Bo Trail from the Old Bath House (Nature Center) to the Diversion Dam (Interim Project).	DWR	L 1 (Completed)	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Provide new picnic tables (some ADA compliant), shade ramadas, erosion control, and interpretive signs along the Sewim Bo Trail (Interim Project).	DWR	L 1 (Completed)	Included above
	• 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.	DWR	L 1	Included above
	• Evaluate the feasibility of a Diversion Pool trail crossing(s) to complete a trail loop experience.	DWR	L 1	Feasibility study cost included above only
	• Open the Dan Beebe Trail to bicycle use (except the Sycamore Hill trail segment).	DWR	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• 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.	DWR	L 1	Included above
	• Open the Burma Road and adjacent portions of the Brad Freeman Trail to equestrian use.	DWR	L 1	Included above
	<u>Programmatic and O&M:</u>			$50,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DWR	L 1 to L 5	---

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

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
Diversion Pool Area Facility Replacement and Refurbishment (O&M)	Programmatic and O&M:			$20,000 Annual O&M Accrual Estimate ($1,000,000 Total O&M over 50 years) (L2 to L5)
	• 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, DPR	L 2 to L 5	---
Subtotal Diversion Pool Mgmt. Unit: Capital Facility Costs - New Construction				**$2,591,000 (L1)**
Future New Capital Facility Budget if Needed Based on Monitoring Results				**$1,000,000 (L2 to L5)**
Subtotal Diversion Pool Mgmt. Unit: Facility Operations Costs - Annual O&M With L1 Enhancements				**$307,000 annually assuming L1 enhancements**
Future Facility Replacement and Refurbishment O&M Budget if Needed				**$1,000,000 (L2 to L5)**

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

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
Thermalito Forebay Management Unit				
North Thermalito Forebay Boat Ramp/Day Use Area/ Aquatic Center/"En Route" RV Campground	Capital Improvements:			$470,000 Total Capital (L1)
	• 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).	DWR	L 1	Feasibility study costs included above only
	• Provide a fish cleaning station and connect this new facility to the existing septic system (if feasible, location to be determined).	DWR, DPR	L1	Included above
	• Provide basic facility improvements to the Aquatic Center for basic needs. Expand into a new building (Interim Project).	DWR, DBW	Completed	Included above
	Programmatic and O&M:			$550,000 Annual O&M w/ L1 Enhancements
	• Continue to monitor water quality and maintain coordination with public health agencies at existing project swimming facilities.	DWR	L 1 to L 5	Included above
	• Provide annual O&M.	DPR	L 1 to L 5	Included above
South Thermalito Forebay Boat Ramp/Day Use Area	Capital Improvements:			$200,000 Total Capital (L1)

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

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Provide an ADA-accessible fishing pier or platform.	DWR, DPR, WCB	L 1	Included above
	• Provide improved landscaping and day use facilities including a new sandy beach, 5-10 picnic tables with pole stoves, and shade trees and shrubs.	DWR	L 1	Included above
	Programmatic and O&M:			$115,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DPR, DWR	L 1 to L 5	---
	• Monitor water quality and maintain coordination with public health agencies at the swimming cove.	DPR, DWR	L 1 to L 5	Included above
Trails in the Thermalito Forebay Area: **(see Appendix D)**	Capital Improvements:			$225,000 Total Capital (L1)
	• Construct short shoreline access hiking trails primarily for fishing access at the North Forebay.	DWR, DPR	L 1	Included above
	• 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.	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	Programmatic and O&M:			$25,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DWR	L 1 to L 5	---
Thermalito Forebay Area Facility Replacement and Refurbishment (O&M)	Programmatic and O&M:			$40,000 Annual O&M Accrual Estimate ($2,000,000 Total O&M over 50 years) (L2 to L5)
	• 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	---
Subtotal Thermalito Forebay Mgmt. Unit: Capital Facility Costs - New Construction				**$895,000 (L1)**
Future New Capital Facility Budget if Needed Based on Monitoring Results				**$2,000,000 (L2 to L5)**
Subtotal Thermalito Forebay Mgmt. Unit: Facility Operations Costs – Annual O&M With L1 Enhancements				**$690,000 annually assuming L1 enhancements**
Future Facility Replacement and Refurbishment O&M Budget if Needed				**$2,000,000 (L2 to L5)**

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

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
Thermalito Afterbay Management Unit				
Wilbur Road Boat Ramp/ Day Use Area	Capital Improvements:			$10,000 Total Capital (L1)
	• Provide roadway directional signs for easier locating of this site (component of the RMP's I&E Program).	DWR, DPR, DFG	L 1	Included above
	• 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.	DWR, DPR, DFG	L 2 to L 5	Included in L 2 to L 5 Budget
	Programmatic and O&M:			$25,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DWR, DPR, DFG	L 1 to L 5	---
Larkin Road Car-Top Boat Ramp	Capital Improvements:			$250,000 Total Capital (L1)
	• Construct 5-10 new picnic tables with pole stoves and shade ramadas.	DWR, DPR, DFG	L 1	Included above
	• Provide a new vault toilet building. (Interim Project)	DWR, DPR, DFG	Completed	Included above
	• Provide a new sandy beach and a new swimming buoy line approximately 100-200 feet from the shoreline.	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Provide roadside directional signs for easier locating of this site (component of the RMP's I&E Program).	DWR, DPR, DFG	L 1	Included above
	Programmatic and O&M:			$50,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DWR, DPR, DFG	L 1 to L 5	---
Monument Hill Boat Ramp/ Day Use Area	Capital Improvements:			$0 Total Capital (L1)
	• None at this time. Continue to monitor.	---	---	---
	Programmatic and O&M:			$100,000 Annual O&M
	• Provide annual O&M.	DWR, DPR, DFG	L 1 to L 5	---
	• Monitor water quality and maintain coordination with public health agencies at the swimming cove.	DPR, DWR, DFG	L 1 to L 5	Included above
Model Aircraft Flying Facility	Capital Improvements:			$27,000 Total Capital (L1)
	• Provide new paving at the runways (Interim Project).	DWR, DPR, DFG	Completed	Included above
	• Regrade and regravel the parking area (Interim Project).	DWR, DPR, DFG	Completed	Included above
	• Construct aircraft staging tables and install new picnic tables with shade ramadas (Interim Project).	DWR, DPR, DFG	Completed	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Provide new vault toilet building, bulletin/information board, and fencing (Interim Project).	DWR, DPR, DFG	Completed	Included above
	<u>Programmatic and O&M:</u>			$25,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M. If off-site impacts are observed, fencing will be constructed to prevent damage to sensitive habitat in the area.	DWR, DPR, DFG, Permittee	L 1 to L 5	---
Thermalito Afterbay Area Facility Replacement and Refurbishment (O&M)	<u>Programmatic and O&M:</u>			$20,000 Annual O&M Accrual Estimate ($1,000,000 Total O&M over 50 years) (L2 to L5)
	• 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, DPR	L 2 to L 5	---
Subtotal Thermalito Afterbay Mgmt. Unit: Capital Facility Costs - New Construction				**$287,000 (L1)**
Future New Capital Facility Budget if Needed Based on Monitoring Results				**$1,000,000 (L2 to L5)**
Subtotal Thermalito Afterbay Mgmt. Unit: Facility Operations Costs - Annual O&M With L1 Enhancements				**$200,000 annually assuming L1 enhancements**
Future Facility Replacement and Refurbishment O&M Budget if Needed				**$1,000,000 (L2 to L5)**

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

Resource Area / Site	Capital Improvement and Programmatic/O&M Proposed Actions[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
Oroville Wildlife Area (OWA) Management Unit				
Afterbay Outlet Area (Boat Ramp/Day Use Area/Campground)	Capital Improvements:			$2,450,000 Total Capital (L1)
	• 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.	DWR, DFG	L 1	Included above
	• 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).	DWR, DFG	L 1	Included above
	• Regravel existing access roads. Revegetate disturbed areas with native arid landscaping for shade and aesthetics, consistent with wildlife habitat goals.	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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Provide 1-2 additional vault toilet buildings if needed.	DWR, DFG	L 1	Included above
	• Upgrade the existing gravel boat ramp to concrete, with paved parking.	DWR	In process (planned for 2006-2007)	Included above
	• Provide roadside directional signs for easier locating of this site (component of I&E Program).	DWR	L 1	Included above
	Programmatic and O&M:			$300,000 Annual O&M w/ L1 Enhancements
	• Provide annual O&M.	DWR, DFG	L 1 to L 5	--
Oroville Wildlife Area Dispersed Use Sites and Dispersed River and Pond Access Sites	Capital Improvements:			$400,000 Total Capital (L1)
	• Provide 2 Watchable Wildlife sites, and new trash receptacles, vehicle barriers, gravel shoulder parking, signs, and possible site hardening and closure measures.	DWR, DFG	L 1	Included above
	• 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).	DWR, DBW, and DFG	L1	Included above
	Programmatic and O&M:			$32,000 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[3]	Capital Improvement and O&M Responsible Entity[4]	Phasing[1]	Estimated Costs[2]
	• Provide recurring O&M of appropriate dispersed sites and Watchable Wildlife sites, including trash and debris pickup, regulation enforcement, and site monitoring. • Coordinate with DFG to maintain and enhance existing access opportunities for traditional uses (hunting, fishing).	DWR, DFG	L 1 to L 5	Included above
	• Provide annual O&M for new boater put-in/take-out within the OWA.	DWR, DFG	L1 to L5	Included above
Oroville Wildlife Area Facility Replacement and Refurbishment (O&M)	<u>Programmatic and O&M:</u>			$20,000 Annual O&M Accrual Estimate ($1,000,000 Total O&M over 50 years) (L2 to L5)
	• 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, DPR	L 2 to L 5	---

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

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

[1] *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).*

[2] *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.*

[3] *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.*

[4] *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[3]	Programmatic Responsibilities[4]	Phasing[1]	Estimated Costs[2]
DWR to implement the RMP programs following license issuance and acceptance	• Continue to provide and plan for O&M at existing and new recreation sites.	DWR, DPR	L 1 to L 5 and ongoing	Included in previous Table A-1
	• Comply with ADA (as amended) and other applicable regulations at existing and new recreation facilities, such as toilet building replacement.	DWR, DPR	L 1	$68,000 Capital (L1)
	• 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.	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.)
	• Implement a comprehensive non-motorized trails program. See Appendix D.	DPR, DWR	L 1 to L 5	Included in previous Table A-1
	• Continue implementation of and periodically review/update the Interpretive and Education (I&E) Program, using existing agency personnel where possible.	DPR, DWR	L 1 (program develop-ment) L 1 to L 5 (program implementa-tion	$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[3]	Programmatic Responsibilities[4]	Phasing[1]	Estimated Costs[2]
	• Better clarify the role of DPR, DFG, DBW, and other responsible entities in managing, maintaining, and developing Project No. 2100 recreational resources.	DWR	In Progress	In Progress
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	• Provide additional trash receptacles and signage at access points and provide for additional trash pick-up.	DFG, DWR	L 1 to L 5	Included in previous Table A-1
	• Post both regulatory and educational signs detailing illegal fishing practices and consequences.	DFG, DPR, DWR	L 1	Included in previous Table A-1
	• Prepare and implement an OWA Management Plan, including a wildfire evacuation plan for visitors to the OWA.	DFG, DWR	L 1	$50,000 Capital (L 1); $10,000 Annual O&M (L1 to L5)
	• Provide additional law and regulation enforcement in the OWA.	DWR, DFG, Butte Co. Sheriff's Office, and/or CHP (as appropriate)	L 1 to L 5	$250,000 Capital (L1); $166,000 Annual O&M (L1 to L5)
	• Consider locating and operating 2 ADA-accessible Watchable Wildlife sites within the OWA.	DWR, DFG, WCB	L 1	Included in previous Table A-1
	• 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.	DWR, DFG	L 1	Included in LCU admin. costs and law enforcement costs elsewhere

Table A-2. Proposed recreation programmatic measures.

Programmatic Measure	Measure Details[3]	Programmatic Responsibilities[4]	Phasing[1]	Estimated Costs[2]
Annual Lake Oroville July 4th Fireworks	• Cooperate with local groups in planning of annual fireworks presentation at Lake Oroville on or about the 4th of July.	DWR, DPR, CHP	L 1 to L 5	$210,000 Annual O&M (L1 to L5)
Locate FERC license Coordination Unit in Oroville	• 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.	DWR	L 1 to L 5	$75,000 Annual O&M (L1 to L5)
DWR to create a new public advisory committee and public information forum	• Facilitate a new Project No. 2100 Recreation Advisory Committee (RAC) and related public meetings.	DWR	L 1 to L 5	Costs included with the new LCU above
	• Conduct periodic workshops to update the community on progress of projects associated with the new FERC license.	DWR	L 1 to L 5	Costs included with the new LCU above
	• 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.	DWR	L 1 to L 5	Costs included with the new LCU above
DWR to evaluate potential whitewater boating enhancements in the North Fork of Lake Oroville	• Evaluate possible concessionaire-operated whitewater shuttle between the upstream whitewater reaches (below Poe Powerhouse) and the Lime Saddle Marina.	DWR	L 1 to L 5	Concessionaire cost

Table A-2. Proposed recreation programmatic measures.

Programmatic Measure	Measure Details[3]	Programmatic Responsibilities[4]	Phasing[1]	Estimated Costs[2]
	• Coordinate with PG&E to provide daily flow release information from the Poe Project via a web link and/or flow phone link.	DWR	L 1 to L 5	Costs included with the new LCU above
TOTAL TABLE A-2:				
Other Project Recreation Resource Programmatic Costs – Capital and O&M				**$468,000 Capital (L1)** **$600,000 Annual O&M (L1 to L5)**
TOTAL TABLES A-1 AND A-2 – CAPITAL FACILITY COSTS				
Total Project Draft RMP Capital Facility Costs: Capital Facility Costs - New Construction (L1)				**$31,898,000 (L1)**
Future New Capital Facility Budget (if Needed) Based on Monitoring Results				**$25,000,000 (L2 to L5)**
TOTAL TABLES A-1 AND A-2 – O&M COSTS				
Total Project Draft RMP Facility Operations Costs: Facility Operations Costs - Annual O&M/ Programmatic With L1 Enhancements				**$7,067,000 Annual O&M Assuming L1 Enhancements**
Future Facility Replacement and Refurbishment O&M Budget (if Needed)				**$25,000,000 (L2 to L5)**

[1] 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).

[2] 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.

[3] 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.

[4] 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

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[1]
Low Flow Channel/Feather River				
Riverbend Park	Capital Improvements:			
	• Provide primary funding for planning, design, and construction of this site.		L1, or prior	$3,000,000 (Initial project design and construction) $2,200,000 (Additional D&C funding)
	• Candidate Boater Access Site: Construct new non-motorized boater put-in/take-out, pending completion of analysis of non-motorized water trail shoreline access (Table B-2).	DWR	L1	$25,000.
	Programmatic and O&M:			
	• Candidate Boater Access Site: Provide or fund annual O&M for the boater put-in/take-out.	DWR	L1 to L5	$2,000 annually O&M
Bedrock Park	Capital Improvements:			
	• Candidate Boater Access Site: Construct new non-motorized boater put-in/take-out, pending completion of analysis of non-motorized water trail shoreline access (Table B-2).	DWR	L1	$25,000
	Programmatic and O&M:			
	• Candidate Boater Access Site: Provide or fund annual O&M for the boater put-	DWR	L1 to L5	$2,000 annually

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[1]
	in/take-out.			O&M
Oroville Wildlife Area				
Rabe Road Shooting Range	• Re-graded and regraveled the access road and parking area (Interim Project).		Concluded	$24,000
	• Added targets and a safety berm (Interim Project).		Concluded	Included above
Total Capital Facility and O&M Costs outside the FERC Boundary				**$5,274,000 (Capital) $4,000 annually (O&M)**

[1] *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[1]
DWR to initiate and fund a whitewater boating opportunity and recreation feasibility study.	• 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. 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),	DWR	L1[2]	Study Cost $250,000[3]

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

Programmatic Measure	Measure Details	Programmatic Responsibilities	Phasing	Estimated Costs[1]
	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.			
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.	• 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).	DWR, DBW	L1	$100,000[4]

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

Programmatic Measure	Measure Details	Programmatic Responsibilities	Phasing	Estimated Costs[1]
	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. 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.			
Total Programmatic Costs Outside the FERC Boundary				**$350,000 (Study Costs)**

[1] *Estimated costs are in 2005 dollars.*
[2.] *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.*
[3.] *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.
[4.] 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

Locations of Proposed Recreation Measures and Conceptual Site Plans

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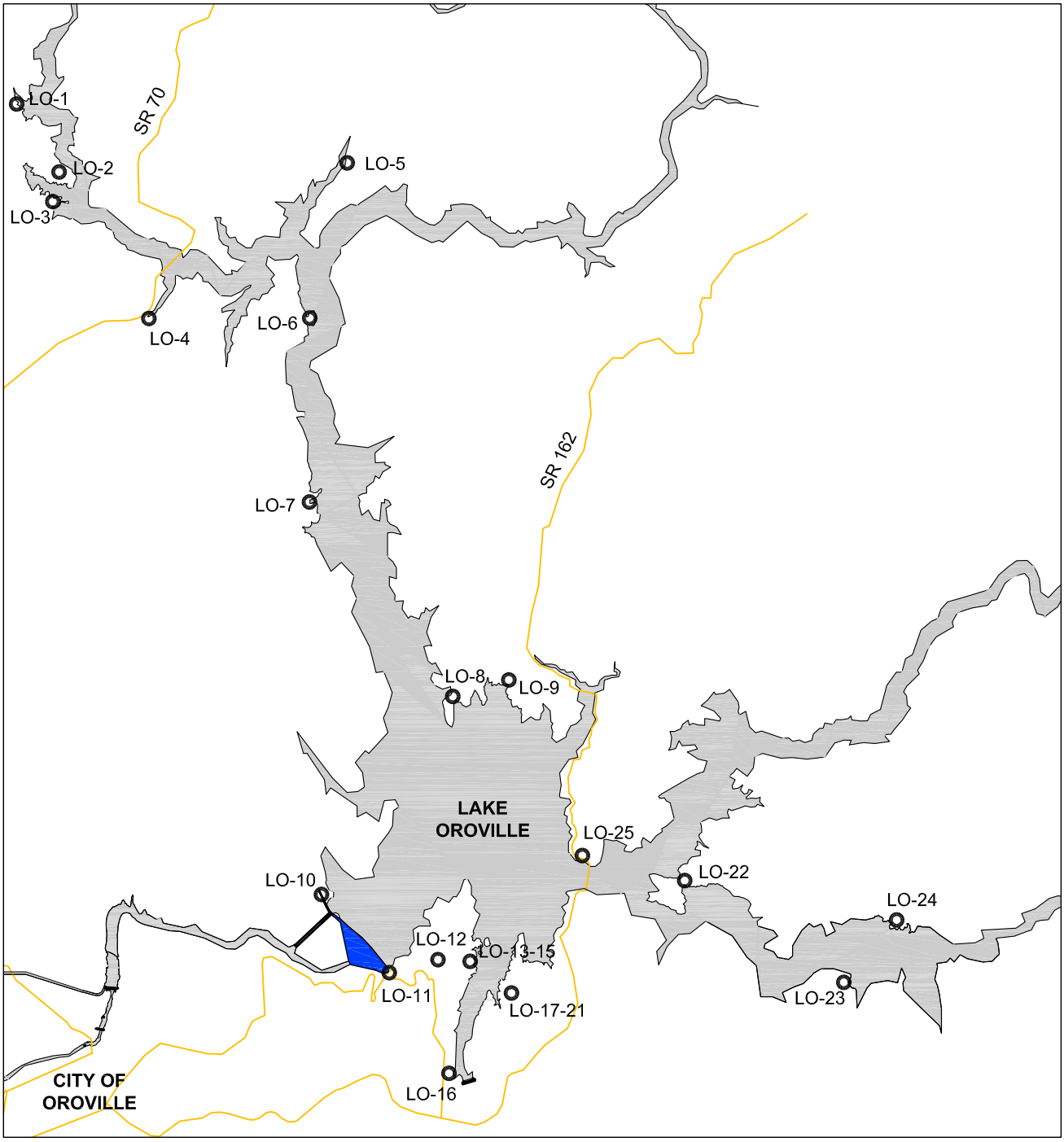


SOURCE: EDAW Inc., 2003

Lake Oroville (LO) Recreation Sites:

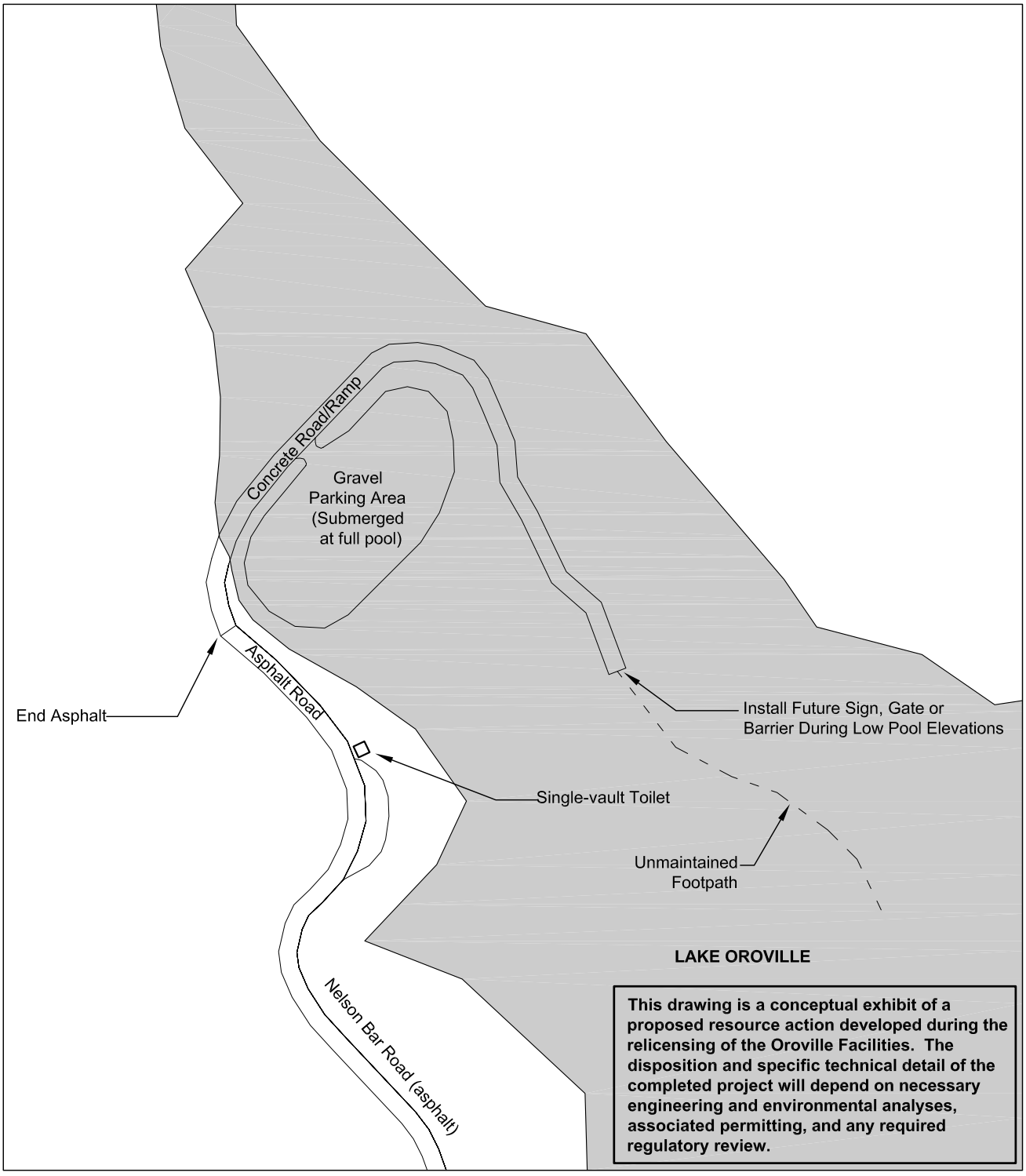
LO-1 Nelson Bar Car-top Boat Ramp
LO-2 Lime Saddle Campground
LO-3 Lime Saddle Boat Ramp, Marina and DUA
LO-4 Vinton Gulch Car-top Boat Ramp
LO-5 Dark Canyon Car-top Boat Ramp
LO-6 Goat Ranch BIC
LO-7 Bloomer BICs
LO-8 Foreman Creek BIC
LO-9 Foreman Creek Car-top Boat Ramp
LO-10 Spillway Boat Ramp and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

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'

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

Figure # LO-1
Nelson Bar Car-top Boat Ramp