

Placer County Water Agency Middle Fork American River Project (FERC Project No. 2079)

DRAFT RECREATION PLAN



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List of Acronyms

ac-ft	acre-feet
AIR	Additional Information Request
ASRA	Auburn State Recreation Area
BMPs	Best Management Practices
CDEC	California Data Exchange Center
CDFG	California Department of Fish and Game
cfs	cubic feet per second
CPI	Consumer Price Index
ENF	Eldorado National Forest
FERC	Federal Energy Regulatory Commission
FR	Forest Route
GIS	Geographic Information System
HPMP	Historic Properties Management Plan
ILP	Integrated Licensing Process
MFAR	Middle Fork American River
MFARIB	Middle Fork American River Gage and Weir below Interbay Dam
MFP	Middle Fork American River Project
msl	mean sea level
NEPA	National Environmental Policy Act
NFARPS	North Fork American River Gage above American River Pump Station
NFLCC	North Fork Long Canyon Creek Gage and Weir below Diversion Dam
PAD	Pre-Application Document
PAOT	Persons-at-one-time
PCWA	Placer County Water Agency
Project	Middle Fork American River Project
RD	Recreation Days
RP	Recreation Plan
RREB	Rubicon River Gage at Ellicott Bridge
RVD	Recreation Visitor Day
SD	Supporting Document
SFLCC	South Fork Long Canyon Creek Gage and Weir below Diversion Dam
SMP	Sediment Management Plan
TNF	Tahoe National Forest
TSMP	Transportation System Management Plan
TSP	Technical Study Plan
TSR	Technical Study Report
TWG	Technical Working Group

List of Acronyms (continued)

USDA-FS	United States Department of Agriculture-Forest Service
USGS	United States Geological Survey
VIPMP	Vegetation and Integrated Pest Management Plan
WSE	water surface elevation
WST	Western States Trail

1.0 INTRODUCTION

The Placer County Water Agency (PCWA) operates the Middle Fork American River Project (MFP or Project) under a license issued by the Federal Energy Regulatory Commission (FERC). The current license expires on March 1, 2013. PCWA is relicensing the MFP using the FERC's Integrated Licensing Process (ILP). In accordance with the ILP, PCWA filed a Pre-Application Document (PAD) on December 6, 2007, with the FERC. After reviewing the PAD, the FERC issued an Additional Information Request (AIR) to PCWA stating that PCWA must develop a Recreation Plan for the MFP and include the plan in their License Application (FERC 2008).

This Recreation Plan fulfills the FERC's AIR and identifies PCWA's responsibilities related to the management of recreation resources associated with the MFP during the term of the new license. Specifically, this Recreation Plan identifies:

- Purpose of the Recreation Plan;
- Project recreation facilities;
- Measures/commitments that PCWA will implement related to Project recreation facilities; including responsibility for:
 - Reasonable financial support for resource agency administrative oversight of operations and maintenance of Project recreation facilities;
 - On-going routine annual operation and maintenance of Project recreation facilities;
 - Routine heavy maintenance of Project recreation facilities;
 - Removal, reduction, and consolidation of select Project recreation facilities;
 - Conversion of select Project recreation facilities to accommodate group use;
 - Enhancements at select Project recreation facilities;
 - Improvements at select dispersed concentrated use areas;
 - Periodic recreational use monitoring; and
 - Implementation of resource protection measures.
- Measures/commitments that PCWA will implement related to enhancement of Project recreation opportunities including:
 - Dissemination of real-time flow information;
 - Dissemination of reservoir water surface elevation (WSE) information;
 - Development and distribution of recreation opportunity marketing information;

- Fish stocking in large Project reservoirs; and
- Trail-related enhancements.
- Implementation schedule for completion of Project-related recreation measures;
- Consultation related to Recreation Plan implementation;
- Reporting;
- Future Project recreation facility enhancements;
- Process for updating the Recreation Plan; and
- Dispute resolution.

This Recreation Plan refers to a number of other plans that contain information related to operation and maintenance of the Project recreation facilities. These plans are included in Supporting Document (SD) A of PCWA's Application for New License and summarized below.

- Operation and maintenance of Project recreation facility access roads is described in the Transportation System Management Plan (TSMP) (PCWA 2010a; SD A).
- Information on vegetation and noxious weed management around Project recreation facilities and associated access roads is provided in the Vegetation and Integrated Pest Management Plan (VIPMP) (PCWA 2010b; SD A).
- Measures related to the protection of cultural resources during Project recreation facility maintenance is provided in the Historic Properties Management Plan (HPMP) (PCWA 2010c; SD E). This plan contains confidential information and is therefore included in SD E of PCWA's Application for New License.

In addition, PCWA developed an Invasive Mussel Protection Plan (PCWA 2010d). This plan is required by the California Department of Fish and Game (CDFG) and contains measures that PCWA will implement to help stop the spread of non-native dreissenid mussels (zebra and quagga mussels) into Project reservoirs and the water conveyance system.

Information on scheduled flow releases to maintain or enhance stream-based recreation in bypass and peaking reaches associated with the MFP is provided in the Instream Flow Measure, which is included in SD A.

2.0 PURPOSE OF RECREATION PLAN

The purpose of this Recreation Plan is to identify PCWA's responsibilities related to the management of recreation facilities associated with the MFP over the term of the new license.

3.0 PROJECT RECREATION FACILITIES

The MFP includes a variety of developed Project recreation facilities, including six campgrounds, four group campgrounds, two picnic areas, a vista, five boat ramps, a rafting access site, and a primitive use site. These facilities and features are identified on REC Plan Table 1 and shown on REC Plan Maps 1–4, by geographic area, with respect to land ownership and to the FERC Project boundary. As indicated, most of the recreation facilities are concentrated around French Meadows Reservoir, and to a lesser extent Hell Hole Reservoir. Individual Project recreation facilities are also located near the Duncan Creek Diversion Area, the South Fork Long Canyon Dam Diversion, Ralston Afterbay, and Oxbow Powerhouse.

During the relicensing process, PCWA completed a facility inventory and condition assessment at each of the existing Project recreation facilities, and estimated recreational use. These efforts were carried out in accordance with the REC 1 – Recreation Facilities and Use Technical Study Plan (TSP) (REC 1 – TSP), which was developed in consultation with the Recreation Technical Working Group (TWG) and was included in PCWA’s PAD (PCWA 2007). The methods and study results are documented in detail in the REC 1 – Recreation Facilities and Use Technical Study Report (TSR) (REC 1 – TSR) (PCWA 2010e; SD B).

4.0 MEASURES/COMMITMENTS RELATED TO PROJECT RECREATION FACILITIES

This section of the Recreation Plan describes the recreation measures/commitments related to Project recreation facilities and features that PCWA will implement over the term of the next license. In addition, it describes how PCWA will periodically monitor recreation use, and the measures that PCWA will implement to ensure resource protection. The discussion is organized by the following sections:

- Resource Agency Administrative Oversight;
- Routine Annual Operation and Maintenance of Project Recreation Facilities;
- Routine Heavy Maintenance of Project Recreation Facilities;
- Removal, Reduction, and Consolidation of Select Project Recreation Facilities;
- Conversion of Select Project Recreation Facilities to Accommodate Group Use;
- Enhancement of Select Project Facilities;
- Improvements Related to Select Dispersed Concentrated Use Areas;
- Periodic Use Monitoring; and
- Resource Protection Measures.

Additional measures that PCWA will implement to enhance Project recreation opportunities are described in Section 5.0 of this Recreation Plan.

4.1 RESOURCE AGENCY ADMINISTRATIVE OVERSIGHT

PCWA will provide reasonable funding to the appropriate land management agency for administrative-related oversight of the Project recreation facilities identified on REC Plan Table 1, in the following amounts:

- Tahoe National Forest (TNF) - To be determined (TBD)
- Eldorado National Forest (ENF) - TBD
- Indian Bar Rafting Access Land Management Agency – TBD

For funding purposes, PCWA understands that administrative-related oversight primarily includes the following types of activities:

- Program development and oversight;
- Coordination with FERC and PCWA;
- Planning, design and budgeting;
- Insurance and audits;
- Prospectus development;
- Reservation system maintenance;
- Correspondence;
- Review and coordination of recreation use monitoring efforts and results;
- Reporting;
- Concessionaire permit operation;
- Patrols in and around the Project recreation facilities and reservoirs (including in the vicinity of the former Upper Hell Hole Campground);
- Clean-up related to dispersed use;
- Fee collection and compliance monitoring, including associated record keeping;
- On-site public contact;
- Vehicle use; and
- Participation in FERC inspections.

Payments will be made in annual blocks for services to be rendered in the upcoming year. Year one payment will be made within 90 days of license issuance, with subsequent annual payments provided on or about this date for the remainder of the license term. Annual payments will be adjusted by a factor equal to the annual average change in the Consumer Price Index (CPI).

4.2 ROUTINE ANNUAL OPERATION AND MAINTENANCE OF PROJECT RECREATION FACILITIES

PCWA will be responsible for 100% of the routine operation and maintenance activities at each of the Project recreation facilities identified in REC Plan Table 1, for the term of the license. If new Project recreation facilities are added during the term of the license, PCWA will be responsible for 100% of the routine operation and maintenance activities. These activities may be performed by PCWA, PCWA's contractors, or by the appropriate land management agency with funds provided by PCWA. Costs associated with the annual maintenance and operation of Project recreation facilities will be subject to fee recovery. Specifically, fees collected at Project campgrounds and through commercial whitewater boating concessions will be used to offset the costs of operating and maintaining the Project recreation facilities.

For funding purposes, PCWA understands that routine operation and maintenance that occurs regularly or on an annual basis includes the following types of activities:

- Site cleaning;
- Basic repairs and maintenance of facility features, including water and septic systems;
- Garbage clean up;
- Signing;
- Toilet cleaning and restocking of supplies;
- Materials and supplies (restroom supplies, trash bags, paint, etc.);
- Toilet pumping;
- Removal or painting over graffiti;
- Removal of debris from boat ramps;
- Basic maintenance (e.g. raking and sweeping) of pathways within each Project recreation facility;
- Routine testing of potable water supplies;

- Annual winterizing activities, including shutting off water supplies, draining water lines and water tanks, locking structures and gates, and removing and storing, or covering signage;
- Annual opening activities, including turning on water systems, preparing campsites, removing debris, and dealing with damage that may have occurred over the winter; and
- Removal of hazard trees within the Project recreation facility boundaries.

4.3 ROUTINE HEAVY MAINTENANCE OF PROJECT RECREATION FACILITIES

PCWA will be responsible for 100% of the routine heavy maintenance of Project recreation facilities identified in REC Plan Table 1 for the term of the license. If new Project recreation facilities or amenities are added during the term of the license, PCWA will be responsible for 100% of the heavy maintenance. These activities may be performed by PCWA, PCWA's contractors, or by the appropriate land management agency with funds provided by PCWA. Costs associated with the annual maintenance and operation of Project recreation facilities will be subject to fee recovery. Specifically, fees collected at Project campgrounds and through commercial whitewater boating concessions will be used to offset the costs of operating and maintaining the Project recreation facilities. The goal of heavy maintenance is to protect current investments and repair/replace facilities that do not meet standards. Heavy maintenance at Project recreation facilities may include reconstruction, replacement and/or repair of facilities and infrastructure (i.e. roads, water systems, sanitation systems, buildings, boat ramps, or other support facilities). Heavy maintenance activities will occur on an as-needed basis as determined in consultation with the United States Department of Agriculture-Forest Service (USDA-FS). Most of these activities are recurring activities that will be performed periodically over the term of the license, and may include the following:

- Repair and resurfacing of parking areas and spurs (note: Project recreation access and loop roads are addressed in PCWA's TSMP, which is included in SD A);
- Repair or replacement of barrier structures and devices, including: fencing, posts and rails, barrier rock, and gates;
- Repair and/or replacement of site/facility amenities including picnic tables, benches, fire rings, grills, bear resistant food boxes, bear resistant garbage containers, and recycling containers;
- Repair and replacement of signage, information boards, and fee tubes;
- Repair, maintenance, and painting of vault toilets and wood bathroom structures;
- Replacement or retrofitting of outdated bathrooms;
- Repair and maintenance of potable water tanks, supply and distribution lines, valves and faucets;

- Replacing water sources;
- Repair and maintenance of septic systems, including leach fields;
- Repair and maintenance of boat ramps and retaining walls;
- Repair or installation of retaining walls to create obstacle free sites;
- Site leveling and removal of obstacles as needed and where feasible;
- Fuels reduction, including brushing and thinning within the Project recreation facility boundaries; and
- Maintenance of pathways within each Project recreation facility, including filling holes and repairing or replacing steps, treads and railings.

PCWA will conduct the heavy maintenance activities identified in REC Plan Table 2 (ENF facilities) and REC Plan Table 3 (TNF facilities) within the first six years following issuance of a new license. The activities identified in these tables represent priorities as determined through a detailed inventory and condition assessment of the Project recreation facilities conducted by PCWA in 2008. The information contained in these tables:

- Exclude heavy maintenance activities that will be implemented prior to 2013 as part of existing collections agreements between PCWA and the USDA-FS; and
- Account for the facility modifications and enhancements described in this Recreation Plan. For example, PCWA will remove Upper Hell Hole Campground as part of this Recreation Plan. Therefore, heavy maintenance at Upper Hell Hole Campground is not included on REC Plan Table 2.

Specific heavy maintenance activities that will be performed each year thereafter for the term of the license will be identified and discussed during the annual consultation meeting described in Section 7.1.

4.4 REMOVAL, REDUCTION, AND CONSOLIDATION OF SELECT PROJECT RECREATION FACILITIES

PCWA conducted facility inventories, condition assessments, and recreation use studies at the existing Project recreation facilities in 2008. Detailed study results are provided in the REC 1 – TSR (2010e; SD B), which is included in SD B of PCWA's Application for New License. Based on the results of these studies, PCWA will implement the following modifications:

- Remove Upper Hell Hole Campground;
- Reduce the size of Hell Hole Campground;
- Reduce the size of Poppy Campground;

- Consolidate the parking and support facilities at Poppy Campground Parking Area and McGuire Boat Ramp Parking Area; and
- Reduce the size of Ralston Picnic Area.

Specific changes to each of these Project recreation facilities are described in the following subsections and are summarized on REC Plan Table 4.

PCWA will be responsible for 100% of activities necessary to modify the existing Project recreation facilities identified above. These activities may include project planning, design, equipment (including mobilization), materials (including capital costs and transport), labor, and solid waste transport and disposal. These activities may be performed by PCWA, PCWA's contractors, or by the appropriate land management agency with funds provided by PCWA.

In addition to the facility modifications, PCWA will be responsible for monitoring natural revegetation and for the presence of noxious weeds in each area where facilities or amenities are removed. Monitoring will occur once annually after the modifications are completed until it is determined in consultation with the USDA-FS that a site has been successfully revegetated. Annual monitoring reports will be submitted to the USDA-FS no later than 60 days following completion of monitoring for review and comment. In the event that revegetation is unsuccessful or noxious weeds become established, PCWA will consult with the USDA-FS to identify alternative revegetation and/or noxious weed control measures.

4.4.1 Upper Hell Hole Campground

Upper Hell Hole Campground is located on the southeast shore of Hell Hole Reservoir, about four miles from Hell Hole Boat Ramp (REC Plan Map 1). The overall layout of Upper Hell Hole Campground is shown on REC Plan Map 5. Currently, the campground includes 13 individual campsites that are spread across three contours levels created by the natural topography of the site. Several sensitive resources are located within or adjacent to the campground. The specific locations of these resources are considered confidential.

Detailed use data are not available for this site; therefore, PCWA estimated use using a combination of vehicle count data (collected at Hell Hole Boat Ramp and associated parking areas) and visitor survey data. Recreation use ranged from 22.5 Recreation Visitor Days (RVD) during the winter period to 224.2 RVDs during the summer period. On an annual basis, PCWA estimated total annual recreation use to be 279 RVDs. This result is consistent with information contained in the ENF's 1999 Site Action Plan, which states: "Site receives very little recreation use. Average use is around 275 visitor days per year." According to a Forest Service document, visitor days are equivalent to RVDs (J. McGuire 1977).

Based on the use data, the campground is substantially under-utilized. During the summer, facility capacity utilization ranged from 2% on weekdays to 5% on weekends and holidays. Persons-at-one-time (PAOT) PAOT capacity utilization ranged from 1% on weekdays to 2% on weekends and holidays.

Based on the low use levels and the presence of sensitive resources within or adjacent to the campground, all of the campsites and associated amenities at Upper Hell Hole Campground will be removed as specified below:

- Remove all tables, fire rings, masonry stoves, and user-created fire rings from campsites 1–13 (REC Plan Map 5);
- Remove pit toilets 1, 2, 3, and 4 (REC Plan Map 5);
- Remove existing signage, information boards, and frames; and
- Allow vegetation to return to natural conditions.

4.4.2 Hell Hole Campground

Hell Hole Campground is accessible via Eleven Pines Road (Forest Route [FR] 2), and located about 1.3 road miles northwest of Hell Hole Boat Ramp (REC Plan Map 1). The campground was originally constructed in 1967 as a picnic area and was later converted to a campground. Hell Hole Campground currently includes ten family-sized units. All of the units are walk-in tent units, with parking available in a central parking area. The overall layout of the campground is shown on REC Plan Map 6. Sensitive resources are located within or adjacent to the campground. The exact locations of these resources are considered confidential.

Based on the use data and capacity information, the campground is under-utilized. In 2007–2008, recreation use ranged from 27 RVDs during the winter/spring season to 544 RVDs during the summer season. During the summer, facility capacity utilization ranged from 7% on holidays to 16% on weekends. PAOT capacity utilization ranged from 3% on holidays to 7% weekends.

Based on the low use levels and the presence of sensitive resources within or adjacent to the campground, the following modifications to the Hell Hole Campground will be completed:

- Remove the tables, concrete and steel grills, fire pits, and site markers from Sites 5 and 6 (REC Plan Map 6);
- Allow revegetation at the removed sites and along the access paths to these sites; and
- Install a post and rail barrier to delineate the southeast boundary of Hell Hole Campground and to protect nearby sensitive resources.

These modifications will reduce the size of Hell Hole Campground from 10 sites to 8 sites. Maintenance of the remaining campsites and associated support facilities will continue to be the responsibility of PCWA as discussed in Section 4.2 (Routine Annual Operation and Maintenance of Project Recreation Facilities and Section 4.3 Routine Heavy Maintenance Activities of Project Recreation Facilities).

4.4.3 Poppy Campground

Poppy Campground is located on the north shore of French Meadows Reservoir (REC Plan Map 2). The overall layout of the campground is shown on REC Plan Map 7. The campground is only accessible by trail or by boat. Parking is available at an area referred to as the Poppy Campground Trailhead Parking Area (discussed below). Currently, the campground consists of 12 sites. The only other amenities at this campground are two single-unit pit toilets and signage. The campground is managed as a “pack-it-in, pack-it-out” campground. Therefore, there are no garbage containers in the campground. Potable water is not available in the campground but is available at the Poppy Campground Trailhead Parking Area.

Based on the use data and capacity information, this campground is substantially under-utilized. During 2007–2008, use ranged from no use during the winter and spring seasons to 301.6 RVDs during the summer season. During the summer period, facility capacity utilization ranged from 1% on holidays to 5% on weekends. PAOT capacity utilization ranged from 1% on holidays to 2% weekends.

Based on the low recreation use levels, the following modifications to Poppy Campground will be completed:

- Remove all tables, fire rings, stoves, and user-created fire rings from campsites 6, 9, 11, and 12 (REC Plan Map 7); and
- Allow vegetation in the vicinity of each removed camp site and along remnant trails to return to natural conditions.

These modifications will reduce the size of Poppy Campground from 12 sites to 8 sites. Maintenance of the remaining campsites and associated support facilities will continue to be responsible of PCWA as discussed in Section 4.2 Routine Annual Operation and Maintenance of Project Recreation Facilities and Section 4.3 Routine Heavy Maintenance Activities of Project Recreation Facilities.

4.4.4 Poppy Campground Trailhead and McGuire Boat Ramp Parking Areas

Poppy Campground is accessible via a .75-mile-long trail that begins at the Poppy Campground Trailhead Parking Area. As shown on REC Plan Map 8, this parking area is located in the immediate vicinity of two large parking lots that serve McGuire Boat Ramp. The USDA-FS expressed an interest in consolidating the Poppy Campground Trailhead Parking Area and the McGuire Boat Ramp Parking Areas and the associated support facilities (e.g., bathrooms and faucets). Accordingly, PCWA will remove the Poppy Campground Trailhead Parking Area and will consolidate the support facilities, as specified in the following:

- Remove the Poppy Campground Trailhead Parking Area and Poppy Campground Trailhead Parking Area Access Road;
- Install barrier rock at the entrance to the Poppy Campground Parking Area Access Road to prohibit future vehicle use;

- Treat the surface of the road and the parking area to allow for Revegetation;
- Remove the wood toilet building located at the southeast end of the Poppy Campground Trailhead Parking Area;
- Replace the vault toilet building located adjacent to the French Meadows North Shore Access Road with a pre-fabricated, double-unit, accessible vault bathroom;
- Relocate the existing water faucets to a more centralized and accessible location. Install water faucets with accessible drains and handles;
- Extend the Poppy Trail to one of the McGuire Boat Ramp Parking Areas; and
- Relocate the trailhead signage and information boards.

Maintenance of the remaining parking areas and associated support facilities will continue to be responsible of PCWA as discussed in Section 4.2 Routine Annual Operation and Maintenance of Project Recreation Facilities and Section 4.3 Routine Heavy Maintenance Activities of Project Recreation Facilities.

4.4.5 Ralston Picnic Area

Ralston Afterbay Picnic Area is a day-use facility consisting of a parking area, five picnic sites, a single-unit vault toilet, and a small, unimproved boat ramp referred to as the Ralston Afterbay Car Top Boat Ramp. Four of the five picnic sites are located in relative proximity to each other. The fifth site is isolated from the other picnic area and is located upriver via a steep, 350-foot-long trail (REC Plan Map 9).

Based on the use data and capacity information, this picnic area is substantially under-utilized. In 2007–2008, recreation use ranged from 89.7 RVDs during the fall period to 279.1 RVDs during the summer period. During the summer, facility capacity utilization ranged from 10% on weekdays to 33% on holidays. PAOT capacity utilization ranged from 7% on weekdays to 21% weekends.

Based on the low recreation use levels and the isolated nature of one of the picnic sites, the following modifications to the Ralston Picnic Area will be completed:

- Remove table, pedestal grill, and signage from Site 5 (REC Plan Map 9); and
- Allow revegetation in the vicinity of Site 5 and along the trail to Site 5 to return to natural conditions.

These modifications will reduce the size of Ralston Picnic Area from five sites to four sites. Maintenance of the remaining picnic sites and support facilities will continue to be the responsibility of PCWA as discussed in Section 4.2 Routine Annual Operation and Maintenance of Project Recreation Facilities and Section 4.3 Routine Heavy Maintenance Activities of Project Recreation Facilities. At the request of the USDA-FS, the following measures will be completed as part of the heavy maintenance program

and are identified on REC Plan Table 3. These measures will be implemented at the same time the site is reduced.

- Install an accessible pathway from the parking lot to the existing toilet and the four remaining picnic areas;
- Install traffic barriers to prohibit motorcycle use on the trail upstream of Ralston Picnic Area. The specific locations of these traffic barriers will be determined in consultation with the TNF; and
- Install signage regarding boat launching opportunities at Ralston Afterbay Sediment Access Point (Section 4.7.2).

4.5 CONVERSION OF SELECT PROJECT RECREATION FACILITIES TO ACCOMMODATE GROUP USE

The recreation use and facility capacity data suggest that there may be a need for additional group camping opportunities. McGuire Picnic Area and Beach is a Project recreation facility that is substantially underutilized as a day-use facility. The picnic area is a suitable location for a group campground. Accordingly, PCWA will convert McGuire Picnic Area to a group campground and will allow the beach to return to natural conditions, as described in the following subsection.

PCWA will be responsible for 100% of the work required to convert McGuire Picnic Area to a group campground. Activities associated with this conversion may include project planning, design, equipment (including mobilization), materials (including capital costs and transport), labor, and solid waste transport and disposal. These activities may be performed by PCWA, PCWA's contractors, or by the appropriate land management agency with funds provided by PCWA.

4.5.1 McGuire Picnic Area and Beach

McGuire Picnic Area and Beach is located on the north shore of French Meadows Reservoir, east of McGuire Boat Ramp (REC Plan Map 2). The area includes a small beach area, a picnic area (10 sites), a parking area, two bathrooms with flush toilets and sinks, and potable water. The general layout of the beach, picnic area and parking area is shown on REC Plan Map 8.

During the summer period, facility capacity utilization ranged from 2% on weekdays to 13% on holidays. PAOT capacity utilization ranged from 1% on weekdays to 6% on holidays. Similarly, McGuire Beach does not experience heavy recreation use. During the REC 2 – Recreation Visitor Surveys Technical Study Report (REC 2 – TSR) (PCWA 2010f; SD B), only two people were observed on the beach during the entire survey period. One of these people was interviewed. This person was accessing the reservoir shoreline to fish.

Based on low day-use levels, PCWA will convert McGuire Picnic Area to a group campground and will allow the beach to return to natural conditions. Specifically, PCWA will modify the picnic area and beach as follows:

- Remove the steel buoys and identification signs adjacent to McGuire Beach and allow the beach to return to natural conditions;
- Remove the changing pavilion located along pathway to beach;
- Remove all heavy wood picnic tables and concrete/steel cooking grills from all ten of the existing picnic sites (REC Plan Map 8); and
- Construct two separate 25 PAOT group sites in the areas that were previously occupied by picnic sites. Each site will include the following amenities:
 - 4 accessible picnic tables;
 - 3 accessible serving tables;
 - 1 accessible double cooking grill;
 - 1 group fire ring;
 - 5 benches (wood on steel posts mounted in ground around fire ring);
 - 2 large bear-resistant food storage boxes;
 - 2 bear-resistant garbage containers;
 - Appropriate signage;
 - 1 accessible bathroom structure; and
 - 2 accessible faucets.

McGuire Picnic Area currently includes two flush bathroom structures and water faucets. To the extent practicable, the group sites will be configured to utilize the existing bathrooms, water faucets, and associated infrastructure (e.g., water lines, drains, septic systems), as follows:

- The wood structure located on the south east end of the parking lot will be converted to meet current USDA-FS design and accessibility standards.
- The bathroom located along the trail to the beach will be removed and replaced with a double unit, accessible pre-fabricated vault toilet building. The septic water lines and septic system will be decommissioned; and
- The existing faucets located adjacent to each of these bathrooms will be converted to meet accessibility standards.

Each of the group campsites will be delineated with barrier rock and/or barrier posts and rails. In addition, each group campsite and travel paths to the bathrooms and faucets will be leveled and obstacles will be removed to meet accessibility standards

In addition to converting the picnic sites to two group campsites, PCWA will:

- Repair, resurface, and stripe the existing parking area;
- Replace or install new signage and information boards to reflect the new conditions; and
- Construct accessible pathways from the parking area to the group sites.

Upon completion, PCWA will be responsible for 100% of the routine operation and maintenance of the group campground and associated support facilities as discussed in Section 4.2 Routine Annual Operation and Maintenance of Project Recreation Facilities and Section 4.3 Routine Heavy Maintenance Activities of Project Recreation Facilities.

4.6 ENHANCEMENT OF SELECT PROJECT RECREATION FACILITIES

PCWA will enhance the following existing Project recreation facilities, as described in the following subsections:

- Ahart Campground;
- Indian Bar Rafting Access;
- Hell Hole Boat Ramp; and
- French Meadows Boat Ramp.

PCWA will be responsible for 100% of the activities necessary to complete the enhancements to these existing Project recreation facilities. These activities may include project planning, design, equipment (including mobilization), materials (including capital costs and transport), labor, and solid waste transport and disposal. These activities may be performed by PCWA, PCWA's contractors, or by the appropriate land management agency with funds provided by PCWA.

4.6.1 Ahart Campground

Ahart Campground is located along the Middle Fork American River, upstream of French Meadows Reservoir (REC Plan Map 2). The campground consists of 12 sites. All sites include a native-surface spur, delineated with a combination of wood posts, barrier bars, and barrier rocks. Other amenities at this campground include two vault toilets and two bear-proof garbage containers. The access roads within the campground are unpaved and potable water is not available.

PCWA will enhance Ahart Campground by implementing the following measures:

- Provide a potable water supply (vertical well and hand pump) in the campground. The water supply will be available to Ahart campground users, and will provide a water source for the recreating public when the water systems at French Meadows and Lewis Campgrounds are turned off for the winter. If a suitable

quality potable water source is not available at or near the campground, PCWA will consult with the TNF to determine if an alternative measure is feasible;

- Pave the campground road and spurs to reduce dust and erosion. As part of the paving effort, the spurs will be enlarged (widened and lengthened) to meet current USDA-FS accessibility standards, where feasible based on individual site conditions. This enhancement will be designed and implemented in consultation with TNF road specialists; and
- Pave approximately 0.6 mile of FR 96, extending from the end of the existing pavement northeast to a point approximately 200 feet past the Ahart Campground entrance. The purpose of this enhancement is to provide erosion and dust control along FR 96, particularly in areas where the road is adjacent to the Middle Fork American River. This enhancement will be designed and implemented in consultation with TNF road specialists.

4.6.2 Indian Bar Rafting Access

Indian Bar Rafting Access (also referred to as the Oxbow Put-in by Auburn State Recreation Area [ASRA]) is located immediately downstream of Ralston Afterbay, adjacent to the Oxbow Powerhouse (REC Plan Map 4). This facility is primarily used as a put-in by whitewater boaters running the Tunnel Chute Run, a 15.2-mile run that extends from the Indian Bar Rafter Put-in to the Ruck-a-Chucky Recreation Area. Support facilities include a large unloading area, approximately nine to ten unmarked parking spaces, a boat ramp, and three vault toilet buildings.

PCWA will enhance the Indian Bar Rafting Access as follows:

- Either install an additional accessible, vault, pre-fabricated concrete toilet or modify the existing vault CXTs to accommodate peak use;
- Install powered ventilation systems in the existing CXTs;
- Reconstruct the existing boat ramp and install a supplemental raft slide ramp downstream of the existing boat ramp. The new ramp will be designed and installed in consultation with the appropriate land management agencies; and.
- Install a changing pavilion in a location to be determined in consultation with the appropriate land management agencies.

4.6.3 French Meadows Boat Ramp

French Meadows Boat Ramp is located on the south shore of French Meadows Reservoir. The existing boat ramp is approximately 20 feet wide and approximately 600 feet long, as measured from the maximum normal operating WSE to the end of the ramp. The existing ramp is constructed of concrete and includes three turn-around areas that may be used as water levels recede.

The existing boat ramp was designed to be functional at a wide range of water levels. The top of the ramp is at an elevation of about 5,262 feet mean sea level (msl), which is the current maximum operating WSE. The lower end of the existing concrete ramp terminates at an elevation of 5,200 feet.

If feasible, PCWA will extend the boat ramp so that it is functional for a longer period. Specifically, PCWA will extend the boat ramp up to approximately 365 linear feet, to an elevation of about 5,175 feet, which is 25 vertical feet lower than the bottom of the existing boat ramp. The extension will be constructed using compacted aggregate and will include two turn-around areas, as shown on REC Plan Map 10. It may not be possible to extend the boat ramp to an elevation of 5,175 feet due to currently unknown factors such as slope and reservoir bed condition. In this case, PCWA will extend the boat ramp as far as feasible.

To allow for construction, the boat ramp will be extended during the first year following license issuance that the reservoir WSE is drawn down to below 5,165 feet during the fall (September–October). After the ramp is extended, it will be maintained as part of PCWA's heavy maintenance program as described in Section 4.3 of this Recreation Plan.

4.6.4 Hell Hole Boat Ramp

Hell Hole Boat Ramp and the associated parking areas were originally constructed in 1965, improved in 1986, and rehabilitated in 2000. In its current configuration, Hell Hole Boat Ramp is approximately 1,000 feet long and about 25 feet wide and constructed of concrete. The ramp is generally "U" shaped and is widened in the apex of the U to provide a low water turn-around area.

Hell Hole Boat Ramp was designed to be functional at a range of WSE. The top of the existing boat ramp is situated at an elevation of 4,638 msl, 8 feet higher than the current maximum operating WSE and spillway crest elevation. The lower end of the existing ramp terminates at an elevation of 4,530 feet.

If feasible, PCWA will extend the boat ramp so that it is functional for a longer period. Specifically, PCWA will extend the boat ramp up to approximately 250 linear feet, to an elevation of about 4,485 feet, which is 45 vertical feet lower than the bottom of the existing boat ramp. Due to the steep slope, the extension will be constructed using concrete and will include one turn-around area, as shown on REC Plan Map 11. It may not be possible to extend the boat ramp to an elevation of 4,485 feet due to currently unknown factors such as slope and reservoir bed condition. In this case, PCWA will extend the boat ramp as far as feasible.

To allow for construction, the boat ramp will be extended during the first year following license issuance that the reservoir WSE is drawn down to below about 4,475 feet during the fall (September–October). After the ramp is extended, it will be maintained as part of PCWA's heavy maintenance program as described in Section 4.3 of this Recreation Plan.

4.7 IMPROVEMENTS TO SELECT DISPERSED USE AREAS

PCWA will develop a primitive recreation site near the Duncan Creek Diversion Pool and will improve the Ralston Afterbay Sediment Access Point to facilitate boat launching, as described in the following subsections.

PCWA will be responsible for 100% of these improvements, including the cost of design, planning, construction, equipment, materials, and labor. These activities may be performed by PCWA, PCWA's contractors, or by the appropriate land management agency with funds provided by PCWA.

4.7.1 Duncan Creek Diversion Primitive Recreation Site

Duncan Creek Diversion is located on Duncan Creek, a tributary to the Middle Fork American River. It is located at an elevation of 5,275 feet msl, about 1.5 miles northwest of French Meadows Dam (REC Plan Map 2). The primary Project facility in the Duncan Creek area is the Duncan Creek Diversion Dam, which impounds Duncan Creek forming the Duncan Creek Diversion Pool. The pool is relatively small, with a gross storage capacity of approximately 20 acre-feet (ac-ft) and a maximum surface area of approximately 3 acres.

There are no developed Project recreation facilities in the Duncan Creek Diversion area. However, a limited amount of dispersed use occurs in the vicinity of the diversion dam and impoundment. To address sanitation issues and to reduce potential resource impacts related to dispersed recreation use near the Duncan Creek Diversion Pool, PCWA will install the following features:

- One single-unit vault, accessible, pre-fabricated concrete toilet in a location to be determined in consultation with the USDA-FS;
- Barrier rocks to limit vehicle use and camping to specific areas to be determined in consultation with the USDA-FS; and
- One, two-bin, bear resistant garbage container.

Subsequent to installation, PCWA will be responsible for 100% of costs required to operate and maintain the Duncan Creek Diversion Primitive Recreation Site. Routine operation and maintenance will be conducted in consultation with the TNF, as discussed in Section 4.2 Routine Annual Operation and Maintenance of Project Recreation Facilities and Section 4.3 Routine Heavy Maintenance Activities at Project Recreation Facilities.

4.7.2 Ralston Afterbay Sediment Access Point Boat Launch

The Ralston Afterbay Sediment Removal Access Point is located along FR 23, about 700 feet south of the Ralston Afterbay Picnic Area. As shown on REC Plan Map 9, PCWA's Ralston Afterbay Sediment Removal Access Point is located at the confluence of the Middle Fork American and Rubicon Rivers within Ralston Afterbay, where water levels are typically deeper than those at the Ralston Afterbay Picnic Area Car Top Boat

Launch. The ramp is generally unimproved, but is not as steep as the Ralston Picnic Area Car Top Boat Ramp. In addition, access is not impeded by large rocks. As such, launching from a trailer is possible from this point. A limited amount of parking is available in the adjacent turnouts.

This ramp is not a Project recreation facility and PCWA does not prohibit its use by the public. According to the USDA-FS, recreation visitors sometimes utilize PCWA's Sediment Removal Access Point as an informal boat ramp to access Ralston Afterbay (REC Plan Map 9). PCWA has also observed and recorded use of this facility by the public. Therefore, PCWA will formalize this access point as a public boat launching point by:

- Delineating the boat ramp and parking area with barrier rocks or other barrier devices;
- Grading the ramp to remove large cobbles and rocks;
- Installing signage and barriers to limit parking; and
- Installing signage directing visitors to the Ralston Afterbay Picnic Area for additional parking.

Subsequent to installation, PCWA will be responsible for 100% of costs required to operate and maintain the boat launch, barriers, and signage. Routine operation and maintenance will be conducted in consultation with the TNF, as discussed in Section 4.2 (Routine Annual Operation and Maintenance of Project Recreation Facilities) and Section 4.3 (Routine Heavy Maintenance Activities at Project Recreation Facilities).

The Ralston Sediment Removal Access Point will be enhanced in conjunction with the first sediment management removal effort at Ralston Afterbay after license issuance. PCWA's sediment management program is described in the Sediment Management Plan (SMP) (PCWA 2010g; SD A), which is included in SD A of PCWA's Application for New License.

4.8 PERIODIC RECREATION USE MONITORING

Current FERC regulations (CFR 18 § 8.11) require that PCWA prepare and file a Form 80 Licensed Hydropower Development Recreation Report every six years after license issuance. According to the FERC's regulations, this report should be based on data compiled during the previous calendar year. PCWA will implement periodic recreation use monitoring to collect data that can be utilized to: (1) meet its FERC Form 80 reporting requirements; and (2) determine whether changes to existing recreation facilities or new facilities are needed to accommodate changing use levels or patterns. PCWA filed a Form 80 Recreation Report in 2009. Accordingly, the next Form 80 Report will be filed in 2015 (by April 1), and every six years thereafter. The following describes recreational use monitoring during the term of the license.

4.8.1 Recreation Use Monitoring

Beginning in 2014, and every six years thereafter, PCWA will collect and compile recreation use data to estimate recreation use at each of the Project recreation facilities identified in REC Plan Table 1. Recreation use will be estimated using the following data sources, if available, and depending upon completeness:

- Recreation use and campground occupancy data that may be available from the TNF, ENF, and/or its concessionaires; and
- Iron ranger data for campgrounds.

If use data is not available for the Project recreation facilities from these sources then PCWA will conduct vehicle counts to estimate recreation use, except at Poppy Campground where use will be estimated using data collected at a self-registration box. In addition, PCWA will estimate dispersed use in the vicinity of former Upper Hell Hole Campground using data collected at self-registration boxes. These efforts are described in the following subsections.

Vehicle Counts

Vehicle counts will be conducted beginning in the summer of 2014 and once every six years thereafter through the term of the new license. In general, the vehicle counts will be conducted according to the same timing and protocols that were used in 2007 and 2008, when PCWA conducted vehicle counts as part of the MFP relicensing studies. Using similar protocols will facilitate comparison between data sets.

To capture the peak recreation season, the vehicle counts will be conducted for approximately a 14-week period extending from the Friday before Memorial Day to Labor Day Monday. This period may be modified from survey year to survey year, depending upon road conditions (e.g., presence of snow, road closures).

The vehicle count sampling schedule will be pre-established based on a random selection process in consultation with the TNF and ENF. Sampling days, starting points, and route direction will all be randomly selected. The selection of vehicle count days and time blocks will be selected in accordance with the following criteria:

- One weekday per week;
- One weekend day per week; and
- One additional day during each of the three day holiday periods (Memorial Day, Fourth of July, and Labor Day).

Sampling will occur during two six-hour time blocks. The AM time block will be defined as 8:00 AM to 2:00 PM. The PM block will be defined as 2:00 PM to 8:00 PM. The vehicle counts will be conducted by field technicians who will be instructed to visit every sampling site in accordance with the pre-established schedule. The field technicians

will record the numbers of vehicles by type at every location and will record the data on pre-established forms.

The vehicle count data will be entered into Microsoft Excel or other similar software, tabulated by survey day and subsequently checked for data entry errors. Ultimately, the vehicle count data will be used to estimate use in Recreation Days (RD) and RVDs, as follows:

- An RD is a visit to a development for recreational purposes during any portion of a 24-hour day. Use data provided to the FERC on Form 80 will be reported in RDs, as required by FERC.
- An RVD is a typical unit of measurement used by the USDA-FS and is used to track potential changes in recreation use. An RVD equals one person recreating for 12 hours, or any combination of people and hours equaling 12 hours. This data will be used to track changes in use over time relative to the data collected by PCWA in 2007 and 2008 during relicensing of the MFP.

Poppy Campground

To estimate use at Poppy Campground, PCWA will install and maintain a self-registration box at the Poppy Campground Trail trailhead. The self registration box will consist of a painted steel weatherproof box mounted on a painted steel post. The box will contain forms and writing implements. The forms will be used to collect the following information: name, date, number in party, destination, and length of stay. The forms will be collected and compiled by PCWA staff and provided to the USDA-FS.

Availability of the registration forms will be maintained from Memorial Day through Labor Day, weather and access permitting. The information will be collected in coordination with the periodic recreation use surveys described above. Accordingly, the information will be collected beginning in 2014 and every six years thereafter.

Dispersed Use in the Vicinity of Upper Hell Hole Campground

The USDA-FS expressed an interest in monitoring dispersed use in the vicinity of the Upper Hell Hole Campground after it is removed. This area is only accessible by foot or by boat. Therefore, dispersed recreation use in the vicinity of the former Upper Hell Hole Campground will be estimated using self-registration boxes. Specifically, PCWA will install and maintain self-registration boxes at the Upper Hell Hole Trailhead and in the Hell Hole Boat Ramp Parking area. The self registration boxes and forms will be similar to those described above. The forms will be collected and compiled by PCWA staff and provided to the USDA-FS.

Availability of the registration forms will be maintained from Memorial Day through Labor Day, weather and access permitting. The information will be collected in coordination with the periodic recreation use surveys described above. Accordingly, the information will be collected beginning in 2014 and every six years thereafter.

4.9 RESOURCE PROTECTION MEASURES

Avoidance and protection measures were developed to address potential effects related to the specific measures contained in this Recreation Plan. This includes potential effects on water quality from erosion, sedimentation, hazardous materials, and bacteria and chemicals associated with solid waste disposal; effects on biological resources during construction activities and from powerline design; and effects on personnel and surrounding land use and vegetation communities/habitats from fire. In general, the approach for avoiding potential effects was to develop measures that:

- Incorporate applicable USDA-FS Best Management Practices (BMPs) (USDA-FS 2000);
- Define work areas to avoid sensitive environmental or cultural resources;
- Establish limited operation periods;
- Develop protective buffer areas; and
- Establish preventative measures.

A list of resource protection measures that PCWA will implement in relation to the specific measures outlined in this Recreation Plan is presented in REC Plan Table 5.

5.0 MEASURES TO ENHANCE PROJECT RECREATION OPPORTUNITIES

This section describes the recreation measures/commitments that PCWA will implement over the term of the license to enhance Project recreation opportunities including:

- Dissemination of real-time flow information in the bypass and peaking reaches;
- Dissemination of reservoir WSE information;
- Development and distribution of recreation opportunity marketing information;
- Fish stocking in large Project reservoirs; and
- Trail enhancements.

These measures are described in the following subsections.

5.1 DISSEMINATION OF REAL-TIME FLOW INFORMATION

PCWA will provide real-time flow information to the public in 15-minute recording intervals using data available from ten stream gages, which are shown on REC Plan Map 12 and identified as follows:

- Rubicon River Gage at Ellicott Bridge (RREB);

- Rubicon River Gage above Ralston Powerhouse (United States Geological Survey [USGS] Gage No. 11433200);
- South Fork Long Canyon Creek Gage below Diversion Dam (SFLCC);
- North Fork Long Canyon Creek Gage below Diversion Dam (NFLCC);
- Duncan Creek Gage and Weir below Diversion Dam (USGS Gage and Weir No. 11427750);
- Middle Fork American River Gage and Weir below French Meadows Dam (USGS Gage and Weir No. 11427500);
- Middle Fork American River Gage above Middle Fork Powerhouse (USGS Gage No. 11427760);
- Middle Fork American River Gage below Interbay Dam (MFARIB);
- Middle Fork American River Gage near Foresthill (USGS Gage No. 11433300) also known as Middle Fork American River Gage below Oxbow Powerhouse and referred to by the California Data Exchange Center (CDEC) as OXB; and
- North Fork American River Gage above American River Pump Station (NFARPS).

PCWA will provide real-time (15-minute) flow data for each of these sites on PCWA's website. PCWA will also make the data available to CDEC but cannot guarantee that CDEC will post the data. Real-time flow data for one of the above gages, USGS Gage No. 1143300 is already collected and provided to the public via the internet by CDEC.

At a minimum, the flow data on PCWA's webpage will show the most recent 14 days of flow information. It is important to note that this data will not have been checked for accuracy by PCWA or the USGS before posting. Therefore, the data may be subject to change. All streamflow values may be rounded to the nearest cubic feet per second (cfs), and any plots or tables showing these data may be labeled with the following or similar language: "These provisional stream flow data have not been reviewed or edited for accuracy and may be subject to significant change."

In addition to providing flow information, PCWA will provide the following information on the website:

- Notification that one (or more) of the Project reservoirs is spilling or that a spill event is eminent (if projectable);
- Notification of a special release, for example pulse flows released for channel and riparian maintenance purposes;
- A matrix showing when pulse flows released from Oxbow Powerhouse will arrive downstream at the following specific locations in the peaking reach: Fords Bar,

Ruck-a-Chucky Recreation Area, Mammoth Bar, Poverty Bar, the Confluence, Birdsell Access, and Oregon Bar Access Point. The matrix will be developed using travel time information developed as part of the MFP relicensing studies. An example travel time matrix is shown on REC Plan Table 6. This example matrix was developed using a travel time of 2.5 miles per hour, a base flow of 200 cfs, and a peak flow of 1,000 cfs. The new matrix will be adjusted based on the flow regime specified in PCWA's new license.

- Links to pertinent websites, for example, the CDEC, USGS, and USDA-FS websites.

5.2 DISSEMINATION OF RESERVOIR WATER SURFACE ELEVATION (WSE INFORMATION)

PCWA will provide weekly (at a minimum) WSE information at French Meadows and Hell Hole reservoirs to the public on a PCWA website. The information provided on the internet will be based on data collected at the following two gages:

- French Meadows Reservoir Gage (USGS Gage No. 11427400); and
- Hell Hole Reservoir Gage (USGS Gage No. 11428700).

Currently, WSE information is collected several times weekly by PCWA staff. Weekly WSE information will be provided to the public by PCWA via the internet. The WSE data on PCWA's webpage will show the most recent six months of weekly information.

In addition to providing WSE information, PCWA will provide the following information on the website:

- Example photographs showing the reservoir conditions at various WSEs; and
- Information about whether the boat ramps are functional based on the current WSE. This information will be provided until the boat ramps are extended, at which point PCWA will discontinue posting this information because it will no longer be relevant.

5.3 RECREATION OPPORTUNITY MARKETING INFORMATION

PCWA will develop marketing materials regarding recreation opportunities available in the vicinity of the MFP in consultation with the resource agencies. The marketing material will include: (1) Geographic Information System (GIS)-based maps showing the locations of the developed Project recreation facilities and the access roads and trails in the vicinity of the MFP; and (2) information brochures as specified in the following subsections.

5.3.1 GIS-Based Maps

PCWA has developed a GIS-based, color map showing the locations of developed Project recreation facilities and the access roads and trails in the vicinity of the MFP. In addition, PCWA has developed GIS-based maps that graphically depict the layout of

each of the developed Project recreation facilities on an orthophotographic background. Following approval by the appropriate land management agencies, PCWA will provide electronic copies of these maps to the following organizations for posting on web the following information sites:

- USDA-FS, ENF;
- USDA-FS, TNF;
- Auburn Chamber of Commerce;
- Foresthill Divide Chamber of Commerce; and
- Georgetown Divide Chamber of Commerce.

In addition, these maps will be posted on a PCWA website, under a link titled "Recreation Opportunities in the Vicinity of the MFP."

5.3.2 Brochure

PCWA will create a color brochure highlighting the recreation resources in the vicinity of the MFP, including travel routes and information about the MFP Project facilities, and resources protection concerns. The brochure will be developed in consultation with the USDA-FS, the Auburn Chamber of Commerce, the Foresthill Divide Chamber of Commerce, and the Georgetown Divide Chamber of Commerce. The brochure will be approved by the resource agencies prior to publishing.

PCWA will provide electronic copies of the brochure to the ENF, the TNF, and to each of the Chambers listed above for posting on their information web sites. In addition, each year, PCWA will provide paper copies of the brochure to the ENF, the TNF, and to each of the Chambers for distribution to the public through their local offices, in the following quantities.

- ENF Supervisor's Office – 100 copies;
- ENF, Georgetown District Office – 150 copies;
- TNF, Foresthill District Office – 250 copies;
- Auburn Chamber of Commerce – 250 copies;
- Foresthill Divide Chamber of Commerce – 250 copies;
- Georgetown Divide Chamber of Commerce – 100 copies; and
- California Welcome Center in Auburn – 100 copies.

PCWA will provide the paper copies of the brochures to each entity by May 1 of each year so that the brochures are available to the public by the beginning of the peak recreation season. Before printing, PCWA will consult with the USDA-FS and the

Chambers to determine whether the quantity of brochures being supplied is appropriate based on the previous year's distribution. The number of copies produced and supplied to the USDA-FS and the Chambers may be adjusted based on this consultation. Project recreation brochures will be provided to other entities upon request.

5.4 FISH STOCKING

PCWA will stock fish in Hell Hole and French Meadows reservoirs on an annual basis during the term of the license equivalent to 50% of CDFG's annual management target or 50% of the historical average stocking into the reservoir (2001–2009), whichever is less. Fish species and size class stocking targets will be determined in consultation with the CDFG but is expected to be similar to historic stocking efforts.

The average annual number of fish stocked in Hell Hole and French Meadows reservoirs from 2001 through 2009 is shown on REC Plan Table 7 and REC Plan Table 8, respectively, and is summarized in the following:

Hell Hole Reservoir

- Brown Trout – During the 2001–2009 period, an average of approximately 5,500 catchable brown trout were stocked. Therefore, 50% represents 2,750 catchable brown trout.
- Kokanee Salmon – During the 2001–2009 period, an average of approximately 24,600 fingerling Kokanee salmon were stocked. Therefore, 50% represents 12,300 fingerlings.

French Meadows Reservoir

- Rainbow Trout – During the 2001–2009 period, an average of approximately 10,500 catchable rainbow trout were stocked. Therefore, 50% represents 5,250 catchables.

PCWA will either: (1) acquire the fish directly from private fish hatcheries approved by CDFG; or (2) reimburse CDFG for the cost of PCWA's share of the stocking program in Hell Hole and French Meadows reservoirs based on the criteria described above. PCWA will consult with the CDFG annually to obtain fish stocking targets, fish species, discuss fish acquisition, and verify the completion of the previous years stocking commitment.

5.5 TRAIL-RELATED ENHANCEMENTS

The MFP does not include any Project recreation trails. However, PCWA will enhance trail opportunities in the vicinity of the MFP by: (1) developing and installing trail maps; and (2) developing, installing, and maintaining trailhead markers at select trailheads. These measures are described in the following subsections.

5.5.1 GIS-Based Map

PCWA will develop a GIS-based map showing the locations of the primary trails in the vicinity of the MFP. This map will be developed in consultation with the USDA-FS. Upon approval by the USDA-FS, the map will be laminated and posted on existing information kiosks located at the developed Project recreation facilities. The purpose of this measure is to provide recreation users with information about trail opportunities in the vicinity of the MFP.

5.5.2 Trail Head Markers

PCWA will develop, install, and maintain markers (signage) at three trailheads as specified below.

- PCWA will develop and install new signage identifying the start of the Upper Hell Hole Trail. One sign will be placed near the west end of Hell Hole Dam and the other sign will be located at the east end of Hell Hole Dam. This signage will replace the existing signage in these locations, which is damaged and in poor condition;
- PCWA will maintain the existing trailhead signage marking the Western States Trail (WST) at the Poppy Trailhead Parking Area. This signage will be moved to the McGuire Boat Ramp Parking Area after the Poppy Trailhead Parking Area is removed and the parking and associated facilities are consolidated; and
- PCWA will design, install, and maintain a trail marker along the WST, in the vicinity of French Meadows Dam. This end of the trail is currently unmarked.

The information contained on these trailhead markers (signs), mounting methods, and specific mounting locations will be determined in consultation with the USDA-FS. If possible, installation and maintenance of trail signage along the WST will be coordinated with the WST Foundation.

6.0 IMPLEMENTATION SCHEDULE

The measures described in this Recreation Plan will be implemented as described in the individual sections of this Recreation Plan and in accordance with the schedules identified on the following tables:

- REC Plan Table 2. Heavy Maintenance Activities to be Completed within the First Six Years of License Issuance (ENF);
- REC Plan Table 3. Heavy Maintenance Activities to be Completed within the First Six Years of License Issuance (TNF); and
- REC Plan Table 4. Facility Modifications and Enhancements to be Completed within the First Six Years of License Issuance.

7.0 CONSULTATION

The measures identified in the Recreation Plan will be implemented in consultation with the resources agencies, as specified in the following:

- PCWA will consult with the appropriate resource agencies annually to discuss the upcoming year's operations, routine annual and heavy maintenance activities, and appropriate resource protection measures;
- PCWA will consult with the CDFG on an annual basis regarding fish stocking at French Meadows and Hell Hole reservoirs; and
- PCWA will consult with the appropriate resources agencies regarding the need for facility modifications, conversions, or new recreation facilities. This consultation will occur in 2015 and every six years thereafter and will be based upon the results of the use monitoring efforts described in this Recreation Plan. Facility modifications will not be implemented without the approval of the resource agencies and FERC.

7.1 ANNUAL COORDINATION MEETING

Each year, during the term of the license, PCWA will arrange to meet with the appropriate resource agencies to discuss the following topics:

- Review the measures outlined in this plan and the associated implementation schedule;
- Review the status of maintenance activities implemented during the previous year;
- Discuss work to be accomplished during the upcoming year; and
- If available, review current use data with respect to measures outlined in this plan.

The date of the meeting will be mutually agreed to by PCWA and the appropriate resource agencies but, in general, will be held within the first 60 days of each calendar year.

PCWA will document the meeting discussion in the form of a meeting summary. The meeting summary will document the discussion and any agreements. PCWA will provide the USDA-FS with a draft version of the meeting summary within two weeks of the meeting for review and approval. Upon approval by the USDA-FS, PCWA will file the meeting summary with the FERC within 30 days.

8.0 REPORTING

PCWA will document progress related to implementation of this recreation plan on an annual basis and in recreation use reports that will be filed with the FERC every six years through the term of the license, as described in the following.

8.1 ANNUAL REPORTING

PCWA will prepare a brief annual report documenting the implementation of the Recreation Plan and any other activities involving or related to recreation resources, including the results of the annual meeting described above. The purpose of the annual report is to document implementation of and compliance with the Recreation Plan. The annual report will be distributed for review and comment to the ENF, the TNF, and other pertinent land management agencies and subsequently filed with the FERC within 30 days of obtaining approval by the pertinent resource agencies.

8.2 RECREATION USE REPORTING

PCWA will estimate recreation use at the Project recreation facilities and dispersed use in the vicinity of the former Upper Hell Hole Campground once every six years as described in Section 4.8 of this Recreation Plan. Use data collected by PCWA will be used to fulfill PCWA's Form 80 reporting requirements. Supporting information will be documented by PCWA in a brief report that will contain the following information:

- Methods used to collect and compile the use data;
- Calculations used to estimate use;
- Use estimates in RDs and RVDs for the current reporting year;
- Use estimates in RVDs for previous reporting years, for comparison purposes; and
- Recreation facility capacity utilization information.

Form 80 is due to the FERC by April 1. To accommodate this timing, PCWA will provide a draft version of the recreation use report to the appropriate land management agencies by February 1 of the reporting year. The agencies will be provided with a 30-day review and comment period, ending on or around March 1. Any comments will be addressed by PCWA in a final report, as appropriate, and filed with the FERC by April 1 in support of the information provided on Form 80. The final report will be concurrently distributed to the appropriate land management agencies.

9.0 FUTURE PROJECT RECREATION FACILITY ENHANCEMENTS

There may be a need to reduce, expand, or convert an existing Project recreation facility or to construct new facilities, based on changing recreation use levels or needs over the term of the license. These types of changes will be determined in consultation with the ENF, the TNF, and other appropriate land management agencies based on the

use data collected as part of this plan. The need for future Project recreation facility enhancements will be determined based on “triggers” and will not be implemented until the appropriate environmental review is completed, as discussed in the following.

9.1 TRIGGERS FOR ENHANCEMENT ACTIONS

Use estimates developed by PCWA and facility capacity information will be used to determine when facility enhancements are necessary in the future. In addition, the following types of information will be considered:

- Current demographic data;
- Current, locally pertinent, published trends information regarding recreation use patterns and needs; and
- Data collected through site-specific visitor surveys, when necessary.

Use estimates and site occupancy (facility capacity) information will be used to determine whether any of the existing facilities are at or approaching capacity. If the use monitoring data indicates that the seasonal occupancy rate of any of the developed Project recreation facilities has reached 75% capacity on weekends from Memorial Day through Labor Day (inclusive), PCWA will collect additional use data at that facility the following year. If the use data indicates that capacity of that facility has reached 75% during the second year, PCWA will collect a third year of data at that facility. This effort may be combined with site-specific visitor surveys if additional information is needed regarding visitor needs and the types of improvements that may be necessary.

When the seasonal occupancy rate on weekends from Memorial Day weekend through Labor Day weekend (inclusive) reaches 75% for three consecutive years, PCWA will enter into discussions with the ENF and TNF about the appropriate improvements to expand facility capacity. Capacity could be increased by expanding the capacity of the facility in question, by converting a nearby under-utilized facility, or by constructing a new facility. Agreed upon actions will be documented in an amendment to this Recreation Plan, and after approval by the USDA-FS, will be filed with the FERC for approval.

9.2 ENVIRONMENTAL REVIEW

Future Project activities not evaluated in FERC’s National Environmental Policy Act (NEPA) document regarding issuance of a new license for the MFP will need to undergo separate environmental review.

10.0 PROCESS FOR UPDATING THE RECREATION PLAN

Beginning in 2015, and every six years thereafter, PCWA will consult with appropriate land management agencies to determine if modification of the Recreation Plan is appropriate. Once agreement between PCWA and the appropriate resource agencies has been reached, PCWA will provide a draft version to the resource agencies for review, comment, and approval. Upon completion of the review and approval process,

PCWA will file the Revised Recreation Plan with FERC for approval along with consultation documentation and any other pertinent information that supports the plan revisions. The Revised Recreation Plan will be in effect upon approval by FERC.

11.0 DISPUTE RESOLUTION

If at any time during implementation of this Recreation Plan a resource agency objects to any action or failure to act pursuant to this Recreation Plan they may file written objections with PCWA and/or FERC. PCWA will consult with the objecting agency to resolve the objection. If the objection is resolved, no further action is necessary. If the objection cannot be resolved, PCWA will notify the FERC. PCWA will take into account any agency recommendations for resolution of the objections and if deemed feasible and appropriate will implement the recommendations to resolve the objection. All records of any dispute and resolution will be filed with FERC.

12.0 LITERATURE CITED

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_____. 2010a. Transportation System Management Plan (TSMP) Available in PCWA's Application for New License – Supporting Document A.

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_____. 2010f. REC 2 – Recreation Visitor Surveys Technical Study Report. Available in PCWA's Application for New License – Supporting Document B.

_____. 2010g. Sediment Management Plan. Available in PCWA's Application for New License – Supporting Document A.

United States Department of Agriculture-Forest Service, Pacific Southwest Region. September 2000. Water Quality Management for Forest System Lands in California – Best Management Practices.

TABLES

REC Plan Table 1. Project Recreation Facilities and Features.

Recreation Facility or Feature
Duncan Creek Diversion Area
Duncan Creek Diversion Primitive Site (new)
French Meadows Reservoir Area
Ahart Campground (enhanced)
Coyote Group Campground
Poppy Campground (reduced)
French Meadows Campground
Gates Group Campground
Lewis Campground
French Meadows Picnic Area
French Meadows Boat Ramp (enhanced)
French Meadows Dump Station ¹
McGuire Picnic Area and Beach (converted)
McGuire Group Campground (new)
McGuire Boat Ramp and Associated Parking (modified)
Hell Hole Reservoir Area
Big Meadows Campground
Hell Hole Campground (reduced)
Upper Hell Hole Campground (removed)
Hell Hole Vista
Hell Hole Boat Ramp (enhanced)
Hell Hole General Parking Area and Hell Hole Boat Ramp Parking Area
Ralston Afterbay Area
Ralston Afterbay Picnic Area (reduced)
Ralston Picnic Area Cartop Boat Ramp
Ralston Afterbay Sediment Access Point Boat Ramp (new)
Indian Bar Rafting Access and General Parking (enhanced)
Long Canyon Area
Middle Meadows Group Campground
Project Recreation Facility Water Supplies
Dolly Creek Water Supply
French Meadows Campground Water Supply
Big Meadows Campground Water Supply
Middle Meadows Group Campground Water Supply

¹Facility was maintained under the current license, but was not listed as a Project facility.

REC Plan Table 2. Heavy Maintenance Activities to be Completed within the First Six Years of License Issuance (ENF)

Location and Activity	Years After License Issuance					
	1	2	3	4	5	6
Big Meadows Campground (54 Sites)						
Install gates to allow segments of campground to be closed off.		X				
Replace remaining wood bathroom (flush) with one accessible prefabricated toilet.						X
Hell Hole Campground (8 Walk-in Sites after Removing Sites 5 and 6)						
Redistribute accessible picnic tables, fire rings, etc. after removing Sites 5 and 6, if necessary.		X				
Replace 1 heavy wood picnic tables with accessible design picnic table.		X				
Install 1 bear box at Site 7		X				
Remove obsolete concrete stoves at Sites 4 and 8.		X				
Install accessible fire ring with adjustable grill at Site 8.		X				
Harden and compact accessible pathway to sites 1, 2 and 3.		X				
Remove hazard trees at Site 2.		X				
Remove obstacles and level Sites 1, 2 & 3 to make them fully accessible.		X				
Replace poor condition signage (visitor message post at entrance).		X				
Replace plastic recycling cans with steel, bear-proof recycling container.		X				
Repair and level area between bathroom and fee station that has been damaged by poor drainage. Reroute drainage to avoid future damage.		X				
Replace existing operational water faucet drain with accessible drain. Level and harden surface around drain.		X				
Remove or repair non-operational water faucet. If repaired, replace drain with accessible drain and level and harden surface around drain.		X				
Repair (or potentially replace) water distribution lines, if needed.		X				
Repair and resurface parking area. Consider striping.		X				
Hell Hole Vista						
Replace picnic table along pathway with accessible table.		X				
Clear obstacles and level surface around table, if possible (bedrock may prevent leveling).		X				
Clear vegetation and remove minor obstacles along pathway and in Vista overlook area.		X				
Grade and surface viewing area, if feasible (bedrock may prevent grading).		X				
Hell Hole Boat Ramp						
Install "no parking" signage in low water turn-around area (if determined necessary).		X				
Repair or replace all poor condition signage.		X				
Repair and seal masonry retaining wall.				X		
Seal cracks in existing boat ramp.				X		
Hell Hole Boat Ramp Parking Area						
Install barrier rock around perimeter of lower parking areas.		X				
Hell Hole Boat Ramp General Parking Area						
Remove obstacles and user-created fire ring at picnic area adjacent to upper parking area.		X				
Replace 2 picnic tables in upper parking area with accessible tables.		X				
Middle Meadows Campground (2 sites - 25 PAOT site and 50 PAOT site)						
Replace plastic recycling cans with steel, bear-proof recycling container.					X	
Big Meadows Campground Water Supply						
Drill well and install water supply lines. Connect to existing distribution system.		X				
Middle Meadows Group Campground Water Supply						
Drill vertical well, replace water storage tank, supply and distribution lines.						X

REC Plan Table 3. Heavy Maintenance Activities to be Completed within the First Six Years of License Issuance (TNF).

Location and Activity	Years After License Issuance					
	1	2	3	4	5	6
Ahart Campground (12 sites) - Heavy maintenance to be conducted in conjunction with enhancements.						
Replace damaged visitor message post.			X			
Remove damaged concrete/steel from Site 1 and 3.			X			
Replace damaged fire rings and reset poorly set fire rings.			X			
Remove user-created rock rings.			X			
Replace damaged heavy wood tables at sites 3 and 9 with accessible design tables.			X			
Repair and replace damaged barrier posts and rails delineating camp site spurs.			X			
Widen/lengthen spurs to meet accessibility standards, where feasible.			X			
Grade and level sites to meet accessibility standards, where feasible.			X			
French Meadows Campground (75 sites)						
Remove concrete stove at Site 3.		X				
Replace visitor message post and directional sign at star of east loop road.		X				
Replace all non-accessible faucet handles and drains with accessible handles and drains.				X		
Convert 3 non-accessible flush toilet buildings to accessible design.				X		
Widen select spurs, where feasible.						X
Reconstruct interior campground road, if necessary.						X
Install traffic barriers						X
Lewis Campground (40 sites)						
Replace 3 poor condition message boards adjacent to faucets.		X				
Reset improperly set fire rings and remove user-created rock fire rings for select sites, as needed.		X				
Reset low table at Sites 6 and 15 and HC site 21.		X				
Replace all non-accessible faucet handles and drains with accessible handles and drains.				X		
Convert 1 non-accessible flush toilet buildings to accessible design.				X		
Widen spur at Sites 4 and 19 (HC accessible site) to meet accessibility standards, if feasible.						X
Install traffic barriers.						X
Poppy Campground (8 sites after removing Sites 6,9,11 and 12) Heavy maintenance to be conducted in conjunction with site reduction.						
Repair or replace information board in campground.		X				
Install and repair site signage in the campground.		X				
Install site identification signs at edge of reservoir.		X				
Replace pit toilets in campground with a single unit, disabled-accessible, vault CXT.		X				
Reduce excessive fuels build-up in and around campground. (High Priority)		X				
Remove all user-created fire rings from 1-5, 7, 8 and 10, where present.		X				
Remove obstacles and level camp sites 1-5, 7, 8 and 10, where feasible.		X				
Remove all obsolete concrete stoves.		X				
Install 8 HC fire rings with adjustable grills.		X				
Install 8 bear proof food storage locker.		X				
Replace 8 heavy wood picnic tables with accessible design tables.		X				
Coyote Group Campground (4 sites)						
Black Bear						
Repair, resurface and potentially stripe the parking area at Black Bear Campground.			X			
Provide 1 disabled accessible picnic table at Black Bear Campground to bring total number of tables to 8.			X			
Trim overgrown vegetation and remove obstacles along travel paths at Black Bear campground.			X			
Replace all non-accessible faucet handles and drains with accessible handles and drains at Black Bear Campground.						
Brush Wolf, Prairie Wolf, Little Wolf						
Restripe parking stalls at Brush Wolf and Little Wolf.				X		
Replace 1 broken picnic table at Brush Wolf.				X		
Replace group fire ring at Prairie Wolf Campground.				X		
Repair or replace 5 old benches at Prairie Wolf Campground.				X		
Replace all non-accessible faucet handles and drains with accessible handles and drains at Prairie Wolf, Brush Wolf and Little Wolf.				X		

REC Plan Table 3. Heavy Maintenance Activities to be Completed within the First Six Years of License Issuance (TNF) (continued).

Location and Activity	Years After License Issuance					
	1	2	3	4	5	6
Gates Group Campground (3 sites)						
Replace all non-accessible faucet handles and drains with accessible handles and drains.					X	
Remove obsolete concrete stoves with steel grills (7).					X	
Replace group fire ring at Ponderosa.					X	
Repair or replace 13 old benches at Ponderosa.					X	
French Meadows Boat Ramp						
Seal cracks in boat ramp.			X			
Convert existing flush toilet building to meet accessibility standards or replace with prefabricate accessible bathroom for year round use.			X			
Replace non-accessible faucet handle and drain with accessible handles and drains.			X			
Grade and resurface boat ramp parking area. (Consider aggregate surface) - <i>May be done earlier, in conjunction with boat ramp extension.</i>						X
French Meadows Picnic Area (5 sites)						
Replace non-accessible faucet handles and drains with accessible handles and drains.				X		
Reconstruct walkway from parking area to picnic area and throughout picnic area to meet accessibility standards, where feasible.				X		
Level picnic sites and remove obstacles, where feasible.				X		
Repair or replace damaged bulletin board in picnic area.				X		
McGuire Boat Ramp						
Replace poor condition "no parking" signs.			X			
Reseal boat ramp.			X			
Repair concrete turnaround area at top of boat ramp.			X			
Ralston Picnic Area (4 sites after removing Site 5) - Heavy maintenance to be conducted in conjunction with site reduction.						
Widen, level, and removal obstacles along pathways from the parking lot the existing toilet and to picnic sites.		X				
Install traffic barriers to prohibit motorcycle use on the trail upstream of Ralston Picnic Area.		X				
Install signage regarding boat launching opportunities at Ralston Afterbay Sediment Removal Access Point.		X				
Repair or install new information board.		X				
Replace poor condition signage.		X				
Refurbish picnic sites with new accessible picnic tables and pedestal grills.		X				
Level picnic sites and remove obstacles, where feasible.		X				
Enlarge spurs near Sites 1 and 2, if feasible.		X				
Repair and resurface parking area.		X				
Remove excess vegetation near entrance.		X				
Indian Bar Rafter Access - Heavy maintenance to be conducted in conjunction with enhancements.						
Repair or install new information board near entrance to parking area.		X				
Replace poor condition "no parking" signs.		X				
Dolly Creek Water Supply (French Meadows North Shore Water System)						
Replace entire infrastructure including valves (<i>priority Project according to FS</i>).			X			
French Meadows Campground Water Supply (French Meadows South Shore Water System).						
Replace entire infrastructure including valves.						X

REC Plan Table 4. Facility Modifications and Enhancements to be Completed within the First Six Years of License Issuance.

Location and Activity	Years After License Issuance					
	1	2	3	4	5	6
Removal, Reduction and Consolidation of Select Project Recreation Facilities						
Hell Hole Campground (Reduction)						
Remove tables, concrete and steel grills, fire pits, and site markers from Sites 5 and 6.		X				
Install post and rail barrier to delineate the southeast boundary of Hell Hole Campground.		X				
Upper Hell Hole Campground (Removal)						
Remove all tables, fire rings, masonry stoves, and user-created fire rings from sites 1-13.		X				
Remove pit toilets 1, 2, 3 and 4 and restore surface area to natural conditions.		X				
Remove existing signage, information boards, and frames.		X				
Poppy Campground (Reduction)						
Remove all tables, fire rings, stoves, and user-created fire rings from sites 6, 9, 11 and 12.		X				
Ralston Picnic Area (Reduction)						
Remove table, pedestal grill, and signage from Site 5.		X				
Poppy Campground Trailhead Parking Area and McGuire Boat Ramp Parking Areas (Consolidation)						
Remove Poppy Campground Trailhead Parking Area and Poppy Campground Trailhead Parking Area Road.				X		
Install barrier rock at the entrance to the Poppy Campground Parking Area Road to prohibit vehicle use.				X		
Treat the surface of the road and the parking area to allow for revegetation.				X		
Remove the wood toilet building located at the southeast end of the parking area.				X		
Replace the vault toilet building located adjacent to the French Meadows North Shore Access Road with a pre-fabricated, assessable vault bathroom.				X		
Relocate the existing water faucets to a more centralized and accessible location. Install water faucets with accessible drains. and handles.				X		
Extend Poppy Trail to one of the McGuire Boat Ramp Parking Areas.				X		
Relocate trailhead signage and information boards.				X		
Conversion of Select Project Recreation Facilities						
McGuire Picnic Area and Beach (Conversion to Group Campground)						
Remove the steel buoys and identification signs adjacent to McGuire Beach.				X		
Remove the changing pavilion located along pathway to beach.				X		
Remove all heavy wood picnic tables and concrete/steel cooking grills from all ten of the existing picnic sites.				X		
Construct two separate 25 PAOT group sites in the areas that were previously occupied by picnic sites.				X		
Convert the wood bathroom located on the south east end of the parking lot to meet current design and accessibility standards.				X		
Remove the bathroom located along the trail to the beach and replace with an accessible pre-fabricated vault toilet building.				X		
Convert the existing faucets located adjacent to each of these bathrooms to meet accessibility standards.				X		
Repair, resurface and stripe parking area for group use.				X		
Replace and/or install new signage and information boards for group use.				X		

REC Plan Table 4. Facility Modifications and Enhancements to be Completed within the First Six Years of License Issuance (continued).

Location and Activity	Years After License Issuance					
	1	2	3	4	5	6
Enhancement of Select Project Recreation Facilities						
Ahart Campground						
Install vertical well and hand pump.			X			
Pave campground roads and spurs.			X			
Pave Forest Road 96 from the end of the existing pavement, northeast to a point approximately 200 feet past Ahart Campground.			X			
Indian Bar Rafter Access						
Either install an additional accessible vault toilet or modify the existing CXTs to accommodate peak use.		X				
Install powered ventilation systems in the existing CXTs.		X				
Repair and potentially relocate the existing boat ramp.						
Install a raft slide ramp near the existing ramp.		X				
Install a changing pavilion.		X				
French Meadows Boat Ramp						
Extend boat ramp.						X ¹
Hell Hole Boat Ramp						
Extend boat ramp.						X ²
Install rip rap and retaining walls, if necessary.						X ²
Improvements to Select Dispersed Concentrated Use Areas						
Duncan Creek Diversion Area						
Install a single-unit vault, accessible, pre-fabricated concrete toilet.			X			
Install barrier rocks around the perimeter of the Duncan Creek dispersed concentrated use area to limit vehicle use and camping to specific areas.			X			
Install one, 2-bin, bear resistant garbage container.			X			
Ralston Afterbay Sediment Removal Access Point						
Delineate the boat ramp and parking area with barrier rocks or other barrier devices.		X				
Grade the ramp to remove large cobbles and rocks.		X				
Install signage and barriers to limit parking.		X				
Install signage directing visitors to the Ralston Afterbay Picnic Area for additional parking.		X				
Measures to Enhance Project Recreation Opportunities						
Dissemination of Real-Time Flow and WSE Information						
Install gages, where needed.		X				
Install telemetry equipment, where needed.		X				
Develop or update PCWA web site to include real-time flow information and associated information and links.		X				
Recreation Opportunity Marketing Information						
Develop and distribute GIS-base maps.		X				
Develop and begin distributing recreation brochures.		X				
Fish Stocking						
Identify fish species and size class stocking targets.	X					
Begin stocking reservoirs.		X				
Trail-Related Enhancements						
Develop and install GIS-based maps.	X					
Develop and install trailhead markers at select locations.	X					

¹French Meadows Boat Ramp will be extended when the reservoir is drawn down to below 5,165 feet during the fall (September-October).

²Hell Hole Boat Ramp will be extended when the reservoir is drawn down to below 4,475 feet during the fall (September - October).

REC Plan Table 5. Resource Protection Measures for Activities Identified in the Recreation Plan.

	Routine Maintenance of Project Recreation Facilities		Removal, Reduction, and Consolidation of Project Recreation Facilities					Facility Conversion	Enhancement of Project Recreation Facilities				Improvements to DCUAs	
	Annual Maintenance	Heavy Maintenance	Upper Hell Hole Campground (Remove 13 Sites and Associated Campground Amenities)	Poppy Campground (Remove 4 sites)	Ralston Afterbay Picnic Area (Remove Site 5 and trail.)	Hell Hole Campground (Remove two sites)	Poppy Campground and McGuire Boat Ramp Parking Areas (Consolidate)		McGuire Picnic Area (Convert from Picnic Area to Group Campground)	Ahart Campground (Install well and hand pump, pave roads)	Indian Bar Rafter Access (Install new amenities, including power for CXT ventilation.)	Hell Hole Boat Ramp (Extend boat ramp)	French Meadows Boat Ramp (Extend boat ramp)	Duncan Creek Diversion Area (Install bathroom, garbage containers, and barriers rocks)
Road and Building Site Construction BMPs														
Timing of Construction Activities (Practice 2-3): This BMP requires project proponents to minimize erosion by conducting operations during periods of minimal runoff.														
The Licensee will conduct construction activities within the minimal runoff periods (i.e., during the dry season or when rain and runoff are unlikely, typically during the summer or fall).		X	X	X	X	X	X	X	X	X	X	X	X	X
Construction activities will be scheduled to minimize erosion and sedimentation.		X	X	X	X	X	X	X	X	X			X	X
The amount of area being graded at any one time will be limited and the amount of time that the area is bare will be limited.		X					X	X	X	X			X	X
Construction of drainage facilities or other work to control erosion or sedimentation will be required in conjunction with earthwork.		X					X	X	X	X			X	
Timely Erosion Control Measures on Incomplete Roads and Stream Crossing Projects (Practice 2-9): This BMP requires minimizing erosion and sedimentation from disturbed ground on incomplete projects.														
The Licensee will apply protective measures to all areas of disturbed, erosion-prone, unprotected ground that is not to be further disturbed in the present year.		X	X	X	X	X	X	X	X	X			X	X
Other prevention measures include the installation of structures such as temporary culverts, flumes, cross drains, diversion ditches, energy dissipaters, dips, sediment basins, berms, debris racks, or other facilities to prevent erosion.		X	X		X					X			X	
Servicing and Refueling of Equipment (Practice 2-12): This BMP requires implementation of measures to prevent pollutants (e.g., fuels, lubricants, or other hazardous materials) from being discharged into river, streams, or impoundments.														
A designated fueling site, if necessary, will be established outside of the reservoir or diversion. Absorbent spill clean-up materials and spill kits will be available to absorb small spills. All used absorbent materials will be properly disposed.		X	X	X	X	X	X	X	X	X	X	X	X	X
Temporary fuel tanks will have adequate local containment consisting of berms and plastic sheeting to protect against accidental spills or leaks.		X	X	X	X	X	X	X	X	X	X	X	X	X
A spill response kit will be maintained at each site.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
If any accidental releases of sediment, fuels, or oil occur, immediate containment and cleanup will be implemented, and resource agencies notified in accordance with project permits.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
If fuel spills on the soil of the reservoir bed, the soil will be removed from the reservoir and properly disposed.		X									X	X		X
Hazardous waste products such as grease cartridges and oil absorbents will be placed in proper containers and transported from the job site to an authorized Hazardous Waste Collections Site.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
All equipment will be thoroughly cleaned of dirt, grease, etc., prior to entering the National Forest, and will be inspected to ensure that is in proper functioning condition. All suspect hoses and hydraulic lines will be replaced prior to entering the National Forest.		X	X	X	X	X	X	X	X	X	X	X	X	X
Control of Construction and Maintenance Activities to SMZs (Practice 2-13): This BMP requires water quality protection activities to occur when construction and maintenance activities occur in stream management zones (SMZs).														
The Licensee will keep construction and maintenance fills, sidecast, and end haul materials will be kept out on the SMZs except at designated sites to minimize impacts to the aquatic environment.		X			X					X	X		X	X
Surface Erosion Control at Facility Sites (Practice 2-28): This BMP requires a reduction in the amount of surface erosion at developed sites and the amount of soil entering streams.														
Erosion control methods will be implemented to keep soil in place including applying grass seed, erosion blankets, tackifiers, hydromulch, paving or rocking of roads, water bars, cross drains, or retaining walls.							X	X	X				X	X
Natural drainage patterns will not be changed. Sediment basins and sediment filters will be established to filter surface runoff and division ditches and berms could be built to divert surface runoff around bare areas.		X					X	X	X				X	X
Recreation-Related BMPs														
Provide Safe Drinking Water Supplies (Practice 4-2): This BMP ensures safe drinking water at Forest Service facilities such as campgrounds, picnic grounds, trailheads, and developed roadside facilities.														
Preventive measures (location, construction, operation and maintenance) will be taken to minimize the possibilities of contamination of the water supply system.	X	X				X	X	X	X			X		
Control of Sanitation Facilities (Practice 4-4): This BMP protects surface and subsurface water from bacteria, nutrients, and chemical pollutants resulting from sewage at Forest Service sites.														
Sanitation facilities will be planned, located, designed, constructed, operated, inspected and maintained to minimize the possibility of contamination of water.		X					X	X		X			X	
Protection of Water Quality Within Developed and Dispersed Recreation Areas (Practice 4-9): This BMP protects water quality by regulating the discharge and disposal of potential pollutants.														
The licensee will prohibit the placement of substances that may degrade water quality in or near a stream, lake or other water body. Prohibited items include human and animal waste, petroleum products, other hazardous substances and sediment eroded from the site.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fire Prevention and Suppression Avoidance and Protection Measures														
The contractor, its employees, and subcontractors and their employees, will make all reasonable efforts to prevent and suppress wild fires, and will exercise diligence in protecting from damage the land and property of the United States.		X	X	X	X	X	X	X	X	X	X	X	X	X
No burning of any kind will occur as part of heavy facility maintenance, recreation facility modification, and construction of new facilities.		X	X	X	X	X	X	X	X	X	X	X	X	X
Fire Prevention and Suppression Avoidance and Protection Measures (continued)														
The following fire equipment will be on site at all times: One shovel, one axe and one fire extinguisher UL rated at 4 BC or more on each truck, personnel vehicle, tractor, grader, and any other heavy equipment used.														
One shovel and on back-pack five gallon water filled tank with pump with each welder. One shovel and one chemical pressurized fire extinguisher (fully charged) located at a point no greater than a distance of 25-feet from the work site, for each gasoline powered tool, including but not limited to chain saws, rock drills, etc.		X	X	X	X	X	X	X	X	X	X	X	X	X

REC Plan Table 5. Resource Protection Measures for Activities Identified in the Recreation Plan (continued).

	Routine Maintenance of Project Recreation Facilities		Removal, Reduction, and Consolidation of Project Recreation Facilities					Facility Conversion	Enhancement of Project Recreation Facilities				Improvements to DCUAs	
	Annual Maintenance	Heavy Maintenance	Upper Hell Hole Campground (Remove 13 Sites and Associated Campground Amenities)	Poppy Campground (Remove 4 sites)	Ralston Afterbay Picnic Area (Remove Site 5 and trail.)	Hell Hole Campground (Remove two sites)	Poppy Campground and McGuire Boat Ramp Parking Areas (Consolidate)		McGuire Picnic Area (Convert from Picnic Area to Group Campground)	Ahart Campground (Install well and hand pump, pave roads)	Indian Bar Rafter Access (Install new amenities, including power for CXT ventilation.)	Hell Hole Boat Ramp (Extend boat ramp)	French Meadows Boat Ramp (Extend boat ramp)	Duncan Creek Diversion Area (Install bathroom, garbage containers, and barriers rocks)
Air Quality Measures														
Fugitive Dust Reduction Measures														
Require contractors to comply with provisions of the Placer County Air Pollution Control District Rule 228 - Fugitive Dust, including Section 300 limits on visible emissions, PM ₁₀ concentrations, track-out onto paved public roadways, and other applicable requirements.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Stabilize unpaved areas subject to vehicle traffic by watering, treating with a non-toxic chemical dust suppressant, or covering.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Limit the speed of any vehicles and equipment traveling across unpaved areas no more than 15 miles per hour unless the road surface and surrounding area is sufficiently stabilized.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Stabilize storage piles and disturbed areas not subject to vehicular traffic by keeping wet, treating with a non-toxic chemical dust suppressant, or covering when material is not being added to, or removed from, the pile.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Prior to any ground disturbance, including grading, excavating, and land clearing, apply sufficient water to the area to be disturbed to limit dust and minimize emissions from crossing the boundary line.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Clean construction vehicles leaving the site to prevent dust, silt, mud, and dirt, from being released or tracked offsite.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Remove significant accumulations of mud or dirt from paved, public streets at the end of each work day using wet sweeping or a HEPA filter equipped vacuum device. Do not use blower devices.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Suspend grading and earthmoving operations if wind speeds are high enough to result in dust emissions crossing the boundary line, despite the application of dust mitigation measures.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Prevent spillage from materials transported off-site by either covering with tarps, or wetting loads such that the material does not touch the front, back, or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
If any naturally occurring asbestos, ultramafic rock, or serpentine is disturbed: (1) wash all equipment before moving from the property onto a paved public road, and (2) upon completion of the project, stabilize disturbed surfaces using one or more of the following methods: (a) establishment of a vegetative cover; (b) placement of at least one foot of non-asbestos-containing material, or (c) paving.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Diesel Emissions Reduction Measures														
Depending on equipment availability, require that all diesel construction engines with a rating of 50 horsepower or greater meet, at a minimum, the Tier 2 California emission standards for off-road engines (13 CCR 2423 per 40 CFR 89.112).	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Require contractors to limit idling of construction vehicles and equipment on site to 15 minutes or less, unless idling is necessary for effective work progress or equipment operation.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Require contractors to maintain construction equipment in proper working order, and in accordance with manufacturer specifications.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Fuel Emissions Measures														
Comply with the use of ultra-low sulfur diesel fuel for all construction equipment, as required by the state of California, to minimize diesel particulate matter emissions.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Biological Resource Avoidance and Protection Measures														
Vegetation and Noxious Weed Management Measures														
Revegetation and seeding will be implemented consistent with measures outlined in the VIPMP.		X	X	X	X	X	X	X	X	X			X	
The Licensee will implement measures to prevent the introduction or spread of noxious weeds during implementation as defined in the VIPMP.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Riparian Measures														
Riparian vegetation will not be removed or destroyed. If it is determined that riparian vegetation must be removed, the Licensee will consult with USDA-FS and CDFG.	X	X	X	X	X	X				X			X	X
Special-Status Plant Measures														
If a new special-status plant population that could be affected by heavy maintenance, facility modification, or new facility construction is detected during required inventory (baseline) surveys, the Licensee will consult with USDA-FS, USFWS, and CDFG, as appropriate, to determine a site-specific protective buffer around the population considering the special-status plant species, location of the population, and topography of the site.		X	X	X	X	X	X	X	X	X			X	
Stebbins' Phacelia Site-Specific Measures														
The Licensee will implement measures to protect Stebbins' phacelia (PHST) populations. Population specific measures are provided below:														
Hell Hole Campground: Heavy maintenance activities will not occur within 50 feet of PHST population HH09. Plants will be avoided during site removal activities.	X	X				X								
Upper Hell Hole Campground: Site removal activities will not occur within 50 feet of PHST populations HH36-38.			X											
Hell Hole Vista: Heavy maintenance activities will be restricted to the area necessary for public use of the vista (i.e., developed pathway, picnic site, viewing area, and parking lot.)	X	X												
Hell Hole Boat Ramp General Parking Area: Heavy maintenance activities within 50 feet of PHST population HH07 will be restricted to developed parking area and adjacent shoulder.	X	X												

REC Plan Table 5. Resource Protection Measures for Activities Identified in the Recreation Plan (continued).

	Routine Maintenance of Project Recreation Facilities		Removal, Reduction, and Consolidation of Project Recreation Facilities					Facility Conversion	Enhancement of Project Recreation Facilities				Improvements to DCUAs	
	Annual Maintenance	Heavy Maintenance	Upper Hell Hole Campground (Remove 13 Sites and Associated Campground Amenities)	Poppy Campground (Remove 4 sites)	Ralston Afterbay Picnic Area (Remove Site 5 and trail.)	Hell Hole Campground (Remove two sites)	Poppy Campground and McGuire Boat Ramp Parking Areas (Consolidate)	McGuire Picnic Area (Convert from Picnic Area to Group Campground)	Ahart Campground (Install well and hand pump, pave roads)	Indian Bar Rafter Access (Install new amenities, including power for CXT ventilation.)	Hell Hole Boat Ramp (Extend boat ramp)	French Meadows Boat Ramp (Extend boat ramp)	Duncan Creek Diversion Area (Install bathroom, garbage containers, and barriers rocks)	Ralston Afterbay Sediment Access Point (Install barrier rock and signage.)
Biological Resource Avoidance and Protection Measures (continued)														
Raptor Measures														
The Licensee will implement the following measures to avoid disturbance of special-status raptor nests during implementation of periodic maintenance or non-routine special projects that require ground disturbing activities or hazard tree removal:														
– Ground disturbing construction activities will not be conducted within 500 feet of an active raptor nest during the non-breeding season for raptors (February 15 through September 15).														
– If ground disturbing and construction activities must occur during the breeding season, a pre-construction survey shall be conducted by a qualified biologist to determine if there are active nests present. The survey shall be conducted no more than 30 days prior to implementation of the activity.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
– If the biologist determines that the area surveyed does not contain any active nests, then activities may be implemented.														
– If active raptor nests are found, activities shall not occur within 500 feet of an active nest until the end of the breeding season or until the Licensee receives written authorization from resource agencies to proceed.														
Cultural Resource Avoidance and Protection Measures														
The Licensee will implement measures for the protection of cultural resources consistent with the Historic Properties Management Plan (HPMP).	X	X	X	X	X	X	X	X	X	X	X	X	X	X

REC Plan Table 6. Example Travel Time Matrix.

Release Time	Indian Bar Rafter Access	OXB Gage	Fords Bar	Ruck-a-Chucky	Poverty Bar	Mammoth Bar	Confluence	Birdsall Access	Oregon Bar Access
12:00 AM	12:00 AM	12:30 AM	4:04 AM	6:03 AM	7:13 AM	8:53 AM	9:44 AM	11:12 AM	11:52 AM
2:00 AM	2:00 AM	2:30 AM	6:04 AM	8:03 AM	9:13 AM	10:53 AM	11:44 AM	1:12 PM	1:52 PM
4:00 AM	4:00 AM	4:30 AM	8:04 AM	10:03 AM	11:13 AM	12:53 PM	1:44 PM	3:12 PM	3:52 PM
6:00 AM	6:00 AM	6:30 AM	10:04 AM	12:03 PM	1:13 PM	2:53 PM	3:44 PM	5:12 PM	5:52 PM
8:00 AM	8:00 AM	8:30 AM	12:04 PM	2:03 PM	3:13 PM	4:53 PM	5:44 PM	7:12 PM	7:52 PM
10:00 AM	10:00 AM	10:30 AM	2:04 PM	4:03 PM	5:13 PM	6:53 PM	7:44 PM	9:12 PM	9:52 PM
11:00 AM	11:00 AM	11:30 AM	3:04 PM	5:03 PM	6:13 PM	7:53 PM	8:44 PM	10:12 PM	10:52 PM
12:00 PM	12:00 PM	2:04 PM	4:04 PM	6:03 PM	7:13 PM	8:53 PM	9:44 PM	11:12 PM	11:52 PM
2:00 PM	2:00 PM	2:30 PM	6:04 PM	8:03 PM	9:13 PM	10:53 PM	11:44 PM	1:12 AM	1:52 AM
4:00 PM	4:00 PM	4:30 PM	8:04 PM	10:03 PM	11:13 PM	12:53 AM	1:44 AM	3:12 AM	3:52 AM
6:00 PM	6:00 PM	6:30 PM	10:04 PM	12:03 AM	1:13 AM	2:53 AM	3:44 AM	5:12 AM	5:52 AM
8:00 PM	8:00 PM	8:30 PM	12:04 AM	2:03 AM	3:13 AM	4:53 AM	5:44 AM	7:12 AM	7:52 AM
10:00 PM	10:00 PM	10:30 PM	2:04 AM	4:03 AM	5:13 AM	6:53 AM	7:44 AM	9:12 AM	9:52 AM
12:00 AM	12:00 AM	12:30 AM	4:04 AM	6:03 AM	7:13 AM	8:53 AM	9:44 AM	11:12 AM	11:52 AM
Distance	0	1.25	10.15	15.13	18.05	22.20	24.35	28.00	29.65
Travel Time (hour:min)	0	0:30	4:04	6:03	7:13	8:53	9:44	11:12	11:52

Note: Travel time is 2.5 mph and assumes a base flow of 200 cfs and a peak flow of 1,000 cfs.
 Travel time is faster when either base flow or peak flow increases.

REC Plan Table 7. Historical Fish Stocking Records for Hell Hole Reservoir.

Year	Brown Trout		Kokanee	
	Number	Fish per Pound	Number	Fish per Pound
2001	6,380	2.2	26,600	266
2002	8,100	2.7	25,272	312
2003	7,500	2.5	24,960	192
2004	4,200	2.1	22,275	135
2005	4,400	2.2	25,000	520
2006	3,600	1.8	14,350	128
2007	3,800	1.9	16,416	456
2008	4,700	1.7	37,950	154
2009	7,200	2.4	28,272	114
Average	5,542	2.2	24,566	253

REC Plan Table 8. Historical Fish Stocking Records for French Meadows Reservoir.

Year	Rainbow Trout		Eagle Lake Trout	
	Number	Fish per Pound	Number	Fish per Pound
2001	10,050	2.0		
2002	12,500	1.8	4,000	2.0
2003	9,700	1.9		
2004	5,200	1.7		
2005	5,500	1.8		
2006	5,900	2.0		
2007	7,200	1.8	1,500	1.5
2008	12,800	2.6		
2009	20,300	2.9		
Average	9,906	2.1	611	1.8

MAPS