

Study 8.1

RECREATION USE AND VISITOR SURVEYS

August 2011

1.0 Project Nexus

Yuba County Water Agency's (YCWA or Licensee) continued operation and maintenance (O&M) of the existing Yuba River Development Project (Project) has the potential to affect recreational resources.

2.0 Resource Management Goals of Agencies with Jurisdiction Over the Resource to be Studied

YCWA believes that three agencies have jurisdiction over recreation in the geographic area included in this study proposal: 1) the United States Department of Agriculture, Forest Service (Forest Service) on National Forest System (NFS) land; 2) United States Department of Interior, National Parks Service (NPS); and 3) California Department of Fish and Game (CDFG). Each of these agencies and their jurisdiction and management direction, as understood by YCWA at this time, is discussed below.

Forest Service

The Forest Service's jurisdiction and applicable management goals are described by the Forest Service from page 59 to 76 in the Forest Service's March 2, 2011 letter to FERC providing the Forest Service's comments on YCWA's Pre-Application Document, or PAD (YCWA 2010). The Forest Service's jurisdiction and management goals are not repeated here.

NPS

NPS's jurisdiction and goals are described by the NPS in the NPS's March 4, 2011 letter to FERC providing the NPS's comments on YCWA's PAD. NPS's jurisdiction and management goals are not repeated here.

CDFG

CDFG's jurisdiction is described by CDFG on page 1 of CDFG's March 2, 2011 letter to FERC providing CDFG's comments on YCWA's PAD. CDFG's goal, as described on page 2 of CDFG's letter is to preserve, protect, and as needed, to restore habitat necessary to support native fish, wildlife and plant species.

3.0 Existing Information and Need for Additional Information

A description, in detail, of the existing Project recreation facilities and opportunities at the Project's only storage reservoir, New Bullards Bar Reservoir, and other Project facilities and features is provided in Attachment 8.1A. Of significance, Section 7.8.4 of the Pre-Application

Document (PAD) summarizes Project recreation use with data on total visitation; developed campground site occupancy (*i.e.*, number of sites and percent of capacity); number of sites occupied at campgrounds; undeveloped shoreline camping permits; and an estimate of undeveloped recreation use at Our House and Log Cabin diversion dams. In addition, Section 7.8.3 of the PAD describes the recreation opportunities and facilities available in the North and Middle Yuba rivers upstream and downstream of the Project.

National Forest System (NFS) land administered by the United States Department of Agriculture Forest Service (Forest Service), as the Plumas National Forest (PNF) and the Tahoe National Forest (TNF), exists within the existing Federal Energy Regulatory Commission (FERC) Project Boundary¹ at New Bullards Bar Reservoir. All Project developed recreation facilities at New Bullards Bar Reservoir are located on NFS lands except for the Emerald Cove Marina and associated Cottage Creek boat launch facility, which are located on land owned by YCWA.

YCWA has transferred ownership of all of the Project recreation facilities at New Bullards Bar Reservoir on NFS land to the Forest Service based on a 1968 agreement between YCWA and the Forest Service. Based on this agreement, the Forest Service is fully responsible for the operation and maintenance of all the Project recreation facilities, except the Emerald Cove Marina and associated Cottage Creek facilities, including the repair, renewal and replacement to the same standard of recreational facilities during the original Project license (USDA-FS 1968). This 1968 agreement also allows the Forest Service to charge reasonable user fees at these facilities, which are deposited in the United States Treasury, and whenever the Forest Service declares that it is unable to perform its obligations of this agreement, then the Forest Service may use special use permits (SUP) to direct YCWA to take over operation and maintenance of any or all the recreation facilities (USDA-FS 1968). The Forest Service has entered into a Special Use Permit with YCWA. YCWA chose the Tahoe National Forest to maintain the facilities. The Forest Service operates and maintains all recreation facilities on NFS land; however, YCWA collects all recreation user fees (via concessionaire), which YCWA uses to reimburse the Forest Service for operation and maintenance costs as outlined in the 2009 annual operating agreement and 1991 collection agreement with the Forest Service (USDA-FS 2009, USDA-FS 1991).

Additional information collected within this study will be used to close the gaps in the existing information on what recreation users think about recreation opportunities, current use levels, and projected use for the term of the next license period on the Project.

4.0 Study Goals and Objectives

The goals of this Recreation Use and Visitor Survey Study are to 1) describe the preferences, attitudes, and characteristics of the Project's recreation users; and 2) collect information about current project recreational use and activities, and future demand for recreation activities.

¹ The FERC Project Boundary is the area that Licensee uses for normal Project operations and maintenance, and is shown on Exhibits J, K, and G of the current license.

The specific objectives for each goal are outlined below.

Goal 1 - Describe the Preferences, Attitudes, and Characteristics of the Project's Recreation Users

- Objectives are to:
 - Describe recreation visitors and their trip characteristics, including seasonality and access routes, by project recreation area and type of user (i.e. anglers, boaters, campers, and mountain bikers, etc.).
 - Describe user preferences and expectations of different recreation facilities at Project recreation areas, and their tolerances for various conditions, including water surface elevation; level and quality of interpretation and information; and assessment of the condition of recreation facilities.
 - Identify recreation issues such as safety, conflicts, crowding, wait times at boat launch areas as applicable, and instances of wildlife/human interactions.
 - Describe users' attitudes toward management actions that might be used to improve experiences or address problems at Project recreation areas.
 - Describe recreation visitors' activities (i.e., including primary activity and all activities engaged in while visiting) at Project recreation areas and sites.
 - Describe Project recreation visitors' socio-demographic characteristics.
 - Describe Project recreation visitors' public access and potential barriers to participation in recreation activities.
 - Describe area residents' recreation use in the Project Area.

Goal 2 - Collect Information About Current Project Recreational Activities and Future Demand for Activities

- Objectives are to:
 - Identify the amount, activity type, and spatial and temporal distribution of existing and desired recreation use within the Project, and, where reasonable and possible, describe historical recreation use trends within these areas.
 - Identify project-related recreation opportunities in the Project Vicinity² that may have substantial unmet demand.
 - Identify potential constraints or barriers to recreation use, in particular those potentially related to existing Project operations or management.
 - Roughly estimating future demand within the Project through the estimated term of the new license (30 to 50 years).
 - Assess the regional uniqueness and relative significance of the Project's primary recreation opportunities.

² For the purposes of this document, the Project Vicinity is defined as the area surrounding the Project on the order of a United States Geological Survey (USGS) 1:24,000 topographic quadrangle.

Goal 3 – Collect Information on Condition of Project Facilities, Impacts, and Accessibility

- Objectives are to:
 - Evaluate boat ramp usability based on the median reservoir level by water year type.
 - Evaluate accessibility at all developed facilities using FORSAG and ABAA.
 - Inventory resource impacts at developed recreation sites and recreation access areas referenced in Table 5.3.1-1).
 - Inventory trails and document impacts (erosion, user-created trails, etc.) within the Project Boundary.

5.0 Study Methods and Analysis

5.1 Study Area

For the purpose of this study, the study area encompasses the Project lands within area affected by the FERC Project³; and the Project-affected river reaches, which includes Oregon Creek, Middle Yuba River downstream of Our House Diversion Dam, North Yuba River downstream of New Bullards Bar Dam; and the Yuba River downstream of the confluence of the North and Middle Yuba rivers to Englebright Reservoir. Section 5.3 identifies the specific study sites for each study step. Each of the Project recreation facilities are described in detail including site capacities and types of site elements at each facility in Attachment 8-1A.

5.2 General Concepts and Procedures

The following general concepts and practices apply to the study:

- Personal safety is the most important consideration of each fieldwork team.
- Licensee will make a good faith effort to obtain permission to access private property where needed well in advance of entering the property.
- Field crews may make minor variances to the FERC-approved study in the field to accommodate actual field conditions and unforeseen problems. When minor variances are made, Licensee's field crew will follow the protocols in the FERC-approved study.
- When Licensee becomes aware of major variances to the FERC-approved study, Licensee will issue an e-mail to the Relicensing Contact List describing the variance and reason for the variance. Licensee will contact by phone the Forest Service (if the variance is on National Forest System land), USFWS, SWRCB and CDFG to provide an opportunity for input regarding how to address the variance. Licensee will issue an e-mail to the Relicensing Contact List advising them of the resolution of the variance. Licensee will summarize in the final study report all variances and resolutions.
- Licensee's performance of the study does not presume that Licensee is responsible in whole or in part for measures that may arise from the study.

³ The Federal Energy Regulatory Commission (FERC) Project Boundary is the area surrounding Project facilities and features as delineated in Exhibit J of the existing license, which area is required for Yuba County Water Agency's normal operation and maintenance of the Project.

- Global Positioning System (GPS) data will be collected using either a Map Grade Trimble GPS (sub-meter data collection accuracy under ideal conditions), a Recreation Grade Garmin GPS unit (3 meter data collection accuracy under ideal conditions), or similar units. GPS data will be post-processed and exported from the GPS unit into Geographic Information System (GIS) compatible file format in an appropriate coordinate system using desktop software. The resulting GIS file will then be reviewed by both field staff and Licensee's relicensing GIS analyst. Metadata will be developed for deliverable GIS data sets. Upon request, GIS maps will be provided to agencies in a form, such as ESRI Shapefiles, GeoDatabases, or Coverage with appropriate metadata, that is useful for interactive data analysis and interpretation. Metadata will be Federal Geographic Data Committee (FGDC) compliant.⁴ Licensee's field crews will record incidental observations of aquatic and wildlife species observed during the performance of this study. All incidental observations will be reported in the appropriate Licensee report (e.g., incidental observations of special-status fish recorded during fieldwork for the Special-Status Turtles – Western Pond Turtle Study will be reported in Licensee's Stream Fish Populations Study report). The purpose of this effort is not to conduct a focus study (i.e., no effort in addition the specific field tasks identified for the specific study) or to make all field crews experts in identifying all species, but only to opportunistically gather data during the performance of the study.
- Field crews will be trained on and provided with materials (e.g., Quat) for decontaminating their boots, waders, and other equipment between study sites. Major concerns are amphibian chytrid fungus, and invasive invertebrates (e.g., zebra mussel, *Dreissena polymorpha*). This is of primary importance when moving: 1) between tributaries and mainstem reaches; 2) moving between basins (e.g., Middle Yuba River, Yuba River, and North Yuba River); and 3) moving between isolated wetlands or ponds and river or stream environments.

5.3 Study Methods

The study methods will consist of six steps. These include: 1) an inventory and evaluation of the recreation facilities for condition, Americans with Disabilities Act (ADA) compliance, and use impacts; 2) identifying recreation uses and visitor attitudes, beliefs and preferences at Project recreation resource areas; 3) estimating the current recreation use at Project recreation resource areas; 4) identifying future use and demand opportunities; 5) a quality assurance/quality control (QA/QC) review of visitor and observation survey data; and 6) analyzing the data and preparing the report. Each of the steps is described below.

5.3.1 Step 1 –Evaluate the Existing Project Recreation Facilities, Roads, Trails, and Reservoir Shoreline

⁴ The Forest Service and CDFG each have requested that a copy of the GIS maps be provided to them when the maps are available.

5.3.1.1 Step 1A – Inventory and Evaluate the Condition, ADA Compliance and Use Impacts at the Existing Project Recreation Facilities

Specifically, this step will include four tasks: 1) a complete inventory of developed recreation facilities associated with the Project including campgrounds, boat launches, picnic areas, signs, and interpretive displays; 2) an assessment of the condition of each site element (i.e., tables, fire rings, restrooms, parking areas, water spigots, other structures, etc.) of the developed recreation facilities; 3) an assessment of whether each element complies with current ADA accessibility guidelines; and 4) an assessment of the use impacts at each recreation facility. YCWA will inventory all the Project recreation facilities and sites identified in Table 5.3.1-1. In addition, Table 5.3.1-1 also identifies the specific types of evaluations that YCWA will conduct at each facility/site (condition, ADA compliance, and/or use impact evaluations) as not all facilities will require each of these evaluations. Note that the Project recreation facility roads (access roads and circulation roads) and below ground water systems will be evaluated using different methods as described in Section 5.3.1.2 (Step 1B) below.

Table 5.3.1-1. Study sites for the inventory and evaluation of the condition, ADA compliance, and use impacts.

Resource Area	Facility Type	Recreation Facility	Types of Evaluations			
			Inventory	Condition	ADA	Use Impact
New Bullards Bar Reservoir	Campgrounds	Hornswoggle Group Campground	X	X	X	X
		Schoolhouse Campground	X	X	X	X
		Dark Day Campground	X	X	X	X
		Garden Point Boat-In Campground	X	X	X	X
		Madrone Cove Boat-In Campground	X	X	X	X
		Frenchie Point Boat-In Campground	X	X	X	X
		Cottage Creek Campground	X	X	X	X
		Cottage Creek Group Campground	X	X	X	X
		Burnt Bridge Campground ¹	X	X	X	--
	Day Use Areas	Dark Day Picnic Area	X	X	X	X
		Sunset Vista Point	X	X	X	X
		Dam Overlook	X	X	X	X
		Moran Road Day Use	X	X	X	X
	Boat Launches	Dark Day Boat Launch ²	X	X	X	X
		Cottage Creek Boat Launch and Marina	X	X	X	X
	Undeveloped Camping	Undeveloped Shoreline Camping Areas	X	X	--	X
Diversion Dams	Undeveloped Day Use Areas	Log Cabin Diversion Dam ⁴	X	--	--	X
		Our House Diversion Dam ⁴	X	--	--	X

¹ Burnt Bridge Campground is not currently open to the public. The facility has been closed since 1979, except for brief periods.

² The informal overflow parking area will not be evaluated for condition or ADA compliance since it is an informal facility. YCWA will evaluate the overflow for approx. size/capacity and use impact.

³ YCWA will inventory/evaluate these road per the road assessment methods in the Primary Project Roads and Trails study (Study 9-1).

⁴ These sites do not have any developed facilities so YCWA will not conduct condition or ADA compliance evaluations. YCWA will evaluate the sites for approx. parking size/capacity at the informal parking areas and use impacts.

5.3.1.1.1 Inventory Recreation Facilities

YCWA will inventory the number and type of recreation facilities at the Project recreation facilities listed in Table 5.3.1-1. Photographs will be taken as appropriate as either a representative photograph of similar facilities or of each one-of-a-kind facility. Facilities of interest include picnic sites, campsites, restrooms, parking areas/spaces, boat launch ramps, boat docks, and recreation signs.

All signs will be inventoried and each type of sign will be photographed and documented (e.g., type of sign, condition, text, location etc.). The content of signage will be checked for clarity, consistency, and appropriate and understandable wording. In addition (where applicable), YCWA will note incidental information in the vicinity of the developed recreation facilities such as user-created roads and approximate trail lengths; user created sites; available parking, and the number of informal fire rings. Representative photographs will be taken as appropriate. YCWA will use a basic inventory form (an example form is provided in Attachment 8.1B).

5.3.1.1.2 Facility Condition Assessment

YCWA will conduct a qualitative assessment of the condition of developed recreation facilities and signs at each of the facilities identified in Table 5.3.1-1. The assessment categories are poor, fair, good, and excellent condition. Table 5.3.1-2 provides evaluation criteria that will be used by type of recreation facility feature. YCWA will provide the individual condition ratings for each site element within a facility as well as an overall facility rating as part of the study technical memorandum.

Table 5.3.1-2. Facility site condition evaluation categories and criteria.

Variable (Site Element)	Condition Evaluation Categories and Criteria			
	1 – Poor Needs Immediate Rehabilitation	2 – Fair Rehabilitation required within 5 years.	3 – Good No rehabilitation required within the next 5-10 years.	4 – Excellent Rehabilitation required beyond 10 years.
Vehicle Spurs & Parking (condition of surface paving on vehicle spurs and parking areas)	All surfaces are in disrepair and need of immediate reconditioning or replacement. Current conditions create safety hazards.	Need for improved maintenance and repair in some areas. No major safety concerns.	All surfaces in good condition and well maintained.	New/recent surface paving. All surfaces in excellent condition and well maintained. Rehabilitation required beyond 10 years.
Recreation Site Element (condition of picnic tables, fire ring/grills, boat ramps, etc.)	Facilities require immediate repair or replacement. Little evidence of recent maintenance.	Some facilities damaged or in need of replacement. Could be accommodated through routine maintenance.	Facilities generally in good condition and well maintained.	Facilities in excellent condition (new or near new) and well maintained.
Recreation Site Buildings (condition of restrooms, maintenance buildings, and other structures)	Structures in disrepair requiring immediate attention. Significant rehabilitation likely. Problems could include rot, leaks, and sagging roofs.	Some structures need minor repairs, such as painting or replacement of roof/shingles. Repairs should be made, but are not needed immediately.	All structures appear in sound, well maintained condition. No significant problems observed.	New or near new structures. All structures in sound, well maintained condition.
Signs (presence/condition of project and recreation signs)	Signs do not exist or require immediate repair or replacement.	Some signs damaged or in need of replacement.	Signs generally in good condition and well maintained.	Signs in excellent condition (new or near new) and well maintained.

Based on the rating of each variable/site component in Table 5.3.1-2, an overall facility evaluation score will be calculated by summing the total of each of the site components at each facility. YCWA will categorize the overall facility condition using the rating scale, categories, and general rehabilitation timeframes in Table 5.3.1-3.

Table 5.3.1-3. Overall facility site condition evaluation ratings, categories, and general rehabilitation timeframes.

Overall Condition Rating Score ¹	Overall Condition Category	General Rehabilitation Timeframe ¹
1 to 3	Poor	Immediate
4 to 6	Fair	Within 5 Years
7 to 10	Good	5 to 10 Years
11 to 13	Excellent	More than 10 Years

¹These timeframes are not intended to be rigid, but rather guidelines. The purpose of these general timeframes is to understand where the Project recreation facilities rank in terms of rehabilitation priorities.

In addition, photographic documentation of some facilities (e.g., picnic tables, fire rings) will illustrate a representative range of conditions at each site. YCWA will use a condition form to evaluate each facility, and an example form is provided in Attachment 8.1B. The YCWA's use impact form has been used on other relicensings and may be modified based on review of existing information and field reconnaissance.

5.3.1.1.3 Accessibility Compliance Assessment

YCWA will assess the developed recreation facilities identified in Table 5.3.1-1 for their compliance with current accessible guidelines. For facilities on National Forest System (NFS) land, YCWA will use the Forest Service Outdoor Recreation Accessibility Guidelines (FSORAG) for accessible design. YCWA will invite the Forest Service personnel to participate in field assessments of these facilities. At the recreation facilities on NFS land (all project recreation facilities, except Cottage Creek Boat Launch), YCWA will use the current FSORAG. At facilities on YCWA land, YCWA will use the ADA and Architectural Barriers Act Accessibility Guidelines (ABAAG) developed by the United States Access Board (USAB 2004). Only three Project recreation facilities listed in Table 5.3.1-1 are located on YCWA land - Cottage Creek Boat Launch, Dam Overlook, and Madrone Cove Boat-In Campground. The remaining Project recreation facilities are located on NFS land.

YCWA will evaluate each facility against these standards and then utilize a rating system that categorizes the level of accessibility at each facility. YCWA will use the following three ratings: inaccessible, partially accessible and fully accessible. YCWA will assign a rating using the evaluation criteria in Table 5.3.1-4.

Table 5.3.1-4. Level of accessibility categories and rating system.

0 – Inaccessible	1 – Partially Accessible	2 - Accessible
Little or no consideration for handicap accessibility. Clearly not in compliance with FSORAG/ ABAAG standards.	Some handicap facilities, but in disrepair or not up to current FSORAG/ ABAAG standards (e.g., slopes too steep, docks inaccessible, etc.)	High quality of accessibility. Facilities appear fully consistent with current FSORAG/ ABAAG standards.

An example of the ADA accessibility compliance checklist for outdoor recreation facilities is contained in Attachment 8.1B, including an example of schematic guides to support the evaluations. These checklists will be modified to address the specific standards for each of applicable guidelines – FSORAG on NFS land or ABAAG on private/YCWA land – as needed. In addition, recreation facilities will be assessed for their ability to provide opportunities for persons with disabilities to participate in the Project’s primary recreation opportunities (including boating and camping). Notably, this form has been used on other relicensings and will be modified based on review of existing information and the availability of forms used by the FSORAG and ABAAG.

5.3.1.1.4 Assessment of Recreation Use Impacts

YCWA will also assess the recreation use impacts at each of the recreation facilities identified in Table 5.3.1-1. The recreation use impact evaluation at each facility is categorized as low, moderate, or high depending on the amount and dispersion of use impact signs (Table 5.3.1-5). Signs of use impact typically include the presence of litter, dumping, tree cutting, inadequate vegetation clearances around fire pits/rings, visible OHV use/tracks, trampled vegetation, erosion, human waste, toilet paper, etc.

Table 5.3.1-5. Recreation use impact categories and rating system.

0 – Low	1 – Moderate	2 - High
Few, if any signs of use impact are observed at each site	Several signs of use impact but not extensive or widespread impacts	Extensive signs of use impact; widespread use with many impacts evident

In some instances, selecting a single impact category may not be practical, and as a result, the impact level may span two categories (e.g., low-to-moderate or moderate-to-high). This broader categorization may be used when a site or facility has satellite areas where impact conditions vary significantly from the majority of the site/facility.

The form used to evaluate the recreation use impact and the impact parameters (included in Attachment 8.1B) has been used on other relicensing projects (Whitaker and Shelby 2001). Indicators of fire hazards will also be collected as part of the impact evaluation. As noted, YCWA’s use impact form (as adapted) has been used on other relicensings (Whitaker and Shelby 2001) and may be modified based on review of existing information.

5.3.1.2 Step 1B – Inventory and Evaluate the Condition of the Existing Recreation Facility Roads and Underground Water and Septic Systems

5.3.1.2.1 Recreation Facility Access and Circulation Roads

YCWA will evaluate the Project recreation facility access roads and circulation roads as identified in Table 5.3.1-5. Circulation roads are considered the roads within a recreation facility such as roads through a campground loop or to picnic sites within a picnic area. YCWA will inventory and evaluate each of these roads according to the methods for primary Project roads in the Primary Project Roads and Trails Study (Study 9-1). For this study step, five access roads have been identified that provide exclusive access to Project recreation facilities (Table 5.3.1-6). YCWA will inventory and evaluate only the portions of the access roads on YCWA and NFS lands, which excludes the Yuba County portions of these access roads. The facilities with circulation roads are also identified in Table 5.3.1-6. Note that campsite vehicle spurs are not included in this evaluation (see Step 1A).

Table 5.3.1-6. Recreation facility access and circulation road evaluation study sites.

Resource Area	Recreation Facility	Access Road	Circulation Road
New Bullards Bar Reservoir	Hornswoggle Group Campground	USFS Rd. 8.6	X
	Schoolhouse Campground	USFS Rd. 8.5	X
	Dark Day Campground	USFS Rd. 8.4 and 8.4.1	X
	Dark Day Picnic Area		X
	Dark Day Boat Launch		X
	Cottage Creek Campground	--	X
	Cottage Creek Group Campground	--	X
	Burnt Bridge Campground ¹	--	X
	Sunset Vista Point	USFS Rd. 8.9	--

5.3.1.2.2 Underground Water and Septic Systems

YCWA will inventory and describe the water and septic systems at each of the Project recreation facilities listed in Table 5.3.1-7. Specifically, YCWA will locate via GPS the key known above-ground components and provide estimates of the location of below-ground components of the water and septic systems on a map or schematic.

Table 5.3.1-7. Recreation facility underground water and septic system study sites.

Resource Area	Facility Type	Study Sites
New Bullards Bar Reservoir	Campgrounds	Hornswoggle Group Campground
		Schoolhouse Campground
		Dark Day Campground
		Cottage Creek Campground
		Cottage Creek Group Campground
	Day Use Areas	Dark Day Picnic Area

5.3.1.3 Step 1C –Evaluate the Developed Project Recreational Trails for Erosion and Use Impacts

YCWA will evaluate the Project’s developed recreation trails. YCWA will study the trails/trail segments identified in Table 5.3.1-8.

Table 5.3.1-8. Trail evaluation study sites at New Bullards Bar Reservoir.

Resource Area	Recreational Trail	Length (mi)	Start Location	End Location
New Bullards Bar Reservoir	Bullards Bar Trail	14.0	Sunset Vista Point	Old Camptonville Road
	Schoolhouse Trail	0.7	Schoolhouse Campground	Bullards Bar Trail
	Seven Ball Trail	1.0	Paved road off Marysville Road	Bullards Bar Trail
	Eight Ball Trail	3.8	Marysville Road	7 Ball Trail
	Rebel Ridge Trail	1.6	Marysville Road	Bullards Bar Trail
	Camptonville Road Trail	Unknown	Bullards Bar Trail	Old Camptonville Road

This step will include identification of erosion, other natural conditions that impact the integrity and function of the trail, and recreation use impacts along the trails in Table 5.3.1-7. YCWA will conduct field reconnaissance of the trails and identify locations where: 1) erosion is occurring within the trail boundary; 2) other conditions are impacting the integrity and function of the trail (e.g., downed trees, boulders, overgrown vegetation, etc.); and 3) recreation use impacts are observed. Where any of these three conditions are observed, YCWA will photograph the condition, map the location using a GPS device, and describe the condition.

The recreation use impact evaluation on each trail will be categorized as low, moderate, or high depending on the amount and dispersion of use impact signs and will follow the methods outlined in Step 1A and include completing the use impact evaluation form included in Attachment 8.1B (see methods for use impact in Step 1A, Section 5.3.1.1.3 – Assessment of Recreation Use Impacts). Signs of use impact typically include the presence of litter, dumping, tree cutting, inadequate vegetation clearances around fire pits/rings, visible OHV use/tracks, trampled vegetation, bare ground, compacted soils, erosion, human waste, toilet paper, etc. YCWA’s evaluation of the recreation use impacts.

5.3.1.4 Step 1D –Inventory and Evaluate the Use Impacts at Recurrent Dispersed Shoreline Recreation Use Locations Along New Bullards Bar Reservoir Shoreline

YCWA will inventory and evaluate the recurrent dispersed recreation use locations along the New Bullards Bar Reservoir shoreline within the FERC Project Boundary and outside of the Project developed recreation facilities. Specifically, this step includes identifying recurrent dispersed recreation use locations; and assessing the use impacts at the location.

YCWA will conduct a single field survey of the New Bullards Bar Reservoir shoreline by boat to identify locations that show signs of recurrent dispersed shoreline recreation use. YCWA will conduct the survey when the water level drops to a level where the shoreline camping is available and functional (at least 15 ft below normal maximum water surface elevation). When YCWA observes such a location, YCWA will conduct a land-based evaluation of the recreation use impacts at the location as outlined in Step 1A (Section 5.3.1.1.3 - Assessment of Recreation

Use Impacts) above, including completing the evaluation form (Attachment 8.1B). At each location, YCWA will photograph and map the location with a GPS device. YCWA will also identify any user-created trails adjacent to the identified recurrent recreation use sites.

5.3.2 Step 2 – Identify Recreation Uses and Visitor Attitudes, Beliefs, and Preferences at Project Recreation Resource Areas

YCWA will conduct observations and visitor surveys to gather information to address the study goals, objectives, and issues at each of the facilities/study sites listed in Table 5.3.2-1.

Regarding the Oregon Creek Day Use Area study site located on Oregon Creek at the confluence with the Middle Yuba River on NFS land, YCWA will conduct the same recreation use and visitor preference data using the observation and visitor surveys and methods detailed below. YCWA does not consider this site/facility to be a Project recreation facility as it is outside the FERC Project Boundary on a Project-affected river reach; however, YCWA, at the request of the Forest Service, has agreed to collect the recreation use and visitor preference data at this site. The results from this data collection will be provided as a supplement to the technical memorandum for this study.

Table 5.3.2-1. Study areas and sites for visitor and observation surveys.

Resource Area	Facility Type	Study Sites	Study Sub-Sites
New Bullards Bar Reservoir	Campgrounds	Hornswoggle Group Campground	Campsites
		Schoolhouse Campground	Campsites
		Dark Day Campground	Campsites
		Cottage Creek Campground	Campsites
		Cottage Creek Group Campground	Campsites
		Garden Point Boat-In Campground	Boat Launch Parking Areas ¹
		Madrone Cove Boat-In Campground	Boat Launch Parking Areas ¹
		Frenchie Point Boat-In Campground	Boat Launch Parking Areas ¹
	Shoreline Camping	Undeveloped Shoreline Camping	Boat Launch Parking Areas ¹
	Day Use Areas	Dark Day Picnic Area	Picnic sites
			Parking Area
		Sunset Vista Point	Picnic sites
			Parking Area
		Dam Overlook	Parking Area
		Moran Road Day Use	Parking Area
			Boat Ramp
			Shoreline
	Trailheads	Bullards Bar Trailheads	Sunset Vista Point
			Dark Day Picnic Area
			Old Camptonville Road
		Schoolhouse Trailheads	Schoolhouse Campground
		Seven Ball Trailhead	Paved road off Marysville Road (1.5 mi. from Hwy 49)
		Eight Ball Trailhead	Schoolhouse Campground
			Dark Day entrance road
			7 Ball Trail junction
			Marysville Road
		Rebel Ridge Trailhead	Marysville Road (0.5 mi. from Highway 49)
		Camptonville Road Trailhead	Old Camptonville Road (0.5 mi. from Marysville Road)

Table 5.3.2-1. (continued)

Resource Area	Facility Type	Study Sites	Study Sub-Sites
	Boat Launches	Dark Day Boat Launch	Parking Area (upper and lower)
			Boat Ramp
			Overflow Parking Area
		Cottage Creek Boat Launch	Parking Area
			Boat Ramp
Project Diversion Dams	Undeveloped Day Use Areas	Log Cabin Diversion Dam ²	Informal Parking Areas
			Shoreline
		Our House Diversion Dam ²	Informal Parking Areas
			Shoreline
Oregon Creek (non-project)	Developed Day Use Area	Oregon Creek Day Use Area ³	Picnic Areas (north and south)
			Parking Areas (north and south)

¹ YCWA will place mail-back windshield surveys at both boat launch facilities at the boat-in campgrounds to survey the visitors who use the boat-in campgrounds. In addition, YCWA will conduct limited on-site surveys at the boat-in campgrounds during the peak season.

² YCWA's surveyors will travel to the actual diversion dams and adjacent shoreline to conduct visitor and observation surveys.

³ YCWA does not consider this site/facility to be a Project recreation facility as it is outside the FERC Project Boundary on a Project-affected river reach; however, YCWA, at the request of the Forest Service, has agreed to collect the recreation use and visitor preference data at this site.

5.3.2.1 Observation Survey

During observation surveys, the YCWA surveyor will count and record the time, date, location, number of vehicles, vehicles with trailers and the type of trailer, vehicles with racks for boats, trailers, boats, people, day groups, overnight groups, and the types of recreation activities. The surveyor will also record the percent occupancy by location. Observations will be made, and recorded by site and area to include parking outside provided parking areas. This data will be used to identify the types of recreation activities visitors participate in at the Project. In addition, this data will also be used to calculate aspects of the Project recreation use estimate (Step 3 in Section 5.3.5). Once the counts are completed, the surveyor will also administer an on-site recreation visitor questionnaire survey to randomly selected recreation visitors (Section 5.3.4.5).

5.3.2.2 Visitor Survey

The visitor survey will collect visitor perceptions, attitudes, and satisfaction levels on current resource conditions (i.e. users' feelings towards current water or use levels), visitors' zip codes, user characteristics, recreational activities, recreation facility development, management concerns, and overall recreational experiences. Non-response bias will also be collected during visitor survey collection, whereby YCWA's surveyor will collect the following information from visitors who refuse to complete the survey – reason, observed activity, gender and age (if possible). For all survey efforts, the number of refusals will be recorded. The visitor survey at the land-based Project recreation facilities will be administered as an on-site survey or a mail-back windshield survey. In addition, YCWA will administer visitor surveys to houseboat users on New Bullards Bar Reservoir with a direct-mail survey to houseboat owners and separately to visitors who rented houseboats from the marina.

5.3.2.2.1 Types of Visitor Surveys

On-Site Visitor Survey

The on-site visitor survey will be administered at all sites where recreation visitors are readily visible and willing to participate at the Project diversion dam sites and New Bullards Bar Reservoir (e.g., campgrounds, picnic areas, boat launches, and trailheads). When visitors are not readily visible, YCWA will contact visitors via a windshield survey where vehicles are parked and visitors cannot be located, typically at boat launch facilities, trailheads at New Bullards Bar Reservoir; and shoreline access areas and locked gates such as at the diversion dams.

For the on-site survey, only members of a group who are 18 years or older will be asked to complete a survey. Recreation researchers will train surveyors on random selection techniques for choosing groups at a site and participants within groups, introduction strategies, recording, and tracking refusals. A target number of users to be surveyed during each period will be established based on target survey completions for the entire recreation season for each recreation area.

Mail-Back Windshield Visitor Survey

The mail-back windshield visitor survey will be administered at recreation sites where recreation visitors are not present, but their vehicles are. In these cases, a mail-back version of the visitor survey will be left on vehicle windshields with self-addressed envelopes and postage for convenient response and return. A survey packet of information will be left on the windshield and will include the survey, a self-addressed stamped envelope, and a cover letter which explains the purpose of the survey. YCWA will number each survey in order to track both on-site response and windshield response rates.

YCWA anticipates utilizing mail-back surveys at boat launch areas and trailheads. In addition, YCWA will utilize mail-back surveys at the boat launches to survey visitors using the boat-in campgrounds. In addition, YCWA will also conduct on-site surveys (boat to the campgrounds) two days per month (one weekday and one weekend day in June, July, and August (refer to *Sampling Frequency* section below for exact frequency). YCWA will carefully monitor the response rate from the boat-in campgrounds to determine if additional efforts need to be made at the boat-in campgrounds (e.g., conduct on-site surveys) to meet the survey targets.

Direct Mail Houseboat Owners and Renters Survey

Houseboat Owners. A visitor survey will be sent to all houseboat owners based within the Project. Names and addresses for houseboat owners will be obtained by YCWA in cooperation with the concessionaire. Completed mail surveys will provide information on user characteristics, recreational activities, Project visitation, concerns, and overall recreational experiences (See Attachment 8.1-D). Surveys will be mailed at various times to ensure a cross section of visits by houseboat owners throughout the peak season. The total population of houseboat owners will be randomly divided and twenty-five percent will be sent a survey during June, July, August, and September.

Houseboat Renters. A visitor survey will be sent to houseboat renters who agree to complete a survey after their rental experience at the Project. Names and addresses for houseboat renters will be obtained by YCWA in cooperation with the concessionaire at Emerald Cove Marina. Completed mail surveys will provide information on user characteristics, recreational activities, Project visitation, concerns, and overall recreational experiences. Surveys will be sent through the mail each week, depending upon the date of rental and the number of renters who agreed to participate in the survey⁵.

Both direct mail house boat surveys will be conducted in accordance with standard mail survey methodology (Dillman 1978), which includes the use of a mail survey packet. This packet will include a self-addressed, stamped envelope; instructions and cover letter; and mail survey form. A letter will be sent on behalf of YCWA introducing the survey effort to each houseboat owner/renter. Approximately one week following the letter of introduction, the mail survey packet will be sent. Each survey will be numbered for tracking purposes. If YCWA does not receive the survey back from the houseboat owner/renter within one week, then YCWA will send a reminder follow-up postcard approximately one week after the first mailing; and a second letter and survey three weeks after the first mailing depending on response.

5.3.2.2.2 Visitor Survey Development

The visitor survey will address the study objectives identified in Section 4.0. Survey topics will address items such as visitors' perceptions of the following:

- existing and desired recreation facilities
- reservoir water levels on experience
- satisfaction with shoreline access and opportunities
- comparison of project recreation resource area to other regional recreation resource areas that provide similar recreation opportunities
- personal safety
- crowding
- conflict
- visitor's actual and desired primary destination and activities
- actual and desired activities
- constraints or barriers to participation that are potentially within YCWA's or agencies control (e.g. lawlessness, trail conditions, campfire use, private property conflict and trespass, parking access and fees)
- ways to enhance their recreation experience

The draft of the survey instrument is provided in Attachment 8.1C at the end of the study plan. The survey content will be refined in consultation with Relicensing Participants based on project-related issues identified in the PAD and FERC's Project's Scoping Document. Prior to survey implementation, the survey instrument will be pre-tested in the field with recreation users,

⁵ One survey for both houseboat owners and renters will be utilized, only the distribution will vary, as noted above.

and, refined for clarity, if necessary. The pre-test will include a total of 10 to 15 completed surveys, with the intent to receive feedback on readability, length, and general understanding of survey content. If necessary, minor changes to the survey instrument may be made to make the survey easier to complete and/or understand.

5.3.2.2.3 Field Reconnaissance, Logistics and Preparation

This task will involve logistical preparation for existing use data collection, including: developing draft data forms and associated databases; developing field work logistics and protocols; field crew training; selection of sampling dates; pre-testing field logistics and protocols, and revising schedules, logistics, or protocols based on preliminary findings.

5.3.2.3 Sampling Approach and Data Collection

5.3.2.3.1 Target Number of Visitor Surveys

YCWA is targeting two distinct survey populations (day users and overnight users) that make up the overall Project recreation use. YCWA is basing the target number of visitor surveys on these two survey populations which stems from the 2009 recreation use data. Overall, in 2009, the total Project recreation use was 128,191 Recreation Days (RDs). When comparing day use versus overnight use, day use accounted for 57 percent or 71,108 RDs of the total Project use; and overnight use accounted for 43 percent or 54,083 RDs. Using a 95 percent confidence interval with a sampling error no more than +/-5 percent, YCWA's target number of surveys for each sample population is 381 surveys (762 total surveys) (Salant and Dillman 1994, pp. 55-56). Since it is not apparent how varied the Project sample population is in its response to various questions, YCWA will use a more conservative sampling approach that utilizes a "50/50 split," which means the sample population is relatively varied. A result of this "50/50 split" approach means YCWA will have a higher survey sample size than if it was apparent that the sample population was less varied (i.e. an "80/20" split whereby most people have a certain characteristic and a few do not). Thus, since the "split" is not known ahead of time, the best approach is to be conservative and use the "50/50 split" (Salant and Dillman 1994, pp. 55-56).

To determine the target number of surveys for each study site, YCWA first divided the facilities into overnight and day use facilities in the same manner that the 2009 recreation use data was collected. Thus, all of the campgrounds and shoreline camping areas were considered overnight facilities and the remaining facilities were considered day use facilities (boat launches, day use areas, and trails/trailheads. Thus, for the day use and overnight facilities, the target number for each study site (facility) was calculated by multiplying the percentage of day use or overnight use by the total target surveys for each sample population (381 surveys). Since some of the study sites did not have recreation use data specific to that site, YCWA made reasonable judgments about the target number of surveys. Of note, the minimum number of target surveys for any site was 10 surveys. Table 5.3.2-2 displays the target number of surveys for each study site.

Table 5.3.2-2. Target number of visitor surveys for each study site.

Resource Area	Resource Type	Study Site	Open Season	Target Number of Surveys
New Bullards Bar Reservoir	Campgrounds	Hornswoggle Group Campground	Apr 15–Oct 15	66
		Schoolhouse Campground	Apr 15–Oct 15	165
		Dark Day Campground	Apr 15–Oct 15	35
		Cottage Creek Campground	Apr 15–Oct 15	10
		Cottage Creek Group Campground	Apr 15–Oct 15	10
		Garden Point Boat-In Campground ¹	Apr 15–Oct 15	40
		Madrone Cove Boat-In Campground ¹	Apr 15–Oct 15	15
		Frenchie Point Boat-In Campground ¹	Apr 15–Oct 15	10
	Shoreline Camping	Undeveloped Shoreline Camping Areas ^{1,2}	Apr 15–Oct 15	30
	Day Use Areas	Dark Day Picnic Area	Apr 15–Oct 15	20
		Sunset Vista Point	Year-round	10
		Dam Overlook	Year-round	10
		Moran Road Day Use	Year-round	10
	Trailheads ⁴	Bullards Bar Trailheads	Year-round	35
		Schoolhouse Trailhead	Year-round	
		Seven Ball Trailhead	Year-round	
		Eight Ball Trailheads	Year-round	
		Rebel Ridge Trailhead	Year-round	
		Camptonville Road Trailhead	Year-round	
	Boat Launches	Dark Day Boat Launch	Year-round	106
		Cottage Creek Boat Launch	Year-round	130
Project Diversion Dams	Undeveloped Day Use Areas	Log Cabin Diversion Dam ³	Year-round	15
		Our House Diversion Dam ³	Year-round	25
Oregon Creek (non-project)	Developed Day Use Area	Oregon Creek Day Use Area	Year-round	25

¹ YCWA will place mail-back windshield surveys at both boat launch facilities to survey the visitors who use the boat-in campgrounds and shoreline campsites. In addition, YCWA will conduct limited on-site surveys at the boat-in campgrounds during the peak season.

² The undeveloped shoreline camping use is dependent upon the water level, which makes estimating a user population difficult since water levels vary from year to year. Thus, YCWA will do its best to attain this survey target.

³ YCWA's surveyors will travel to the actual diversion dams and adjacent shoreline to conduct visitor and observation surveys.

⁴ YCWA will visit each of the trailheads identified in the "Study Sub-Sites" column in Table 5.3.2-1.

YCWA will make every attempt to secure the target number of surveys identified by site or groupings of sites. However, even after following survey protocol, there may be sites where the target cannot be met. YCWA will continuously monitor the survey returns, and if survey targets are not being met at survey sites, YCWA will re-evaluate the sampling frequency to determine if additional efforts should be made at these survey sites. Also, for all survey sites, YCWA will continue the survey effort throughout the established seasons, even if the target survey numbers have been met, and will make every effort to achieve the survey target goals.

5.3.2.3.2 Sampling Frequency

The sampling frequency will be divided into two categories – peak, off-peak, and low seasons. The peak season for all recreation use and activities on the Project is from Memorial Day

through Labor Day. The shoulder season is from April 15 to Memorial Day, and from Labor Day through October 15. The low season extends from October 16 through April 14. The Project campgrounds and Dark Day Picnic Area are closed from October 16 through April 14. The boat launches remain open the remainder of the year outside the peak season -- January 1 up to Memorial Day; and after Labor Day weekend through December.

The sampling frequency for the peak season will be:

- two randomly selected weekday days per month (separated by at least one week)
- two randomly selected weekend days (Saturday and Sunday) per month (non-consecutive)
 - In July, one of the weekend survey days will be July 7
- one pre-selected holiday day (Saturday or Sunday) for each three-day holiday weekend or 3 holiday days total (Memorial Day, Independence Day and Labor Day holiday weekends)
 - If the Memorial Day holiday survey day is lost due to poor weather conditions, then YCWA will make up the holiday day by adding one day to the Labor Day holiday weekend (Saturday or Sunday).
 - For the Independence Day holiday, July 1 (Sunday) will be the holiday survey day

The sampling frequency for the shoulder and low seasons will be:

- two randomly selected weekday days per month (separated by at least one week)
- two randomly selected weekend days (including a Saturday and Sunday) per month (non-consecutive)
- one survey day (Sunday) during the Columbus Day holiday weekend

For the boat-in campgrounds, YCWA will conduct on-site surveys (boat to the campgrounds) twice per month (one weekday and one weekend day) during the peak season in June, July, and August. YCWA will visit the boat-in campgrounds in the morning (before 10:00 a.m.). For these months, the monthly sampling frequency will be:

- one randomly selected weekday per month to include one day each on a Tuesday, Wednesday, and Thursday
- one randomly selected weekend day per month (alternating between Saturday and Sunday)

YCWA will conduct up to two selected days of preliminary testing to clarify any problems/confusion with the survey instrument and/or process. Holiday survey days will not be done during the off-peak season.

To identify recreation visitor's attitudes, beliefs, and preferences at project recreation resource areas, YCWA will conduct a roving use survey using a stratified two-stage (geographic and temporal) probability sampling approach (Mavestuto, 1996; Pollock et al. 1996).

During the survey, the YCWA's surveyor will conduct a recreation observation survey (see Section 5.3.4.4) and a visitor survey (see Section 5.3.4.5) at all the recreation facilities identified

in Table 5.1-1 (Study Area). The survey sample will be stratified by recreation area, type of day (weekdays, non-holiday weekends, and holiday weekends), and time of day.

5.3.2.3.3 Timing of Sampling

YCWA's surveyors will vary the times each survey site is visited to ensure a range of visitation times and potential user groups over the course of the survey period. To ensure the YCWA's surveyors visit the facilities/sites at different times, the surveyors will visit each facility following the same circuit or route, but will start at a the next facility on the circuit for each successive survey day. Table 5.3.2.3-3 provides general guidelines for visiting types of facilities by season.

Table 5.3.2.3-3. General guidelines for timing of sampling by facility type and season.

Facility Type	Peak Season	Shoulder Season	Low Season
Boat Launches	8:00 a.m. – 11:00 a.m.	9:00 a.m. – 11:00 a.m.	9:00 a.m. – 12:00 p.m.
Campgrounds	11:00 a.m. – 7:00 p.m.	11:00 a.m. – 5:00 p.m.	Facilities closed
Boat-In Campgrounds	8:00 a.m. – 10:00 a.m.	8:00 a.m. – 10:00 a.m.	Facilities closed
Day Use Areas	11:00 a.m. – 5:00 p.m.	11:00 a.m. – 5:00 p.m.	9:00 a.m. – 12:00 p.m.
Trailheads	11:00 a.m. – 5:00 p.m.	11:00 a.m. – 5:00 p.m.	9:00 a.m. – 12:00 p.m.

5.3.2.4 Resident Focus Group

The purpose of the focus group is to describe area residents and their recreation use in the Project Area; and identify future demand and/or potential unmet demand at the Project. More specifically, the focus group will include, but not be limited to, the following topics: types of recreation use and seasonality of residents; how residents access the Project recreation resources; and what if any barriers or constraints to access exist for residents; and potential recreation activities or facilities that are not currently available at the Project. An example of the focus group topics and questions are provided in Attachment 8.1E.

5.3.2.4.1 Focus Group Meetings and Participant Selection

YCWA will conduct up to four focus group meetings -- including up to two focus group meetings each with the Camptonville and the Oregon House/Dobbins communities. If YCWA and Relicensing Participants collaboratively agree to hold additional focus groups (beyond two meetings for each community), then YCWA will identify the number of additional meetings to be held. Each focus group meeting will have no more than 10 participants. YCWA will consult with Relicensing Participants to develop an initial list of potential focus group participants. YCWA's researchers will make a good faith effort to reach identified individuals to attend the focus group meetings.

5.3.2.4.2 Focus Group Meeting Process

Focus groups and interviews will be semi-structured, with specific topic areas and questions developed for residents. Initial questions will focus on how people use the recreation facilities in the Project and reservoir. The goal is to describe the character of resident demand and identify recreation use of the Project.

Focus groups will ideally range in size from five to ten study participants, and one or two facilitators. The researcher/discussion-leader will pose open-ended questions to guide discussion, but will draw out participants with follow-up questions as needed. The focus groups would ideally be scheduled after researchers have conducted fieldwork to increase opportunities for shared understanding about the places and issues under discussion.

As with any research methodology, interviews/focus groups have strengths and weaknesses. They are most useful for describing consensus opinion of homogenous groups, and they allow participants to “brainstorm” collectively to improve the number or accuracy of ideas. However, generalizing from small groups is more challenging, particularly if there is diversity within a group. The extent of agreement within groups is one input into decisions about whether recreation opportunities and meeting recreation demands in the future.

5.3.3 Step 3 – Estimate Current Recreation Use at Project Recreation Resource Areas

YCWA will accomplish Step 3 in two parts. First, for each recreation site, YCWA will calculate the average existing use levels for several recreation parameters (e.g., people, vehicles, overnight groups, facility occupancy) by day type (e.g., weekend, weekday, holiday), and by time of day (e.g., morning, afternoon) during the survey recreation season. In addition for each Project recreation site or group of sites, YCWA will calculate the frequency distribution of observed recreation activities during the surveyed recreation season.

Second, YCWA will estimate the existing annual day and overnight visits to the Project recreation areas in Recreation Days (RDs) by utilizing combination of use data sources that includes YCWA’s concessionaire records and observation surveys. YCWA’s concessionaire records consists of the number of campsites reserved/occupied at each of the developed campgrounds. The observation survey methods are described in Section 5.3.4. Of note, a Recreation Day, as defined by FERC, equals a visit to an area for recreation purposes for any portion of a 24-hour period.

YCWA’s approach for estimating use is described below by resource area - New Bullards Bar Reservoir and the Project diversion dam.

5.3.3.1 New Bullards Bar Reservoir

To estimate the complete recreation use at New Bullards Bar Reservoir, YCWA will estimate the use via four distinct types of use areas: 1) developed campgrounds, 2) undeveloped shoreline camping areas, 3), day use facilities (boat launches, picnic areas and trailheads) and 4) reservoir houseboating. YCWA will combine each of the use estimates to get a total recreation use estimate for New Bullards Bar Reservoir. YCWA will utilize the following types of use data at each use area.

5.3.3.1.1 Developed Campground Use

YCWA will use the concessionaire records for the developed campgrounds, which provides the number of sites occupied by day type. YCWA will then multiply the number of sites occupied by the average group size from the visitor survey results at the respective developed campgrounds (Section 5.3.4.5).

5.3.3.1.2 Undeveloped Shoreline Camping Use

YCWA will use the concessionaire records for the number of permits given for this type of overnight use. YCWA will then multiply the number of permits by the average group size from the visitor survey results at the undeveloped shoreline camping areas (Section 5.3.4.5).

5.3.3.1.3 Day Use Facility Use (Boat Launch, Picnic Areas and Trailheads)

YCWA will use the observation survey data at the boat launch and day use facilities. YCWA will multiply the average number of vehicles observed (by day type) from the observation surveys by the average group size from the visitor survey results at the respective boat launch and day use facilities (Section 5.3.4.5). Finally, YCWA will avoid double counting visitors who also stayed at the overnight facilities/areas by multiplying the average number of visitors by the percentage of day use visitors surveyed at the respective facility.

5.3.3.1.4 Reservoir Houseboating Use

YCWA will calculate the level of houseboat use in two parts – rental and permanent houseboat use. For the rental houseboat use, YCWA will use the concessionaire records for the number of rental houseboats by day type; and then multiply by the average group size from the rental houseboat visitor survey results (Section 5.3.4.5).

For the permanent houseboat use, YCWA will use the concessionaire records for the total number of permitted houseboats in 2012; and multiply by 1) the average group size and 2) average number of days the houseboat was used from the permanent houseboat visitor survey results (Section 5.3.4.5). Of note, the permanent houseboat use will be a annual total and will not be divided by day type since daily data is not readily available for this type of user.

5.3.3.2 Project Diversion Dams

At both Log Cabin and Our House diversion dams, YCWA will use observation surveys (Section 5.3.4.4) to record the number of vehicles parked at the two sites; and then multiply by the average group size from the visitor survey results (Section 5.3.4.5) at each diversion dam. The calculated use at both diversion dam sites will be combined to develop a total undeveloped recreation use estimate for the Project diversion dams.

5.3.4 **Step 4 – Identify Future Use and Demand Opportunities**

YCWA will identify the future use and demand opportunities from three perspectives: 1) assessing the existing unmet demand; 2) assessing future recreation demand; and 3) assessing the

regional uniqueness and significance of the Project recreationally. Each of these perspectives is described in detail below.

5.3.4.1 Existing Unmet Demand Assessment

Existing recreation use does not always represent the total existing recreation demand because there may be constraints that limit participation. While there are many potential constraints on recreation use (e.g., lack of free time, cost, geographic distance, lack of skills or equipment), a subset of participation constraints may be closely associated with site-specific management (e.g., limited access to lands or water, use limits or full occupancies at facilities, project operations that eliminate or diminish the quality of experiences and opportunities, or the lack of information about available recreation opportunities). To assess the general level of unmet demand for the Project recreation resources, YCWA will perform the three tasks described below.

5.3.4.1.1 Task 1 - Assess Statewide and Regional Unmet Recreation Demand Information

YCWA will review and summarize relevant information from the 2007 California Public Attitudes Outdoor Recreation Survey (CDPR, 2007). In addition, YCWA will contact the California Department of Parks and Recreation (CDPR) and request access to the raw data to determine if the sample size is statistically valid to be used to develop a more regional or even local estimate of unmet demand; and to identify potential constraints that limit participation. If available, YCWA will review other sources of Project Area and Project Region demand. The focus of this assessment will be to identify possible recreation activities with substantial unmet demand with a qualitative discussion of participation constraints and whether these constraints are likely affected by Project operations and maintenance.

5.3.4.1.2 Task 2 - Collect Unmet Project Area Recreation Demand Information

YCWA will collect additional unmet recreation demand information from Project visitors in YCWA's visitor surveys and residents via the resident focus groups. The visitor surveys and focus group sessions will ask visitors and residents if there are any reservoir-based recreation activities they are interested in participating in at the Project, but cannot because of some form of barrier or other existing condition.

5.3.4.1.3 Task 3 - Identify Potential Activities with High Unmet Demand within the Project Area

YCWA will identify potential activities with high unmet demand in the Project Area based on the review of unmet demand information derived from the CDPR, the Project visitor survey, Project monitoring data, and any other regional unmet demand sources (if any). Analysis will also attempt to identify likely barriers or constraints on participation, and whether those are related to Project operations or recreation management decisions.

5.3.4.2 Future Recreation Demand Assessment

This element of the study will provide information regarding the projected future recreation use in the Project Area over the estimated period of the new License (50 years). Obviously, projecting the future is a speculative activity, especially over a 50-year period. These projections, though, can be useful for general planning purposes to identify potential management issues that may occur in the future. This approach will include four tasks.

5.3.4.2.1 Task 1 - Review Existing Recreation Use Trends

Since past use often helps predict future use, YCWA will review trends of recent Project recreation use. Likely sources of Project use will be: Project monitoring reports; California fishing license sales; off-highway vehicle (OHV) green stickers and boating vessel registrations (for the counties where the majority of Project visitors originate from); local fishing guide activity; and recreation equipment sales (where available).

5.3.4.2.2 Task 2 - Review Existing Population and Recreation Activity Participation Projections

YCWA will summarize existing information on future projections from the California Department of Finance on projected population growth rates of the counties where the majority of the Project visitors originate from. YCWA will also research projections from other available sources such as the United States Department of Agriculture (USDA) Forest Service (i.e. Cordell 1999, et al.) and other appropriate sources on future projections.

5.3.4.2.3 Task 3 - Review Reasonably Foreseeable Events that May Influence Future Use

Reasonably foreseeable events in the watersheds may reasonably be expected to influence recreation use in the watershed over the license period. If an event is determined to be reasonably foreseeable, YCWA will make a qualitative assessment of its potential affect on future recreation use (if feasible).

5.3.4.2.4 Task 4 - Estimate Future Recreation Use over the License Period

Based on historical trends, future growth projections, and likely foreseeable actions in the watershed, YCWA will use professional judgment to estimate Project recreation use and facility utilization over the expected term of the new license (50 years). These estimates must be considered very speculative and will only provide a general indication of how recreation use is expected to change over the license period. For the Project recreation use estimate projection, YCWA will rely on the population growth rates where the majority of Project visitors reside to project use. For the facility utilization projections (campgrounds and boat launch parking areas), YCWA will rely on the activity participation indices developed by the Forest Service for developed camping and motorized boating (Cordell 1999).

5.3.4.3 Regional Uniqueness and Significance Assessment

This component of the study will assess the regional uniqueness of the Project's primary recreation opportunities in three tasks.

5.3.4.3.1 Task 1 - Review Results of Visitor Questionnaires

YCWA will review YCWA anticipates that boating, water sports (water skiing, wakeboarding, etc.), camping, fishing, picnicking, and swimming will likely be among the top water-related recreation activities at the Project.

5.3.4.3.2 Task 2 - Identify Regional Recreational Opportunities

YCWA will identify the geographic draw of the Project's top primary recreation opportunities identified in Task 1 above. YCWA will assess the geographic extent of visitors' origins and location of the alternative recreation resource areas where visitors participate in their primary recreation activities. YCWA will identify regional alternatives for comparable facilities or areas from sources such as guidebooks, on-line web resources, state and national parks, BLM, Forest Service, and county tourism sources.

5.3.4.3.3 Task 3 - Assess the Uniqueness and Significance of the Project-Related Recreation Opportunities

First, YCWA will analyze the visitor responses to a typical survey question that asks visitors to rate the relative uniqueness of the project reservoir they visited. The question has pre-set responses using a 5-point scale with a rating of 1 meaning the reservoir provided an "extremely common" opportunity and a rating of 5 meaning the reservoir provided an "extremely unique" opportunity. Based on the average responses, YCWA will categorize the relative uniqueness of the Project using the following categories.

- Rating of 1.0 = extremely common
- Rating of 1.1 to 2.0 = common
- Rating of 2.1 to 3.0 = somewhat common
- Rating of 3.1 to 4.0 = somewhat unique
- Rating of 4.1 to 4.9 = unique
- Rating of 5.0 = extremely unique

Second, for the Project's most popular primary recreation activities, YCWA will identify if these recreation opportunities are of local, regional or state significance. YCWA will determine the level of significance based on the county where visitors reside based on the following definitions.

- Local Significance: visitors from Yuba County (where the Project resides)
- Regional Significance: visitors from Sutter, Placer, Butte, Plumas, Sierra and Nevada counties (the counties surrounding Yuba County)
- State-Wide Significance: visitors from all other counties outside of the local and regional counties.

In addition, text will describe what is unique and special about the most popular recreation opportunities based on the comments provided by the visitors.

5.3.5 Step 5 – Evaluation of the Functional Periods of the Project Developed Boat Ramps

In this step, YCWA will identify the functional periods of the Project's two developed boat ramps at Cottage Creek and Dark Day boat launch facilities. First, YCWA will identify the constructed top and lower end of the two boat ramps to determine the functional water surface elevation (WSE) range of each boat ramp. A boat ramp is considered functional from the constructed top of the boat ramp down to 3 feet above the lower end of the constructed ramp per the California Department of Boating and Waterways (DBAW) design guidelines (CDBAW 1991). Second, YCWA will compare the daily median reservoir WSE for the period of record (1970 – 2008) by water year type against the functional WSE range of each ramp to identify the periods of the recreation season (year-round) that the boat ramps are functional. In addition, YCWA will include in this comparison the typical open and close dates of the boat launch facilities. The output of this evaluation will be tables and/or figures that identify the functional periods for each ramp by water year type (as agreed to by YCWA and Relicensing Participants).

5.3.6 Step 6 – Data Entry and QA/QC Review of Data

Following data collection, YCWA will enter the raw data into a statistical database program (SPSS 14.0) that will allow visitor survey responses to be analyzed, taking an “opportunity perspective” by grouping users who are doing similar activities at Project recreation sites/areas. Survey responses will be coded, edited and entered for analysis through a separate effort (Step 7). YCWA will subject all visitor and observation survey data to quality assurance/quality control (QA/QC) procedures including, but not limited to: 1) spot-checking visitor/observation surveys to be sure errors were not made during data entry; and 2) reviewing the visitor and observation survey databases for completeness/anomalous data. YCWA will conduct these QA/QC procedures both manually by YCWA staff and electronically using the SPSS program, which has the ability to sort through large quantities of data. If any datum seems inconsistent during the QA/QC procedure, YCWA will investigate the problem by going back to the source questionnaire or data form. Values that are determined to be anomalous will be removed from the database if the reason for the values cannot be identified.

5.3.7 Step 7 – Data Analysis and Report Preparation

5.3.7.1 Data Analysis

The survey responses should provide a rich source of information about visitor use patterns, characteristics, preferences, and perceptions. Following data entry and comprehensive QA/QC procedures, YCWA will address the study objectives and issues through analysis of the responses to questionnaires and observation data. Descriptive statistics will be employed to explain visitor responses to each of the survey questions. Survey data will be analyzed and reported by the two Project resource areas including New Bullards Bar Reservoir and the Project diversion dams (Our House and Log Cabin). In addition, YCWA will then analyze and report each of these resource areas by day use and overnight visitors. YCWA will code/categorize the

survey data to allow for the following potential variables on a case-by-case basis to check for differences between various recreation groups.

- Seasonality (e.g., peak, shoulder, and low seasons)
- Developed facility users
- Dispersed users
- User groups defined by primary recreation activity (i.e., boaters, anglers, hikers, backpackers, bicyclers, etc.)
- Resident (identified by zip code 95922, 95925, 95935, 95960, 95962) versus non-resident

For houseboat owners and renters, since the study methods will survey the population and not a sample of the population, the houseboat owners and renters will be analyzed separately from the other visitor survey results.

Within the analysis, YCWA will check for non-response bias through demographics and visitor behavior variables. Observation use data will address the types and frequency of use occurring within each project recreation resource area.

YCWA will provide the raw data to Relicensing Participants in both SPSS and Microsoft Excel format.⁶

5.3.7.2 Report Preparation

YCWA will synthesize the data collected and analyzed into a study report at the conclusion of the study, which will include summary data in tables, attachments and/or appendices; and be further summarized in narrative form. Specifically, the report will include the following sections: 1) Study Goals and Objectives; 2) Methods; 3) Results; 4) Discussion; and 5) Description of Variances from the FERC-approved study proposal, if any.

6.0 Study-Specific Consultation

YCWA will engage in the following study-specific consultation:

- YCWA will provide the agencies with a schedule of survey dates and will invite agency representation into the field during the surveys and impact evaluations and assessments.
- YCWA will consult with Relicensing Participants to develop an initial list of potential focus group participants.
- YCWA will consult with Relicensing Participants by July 16, 2012 on the status of visitor survey data collection relative to the target number of surveys and determine if survey data collection needs to be augmented to meet the targets.

⁶ Queries of the database are not part of the study. However, YCWA is willing to make a reasonable number of queries to the database as provided by the Relicensing Participants.

7.0 **Schedule**

YCWA anticipates the schedule to complete the study as follows assuming FERC issues its Study Determination by September 16, 2011 and the study is not disputed by a mandatory conditioning agency:

Facility, Trail, Road, and Water System Evaluations	October 2011 – October 2012
Dispersed Shoreline Recreation Use Evaluation	September 2012 – October 2012
Survey Planning, Field Training/Logistics, Survey Pre-test.....	October 2011
Observation and Visitor Surveys	November 2011 – October 2012
Resident Focus Groups	October 2011 – September 2012
Data Entry and QA/QC Review.....	October 2011 – November 2012
Data Analysis/Prepare Report.....	November 2012 – March 2013

8.0 **Consistency of Methodology with Generally Accepted Scientific Practices**

YCWA's methodology for planning, implementing, and analyzing visitor surveys is consistent with professional practice (Salant and Dillman, 2000; Watson et al., 2000). In addition, YCWA will be implementing professional accepted survey practices for contacting visitors and choosing sample sizes (Dillman, 2000). Assessing existing recreation use through a combination of observation and questionnaire surveys is a common practice for large geographic areas that contain multiple accesses to desired recreation use areas (Malvestuto 1996, Pollock et al. 1994, Watson et al. 2000, USDA Forest Service 1995). In addition, assessing future recreation demand through an evaluation of existing use, demographic data and participation trends and projections in the region is common practice (Kelly & Warnick, 1999). Furthermore, these methodologies were also utilized as part of the relicensing process for the Upper American River Project, South Feather Power Project, DeSabra-Centerville Project, Yuba-Bear Hydroelectric Project, and Drum-Spaulding Project.

9.0 **Level of Effort and Cost**

YCWA estimates the cost to complete this study in 2011 dollars is between \$375,000 and \$505,000.

10.0 **References Cited**

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- Yuba County Water Agency (YCWA). 2010. Yuba River Development Project Relicensing Pre-Application Document. Yuba County Water Agency, Marysville, CA. <http://www.ycwa-relicensing.com>.

ATTACHMENT 8.1A

PROJECT RECREATION FACILITY DESCRIPTIONS

Table A1. Summary of recreation facilities and amenities (excluding recreational trails) for the Yuba River Development Project.

Recreation Facility	Fee	Manager	Land Owner	Campsites						Picnic Sites	Boat Ramp		Parking Spaces			Restrooms				Trail-head
				Type	Total	Single	Double	Triple	Group		No.	Lanes	Total	Single	Double	Total	Vault	Flush	Float-ing	
NEW BULLARDS BAR RESERVOIR																				
Schoolhouse Campground	Yes	USFS	USFS	tent/ RV	56	44	12	0	0	0	0	0	0	0	0	5	1	4	0	Yes
Hornswoggle Group Campground	Yes	USFS	USFS	tent/ RV	6	0	0	0	6	0	0	0	0	0	0	4	2	2	0	No
Dark Day Campground	Yes	USFS	USFS	tent	10	6	3	1	0	0	0	0	55	0	55	3	3	0	0	Yes
Dark Day Picnic Area	No	USFS	USFS	--	0	0	0	0	0	14	0	0	13	13	0	1	1	0	0	No
Dark Day Boat Launch	No	USFS	USFS	--	0	0	0	0	0	0	1	2-3	174	54	120	2	2	0	0	No
Garden Point Boat-In Campground	Yes	USFS	USFS	tent	16	12	4	0	0	0	0	0	0	0	0	4	4	0	0	No
Madrone Cove Boat-In Campground	Yes	USFS	YCWA	tent	10	10	0	0	0	0	0	0	0	0	0	2	2	0	0	No
Cottage Creek Campground	Yes	USFS	USFS	tent	30	30	0	0	0	3	0	0	0	0	0	0	TBD	TBD	0	No
Cottage Creek Group Campground	Yes	USFS	USFS	tent/ RV	0	0	0	0	TBD	0	0	0	0	TBD	TBD	0	TBD	TBD	0	No
Cottage Creek Boat Launch	No	USFS	YCWA	--	0	0	0	0	0	0	1	2	93	37	56	2	2	0	0	No
Emerald Cove Marina	No	YCWA	YCWA	--	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	No
Burnt Bridge Campground	--	USFS	USFS	tent	0	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0	0	0	0	TBD	TBD	0	No
Sunset Vista Overlook	No	USFS	USFS	--	0	0	0	0	0	1	0	0	20	20	0	1	1	0	0	Yes
Dam Overlook	No	USFS	YCWA	--	0	0	0	0	0	0	0	0	24	24	0	0	0	0	0	No
Moran Road Day Use	No	USFS	USFS	--	0	0	0	0	0	0	0	0	8	8	0	1	1	0	0	No
Reservoir Water Surface	No	USFS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	--
Total	--	--	--	--	128	102	19	1	6	18	2	2	387	156	231	26	19	6	6	--
DIVERSION DAMS																				
Log Cabin Diversion Dam	No	--	USFS	--	0	0	0	0	0	0	0	0	informal			0	0	0	0	No
Our House Diversion Dam	No	--	USFS	--	0	0	0	0	0	0	0	0	informal			0	0	0	0	No

Table A2. Summary of Project recreational trails for the Yuba River Development Project.

Resource Area	Trail Name	Length (miles)	Start Location	End Location	Trailhead Location(s)
New Bullards Bar Reservoir	Bullards Bar Trail	14.0	Sunset Vista Overlook	Old Camptonville Road	<ul style="list-style-type: none"> • Sunset Vista Overlook • Dark Day Picnic Area • Old Camptonville Road
	Schoolhouse Trail	0.7	Schoolhouse Campground	Bullards Bar Trail	<ul style="list-style-type: none"> • Schoolhouse Campground
	Seven Ball Trail	1.0	Paved road off Marysville Road	Bullards Bar Trail	<ul style="list-style-type: none"> • Paved road off Marysville Road (1.5 mi. from Highway 49)
	Eight Ball Trail	3.8	Marysville Road	7 Ball Trail	<ul style="list-style-type: none"> • Schoolhouse Campground • Dark Day access road • 7 Ball Trail • Marysville Road
	Rebel Ridge Trail	1.6	Marysville Road	Bullards Bar Trail	<ul style="list-style-type: none"> • Marysville Road (0.5 mi. from Highway 49)
	Camptonville Road Trail	~1.0	Old Camptonville Road	Old Camptonville Road	<ul style="list-style-type: none"> • Old Camptonville Road (0.5 mi. from Highway 49 and Marysville Road)

Project Recreation Facility Descriptions

1.0 New Bullards Bar Reservoir

1.1 Campgrounds

1.1.1 Dark Day Campground

Dark Day Campground is located approximately 4 miles from the New Bullards Bar Dam via Marysville Road and Dark Day Road on the southeast shoreline of the Willow Creek arm of the reservoir. The facility is approximately 0.2 mile from the reservoir shoreline. The campground complex has 10 campsites for tent camping only, with 6 single sites, 3 double sites, and 1 triple site. The single sites have a picnic table, cooking grill/fire ring, and vehicle parking spur with a capacity of 6 people and 1 vehicle for \$22 per night. The double sites have 2 picnic tables, a cooking grill/fire ring, and vehicle parking spur with a capacity of 12 people and 2 vehicles for \$44 per night. The triple site has 3 picnic tables, a cooking grill/fire ring, and vehicle parking spur with a capacity of 18 people and 3 vehicles for \$66 per night. None of the sites are designed to be accessible for persons with disabilities. The campground has 3 vault restroom buildings and 3 water faucets. A short trail from the campground leads to the adjacent boat launch facility. Reservations are available. This campground formerly was the Dark Day Picnic Area (sites 1 through 16). TNF converted the picnic sites into a walk-in tent campground in 1990 (YCWA 1993).

1.1.2 Schoolhouse Campground

Schoolhouse Campground is located across Marysville Road across from the Hornswoggle Group Campground. The campground is approximately 0.5 mile from the reservoir shoreline on NFS land. The campground has 56 campsites, which includes 44 single sites for a maximum of 6 people and 2 vehicles for \$22 per night; and 12 double sites for a maximum of 12 people and 4 vehicles for \$44 per night. Four of the single sites are designed to be accessible for persons with disabilities. The campground has 4 flush restroom buildings, 1 vault restroom, 13 water faucets, and an overflow parking area. The campground does not have any RV hookups or a dump station. The campground was originally designed and intended for tent camping and smaller, trailer-towing vehicles; however, the campground was redesigned in the 1990s to accommodate RVs, campers, and trailers. Reservations are available by phone through Emerald Cove Marina.

The campground also has a trailhead for the 1.0-mile Schoolhouse Trail, which connects to the 14.0-mile Bullards Bar Trail. In addition, the 8 Ball Trail passes through the campground and leads to Dark Day Campground.

1.1.3 Hornswoggle Group Campground

Hornswoggle Group Campground is located on Marysville Road 2.5 miles north of the New Bullards Bar Dam, and 3.3 miles south of the Highway 49 junction. The facility is approximately 0.6 mile from the southeast shoreline of the reservoir on NFS land. The facility consists of 6 group camping areas (described in detail below) with 5 campsites that

accommodate up to 25 people-at-one-time (PAOT) (\$80 per night), and 1 group campsite that accommodates up to 50 PAOT (\$140 per night). The campground has 2 flush restroom buildings, 2 vault restroom buildings, 11 water faucets, and 6 parking areas. Reservations are available by phone through Emerald Cove Marina.

1.1.3.1 Site No. 1 - Dogwood

Dogwood's main camping area has a capacity of 25 PAOT, or 5 RVs or campers. In all, the site includes 5 picnic tables, 2 cooking grills, 4 bear-proof lockers and shares the 4-unit flush restroom facility with the Manzanita group site (Site No. 3). The restroom building has a women's side (2 sinks and 2 toilets) and a men's side (2 sinks, a toilet, and a urinal).

1.1.3.2 Site No. 2 - Sugarpine

Sugarpine's main camp area has a capacity of 25 PAOT. The site includes 4 picnic tables, 2 preparation tables, 1 grill/fire ring unit, and 4 bear-proof lockers. The site also has one 2-unit vault restroom facility with a men's and women's stall.

1.1.3.3 Site No. 3 - Manzanita

Manzanita's main camp area is large with ample sites for tents for up to 50 PAOT. The site includes 8 picnic tables, 2 food preparation tables, 1 grill/fire ring unit, and 4 bear-proof lockers. The site shares the 4-unit flush restroom with the Dogwood group site (Site No. 1), which has a women's side (2 sinks and 2 toilets) and a men's side (2 sinks, a toilet, and a urinal).

1.1.3.4 Site No. 4 - Ponderosa

Ponderosa's main camp area has a capacity of 25 PAOT. The site includes 4 picnic tables, 2 food preparation tables, 1 grill/fire ring unit, and 4 bear-proof lockers. This site shares the 4-unit flush restroom with the Madrone group site (Site No. 5), which has a women's side (2 sinks and 2 toilets) and a men's side (2 sinks, a toilet, and a urinal).

1.1.3.5 Site No. 5 - Madrone

The Madrone site has a capacity of 25 PAOT. This site has a large parking area, and is the most secluded of the 6 group sites at Hornswoggle Campground. The site includes 4 picnic tables, 2 food preparation tables, 1 grill/fire ring unit, and 4 bear-proof lockers. This site shares the 4-unit flush restroom with the Ponderosa group site (Site No. 4), which has a women's side (2 sinks and 2 toilets) and a men's side (2 sinks, a toilet, and a urinal).

1.1.3.6 Site No. 6 - Douglas Fir

Douglas Fir's main camp area has a capacity of 25 PAOT in a flat, open and well-shaded/forested area. The site includes 4 picnic tables, 2 food preparation tables, 1 grill/fire ring unit, and 4 bear-proof lockers. This site has one 1-unit vault restroom building.

1.1.4 Garden Point Boat-In Campground

The Garden Point Boat-In Campground is accessed by boat only and is located on a peninsula on the north side of the reservoir at the junction between the North Yuba River and Willow Creek arms of the reservoir on NFS land. The campground is approximately 3.0 miles by boat from the Cottage Creek Boat Launch, and 1.5 miles from the Dark Day Boat Launch. Boat-in access is preferred on the south facing shoreline.

The campground has 16 campsites, which includes 12 single sites (maximum of 6 people for \$22 per night) and 4 double sites (maximum of 12 people for \$44 per night). The single sites consist of a picnic table, a fire ring, and Klondike stove, the double sites consist of 2 picnic tables, a fire ring, and Klondike stove. None of the sites are designed to be accessible for persons with disabilities. The campground has 4 vault restroom buildings and no water is available at the campground. Reservations are available by phone through Emerald Cove Marina.

1.1.5 Madrone Cove Boat-In Campground

The Madrone Cove Campground is accessed by boat only and is located along the west shore of the North Yuba River arm of the reservoir on YCWA-owned land. By boat, the campground is approximately 7.5 miles from the Cottage Creek Boat Launch and 6.0 miles from the Dark Day Boat Launch. The campground has 10 single campsites (maximum of 6 people per site for \$22 per night). Each site consists of a picnic table, fire ring, and Klondike stove. None of the sites are designed to be accessible for persons with disabilities. The campground has 2 vault restroom buildings and no water is available at the campground. Reservations are available by phone through Emerald Cove Marina.

1.1.6 Cottage Creek Campground

This facility is located off of County Road 169 approximately 0.5 mile from its intersection with Marysville Road near the dam. This facility consists of 30 single campsites, 3 picnic sites, and 1 two-unit vault restroom building. The facility is used for overflow camping.

1.1.7 Cottage Creek Group Campground

This facility is located off of County Road 169 approximately 0.5 mile from its intersection with Marysville Road near the dam. This facility consists of a group campsite and shares the two-unit vault restroom building with Cottage Creek Campground. The facility is used for overflow camping.

1.1.8 Burnt Bridge Campground

Burnt Bridge Campground was located off Oregon Hill Road on NFS land. This campground was closed by the Tahoe National Forest (TNF) in 1979 due to low use levels. The TNF briefly re-opened the campground on a trial basis, but use was once again too low to justify keeping it open. At present, the campground remains closed to all public uses and the access road is gated.

1.2 Boat Launches

1.2.1 Cottage Creek Boat Launch

Cottage Creek Boat Launch is located on YCWA-owned land along the southwest corner of the reservoir off County Road 169 approximately 0.1 mile from its intersection with Marysville Road. The launch ramp facility consists of a 900-foot long 2-lane concrete launch ramp, two 2-unit vault restroom buildings, and a parking area with 56 double spaces for vehicles with trailers and 37 additional spaces for either a vehicle only, trailer only, or vehicle with a trailer. The existing layout at Cottage Creek Boat Launch is due in part to the upgrades in 2005 completed by California Department of Boating and Waterways (CDBAW) through a grant from the CDBAW Boat Launching Facility Grant Program. The 2005 upgrades included the installation of the two 2-unit vault restroom buildings (designed to current accessibility standards), a boat ramp walkway, and a parking area expansion.

1.2.2 Emerald Cove Marina

The Emerald Cove facility is located on New Bullards Bar Reservoir at the Cottage Creek Boat Launch facility. The facility consists of a marina, floating general store, and a floating restroom building. The Emerald Cove Marina provides overnight boat slips and mooring buoys, gasoline pumps, and a floating dump station for houseboat sanitation systems. In addition, the marina provides marine-related repair and maintenance services for nearly any watercraft from complete engine overhauls to cosmetic repairs, including 24-hour emergency watercraft calls/service. In addition, the marina has a variety of boat rentals including luxury houseboats, powerboats, pontoon boats, and personal watercraft/wave runners. The general store provides groceries and general supplies to the public.

1.2.3 Dark Day Boat Launch

The Dark Day Boat Launch facility is located on Dark Day Road. The facility has a 2-lane concrete boat ramp (3-lane concrete boat ramp initially) with a 60-foot floating boat dock, two vault toilets (4-unit and 2-unit), 1 picnic table, and an upper and lower parking area with 120 double spaces and 54 single spaces. The existing layout at Dark Day Boat Launch is due in part to the upgrades funded by the California Department of Boating and Waterways (CDBAW) Boat Launching Facility Grant Program. The upgrade added an upper parking area with a 2-unit vault restroom, and an accessible boat loading ramp with parking at the lower parking area.

1.3 Day Use Areas

1.3.1 Dark Day Picnic Area

The Dark Day Picnic Area is located adjacent to Dark Day Campground. The picnic area consists of 14 picnic sites, each with a picnic table and cooking grill/fire ring. The day use area also has 1 vault restroom, 3 water faucets, and 1 parking area for 13 vehicles. A trailhead for the Bullards Bar Trail is located in the parking area.

1.3.2 Sunset Vista Point

This scenic overlook is located near the southeast corner of the reservoir approximately 1.0 mile east of New Bullards Bar Dam via Marysville Road and Vista Point Road. The facility consists of one 2-unit vault restroom, 1 picnic table, and a parking area for 20 vehicles. The facility also serves as a trailhead for the Bullards Bar Trail.

1.3.3 Dam Overlook

The Dam Overlook is located at the southeast corner of New Bullards Bar Dam on Marysville Road on YCWA-owned land. The facility consists of a gravel parking area for approximately 24 vehicles and an interpretive plaque related to the construction of the dam/Project.

1.3.4 Moran Road Day Use Area

The Moran Road Day Use Area is located on the west shoreline of New Bullards Bar Reservoir at Moran Cove on NFS land. The day use area is accessible by vehicle 6.4 miles from the Town of Challenge via Oregon Hill Road and Moran Road. The rustic developed facility consists of a gravel parking area for up to eight vehicles, vault restroom, trash receptacles, bulletin board, and a car top boat launch. Vehicle access is restricted by a gate, which requires the public to access the reservoir shoreline by hiking to the water's edge.

1.4 Trails

1.4.1 Bullards Bar Trail (14.0 mi)

The Bullards Bar Trail is a non-motorized, multi-use trail offering an easy, relatively level, and scenic route along the shoreline of the reservoir from the Sunset Vista Point near the dam up to Old Camptonville Road. The non-motorized, multi-use trail is located within the existing FERC Project Boundary, except for the eastern end of the trail (approximately 1.5 mi) which extends beyond the FERC Project Boundary along Willow Creek, where it ends at Old Camptonville Road. The trailhead, including parking, is located at the Sunset Vista Point day use area. The trail is located on NFS and YCWA-owned land and is managed by the Forest Service.

1.4.2 Schoolhouse Trail (0.7 mi)

The Schoolhouse Trail is a non-motorized, multi-use trail that descends approximately 250 ft rapidly to the Bullards Bar Trail along an old heavily shaded road bed. The trailhead including parking is located at the Schoolhouse Campground near campsite 13. The entire trail is located on NFS within the existing FERC Project Boundary land and is managed by the Forest Service.

1.4.3 7 Ball Trail (1.0 mi)

The 7 Ball Trail is a non-motorized, multi-use trail that descends 400 ft to the Bullards Bar Trail on NFS land. The trailhead is located off the paved road that intersects Marysville Road 1.5 and

1.9 miles from the junction with Highway 49. The trail is located outside the existing FERC Project Boundary on NFS land and is managed by the Forest Service.

1.4.4 8 Ball Trail (3.8 mi)

The 8 Ball Trail is a non-motorized, multi-use trail and an alternative to walking or riding on Marysville Road. The 8 Ball Trail connects the Rebel Ridge, 7 Ball and Schoolhouse trails to make several loop routes possible with the Bullards Bar Trail. The trail winds through dense forest and open scrub brush areas paralleling Marysville Road. The trailheads are all located on NFS land at the junction with the 7 Ball Trail, at Marysville Road just before the access road to Schoolhouse Campground, at Schoolhouse Campground and at Dark Day Road. The trail is located outside the existing FERC Project Boundary on NFS land and is managed by the Forest Service.

1.4.5 Rebel Ridge Trail (1.6 mi)

The Rebel Ridge Trail is a non-motorized, multi-use trail that descends nearly 500 ft through the forest and connects to the Bullards Bar and 7 Ball trails. The trailhead including parking is located approximately 0.6 mile from the intersection of Highway 49 and Marysville Road. The trail is located outside the existing FERC Project Boundary on NFS land and is managed by the Forest Service.

1.4.6 Old Camptonville Road Trail (approx. 1.0 mi)

The Old Camptonville Road Trail is a non-motorized, multi-use trail that parallels Old Camptonville Road and connects to the Bullards Bar Trail. The trailheads are located on Old Camptonville Road approximately 0.5 mile from the intersection of Highway 49 and Marysville Road. The trail is located outside the existing FERC Project Boundary on NFS land and is managed by the Forest Service.

2.0 Project Diversion Dams

2.1 Our House Diversion Dam

The Our House Diversion Dam impoundment provides undeveloped day use recreation opportunities. The site is located on NFS land along the Middle Yuba River (river mile or RM 12.0) and does not have any developed recreation facilities. Vehicle access to the diversion dam occurs via Highway 49 to Ridge Road and then 1.8 miles along the paved Our House Dam Road. Informal parking is available at the end of the Our House Dam Road, where visitors have foot access to the shoreline.

2.2 Log Cabin Diversion Dam

The Log Cabin Diversion Dam impoundment provides undeveloped day use recreation opportunities. The site is located on NFS land along Oregon Creek (RM 4.1) and does not have any developed recreation facilities. YCWA, with the permission of the Forest Service, has

installed and keeps locked a vehicular gate on NFS land at the start of Log Cabin Road at Highway 49. Vehicle access to the diversion dam is restricted. Visitors may park their vehicles along the shoulder of Highway 49 and hike into the diversion dam.

ATTACHMENT 8.1B

DRAFT FACILITY EVALUATION FORMS (Inventory, Condition, and Accessibility Form and Recreation Use Impact Form)

Facility Inventory and Condition Form Example

(The study form will utilize the data fields from the attached Forest Service condition and inventory form)

Developed Recreation Facility Condition and Accessibility Assessment Survey	
Name of facility:	Date of survey:
Names of surveyors:	Page 1 of pages
Entrance sign condition: 1 Good, 2 Maintenance, 3 Repair, 4 Replace	
Facility roads: G gravel, A Asphalt / condition: 1, 2, 3, 4	
Grounds needs: L Leveling/clearing, B Brushing, T Tree removal & pruning 80" head room	
Facility road signage	
	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
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	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
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	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
	Sign name location and condition: 1, 2, 3, 4
	Registration kiosk condition: 1, 2, 3, 4
Kiosk signs, Name and condition: 1, 2, 3, 4	
	Kiosk clear approach area: Facing kiosk x From kiosk ?" x ?"
approach area surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4	
Fee tube condition: 1, 2, 3, 4	
Fee tube approach area: Facing fee tube x From fee tube ?" x ?"	
Registration parking area length / Potential length ?' / ?'	
Parking area width / Potential width ?' / ?'	
Parking area max slope ?'%	
Parking area: G gravel, P paved and Condition: 1, 2, 3, 4	
Other bulletin board , location and condition: 1, 2, 3, 4	
clear approach area: Facing BB x From BB ?" x ?"	
approach area surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4	
Signs, Name and condition: 1, 2, 3, 4	
Other bulletin board , location and condition: 1, 2, 3, 4	
Other bulletin board clear approach area: Facing BB x From BB ?" x ?"	
approach area surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4	
Signs, Name and condition: 1, 2, 3, 4	
Other bulletin board , location and condition: 1, 2, 3, 4	
Other bulletin board clear approach area: Facing BB x From BB ?" x ?"	
approach area surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4	
Signs, Name and condition: 1, 2, 3, 4	

**Developed Recreation Facility
Condition and Accessibility Assessment
Survey**

Site:				Condition-needs: 1 Good, 2 Maintenance, 3 Repair, 4 Replace
Page # of pages				Accessibility: A Accessible, N Non-accessible
				Site # , + H Host, & A Accessible Designated
				Grounds : L Leveling / clearing, B Brushing, T Tree removal / pruning 80"
				Spur total length - potential length ?' - ?'
				Driveway length & width ?' x ?' , max slope %
				driveway surface: G gravel, P Paved - Condition: 1, 2, 3, 4
				Parking area length & width ?' x ?'
				parking area potential length & width ?' x ?'
				parking area surface: F Firm & stable or L Loose, slope: %
				parking area: G gravel, P paved & Condition: 1, 2, 3 or 4
				Living area surface: F Firm & stable or L Loose, slope: %
				slope from parking to living area %
				connection ways (between amenities) max slope %
				connection ways narrowest point ?' , obstacle height ?'
				Tent area : ?' x ?'
				surface: F Firm & stable or L Loose, slope: %
				Marker : W Wood, S Synthetic, M Metal - condition: 1, 2, 3, 4
				Table : A or N , W Wood, C Concrete, S Synthetic, M Metal,
				condition: 1, 2, 3 or 4
				end 1 knee space: Wide x Deep x High ?' x ?' x ?'
				end 1 wheelchair clear approach: Facing x From table ?' x ?'
				surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4
				end 2 knee space: Wide x Deep x High ?' x ?' x ?'
				end 2 wheelchair clear approach: Facing x From table ?' x ?'
				surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4
				Bear box : A or N , condition: 1, 2, 3 or 4
				clear approach: Along x From bear box ?' x ?'
				surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4
				Fire ring : A or N , R Rock, C Concrete, M Metal, Height ?'
				condition: 1, 2, 3 or 4
				clear approach: Around x From fire ring Degrees - ?'
				surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4
				Grill : A or N , S standing grill, F Fire ring grill, Height ?'
				clear approach: Facing x From grill ?' x ?'
				surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4
				Water faucet : A or N , condition: 1, 2, 3 or 4
				clear approach: Facing x From faucet ?' x ?'
				surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4
				Route to water faucet steepest slope: %
				surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4
				width and narrowest point: ?' - ?'
				obstacle height & openings: ?' - ?'
				Toilet : A or N , condition: 1, 2, 3 or 4
				door clear approach: Facing x From toilet ?' x ?'
				surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4
				Route to toilet steepest slope: %
				surface: F Firm & stable or L Loose, condition: 1, 2, 3 or 4
				width and narrowest point: ?' - ?'
				obstacle height & openings: ?' - ?'

[illegible]

Draft Recreation Use Impact Evaluation Form

SECTION A – FOR ALL RECREATION SITES		
Facility	Name of the Facility	
Site Name	Specific Site Name/Number	
Site Type	Day use or overnight site?	1. Day Use 2. Overnight
Overnight Type	If overnight, what type of site?	1. Single 2. Double 3. Triple 4. Group 5. Boat-In 6. Shoreline
Litter	In general, how much litter is found at this site?	1. Trace amounts: less than a handful or none 2. Small: about a handful 3. Medium: about a bucketful 4. Large: about a 33 gallon garbage bag full 5. Excessive: over one garbage bag full
Dump	Does this site get used as a dump (not just litter from camping)?	1. No, rarely 2. Yes, sometimes (large items such as cars, beds, etc. in evidence)
Tree cutting	Does the site show signs of tree cutting for firewood?	1. Low: few signs 2. Medium: some signs, especially lower branches of live trees 3. High: many signs, including excessive cutting of live trees
Access Barriers	Are there management- placed barriers to prevent vehicle access to parts of the site & have people moved the barriers?	1. No barriers placed there 2. Barriers there & have not been moved 3. Barriers have been moved
Fire rings/ vegetation clearances	How many fires rings do not have appropriate vegetation clearing?	Report # of fire rings that to do not have 8 to 10 feet vertical & 5 feet horizontal vegetation clearance:
Vegetation	What is dominant vegetation type at site?	Report % vegetation types: Forest _____ Meadow _____ Riparian _____ Other _____
Soil	What is the dominant soil type at the site?	Report the % of soil type: Sandy _____ Clay _____ Rock _____ Other _____ Comment on drainage:
Shade	Does the site have good shade from rocks or trees?	1. Low: few trees or rocks with shade 2. Medium: some shade trees/rocks for some parts of the day 3. High: many trees/rocks that offer shade through entire day.
Screening	Does the site screen groups from each other?	0. Not applicable: single site (not cluster) 1. Low: virtually no screening between sites 2. Medium: some screening 3. High: extensive screening
Reservoir views	Does the site have views of the reservoir?	1. Poor or no views. 2. Some views, but not high quality 3. High quality views.
Landscape views	Does the site offer views of the surrounding landscape?	1. Poor or no views. 2. Some views, but not high quality 3. High quality views.
Reservoir proximity	Is the site on or off the reservoir?	1. < 100 feet 2. 100 to 200 feet 3. > 200 feet
Reservoir accessibility	Is the reservoir easy to access from the site?	1. Easy: <20' above reservoir, obvious trail, shorter trail (<100'), not too steep. 2. Medium difficulty: over 20' above reservoir less obvious trail, narrower trail, some switchbacks, some scrambling over talus, some poison oak. 3. Hard: >200' above reservoir; less obvious trail; extensive scrambling; poison oak
Creeks	Is the site close to other creeks or springs?	1. < 100 feet 2. 100 to 200 feet 3. > 200 feet
Hiking Trail Type	Is the trail developed or user-created?	1. Developed trail 2. User-created trail
Hiking Trail Lengths	Length of trail (feet)?	
ORV	Does the site show signs of nearby ORV use?	1. No 2. Yes
Bare ground	Does the site show signs of extensive use & loss of ground vegetation?	1. Low: small areas around fire rings & tent sites 2. Medium: large areas around fire rings & tent sites 3. Large: large contiguous areas & multiple trails to satellite use areas
Erosion	Does the site show signs of erosion?	1. None 2. Low: nominal signs of erosion 3. Medium: visible signs of erosion/steep slopes 3. High: large contiguous areas of erosion on steep slopes
Tent availability	Does the site have good places for tents?	1. Poor: few, small, low quality 2. Fair: more than one, better quality Total # of Tent Pads: _____ 3. Good: more than two sites with flat, unbrushy areas
White Flowers	# of "White Flowers" present (toilet paper)?	
Human Waste	Does the site show signs of human waste?	1. No 2. Yes

Adapted from Whittaker & Shelby (2001)

SECTION B – FOR DISPERSED SITES ONLY		
VARIABLE NAME	QUESTION	RESPONSE CHOICES
Site Type	What type of site is it?	1. Single site 2. Cluster site : ► Max. No. Groups: _____ Typical No. Groups: _____
Use	Is the site currently used?	1. Yes, but rarely 2. Commonly used
Access	Is the site primarily accessible by the road, a trail, or by the reservoir?	1. Road (within 50 feet) 2. Trail from road (and reservoir) 3. From the reservoir
Existing parking spaces	How many vehicle places are available at the site (or at access to the site)?	No. of obviously used parking spaces (if distinct): _____ <u>If not distinct parking spaces, then report one of the following:</u> 1. Indistinct areas that could accommodate less than 7 vehicles 2. Indistinct area could accommodate more than 7 3. No parking associated with the site or you don't know.
Squatter Use	Is the site used for long term camping (over 14 days at one time)?	1. Rarely or never used by squatters 2. Occasionally used by squatters 3. Commonly used by squatters
Existing camp use	How many parties appear to be able to use the site at one time?	Report # of fire rings that appear separate but “active” in a cluster. <u>Report 1</u> if the site is a single site. <div style="border: 1px solid black; width: 40px; height: 20px; float: right; margin-top: 5px;"></div>
Use Impact Area (North-South x East-West): <div style="border: 1px solid black; height: 50px; margin-top: 5px;"></div>		
Comments (<i>i.e.</i> user impacts, sensitive areas, general observations, etc.): <div style="border: 1px solid black; height: 100px; margin-top: 5px;"></div>		
Site Diagram: <div style="border: 1px solid black; height: 200px; margin-top: 5px;"></div>		

Adapted from Whittaker & Shelby (2001)

ATTACHMENT 8.1C
DRAFT VISITOR SURVEY

RECREATION VISITOR SURVEY

for the Yuba River Development Project (FERC Project No. 2246)

The following survey has been designed to help the Yuba County Water Agency understand the needs of users of the recreational facilities and opportunities it provides at New Bullards Bar Reservoir (NBBR), Our House Diversion Dam and Log Cabin Diversion Dam. The survey is 7 pages long and takes approximately 15-20 minutes to complete.

These questions are generally for the overall recreation area (e.g., reservoir or diversion dam) you are currently visiting. However, some questions are for the specific recreation facility or site you are currently visiting (e.g., campground, picnic area, boat launch, shoreline camping area, etc.). Please be aware of this distinction when reading each question.

SECTION 1 - Your Trip Characteristics

1. Write the name of the recreation site/facility where you received this survey (see map at back of survey): _____
2. Which zones in the NBBR area (see map at the back of the survey) do you plan to visit on this trip?
☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6 ☐ Zone 7 ☐ Zone 8
3. If you are staying overnight, where are you staying or camping today? (Check One)
 - ☐ **Not staying overnight, this is a day visit only.**
 - ☐ RV park or campground. If so, what is the name of the campground you are staying at? _____
 - ☐ Houseboat. If so, are you a (check one): ☐ houseboat owner ☐ houseboat renter
 - ☐ Dispersed shoreline camping at NBBR (permit required)
 - ☐ Camping outside of a designated camping area (dispersed site/area).
 - ☐ Staying at a hotel or motel. If so, which community/town/city? _____
 - ☐ Other (please specify): _____
4. When did you arrive and plan to depart this recreation area?
 (For the time, please specify AM or PM)

Arrival		➔	Estimated Departure	
Date	Time (AM / PM)		Date	Time (AM / PM)
5. How often do you visit NBBR, Our House, or Log Cabin Diversion Dams?
 - ☐ 1 to 4 times per year
 - ☐ 5 to 10 times per year
 - ☐ More than 10 times per year
6. Which of the following best describes your recreation group? (Check One)
 - ☐ Alone
 - ☐ Friends
 - ☐ Family & Friends
 - ☐ Other (specify): _____
 - ☐ Family
 - ☐ Multiple Families
 - ☐ Organized Outing Group
7. How many people, vehicles, boats, and water-related equipment are included with the **group you traveled with** during your current visit to this recreation area? (Write a number for each)

____ People (include yourself) ➔ ____ Adults / ____ Children	____ Powerboats (15 horsepower or larger)
____ Vehicles used to travel to the area (include trucks, cars, RVs, etc.)	____ Personal Watercraft (PWC)
____ Trailer for Boat/PWC/Raft	____ Canoes/kayaks/other non-motorized watercraft
____ RV/Camper ➔ Length in ft. _____ (if more than 1, give range)	____ Fishing tubes
____ Camper Trailer ➔ Length in ft. _____ (if more than 1, give range)	____ River tubes
____ Tents	____ Other, specify: _____
____ Powerboats (under 15 horsepower)	

8. Check each of the activities that you expect to participate in during your current visit to this recreation area. (Check All That Apply)

- | | |
|---|--|
| <input type="checkbox"/> Camping | <input type="checkbox"/> Mountain biking |
| <input type="checkbox"/> Driving for pleasure | <input type="checkbox"/> Picnicking |
| <input type="checkbox"/> Fishing | <input type="checkbox"/> River/stream boating (e.g., raft, kayak, canoe) |
| <input type="checkbox"/> Houseboating | <input type="checkbox"/> Swimming |
| <input type="checkbox"/> Flat-water, motorized boating | <input type="checkbox"/> Water skiing |
| <input type="checkbox"/> Flat-water, non-motorized boating (e.g., kayaks, canoes) | <input type="checkbox"/> Wildlife viewing (birding, etc) |
| <input type="checkbox"/> Gold panning | <input type="checkbox"/> Other (specify): _____ |
| <input type="checkbox"/> Hiking or walking | <input type="checkbox"/> Other (specify): _____ |
| <input type="checkbox"/> Horseback riding | <input type="checkbox"/> Other (specify): _____ |

9. Please list your **primary recreation activity** for your current visit: _____.

10. Please list (up to 3) other areas in Northern California where you visit to participate in your **primary recreation activity**.

1) _____ 2) _____ 3) _____

11. A) Please rate the relative uniqueness of the **recreation opportunities** at this recreation area relative to similar to opportunities at the above Northern California areas:

Extremely Common Opportunity ←————→ Extremely Unique
1 2 3 4 5

B) Please explain, what, if anything is **special or unique** about this recreation area relative to other recreation areas in Northern California.

RESERVOIR BOATERS ONLY

If you have boated or expect to boat on this trip, please complete Question #12 through #16. If NOT, please skip to Question #17

12. What type of watercraft do you primarily use when visiting NBBR?

- | | |
|--|---|
| <input type="checkbox"/> Runabout/Pontoon/Ski boat/Motorboat | <input type="checkbox"/> Canoe/Kayak |
| <input type="checkbox"/> Houseboat | <input type="checkbox"/> Personal Watercraft (jet ski, wave runner, etc.) |
| <input type="checkbox"/> Sailboat | <input type="checkbox"/> Other (describe): _____ |

13. For the watercraft you primarily use, do you dock it at Emerald Cove Marina? ☐ Yes ☐ No

14. Which boat launch did you use at NBBR? ☐ Cottage Creek ☐ Dark Day ☐ Moran Rd. ☐ Other (specify): _____

15. How long did you have to wait to: a. Launch: _____ minutes → b. Take out: _____ minutes

16. Please indicate how crowded you felt on the water today (circle a number):

Not At All Crowded		Slightly Crowded		Moderately Crowded			Extremely Crowded		Not Applicable/ I have not boated yet
1	2	3	4	5	6	7	8	9	<input type="checkbox"/>

CAMPERS ONLY

If you camped overnight in the area on this trip, please complete Question #17 and #18. If NOT, please skip to Question #19

17. What size/type of campsite are you staying in?

- ☐ Single (up to 6 people) ☐ Triple (13 to 18 people) ☐ Boat-in campground
☐ Double (7 to 12 people) ☐ Group (more than 18 people) ☐ Shoreline camping

18. A. Did you get your preferred size/type of campsite? ☐ Yes ☐ No

B. If **NOT**, what size/type did you want?

- ☐ Single (up to 6 people) ☐ Triple (13 to 18 people) ☐ Boat-in campground
☐ Double (7 to 12 people) ☐ Group (more than 18 people) ☐ Shoreline camping

SECTION 2 - Your Thoughts on Existing Conditions at this Recreation Area...

19. Please indicate whether or not the level of the reservoir or river was a problem for each of the following at the recreation area you are currently visiting. (check one for each item)

(Circle one number for each)	Not a Problem	A Small Problem	Neither	A Moderate Problem	A Large Problem	No Opinion/ Not Applicable
Ability to use beach area	1	2	3	4	5	<input type="checkbox"/>
Ability to safely swim	1	2	3	4	5	<input type="checkbox"/>
Ability to launch or take out boat	1	2	3	4	5	<input type="checkbox"/>
Ability to safely boat	1	2	3	4	5	<input type="checkbox"/>
Ability to utilize trails	1	2	3	4	5	<input type="checkbox"/>
Ability to access shoreline camping areas	1	2	3	4	5	<input type="checkbox"/>
Ability to fish along the shoreline	1	2	3	4	5	<input type="checkbox"/>
Ability to access the shoreline	1	2	3	4	5	<input type="checkbox"/>
Scenic quality of shoreline	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>

20. A) Did you experience any conflict with other recreation users in this recreation area (i.e., anyone who negatively impacted your experience)?

- ☐ Yes ☐ No

B) If YES, what was the activity of the other recreation user? (Check One)

- ☐ Bird watcher ☐ Fishing boat ☐ Mountain biker
☐ Camper ☐ PWC / Jet ski ☐ Unsure
☐ Hiker ☐ Other power boat ☐ Other (specify): _____
☐ Ski boat ☐ Non-motorized boater

C) If you experienced conflict, please check the reasons that contributed to the conflict. (check all that apply)

- ☐ Proximity to where we were ☐ Rowdiness ☐ Loudness ☐ Other (specify): _____

21. Please rate the **acceptability** of the Existing Conditions at the Recreation Facility / Site you are currently visiting (site from Question #1).

Important: Please only circle a number for the items that you used during your visit to this Specific Recreation Facility / Site. Please check the "Did Not Use" box, if you did not use the item or it does not exist at the Specific Recreation Facility / Site.

FACILITIES	Acceptable	Slightly Acceptable	Neither	Slightly Unacceptable	Unacceptable	Did Not Use/ Not Applicable
Camp sites	1	2	3	4	5	<input type="checkbox"/>
Camp site parking spur size	1	2	3	4	5	<input type="checkbox"/>
Vegetation or screening between camp sites	1	2	3	4	5	<input type="checkbox"/>
Shading of camp sites	1	2	3	4	5	<input type="checkbox"/>
Picnic sites	1	2	3	4	5	<input type="checkbox"/>
Vegetation or screening between picnic sites	1	2	3	4	5	<input type="checkbox"/>
Shading of picnic sites	1	2	3	4	5	<input type="checkbox"/>
Food storage locker	1	2	3	4	5	<input type="checkbox"/>
Restroom	1	2	3	4	5	<input type="checkbox"/>
Potable water	1	2	3	4	5	<input type="checkbox"/>
Trash receptacle	1	2	3	4	5	<input type="checkbox"/>
Vehicle parking areas	1	2	3	4	5	<input type="checkbox"/>
Trailer parking areas	1	2	3	4	5	<input type="checkbox"/>
Boat ramp parking area	1	2	3	4	5	<input type="checkbox"/>
Boat ramp (launch or take out)	1	2	3	4	5	<input type="checkbox"/>
Courtesy dock	1	2	3	4	5	<input type="checkbox"/>
Floating restroom	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>

If you rated a condition "unacceptable", please identify the item from the table & describe the location and nature of the unacceptable condition:

ACCESS	Acceptable	Slightly Acceptable	Neither	Slightly Unacceptable	Unacceptable	Did Not Use/ Not Applicable
Width of roads within the site	1	2	3	4	5	<input type="checkbox"/>
Condition of roads within the site	1	2	3	4	5	<input type="checkbox"/>
Foot trails to the shoreline	1	2	3	4	5	<input type="checkbox"/>
Foot trails around the shoreline	1	2	3	4	5	<input type="checkbox"/>
Signage to the recreation site	1	2	3	4	5	<input type="checkbox"/>
Signage within the recreation site	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>

If you rated a condition "unacceptable", please identify the item from the table & describe the location and nature of the unacceptable condition:

INFORMATION RESOURCES	Acceptable	Slightly Acceptable	Neither	Slightly Unacceptable	Unacceptable	Did Not Use/ Not Applicable
Interpretive/education information	1	2	3	4	5	<input type="checkbox"/>
Recreation visitor information	1	2	3	4	5	<input type="checkbox"/>
Reservoir water surface elevation information	1	2	3	4	5	<input type="checkbox"/>
River/stream flow information	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>

If you rated a condition "unacceptable", please identify the item from the table & describe the location and nature of the unacceptable condition:

22. A) Did/do you feel **crowded** at any of the following locations during your visit to this recreation area today? (Circle One Number For Each Item)

LOCATION/AREA	Not At All Crowded		Slightly Crowded		Moderately Crowded		Extremely Crowded		Did Not Use/ Not Applicable	
Campground	1	2	3	4	5	6	7	8	9	<input type="checkbox"/>
Shoreline camping area	1	2	3	4	5	6	7	8	9	<input type="checkbox"/>
Picnic area	1	2	3	4	5	6	7	8	9	<input type="checkbox"/>
Boat launch	1	2	3	4	5	6	7	8	9	<input type="checkbox"/>
Trail	1	2	3	4	5	6	7	8	9	<input type="checkbox"/>
Trailhead	1	2	3	4	5	6	7	8	9	<input type="checkbox"/>
Other shoreline area	1	2	3	4	5	6	7	8	9	<input type="checkbox"/>
Water surface	1	2	3	4	5	6	7	8	9	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	6	7	8	9	<input type="checkbox"/>

B) If you felt crowded, did you modify your recreation plans because you felt crowded? ☐ Yes ☐ No ☐ Did Not Feel Crowded

C) If YES, what did you do? ☐ Moved to a new location ☐ Choose not to recreate
☐ Changed the time of day ☐ Did nothing
☐ Changed your activity ☐ Other (specify): _____

23. A) Are you recreating at your preferred location today? ☐ Yes ☐ No

B) If NOT, what was your preferred location? _____

C) Why were you unable to use or go to your preferred location? _____

24. A) On this trip, did you experience any situations or encounters on the land or water that put you, or others, at risk? ☐ Yes ☐ No

B) If YES, please identify why you felt at risk in the space below.

C) If YES, please identify the location where you felt at risk in the space below.

25. Did anything prevent you or a member of your group from participating in desired recreation activities at this recreation area?

☐ No ☐ Yes. If YES, please identify the location(s) and the thing(s) that prevented your participation in the space below.

SECTION 3 - Your Thoughts on Potential New Recreation Improvements at the Recreation Area...

26. Please rate your preference for the following **Potential New Recreation Facility Improvements** for the recreation area you are currently visiting.

(Please circle one number for each item)	Highly Preferred	Slightly Preferred	Neither	Slightly Not Preferred	Not At All Preferred	No Opinion/ Not Applicable
BOAT LAUNCH IMPROVEMENTS						
Boat launches	1	2	3	4	5	<input type="checkbox"/>
Boat launch lanes	1	2	3	4	5	<input type="checkbox"/>
Boat trailer parking (double space)	1	2	3	4	5	<input type="checkbox"/>
Vehicle parking (single space)	1	2	3	4	5	<input type="checkbox"/>
Courtesy dock	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
CAMPING IMPROVEMENTS						
Campsites	1	2	3	4	5	<input type="checkbox"/>
Group campsites	1	2	3	4	5	<input type="checkbox"/>
Boat-in campsites	1	2	3	4	5	<input type="checkbox"/>
Walk-in campsites	1	2	3	4	5	<input type="checkbox"/>
Pull-through camping parking spurs	1	2	3	4	5	<input type="checkbox"/>
Longer/wider camping parking spurs	1	2	3	4	5	<input type="checkbox"/>
Restrooms	1	2	3	4	5	<input type="checkbox"/>
Potable water	1	2	3	4	5	<input type="checkbox"/>
Showers	1	2	3	4	5	<input type="checkbox"/>
Food storage lockers	1	2	3	4	5	<input type="checkbox"/>
Trash receptacles	1	2	3	4	5	<input type="checkbox"/>
Vehicle parking (single space)	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
PICNIC AREA IMPROVEMENTS						
Group picnic sites	1	2	3	4	5	<input type="checkbox"/>
Picnic sites	1	2	3	4	5	<input type="checkbox"/>
Restrooms	1	2	3	4	5	<input type="checkbox"/>
Potable water	1	2	3	4	5	<input type="checkbox"/>
Showers	1	2	3	4	5	<input type="checkbox"/>
Trash receptacles	1	2	3	4	5	<input type="checkbox"/>
Vehicle parking (single space)	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
TRAILHEAD IMPROVEMENTS						
Vehicle parking (single space)	1	2	3	4	5	<input type="checkbox"/>
Foot trails to the shoreline	1	2	3	4	5	<input type="checkbox"/>
Foot trails around the shoreline	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
INFORMATION RESOURCES						
Interpretive/education information	1	2	3	4	5	<input type="checkbox"/>
Recreation visitor information	1	2	3	4	5	<input type="checkbox"/>
Reservoir water surface elevation information	1	2	3	4	5	<input type="checkbox"/>
River/stream flow information	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
OTHER IMPROVEMENTS						
Accessible fishing pier	1	2	3	4	5	<input type="checkbox"/>
Dump station	1	2	3	4	5	<input type="checkbox"/>
Floating restroom	1	2	3	4	5	<input type="checkbox"/>
Signage to the recreation area	1	2	3	4	5	<input type="checkbox"/>
Signage within recreation area	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>

SECTION 4 - About You

27. How did you learn about this recreation area? ☐ Word of mouth ☐ Internet ☐ Forest Service ☐ Other: _____
28. What is the zip code for your primary residence? _____ OR _____
(Zip Code) (Postal Code/Country)
29. Your Age: _____
30. Are you? ☐ Male ☐ Female
31. Please tell us which of the following categories best represents your ethnicity:
- | | | | |
|---|--------------------------------|--|---|
| <input type="checkbox"/> American Indian/Alaskan Native | <input type="checkbox"/> Asian | <input type="checkbox"/> Black/African-American | <input type="checkbox"/> Hispanic/Latino |
| <input type="checkbox"/> Native Hawaiian/other Pacific Islander | <input type="checkbox"/> White | <input type="checkbox"/> Spanish Hispanic/Latino | <input type="checkbox"/> Other (specify): _____ |
32. What is your primary spoken language? _____

SECTION 5 - Comments

33. Please let us know if you have any additional comments regarding your recreation experience during your visit in the space below.

Yuba County Water Agency Thanks You For Taking The Time To Participate In This Survey!

[This will be the back of the final page of the survey. This page will consist of a map of the Project recreation areas. YCWA, in collaboration with Relicensing Participants, is developing a map of the Project including all Project recreation facilities and recreation zones to assist visitors' identification of facilities, sites, and areas for this survey.]

ATTACHMENT 8.1D

DRAFT HOUSEBOAT SURVEY

New Bullards Bar Reservoir Houseboat Survey

The following survey has been designed to help the Yuba County Water Agency understand the needs and preferences of houseboat users of recreational facilities and opportunities provided at New Bullards Bar Reservoir (NBBR). This survey is specific to your most recent houseboating visit to NBBR in 2012. Please complete the survey and return it in the self-addressed stamped envelope provided.

SECTION 1 - Your Trip Characteristics

1. How many times did you visit NBBR for houseboating in 2012: _____.
2. On your most recent houseboating visit to NBBR, what date did you: (a) arrive _____, and (b) depart _____.
3. Regarding NBBR, how often do you visit? ☐ 1 to 4 times per year ☐ 5 to 10 times per year ☐ More than 10 times per year
4. Which of the following best describes your recreation group during your houseboating visit to NBBR in 2012? (Check One)

<input type="checkbox"/> Alone	<input type="checkbox"/> Friends	<input type="checkbox"/> Family & Friends	<input type="checkbox"/> Other (specify): _____
<input type="checkbox"/> Family	<input type="checkbox"/> Multiple Families	<input type="checkbox"/> Organized Outing Group	
5. How many people, vehicles, boats, and water-related equipment were included with your houseboat during your most recent visit to NBBR? (Write a number for each item per houseboat)

_____ People (include yourself)	_____ Personal watercraft (PWC) / Jet ski
_____ Vehicles used to travel to the area (include trucks, cars, RVs, etc.)	_____ Canoes/kayaks/other non-motorized watercraft
_____ Trailer for Boat/PWC/Raft	_____ Fishing tubes
_____ Tents	_____ River tubes
_____ Powerboats (under 15 horsepower)	_____ Other, specify: _____
_____ Powerboats (15 horsepower or larger)	_____ Other, specify: _____
6. Check each of the activities that you participated in during your most recent visit to NBBR for houseboating in 2012. (Check all that apply)

<input type="checkbox"/> Fishing	<input type="checkbox"/> Picnicking
<input type="checkbox"/> Flat-water, motorized boating	<input type="checkbox"/> River/stream boating (e.g., raft, kayak, canoe)
<input type="checkbox"/> Flat-water, non-motorized boating (e.g., kayaks, canoes)	<input type="checkbox"/> Swimming
<input type="checkbox"/> Gold panning	<input type="checkbox"/> Water skiing, wakeboarding, etc.
<input type="checkbox"/> Hiking or walking	<input type="checkbox"/> Wildlife viewing (birding, etc)
<input type="checkbox"/> Mountain biking	<input type="checkbox"/> Other (specify): _____
<input type="checkbox"/> OHV use	<input type="checkbox"/> Other (specify): _____
7. Besides houseboating, please list the **primary recreation activity** you participated in during your most recent visit: _____
8. If applicable, please list other areas in Central California where you visit to houseboat. (List up to 3 other areas)

1) _____ 2) _____ 3) _____
9. (a) Please rate the relative uniqueness of the houseboating opportunities at NBBR relative to similar opportunities in Central California:

Extremely Common Opportunity	←	→	Extremely Unique Opportunity
1	2	3	4
			5
- (b) Please explain, what, if anything is special or unique about NBBR relative to other reservoirs/lakes in Central California.

SECTION 2 - Your Thoughts on Existing Conditions...

10. Please indicate whether or not the level of the reservoir was a problem for each of the following at NBBR during your most recent visit.

Condition (circle one number for each)	Not a Problem	A Small Problem	Neither	A Moderate Problem	A Large Problem	No Opinion/ Not Applicable
Ability to anchor/moor your houseboat	5	4	3	2	1	<input type="checkbox"/>
Ability to safely houseboat	5	4	3	2	1	<input type="checkbox"/>
Ability to safely boat (other, non-houseboat)	5	4	3	2	1	<input type="checkbox"/>
Ability to launch/take out boat (other, non-houseboat)	5	4	3	2	1	<input type="checkbox"/>
Ability to use the beach area	5	4	3	2	1	<input type="checkbox"/>
Ability to safely swim	5	4	3	2	1	<input type="checkbox"/>
Ability to fish along the shoreline	5	4	3	2	1	<input type="checkbox"/>
Ability to access the shoreline	5	4	3	2	1	<input type="checkbox"/>
Ability to utilize trails	5	4	3	2	1	<input type="checkbox"/>
Scenic quality of shoreline	5	4	3	2	1	<input type="checkbox"/>
Other (specify): _____	5	4	3	2	1	<input type="checkbox"/>

11. (a) Did you experience any conflict with other recreation users during your most recent houseboating visit? ☐ Yes ☐ No

(b) If YES, what circumstance/activity caused the conflict? (check one)

- ☐ Ski boat ☐ PWC / Jet ski ☐ Non-motorized boater ☐ Other (specify): _____
☐ Fishing boat ☐ Other power boat ☐ Unsure

(c) If you experienced conflict, please check the reasons that contributed to the conflict. (Check All That Apply)

- ☐ Proximity to where we were ☐ Rowdiness ☐ Loudness ☐ Other (specify): _____

12. (a) Did you feel crowded at any of the following locations during houseboating visits to NBBR in 2012?

Location/Area (Circle one number for each)	Not At All Crowded		Slightly Crowded		Moderately Crowded		Extremely Crowded		Not Applicable/ Did Not Use	
Water surface	1	2	3	4	5	6	7	8	9	<input type="checkbox"/>
Other shoreline area	1	2	3	4	5	6	7	8	9	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	6	7	8	9	<input type="checkbox"/>

(b) If you felt crowded, did you modify your recreation plans? ☐ Yes ☐ No ☐ Did Not Feel Crowded

(c) If YES, what did you do? ☐ Moved to a new location ☐ Changed your activity ☐ Did nothing
☐ Changed the time of day ☐ Choose not to recreate ☐ Other (specify): _____

13. (a) During your houseboating visit, were you moored at your preferred location? ☐ Yes ☐ No

(b) If NOT, what was your preferred location? _____

(c) In the space below, describe why you were unable to use or go to your preferred location?

14. A) On this trip, did you experience any situations or encounters on the land or water that put you, or others, at risk? ☐ Yes ☐ No

B) If YES, please identify why you felt at risk in the space below.

C) If YES, please identify the location where you felt at risk in the space below.

15. Did anything prevent you or a member of your group from participating in desired recreation activities at this recreation area?

☐ Yes ☐ No If YES, please identify the location(s) and the thing(s) that prevented your participation in the space below.

16. (a) Are there any recreation activities/opportunities that you would like to participate in but are not able to at NBBR? ☐ Yes ☐ No

(b) If yes, please identify the activity/opportunity: _____ .

(c) Please identify why you were not able to participate in your desired activity in the space below.

17. Please rate the acceptability of the following existing conditions at NBBR during your most recent houseboating visit.

IMPORTANT: A) Please only circle a number for the items that you used during your visit to NBBR.
B) Please check the "Not Applicable/Did Not Use" box, if you did not use the item or it does not exist at NBBR.

Facilities	Acceptable	Slightly Acceptable	Neither	Slightly Unacceptable	Unacceptable	Not Applicable/ Did Not Use
Houseboat rental	1	2	3	4	5	<input type="checkbox"/>
Floating restroom	1	2	3	4	5	<input type="checkbox"/>
Trash receptacle(s)	1	2	3	4	5	<input type="checkbox"/>
Vehicle parking area(s)	1	2	3	4	5	<input type="checkbox"/>
Trailer parking area(s)	1	2	3	4	5	<input type="checkbox"/>
Boat ramp	1	2	3	4	5	<input type="checkbox"/>
Courtesy dock	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
If you rated a condition "unacceptable", please identify the item from the table & describe the location and nature of the unacceptable condition:						
Access to New Bullards Bar Reservoir	Acceptable	Slightly Acceptable	Neither	Slightly Unacceptable	Unacceptable	Not Applicable/ Did Not Use
Foot trails to the shoreline	1	2	3	4	5	<input type="checkbox"/>
Foot trails around the shoreline	1	2	3	4	5	<input type="checkbox"/>
Signage to the reservoir	1	2	3	4	5	<input type="checkbox"/>
Signage at the reservoir	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
If you rated a condition "unacceptable", please identify the item from the table & describe the location and nature of the unacceptable condition:						
Information Resources	Acceptable	Slightly Acceptable	Neither	Slightly Unacceptable	Unacceptable	Not Applicable/ Did Not Use
Interpretive/education information	1	2	3	4	5	<input type="checkbox"/>
Recreation visitor information	1	2	3	4	5	<input type="checkbox"/>
Reservoir water surface elevation information	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
If you rated a condition "unacceptable", please identify the item from the table & describe the location and nature of the unacceptable condition:						

SECTION 3 - Your Thoughts on Potential New Recreation Improvements...

18. Please rate your preference for the following potential new recreation facility improvements at NBBR:

	Highly Preferred	Slightly Preferred	Neither	Slightly Not Preferred	Not At All Preferred	No Opinion/ Not Applicable
BOAT LAUNCH IMPROVEMENTS						
Boat launches	1	2	3	4	5	<input type="checkbox"/>
Boat launch lanes	1	2	3	4	5	<input type="checkbox"/>
Boat trailer parking (double space)	1	2	3	4	5	<input type="checkbox"/>
Vehicle parking (single space)	1	2	3	4	5	<input type="checkbox"/>
Courtesy dock	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
CAMPING IMPROVEMENTS						
Campsites	1	2	3	4	5	<input type="checkbox"/>
Group campsites	1	2	3	4	5	<input type="checkbox"/>
Boat-in campsites	1	2	3	4	5	<input type="checkbox"/>
Walk-in campsites	1	2	3	4	5	<input type="checkbox"/>
Pull-through camping parking spurs	1	2	3	4	5	<input type="checkbox"/>
Longer/wider camping parking spurs	1	2	3	4	5	<input type="checkbox"/>
Restrooms	1	2	3	4	5	<input type="checkbox"/>
Potable water	1	2	3	4	5	<input type="checkbox"/>
Showers	1	2	3	4	5	<input type="checkbox"/>
Food storage lockers	1	2	3	4	5	<input type="checkbox"/>
Trash receptacles	1	2	3	4	5	<input type="checkbox"/>
Vehicle parking (single space)	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
PICNIC AREA IMPROVEMENTS						
Group picnic sites	1	2	3	4	5	<input type="checkbox"/>
Picnic sites	1	2	3	4	5	<input type="checkbox"/>
Restrooms	1	2	3	4	5	<input type="checkbox"/>
Potable water	1	2	3	4	5	<input type="checkbox"/>
Showers	1	2	3	4	5	<input type="checkbox"/>
Trash receptacles	1	2	3	4	5	<input type="checkbox"/>
Vehicle parking (single space)	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
TRAILHEAD IMPROVEMENTS						
Vehicle parking (single space)	1	2	3	4	5	<input type="checkbox"/>
Foot trails to the shoreline	1	2	3	4	5	<input type="checkbox"/>
Foot trails around the shoreline	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
INFORMATION RESOURCE IMPROVEMENTS						
Interpretive/education information	1	2	3	4	5	<input type="checkbox"/>
Recreation visitor information	1	2	3	4	5	<input type="checkbox"/>
Reservoir water surface elevation information	1	2	3	4	5	<input type="checkbox"/>
River/stream flow information	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>
OTHER IMPROVEMENTS						
Accessible fishing pier	1	2	3	4	5	<input type="checkbox"/>
Dump station	1	2	3	4	5	<input type="checkbox"/>
Floating restroom	1	2	3	4	5	<input type="checkbox"/>
Signage to the recreation area	1	2	3	4	5	<input type="checkbox"/>
Signage within recreation area	1	2	3	4	5	<input type="checkbox"/>
Other (specify): _____	1	2	3	4	5	<input type="checkbox"/>

SECTION 4 - About You

19. How did you learn about NBBR? (Check All That Apply)

☐ Word of mouth ☐ Internet ☐ Newspaper ☐ Forest Service ☐ Other (please list): _____

20. What is the zip code for your primary residence? _____ OR _____
(Zip Code) (Postal Code/Country)

21. Your Age: _____

22. Are you? ☐ Male ☐ Female

23. Please tell us which of the following categories best represents your ethnicity:

☐ American Indian/Alaskan Native ☐ Native Hawaiian or other Pacific Islander ☐ Hispanic or Latino
☐ Asian ☐ Spanish Hispanic or Latino ☐ Other (specify): _____
☐ Black/African-American ☐ White

24. What is your primary spoken language? _____

SECTION 5 - Comments

25. In the space below, please let us know if you have any additional comments regarding your recreation experience during your most recent houseboating visit in 2012, houseboating in general at NBBR or a the recreation facilities and opportunities at NBBR.

Yuba County Water Agency Thanks You For Taking The Time To Participate In This Survey!

ATTACHMENT 8.1E

DRAFT RESIDENT FOCUS GROUP QUESTIONS

Resident Focus Group
DRAFT Topics and Questions

Resident History

[Option: provide participants with a form with these questions to complete prior to starting the group discussions]

1. Please identify the town you reside in?
2. Is it a full-time or part-time residence?
3. If part-time, how many months do you spend at this residence in a year, on average?
4. How many years have you owned a home/resided in the area?

NBBR Recreational Activities and Access

5. How many years have you been visiting NBBR?
6. What types of outdoor recreation activities do you engage in at NBBR?
7. Where do you engage in these recreation activities?
 - Facilities?
 - Other areas/shoreline (identify on a map)?
8. In general, how many days per year do you spend recreating outdoors at NBBR (hiking, fishing, tubing, boating, picnicking)?
9. In general, what season do you visit NBBR? (summer, shoulder, non-peak)
10. What season do you visit NBBR most often? (summer, shoulder, non-peak)
11. Have any of you recreated at NBBR and then stopped recreating there for any reason?
 - If yes, what are the reasons you have stopped visiting NBBR?
12. Are there any constraints to any outdoor recreation activities you would like to participate in at NBBR?
 - Is so, please tell us what kinds of constraints you have found that have prevented you from engaging in your activity?
 - Do you have any potential solutions to these constraints?

NBBR Shoreline Access

Tell us about access to NBBR shoreline outside of the facilities?

13. Identify where visitors are typically accessing the NBBR shoreline (Identify on a map)?
14. How do you access these areas (roads, trails, etc.) (Identify on a map)?
15. Are there any constraints to accessing the NBBR shoreline?
 - If so, please tell us what kinds of constraints you have found that have prevented you from accessing the NBBR shoreline?
 - Do you have any potential solutions to these constraints?
16. Rate overall access quality to the NBBR shoreline (1=totally unacceptable, 2=slightly unacceptable, 3=marginal, 4=slightly acceptable, 5=totally acceptable)

River Reach Recreational Activities and Access

17. Which of the study reaches do you visit for recreational activities? [Oregon Creek, Middle Yuba River, North Yuba River, or Yuba River]

The remaining section questions will be separate by study reach

18. What types of outdoor recreation activities do you engage in on these rivers?

19. Does the flow in the river effect your decision to recreate on these rivers?

- If so, how do you find out the flow level?

20. Does you participate in certain activities at certain flow levels?

- If so, what are the activities and the flow levels for each?

21. In general, how many days per year do you spend outdoor recreating (hiking, fishing, tubing, boating, and picnicking) on these river reaches?

22. In general, what season do you visit these rivers (summer, shoulder, non-peak)?

23. What season do you visit these rivers most often (summer, shoulder, non-peak)?

24. Have any of you recreated along these rivers and then stopped recreating there for any reason?

- If yes, what are the reasons you have stopped visiting these rivers?

25. Are there any constraints to any outdoor recreation activities you would like to participate in on these river reaches?

- If so, please tell us what kinds of constraints you have found that have prevented you from engaging in your activity?
- Do you have any potential solutions to these constraints?

Trends, Issues, and Conflicts

26. Are there outdoor recreational activities that take place at New Bullards Bar Reservoir and the affected stream reaches that have changed over the years?

- If so what are these and how have they changed? [Be as specific as possible about use levels and trends]

27. Do you feel there are adequate opportunities for outdoor recreation in the Project Area?

- If not, what is missing?

28. What types of outdoor recreation activities do you enjoy most in the Project Area?

29. How often do you engage in each type of outdoor recreation activity?

30. Have you changed your recreation behavior (time you visit, where you go to recreate, etc.) for any reason over the years? If so, how?

31. Are there any areas within the Project Area where you have safety concerns?

- If so, where and what types of concerns do you have?