### Study 8.1 RECREATION USE AND VISITOR SURVEYS

November 2010

### 1.0 <u>Project Nexus</u>

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 <u>Resource Management Goals of Agencies with</u> <u>Jurisdiction Over the Resource to be Studied</u>

[Relicensing Participants - This section is a placeholder in the Pre-Application Document (PAD). Section 5.11(d)(2) of 18 CFR states that an applicant for a new license must in its proposed study *"Address any known resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied."* During 2010 study proposal development meetings, agencies advised License that they would provide a brief written description of their jurisdiction over the resource to be addressed in this study. If provided before Licensee files its Proposed Study Plan and Licensee agrees with the description, Licensee will insert the brief description here stating the description was provided by that agency. If not, prior to issuing the Proposed Study Plan, Licensee will describe to the best of its knowledge and understanding the management goals of agencies that have jurisdiction over the resource addressed in this study. Licensee]

### 3.0 <u>Existing Information and Need for Additional</u> <u>Information</u>

YCWA's Preliminary Information Package (YCWA 2009) includes 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. Of significance, Section 7.8.4 of the Preliminary Information Package summarizes Project recreation use with data on total visitation; developed campground site occupancy (*i.e.*, number of sites and percent of capcity); 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 Preliminary Information Packager 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 Boundary<sup>1</sup> 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.

Licensee 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 Licensee 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, Licensee collects all recreation user fees (via concessionaire), which Licensee 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 <u>Study Goals and Objectives</u>

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.

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 at Project recreation areas
  - Describe user preferences and expectations of different recreation facilities, and their tolerances for various conditions, including water surface elevation, at Project recreation areas
  - > Identify recreation issues such as safety, conflicts, or crowding

<sup>&</sup>lt;sup>1</sup> 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.

- Describe users' attitudes toward management actions that might be used to improve experiences or address problems at Project recreation areas
- > Describe recreation visitors' activities at Project recreation areas
- Describe Project recreation visitors' socio-demographic characteristics
- Describe Project recreation visitors' 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 Vicinity<sup>2</sup> 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

### 5.0 <u>Study Methods and Analysis</u>

### 5.1 Study Area

For the purpose of this study, the study area encompasses the Project lands within area affected by the FERC Project.<sup>3</sup> Of note, YCWA has separated the Project recreational use into two distinct resource areas -1) New Bullards Bar Reservoir; and 2) and the Project diversion dams (Log Cabin and Our House).

At New Bullards Bar Reservoir, the study area includes the developed recreation facilities (*i.e.*, campgrounds, day use areas, and boat launches); and, the undeveloped shoreline camping areas.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> 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.

In particular, New Bullards Bar Reservoir consists of two developed family campgrounds (66 campsites), two boat-in campgrounds (30 campsites), one group campground (6 campsites), two day use areas (16 picnic units), and two boat launch facilities (5 launch lanes). In addition, YCWA will survey any additional facilities/areas within any of the developed facilities in Table 5.1-1 such as trailheads or picnic units.

At the Project diversion dam sites, the study area includes the shoreline parking and access areas at Our House Diversion Dam and the area beyond the locked gate on the access road leading to Log Cabin Diversion Dam.

Resource Area	Facility Type	Recreation Site	Capacity
		Hornswoggle Group Campground	6 campsites
		Schoolhouse Campground	56 campsites
	Developed Camping	Dark Day Campground	10 campsites
		Garden Point Boat-In Campground	20 campsites
		Madrone Cove Boat-In Campground	10 campsites
New Bullards Bar	Undeveloped Camping	Undeveloped Shoreline Camping Area	44 campsites/permits
Reservoir	Day Use	Dark Day Picnic Area	14 picnic sites
		Sunset Vista Overlook	2 picnic sites / 20 VAOT
		Dam Overlook	5 VAOT
		Moran Road Day Use	8 VAOT
	Boat Launch	Dark Day Boat Launch	114 VAOT
	Boat Launen	Cottage Creek Boat Launch	56 VAOT
Project Diversion	Undeveloped Day Use	Log Cabin Diversion Dam <sup>4</sup>	n/a
Dams	Undeveloped Day Use	Our House Diversion Dam <sup>4</sup>	n/a

 Table 5.1-1. Study areas for the Recreation Use and Visitor Survey Study.

### 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.

- 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.
- 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 – Inventory and Evaluate the Existing Recreation Facilities for Condition, ADA Compliance and Use Impacts

Licensee will inventory and evaluate the Project's developed recreation facilities (above ground systems only<sup>4</sup>) listed in Table 5.1-1. 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 component of the developed recreation facilities; 3) an assessment of whether each

<sup>&</sup>lt;sup>4</sup> Licensee will only evaluate the above-ground facilities and systems at each of the sites listed in Table 5.1-1. Below-ground facilities and systems such as water distribution and septic systems will be monitored as part of routine operation and maintenance; and repaired as needed.

component complies with current ADA accessibility guidelines; and 4) an assessment of the use impacts at each recreation facility. Each of the tasks is described below.

#### 5.3.1.1 Inventory Recreation Facilities

Licensee will inventory the number and type of recreation facilities at the project recreation facilities listed in Table 5.1-1. 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), Licensee 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. Licensee will use a basic inventory form (an example form is provided in Attachment 8.1A).

#### 5.3.1.2 Facility Condition Assessment

Licensee will conduct a qualitative assessment of the condition of developed recreation facilities and signs at the facilities listed in Table 5.1-1. The assessment categories are poor, fair and good condition. Table 5.3.1-1 provides evaluation criteria that will be used by type of recreation facility feature.

Variable	Condition Evaluation Categories and Criteria				
variable	0 - Poor	1 - Fair	2 - Good		
<b>Roads &amp; Parking</b> (circulation and condition of surface paving)	All surfaces are in disrepair and need of immediate reconditioning or replacement. Current conditions create safety hazards.		All surfaces in excellent condition and well maintained. No rehabilitation required within the next 5-10 years.		
Recreation Site Amenities (condition of vehicle spur, 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.		
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.		
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.		

Table 5.3.1-1.	Facility site	condition e	evaluation	categories a	nd criteria.
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Based on the rating of each variable/site component in the table above, an overall facility evaluation score will be calculated using the following scale.

• Score = 8: Excellent condition

- Score = 6 to 7: Good condition requiring routine care/maintenance
- Score = 3 to 5: Fair condition may require some rehabilitation
- Score = 0 to 2: Poor condition likely to require immediate rehabilitation work

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

#### 5.3.1.3 Accessibility Assessment

Licensee will assess the developed recreation facilities in Table 5.1-1 for their compliance with current Forest Service Outdoor Recreation Accessibility Guidelines (FSORAG) for accessible design. Licensee 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), Licensee will use the current FSORAG. At the Cottage Creek Boat Launch facility (the only facility not on NFS land), License will use the ADA and Architectural Barriers Act Accessibility Guidelines (ABAAG) developed by the United States Access Board (USAB 2004).

Licensee will evaluate each facility against these standards and then utilize a rating system that categorizes the level of accessibility at each facility. Licensee will use the following three ratings: inaccessible, partially accessible and fully accessible. Licensee will assign a rating using the evaluation criteria in Table 5.3.1-2.

Variable	Accessibility Categories			
v ar lable	0 – Inaccessible	1 – Partially Accessible	2 - Accessible	
ADA Compliance (presence of accessible facilities and other FSORAG/ ABAAG factors)	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 ( <i>e.g.</i> , slopes too steep, docks inaccessible, etc.)	High quality of accessibility. Facilities appear fully consistent with current FSORAG/ ABAAG standards.	

Table 5.3.1-2.	Level of a	accessibility	categories and	rating system.
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An example of the ADA accessibility compliance checklist for outdoor recreation facilities is contained in Attachment 8.1A , 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 or ABAAG – 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.

#### 5.3.1.4 Assessment of Recreation Use Impacts

Licensee will also assess the recreation use impacts at each of the recreation facilities (see Table 5.1-1). The recreation use impact evaluation at each facility/reservoir is categorized as low, moderate, or high depending on the amount and dispersion of use impact signs. 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.

Variable	Use Impact Categories			
variable	0 - Low	1 – Moderate	2 - High	
Recreation Use Impact	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 8.1A) 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, Licensee'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.

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

Licensee will conduct observations and visitor surveys to gather information to address the study goals, objectives, and issues at each of the facilities listed in Table 5.1-1.

#### 5.3.2.1 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 Licensee'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 survey instrument is provided in Attachment 8.1B at the end of the study plan. The survey content will be refined 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 pretested in the field with recreation users, and, refined for clarity, if necessary.

#### 5.3.2.2 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

The target population that Licensee will focus on is based on the overall Project recreation use estimate for 2008, which was 104,194 Recreation Days and day use accounting for 51 percent of total use (YCWA 2009). Thus, the total survey sample size for the Project will be at least 383 surveys, which was calculated using a 95 percent confidence interval with a sampling error no more than +/-5 percent (Salant and Dillman 1994, pp. 55-56).

Since it is not apparent how varied the Project sample population is, Licensee 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 Licensee 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).

Licensee will aim to get a minimum of 415 target surveys for the Project. To provide an approximate target number of surveys for each recreation site, Licensee first considered the split between day use (51%) and overnight use (49%) at the Project (YCWA 2009), and allocated that same percentage of target surveys for the day use facilities (212 surveys) and overnight/camping facilities and areas (203 surveys). Second, since Licensee does not have site-specific use data for all of the recreation facilities, Licensee used the site capacities in people-at-one-time (PAOT) at the recreation sites, except for the boat launches, where Licensee used the vehicle-at-one-time (VAOT). Table 5.3.2-1 displays the target number of surveys for each recreation site.

Licensee 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. Licensee will continuously monitor the survey returns, and if survey targets are not being met at survey sites, Licensee will re-evaluate the sampling frequency to determine if additional efforts should be made at these survey sites. Also, for all survey sites, Licensee 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.

Resource Area	Facility Type	Recreation Site	Estimated Target No. of Surveys	
		Hornswoggle Campground	30	
		Schoolhouse Campground	70	
		Dark Day Campground	15	
	Developed Camping	Garden Point Boat-In Campground <sup>1</sup>	20	
		Madrone Cove Boat-In Campground <sup>1</sup>	15	
		Undeveloped Shoreline Camping Area <sup>2</sup>	45	
New Bullards Bar Reservoir	Undeveloped Camping Day Use	Dark Day Picnic Area	40	
		Sunset Vista Overlook	10	
		Dam Overlook	10	
		Moran Road Day Use	10	
	De et Levre de	Dark Day Boat Launch	95	
	Boat Launch	Emerald Cove Marina Boat Launch	35	
Project Diversion Dr	Undevialened Day Us-	Log Cabin Diversion Dam	20	
Project Diversion Dams	Undeveloped Day Use	Our House Diversion Dam	20	

Table 5.3.2-1.	Target number of	visitor surveys at	<b>New Bullards Bar</b>	Reservoir by recreation site.

<sup>1</sup> Licensee will place mail-back windshield surveys at both boat launch facilities and survey dropboxes at the boat-in campgrounds to survey the visitors who use the boat-in campgrounds.

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, Licensee will do its best to attain this survey target.

#### Pre-Test Survey Instrument

Licensee will conduct a pre-test of the survey questionnaire. 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.

#### Sampling Frequency

The sampling frequency will be divided into two categories – peak and off-peak seasons. The peak season for all recreation use and activities on the Project is from April 15 through October 15. 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 monthly sampling frequency for the peak season will be:

- two randomly selected weekday days per month
- two randomly selected weekend days (Saturday and Sunday) per month
- one pre-selected holiday day for each three-day holiday weekend (3 holiday days total) (Memorial Day, Independence Day and Labor Day holiday weekends)

The monthly sampling frequency for the off-peak season will be:

- two randomly selected weekday days per month
- two randomly selected weekend days (Saturday and Sunday) per month

Licensee 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 recreaton visitor's attitudes, beliefs, and preferences at project recreation resource areas, Licensee 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 Licensee's surveyor will conduct a recreation observation survey (see Section 5.4.1-4) and a visitor survey (see Section 5.3.2.5) 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. Licensee'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 Licensee'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.

#### 5.3.2.4 Observation Survey

During the observation survey, the Licensee 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, and the number and type of boats (at the boat launch facilities). This data will be used to identify the types of recreation activities visitors participate in. In addition, this data will also be used to calculate aspects of the Project recreation use estimate (Step 3 in Section 5.3.3). Once the counts are completed, the surveyor will also administer an on-site recreation visitor questionnaire survey to randomly selected recreation visitors (Section 5.3.2.5).

#### 5.3.2.5 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 collected during visitor survey collection, whereby Licensee'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 mailback windshield survey. In addition, Licensee 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.

#### 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, Licensee 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 Reservior; 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. Licensee will number each survey in order to track both on-site response and windshield response rates.

Licensee anticipates utilizing mail-back surveys at boat launch areas and trailheads. In addition, Licensee will utilize mail-back surveys at the boat launches to survey visitors using the boat-in campgrounds. Licensee 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 Survey

A visitor survey will be sent to all houseboat owners based within the Project. Names and addresses for houseboat owners will be obtained by Licensee in cooperation with the concessionaire. 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 before Labor Day Weekend in 2012.

#### Direct Mail Houseboat Renters Survey

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 owners will be obtained by Licensee 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 survey.

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 Licensee 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 Licensee does not receive the survey back from the houseboat owner/renter within one week, then Licensee 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.

#### 5.3.2.6 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.

Licensee will conduct two focus group meetings -- one focus group meeting each with the Camptonville and the Oregon House/Dobbins communities. Each focus group meeting will have no more than 10 participants. Licensee will consult with Relicensing Participants to develop an initial list of potential focus group participants. Licensee's researchers will make a good faith effort to reach identified individuals to attend the focus group meetings.

#### Focus Group 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

November 2010

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

Licensee will accomplish Step 3 in two parts. First, for each recreation site, Licensee 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, Licensee will calculate the frequency distribution of observed recreation activities during the surveyed recreation season.

Second, Licensee 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 Licensee's concessionaire records and observation surveys. Licensee'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 5.4.1. 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.

Licensee'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, Licensee 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. Licensee will combine each of the use estimates to get a total recreation use estimate for New Bullards Bar Reservoir. Licensee will utilize the following types of use data at each use area.

#### Developed Campground Use

Licensee will use the concessionaire records for the developed campgrounds, which provides the number of sites occupied by day type. Licensee will then multiply the number of sites occupied by the average group size from the visitor survey results at the respective developed campgrounds (Section 5.3.2.5).

#### Undeveloped Shoreline Camping Use

Licensee will use the concessionaire records for the number of permits given for this type of overnight use. Licensee will then multiply the number of permits by the average group size from the visitor survey results at the undeveloped shoreline camping areas (Section 5.3.2.5).

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

Licensee will use the observation survey data at the boat launch and day use facilities. Licensee 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 5.3.2.5). Finally, Licensee 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.

#### Reservoir Houseboating Use

Licensee will calculate the level of houseboat use in two parts – rental and permanent houseboat use. For the rental houseboat use, Licensee 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 5.3.2.5).

For the permanent houseboat use, Licensee 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 5.3.2.5). 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, Licensee will use observation surveys (Section 5.3.2.4) 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 5.3.2.5) 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

Licensee will identify the future use and demand opporuntities 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, Licensee will perform the three tasks described below.

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

Licensee will review and summarize relevant information from the 2007 California Public Attitudes Outdoor Recreation Survey (CDPR, 2007). In addition, Licensee 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, Licensee 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.

#### Task 2 - Collect Unmet Project Area Recreation Demand Information

Licensee will collect additional unmet recreation demand information from Project visitors in Licensee'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.

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

Licensee 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.

#### Task 1 - Review Existing Recreation Use Trends

Since past use often helps predict future use, Licensee 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).

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

Licensee 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. Licensee 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.

#### 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, Licensee will make a qualitative assessment of its potential affect on future recreation use (if feasible).

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

Based on historical trends, future growth projections, and likely foreseeable actions in the watershed, Licensee 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, Licensee 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), Licensee will rely on the activity participation indeces 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.

#### Task 1 - Review Results of Visitor Questionnaires

Licensee will review Licensee 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.

#### Task 2 - Identify Regional Recreational Opportunities

Licensee will identify the geographic draw of the Project's top primary recreation opportunities identified in Task 1 above. Licensee will assess the geographic extent of visitors' origins and location of the alternative recreation resource areas where visitors participate in their primary recreation activities. Licensee 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.

<u>Task 3 - Assess the Uniqueness and Significance of the Project-Related Recreation Opportunities</u> First, Licensee 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, Licensee 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, Licensee will identify if these recreation opportunities are of local, regional or state significance. Licensee will determine the level of significance based on the county where visitor's 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 – Data Entry and QA/QC Review of Data

Following data collection, Licensee 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 5). Licensee 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. Licensee will conduct these QA/QC procedures both manually by Licensee 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, Licensee 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.

#### 5.3.6 Step 6 – Data Analysis and Report Preparation

#### 5.3.6.1 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, Licensee 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. For each study area, survey analyses will depend on the nature of the recreation users, but will likely focus on the following perspectives:

- Day users versus overnight users
- Developed facility users
- Dispersed users
- User groups defined by primary recreation activity
- Motorized versus non-motorized recreationists

Within the analysis, Licensee 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.

#### 5.3.6.2 Report Preparation

Licensee 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 <u>Study-Specific Consultation</u>

Licensee will engage in the following study-specific consultation:

- Licensee 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.
- Licensee will consult with Relicensing Participants to develop an initial list of potential focus group participants.

### 7.0 <u>Schedule</u>

Licensee anticipates the schedule to complete the study proposal is as follows assuming the PAD is filed on November 1, 2010, and FERC issues its Study Determination by October 4, 2011:

Facility Evaluations	October 2011
Survey Logistics/ Planning	
Surveyor Training/Field Reconniassance	
Field Work	
Resident Focus Groups	October 2011 – September 2012
Data Entry and QA/QC Review	October 2011 – September 2012
Data Analysis/Prepare Report	November 2012-March 2013

### 8.0 <u>Consistency of Methodology with Generally Accepted</u> <u>Scientific Practices</u>

Licensee's methodology for planning, implementing, and analyzing visitor surveys is consistent with professional practice (Salant and Dillman, 2000; Watson *et al.*, 2000). In addition, Licensee 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, DeSabla-Centerville Project, Yuba-Bear Hydroelectric Project, and Drum-Spaulding Project.

### 9.0 Level of Effort and Cost

[Relicensing Participants – YCWA will include a cost range estimate for this study in its Proposed Study Plan. YCWA]

### 10.0 <u>References Cited</u>

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- Dillman, D. A. 2000. Mail and Internet Surveys: The Tailored Design Method. John Wiley & Sons.
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### **ATTACHEMENT 8.1A**

### **SAMPLE FACILITY EVALUATION FORMS** (Inventory, Condition, Accessibility and Use Impact)

#### Facility Name: \_ Location: \_ Date: \_ Site Type: Campground / Day Use / Boat Launch / Other: Surveyor: \_\_\_\_\_ SITE AMENITIES Type of Amenity ADA Condition # Notes Standard campsite G / F / P RV campsite G / F / P Hike-in/tent site G / F / P Vehicle spur G / F / P Campground Picnic table G / F / P G / F / P Fire ring Cooking grill G / F / P G / F / P Tent pad G / F / P Food locker Water spigot G / F / P Picnic table G/F/P Cooking grill G / F / P Picnic Area Food locker G / F / P G / F / P Water spigot Water fountain G / F / P Type (Pit/Vault/Flush) G / F / P Restroom Stalls/unit G / F / P Sink G / F / P Launch ramp G / F / P Boat Launch Dock/Pier G/F/P G / F / P Trash Receptacles G / F / P G / F / P Other

#### **Facility Inventory and Condition Form Example**

#### B. ROADS, PARKING AND SIGNS

А

PARKING	Total Spaces:	Std: ADA: Van ADA: Double: Overflow:	Condition
	Surface Type:	Asphalt Concrete Gravel Other:	G/F/P
	Barrier Type:	None Curb Boulder Wood post Log Other:	G / F / P
ROADS	Road Type:	Loop Semi-loop In-Out Other:	Condition
	Surface Type:	Asphalt Concrete Gravel Other:	G / F / P
	Barrier Type:	None Curb Boulder Wood post Log Other:	G / F / P

G / F / P G / F / P

Signs	#	Size	Material	Condition	Comments
FERC Project			wood / metal / other	G / F / P	
Facility ID			wood / metal / other	G / F / P	
Regulations			wood / metal / other	G / F / P	
Directional			wood / metal / other	G / F / P	
Interpretive			wood / metal / other	G / F / P	

#### SITE LAYOUT/SCHEMATIC

C.

#### D. SITE CONDITION EVALUATION

Component	Score (0 – 2)	Comments
Roads/Parking		
Buildings		
Signs		
Amenities		
OVERALL		

#### E. ACCESSIBILITY EVALUATION

Component	Score (0 – 2)	Comments
Accessibility		

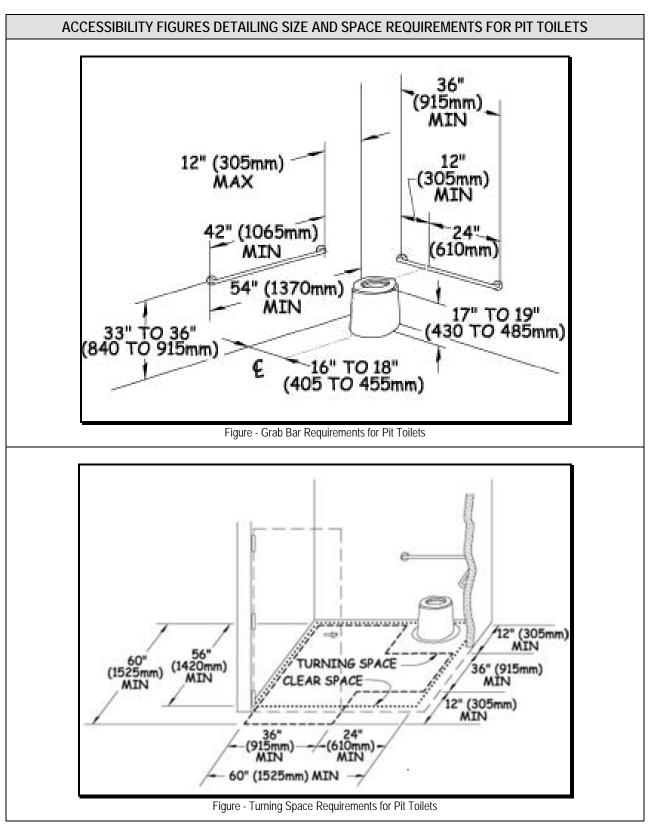
#### F. NOTES

#### PARKING LOTS YES NO 1. Are accessible spaces approximate to the facility? a) Are they identified as reserved for use by individuals with physical abilities? 2. Are there parking spaces open on one side, allowing room (12' minimum width) for individuals in wheelchairs or on braces and crutches to get in and out onto a level surface? a) Do they allow people to get in and out on a level surface? 3. Is it unnecessary for individuals in wheelchairs or those using braces and crutches to wheel or walk behind parked cars? 4. Is distribution of spaces for use by the disabled in accordance with the frequency and persistency of parking needs? YES PATHWAYS/WALKS NO 1. Are public walks at least 48" wide? a) Is the gradient no greater than 5%? 2. Are walks of a continuing common surface, not interrupted by steps or abrupt changes in level? 3. Wherever they cross other walks, driveways, or parking lots, do walks blend to a common level? 4. Do walks have a level platform at the top which is (a) at least 5' by 5' if the door swings out onto the platform or toward the walk, or (b) 3' by 5' if the door doesn't swing onto the platform? 5. Does the platform extend at least 1 foot beyond each side of the doorway? YES RAMPS NO 1. Do ramps have a slope no greater than 1 foot rise in 12 feet? 2. Do ramps have handrails on at least one side? a) Are they 32" in height measured from the surfaces of the ramp? b) Are the surfaces smooth? c) Do they extend 1' beyond the top & bottom of the ramp? 3. Do ramps have a non-slip surface? a) Do platforms comply with Questions B4 & B5? 4. Do ramps have at least 6 feet of straight clearance at the bottom? 5. Do ramps have level platforms at 30 foot intervals for purposes of rest and safety, and wherever they turn? ENTRANCES/EXITS YES NO 1. Is at least one primary entrance to each building usable by individuals in wheelchairs? (It is preferable that all or most entrances/exits should be accessible to, and usable by, individuals in wheelchairs or other forms of physical disability). 2. Is at least one entrance usable by individuals in wheelchairs on a level that would make the elevators accessible? DOORS AND DOORWAYS YES NO 1. Do doors have a clear opening of no less than 32" when open? a) Are they operable by a single effort? Note: Two-leaf doors are not usable by those with disabilities unless they operate by single effort, or unless one of the two leaves meets the 32" width. 2. Are the doors operable with pressure or strength, which could reasonably be expected from disabled persons? 3. Is the floor on the inside and outside of each doorway level for a distance of 5 feet from the door in the direction the door swings? a) Does it extend 1' beyond each side of the door? 4. Are sharp inclines and abrupt changes in level avoided at doorsills? 5. Do door closers allow the use of doors by the physically disabled persons?

#### Accessibility Evaluation Form Example

YES	NO	RESTROOMS
		1. Are there an appropriate number of toilet rooms for each sex?
		a) Are they accessible to physically handicapped persons?
		b) Are they usable by physically handicapped persons?
		2. Do toilet rooms have turning space 60" x 60" to allow traffic of individuals in wheelchairs?
		3. Do toilet rooms have at least one toilet stall that:
		a) is three feet wide?
		b) is at least 4'8" (preferably 5 feet) deep?
		c) has a door that is 32" wide and swings out?
		d) has grab bars on each side, 33" high and parallel to the floor, 1½" in diameter, with 1½" clearance between rail and wall, fastened securely to the wall at the ends and center?
		e) has a width of at least 48" between the wall and the front of the stall entrance?
		f) has water closet with seat 20" from the floor?
		4. Do toilet rooms have lavatories with narrow aprons, which, when mounted at standard height, are usable by individuals in wheelchairs?
		5. Are drain pipes and hot water pipes covered or insulated?
		6. Are some mirrors and shelves at a height as low as possible and no higher than 40 inches above the floor?
		7. Do toilet rooms for men have wall mounted urinals with the opening of the basin 19" from the floor, or have floor mounted urinals that are level with the main floor of the toilet room?
		8. Do toilet rooms have towel racks mounted no higher than 40" from the floor?
		a) are toilet dispensers mounted no higher than 40" from the floor?
		b) are other dispensers mounted no higher than 40" from the floor?
		c) are disposable units mounted no higher than 40" from the floor?
		9. Are racks, dispensers and disposal units located to the side of the lavatory rather than directly above?
YES	NO	WATER FOUNTAINS
		1. Is there an appropriate number of water fountains?
		a) Are they accessible to physically handicapped persons?
		b) Are they usable by physically handicapped persons?
		2. Do water fountains or coolers have up-front spouts and controls?
		3. Are they hand operated?
		4. Are they hand and foot operated?
		5. If coolers are wall mounted, are they hand operated, with basins 36" or less from the floor?
		6. If there are floor mounted fountains, are spouts no higher than 30"?
<u> </u>		7. Are these fountains accessible to people in wheelchairs?
YES	NO	CONTROLS
		1. Are switches and controls for light, heat, ventilation, window draperies, fire alarms, and all similar controls of frequent or essential use, within the reach of individuals in wheelchairs?

#### Accessibility Evaluation Form Example (continued)



#### Accessibility Evaluation Form Example (continued)

	SECTION A - FOR	ALL RECREATION SITES
VARIABLE NAME		RESPONSE CHOICES
ID Number	Identification number	
Resource Area	Which resource area is site located in?	
Litter	In general, how much litter is found at this site?	<ol> <li>Trace amounts: less than a handful or none</li> <li>Small: about a handful</li> <li>Medium: about a bucketful</li> <li>Large: about a 33 gallon garbage bag full</li> <li>Excessive: over one garbage bag full</li> </ol>
Dump	Does this site get used as a dump (not just litter from camping)?	<ol> <li>No, rarely</li> <li>Yes, sometimes (large items such as cars, beds, etc. in evidence)</li> </ol>
Tree cutting	Does the site show signs of tree cutting for firewood?	<ol> <li>Low: few signs</li> <li>Medium: some signs, especially lower branches of live trees</li> <li>High: many signs, including excessive cutting of live trees</li> </ol>
Access Barriers	Are there management- placed barriers to prevent vehicle access to parts of the site & have people moved the barriers?	<ol> <li>No barriers placed there</li> <li>Barriers there &amp; have not been moved</li> <li>Barriers have been moved</li> </ol>
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: SandyClayRockOther Comment on drainage:
Shade	Does the site have good shade from rocks or trees?	<ol> <li>Low: few trees or rocks with shade</li> <li>Medium: some shade trees/rocks for some parts of the day</li> <li>High: many trees/rocks that offer shade through entire day.</li> </ol>
Screening	Does the site screen groups from each other?	<ol> <li>Not applicable: single site (not cluster)</li> <li>Low: virtually no screening between sites</li> <li>Medium: some screening</li> <li>High: extensive screening</li> </ol>
Reservoir views	Does the site have views of the reservoir?	Poor or no views.     Some views, but not high quality     High quality views.
Landscape views	Does the site offer views of the surrounding landscape?	Poor or no views.     Some views, but not high quality     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?	<ol> <li>Easy: &lt;20' above reservoir, obvious trail, shorter trail (&lt;100'), not too steep.</li> <li>Medium difficulty: over 20' above reservoir less obvious trail, narrower trail, some switchbacks, some scrambling over talus, some poison oak.</li> <li>Hard: &gt;200' above reservoir; less obvious trail; extensive scrambling; poison oak</li> </ol>
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?	<ol> <li>Developed trail</li> <li>User-created trail</li> </ol>
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?	<ol> <li>Low: small areas around fire rings &amp; tent sites</li> <li>Medium: large areas around fire rings &amp; tent sites</li> <li>Large: large contiguous areas &amp; multiple trails to satellite use areas</li> </ol>
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?	Poor: few, small, low quality     Eair: more than one, better quality     Good: more than two sites with flat, unbrushy areas
White Flowers	# of "White Flowers" present (toilet paper)?	

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. GroupsTypical 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?	<ol> <li>Road (within 50 feet)</li> <li>Trail from road (and reservoir)</li> <li>From the reservoir</li> </ol>				
Existing parking spacesHow many vehicle places are available at the site (or at access to the site)?# Report the # of obviously used parking places if those are distinct. 97 - Report 97 there are indistinct areas that could accommodate less than 7 vehicles 98 - Report 98 if an indistinct area could accommodate more than 7 						
Squatter Use	Is the site used for long term camping (over 14 days at one time)?	<ol> <li>Rarely or never used by squatters</li> <li>Occasionally used by squatters</li> <li>Commonly used by squatters</li> </ol>				
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.				
Use Impact Area (North-Sou Comments ( <i>i.e.</i> user impacts	s, sensitive areas, general observations, etc.):					
Site Diagram:						

Adapted from Whittaker & Shelby (2001)

Yuba County Water Agency Yuba River Development Project FERC Project No. 2246

## **ATTACHMENT 8.1B**

### VISITOR SURVEY INSTRUMENT

#### 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, Our House Diversion Dam and Log Cabin Diversion Dam. The survey is 5 pages long and takes approximately 15 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.

			Your Trip Ch	aracteristi	CS		
1.	Please write the na	ame of the <u>recreation site/</u>	facility where you have	received th	is survey:		
2.	<ul> <li>Not staying of</li> <li>RV park or ca</li> <li>Dispersed shot</li> <li>Camping outs</li> <li>Staying at a h</li> </ul>	oreline camping at New Bul ide of a designated campir otel or motel. If so, which	sit only. The name of the campgrou lards Bar Reservoir (per Ig area (dispersed site/a community/town/city? _	und you are mit required rea).	staying at?		
					Arrival	Estimated	I Departure
3	When did you arrive	e and plan to depart this re	ecreation area?			•	
		e, please specify AM or PM		Date	Time (am / pm)	Date	Time (am / pm)
4.	A) What year did	you <b>first visit</b> this <u>recreatio</u>	<u>n area</u> :				
	B) Approximately	how many times have you	ı visited since your first v	/isit:	·		
5.	Which of the follow	ving best describes your red	creation group? (Check	One)			
	<ul><li>Alone</li><li>Family</li></ul>	<ul><li>Friends</li><li>Multiple Families</li></ul>	<ul> <li>Family &amp; Friends</li> <li>Organized Outing</li> </ul>		Other (specify):		
6.		vehicles, boats, and water (Write a number for each)	-related equipment are i	ncluded wit	h the group you traveled w	vith during your cu	rrent visit to this
	People (inc	lude yourself)			Powerboats (und	ler 15 horsepower)	
	Vehicles us	sed to travel to the area (inc	clude trucks, cars, RVs,	etc.)	Powerboats (15 h	norsepower or larg	er)
	Off-Highwa	y Vehicles (OHVs) – 2, 3, o	or 4 wheels		Personal Watercr	aft (PWC)	
	Trailer for 0	OHV			Canoes/kayaks/o	ther non-motorized	watercraft
	Trailer for E	Boat/PWC/Raft			Fishing tubes		
	RV/Campe	r $ ightarrow$ Length in ft	(if more than 1, give r	ange)	River tubes		
	Camper Tr	ailer → Length in ft	(if more than 1, giv	/e range)	Other, specify:		
	Tents						

FEF	RC Project No. 2246				
7.	Check each of the activities that you expect to participate in during your current visit to this recreation area. (Check All That Apply)				
	Camping	Mountain biking			
	Driving for pleasure	OHV use			
	Fishing	Picnicking			
	Houseboating	River/stream boating (e.g., raft, kayak, canoe)			
	Flat-water, motorized boating	Swimming			
	□ Flat-water, non-motorized boating (e.g., kayaks, canoes)	Target Shooting			
	Gold panning	Water skiing			
	Hiking or walking	Wildlife viewing (birding, etc)			
	Horseback riding	General Other (specify):			
	Hunting (specify type):	General Other (specify):			
8.	Please list your primary recreation activity for your current visit:	·			
9.	Please list (up to 3) other areas in Northern California where you visit	t to participate in your primary recreation activity.			
	1) 2)	3)			

Your Thoughts on Existing Conditions at this Recreation Area...

10. Please indicate whether or not the level of the reservoir or river was a problem for each of the following at the <u>recreation area</u> 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	5	4	3	2	1	
Ability to safely swim	5	4	3	2	1	
Ability to launch or take out boat	5	4	3	2	1	
Ability to safely boat	5	4	3	2	1	
Ability to utilize trails	5	4	3	2	1	
Ability to fish along the shoreline	5	4	3	2	1	
Ability to access the shoreline	5	4	3	2	1	
Scenic quality of shoreline	5	4	3	2	1	
Other (specify):	5	4	3	2	1	

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

❑ No

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

Bird watcher

Hiker

- Camper
  - -

□ OHV (2, 3, or 4 wheels)

- Motorized boaterNon-motorized boater
- Mountain biker

_	Olisare
	Other (specify):

C)	If you	experienced	conflict, pleas	e check the	reasons that	contributed to	the conflict.	(Check All	That Apply)
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□ Proximity to where we were □ Rowdiness □ Loudness

Other (specify): \_\_\_\_\_

12. Please rate the acceptability of the following Existing Conditions at the <u>Recreation Facility / Site</u> you are currently visiting (*this site is identified at the start of the survey*).

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

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

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	5	4	3	2	1	
Condition of roads within the site	5	4	3	2	1	
Foot trails to the shoreline	5	4	3	2	1	
Foot trails around the shoreline	5	4	3	2	1	
Signage to the recreation site	5	4	3	2	1	
Signage within the recreation site	5	4	3	2	1	
Other (specify):	5	4	3	2	1	

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	5	4	3	2	1	
Recreation visitor information	5	4	3	2	1	
Reservoir water surface elevation information	5	4	3	2	1	
River/stream flow information	5	4	3	2	1	
Other (specify):	5	4	3	2	1	

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

LOCATION/AREA		At All vded	Slig Crov	jhtly vded	Moderately Extrem Crowded Crowd			Did Not Use/ Not Applicable		
Campground	1	2	3	4	5	6	7	8	9	
Shoreline camping area	1	2	3	4	5	6	7	8	9	
Picnic area	1	2	3	4	5	6	7	8	9	
Boat launch Trail	1	2	3	4 4	5 5	6	7	8	9	
Trailhead	1	2	3	4	5	6	7	0 8	9	
Other shoreline area	1	2	3	4	5	6	7	8	9	
Water surface	1	2	3	4	5	6	7	8	9	
Other (specify):	1	2	3	4	5	6	7	8	9	
, <u> </u>	Moved to a Changed to Ferred location?	a new loca the time of on today?	ation f day D Ye	Chan Choo es N	ged your a se not to re o	activity ecreate	<ul> <li>Did n</li> <li>Other</li> </ul>	othing · (specify)	:	el Crowded
		e. (Check res 🔲		opply)	: 🗖 0	ther visitor				
C) If YES, please identify the loca	tion where	you feel u	nsafe:							<u>.</u>
<ul> <li>I6. Are there any barriers that prevent</li> <li>Yes No If YES, plea</li> </ul>	-	-		-				activities	at this <u>rec</u>	reation area?
<ul><li>A) Please rate the relative uniquer California:</li></ul>	ness of the I	recreatior	n opportu	nities at t	nis <u>recreat</u>	tion area r	elative to s	similar to	opportuni	ties within Norther
Extremely Common Opportunit	ty ┥			2				tremely l	Jnique O	pportunity
	2									
	2			3			4			5

#### Your Thoughts on Potential New Recreation Improvements at the Recreation Area...

#### 18. 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 Not Preferred	Not At All Preferred	No Opinion/ Not Applicable
BOATING IMPROVEMENTS						
Boat-in campsites	5	4	3	2	1	
Boat launches	5	4	3	2	1	
Boat launch lanes	5	4	3	2	1	
Boat trailer parking	5	4	3	2	1	
Other (specify):	5	4	3	2	1	
CAMPING & PICNIC AREA IMPROVEMENTS						
Campsites	5	4	3	2	1	
Group campsites	5	4	3	2	1	
Pull-through camping parking spurs	5	4	3	2	1	
Longer camping parking spurs	5	4	3	2	1	
Group picnic sites	5	4	3	2	1	
Picnic sites	5	4	3	2	1	
Restrooms	5	4	3	2	1	
Potable water	5	4	3	2	1	
Showers	5	4	3	2	1	
Food storage lockers	5	4	3	2	1	
Trash receptacles	5	4	3	2	1	
Other (specify):	5	4	3	2	1	
PARKING & OTHER IMPROVEMENTS						
Vehicle parking	5	4	3	2	1	
Trailer parking	5	4	3	2	1	
Accessible fishing pier	5	4	3	2	1	
Dump station	5	4	3	2	1	
Foot trails to the shoreline	5	4	3	2	1	
Foot trails around the shoreline	5	4	3	2	1	
Signage to the recreation area	5	4	3	2	1	
Signage within recreation area	5	4	3	2	1	
Other (specify):	5	4	3	2	1	

	About You										
19.	How did you learn about this recreation area?	Word of	fmouth [	Internet	Forest	Service	Other:				
20.	What is the zip code for your primary residence				-1-10-1-4						
21.	Your Age:	(ZIP (	Code)	(P0	stal Code/(	Country)					
22.	Are you? 🗖 Male 🗖 Female										
23.	Please tell us which of the following categorie	s best represe	ents your et	thnicity:							
	American Indian/Alaskan Native	Asian	Black/A	frican-Ameri	can	🗅 Hispar	nic/Latino				
	□ Native Hawaiian/other Pacific Islander	White	🖵 Spanish	n Hispanic/La	atino	Other	(specify):				
24.	What is your primary spoken language?										

#### Any Additional Comments?

25. 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!